



SOUNDARYA
INSTITUTE OF
MANAGEMENT AND
SCIENCE



CRITERION - 1

CURRICULAR ASPECTS

1.3 Curriculum Enrichment

1.3.2

“

Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)



INTERNSHIP REPORT ON

“MANILY ACCOUNTING AND FINANCE AND OTHER CONTENTS”

A report submitted in partial fulfillment of the requirements for the Award of Degree of

BACHELOR OF COMMERCE
Of



BANGALORE UNIVERSITY

by

Ms. SEWANTHI V

Regd. No.: U03KU21C0129

Under Supervision of

MRS. NAGASHREE R PUJARI

Asst prof department of commerce, SIMS

Texport Overseas Private Limited

Outer Ring Road, S No 86 - D1, 5th Main Rd, Yeshwanthpur Suburb II Stage, Yeshwanthpur

Industrial Suburb, Peenya, Bengaluru, Karnataka 560022

(Duration: 25th March, 2014 to 26th April, 2024)



DEPARTMENT OF COMMERCE

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka

Soundarya Nagar, Sidedahalli, Nagasanadra Post, Bangalore -560073

2021-2024

INTERNSHIP REPORT

"A STUDY ON SALES AND DISTRIBUTION OF CRANES AND HOIST"
A report submitted in partial fulfillment of requirements for the Award of Degree of

BACHELOR OF COMMERCE
Of



BANGALORE UNIVERSITY

by
Mr. VANDAN M

Regd. No.: U03LKU21C0147

Under Supervision of
Mrs. : NAGASHREE R PUJARI [Asst. Prof.]
Department Of Commerce SIMS

(Duration: April 2nd 2024 to 2nd May 2024)

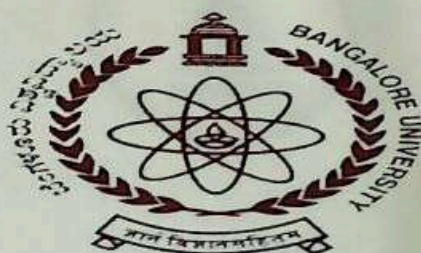


DEPARTMENT OF COMMERCE
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE
NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka
Soundarya Nagar, Sidedahalli, Nagasanadra Post, Bangalore -560073
2021-2024

INTERNSHIP REPORT
“A STUDY ON BRAND AWARENESS AND
PROMOTION STATERGIES KS&DL ”

*A report submitted in partial fulfillment of requirements for the Award of
Degree of*

BACHELOR OF COMMERCE



BANGALORE UNIVERSITY

BY
MR . ABHISHEK S R
REG.NO:U03KU21C0126

UNDER SUPERVISION OF
MRS . NAGASHREE
ASST PROFESSOR
DEPARTMENT OF COMMERCE

DURATION: 21ST MARCH 2024 To 26th APRIL 2024



DEPARTMENT OF COMMERCE
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE
NAAC ‘B+’ Accredited Institution, Affiliated to Bangalore University
Karnataka
Soundarya Nagar, Sidedahalli, Nagasanadra Post, Bangalore -560073
2021-2024

INTERNSHIP REPORT

“Strategic Positioning in Real Estate: Leveraging Marketing for Competitive Advantage”

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMMERCE

Of



BANGALORE UNIVERSITY

By

Mr. KARTHIK S

Regd. No.: U03KU21C0146

Under Supervision of

Mrs. Nagashree R Pujari [Assistant Professor] Dept. of Commerce

Soundarya College

(Duration: 15th March, 2024 to 30th April, 2024)



DEPARTMENT OF COMMERCE

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka

Soundarya Nagar, Sidedahalli, Nagasanadra Post, Bangalore -560073

2021-2024

INTERNSHIP REPORT

“ BFSI AND SOFTSKILLS”

A report submitted in partial fulfillment of the requirements for the Award of Degree of

**BACHELOR OF COMMERCE
Of**



BANGALORE UNIVERSITY

by
Miss. THRISHA. S

Regd. No.: U03KU21C0150

**Under Supervision of
MRS NAGASHREE MAM
Designation, FINISTRA
ICT ACADEMY**

(Duration: 15th March, 2014 to 30th April, 2024)



**DEPARTMENT OF COMMERCE
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE
NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka
Soundarya Nagar, Sidedahalli, Nagasanadra Post, Bangalore -560073
2021-2024**

A STUDY ON MANAGERIAL AND PROMOTIONAL STRATEGIES OF EVENT MANAGEMENT

**A STUDY ON MANAGERIAL AND PROMOTIONAL STRATEGIES OF
EVENT MANAGEMENT**

**SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF
BACHELOR OF COMMERCE DEGREE OF BANGLORE UNIVERSITY**



Mr.Hanish Nunia

Regd. No: U03KU21C0136

Under Supervision of

Ms.Nagashree R pujari

Assistant professor



**DEPARTMENT OF COMMERCE
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE**

**NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka
Soundarya Nagar, Sidedahalli, Nagasandra Post, Bangalore -560073**

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

INTERNSHIP REPORT

“ BFSI AND SOFTSKILLS ”

A report submitted in partial fulfillment of the requirements for the Award of Degree of

**BACHELOR OF COMMERCE
Of**



BANGALORE UNIVERSITY

by

Miss.GEETHA GM

Regd. No.: U03KU21C0142

**Under Supervision of
MRS NAGASHREE MAM
Designation, FINISTRA
ICT ACADEMY**

(Duration: 15th March, 2014 to 30th April, 2024)



DEPARTMENT OF COMMERCE

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka

Soundarya Nagar, Sidedahalli, Nagasanadra Post, Bangalore -560073

2021-2024

INTERNSHIP REPORT

“ A Study on GST Filing & Tally at SRINIVAS ASSOCIATES ”

A report submitted in partial fulfillment of the requirements for the Award of Degree of

BACHELOR OF COMMERCE



BANGALORE UNIVERSITY

by

Mr. HEMANTH KUMAR M

Regd. No.: (U03KU21C0149)

Under Supervision of

Mrs.NAGASHREE R PUJARI

ASST PROFESSOR DEPARTMENT OF COMMERCE

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

(Duration:6th March 2024 to 21st March 2024)



DEPARTMENT OF COMMERCE

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka

Soundarya Nagar, Sidedahalli, Nagasanadra Post, Bangalore -560073

2021-2024

INTERNSHIP REPORT

**“STUDY ON CUSTOMER RELATIONSHIP AND MARKETING STRATEGIES AT
RELIANCE”**

A report submitted in partial fulfillment of the requirements for the Award of Degree of

BACHELOR OF COMMERCE



BANGALORE UNIVERSITY

**Submitted by
Ms. Atash Afreen**

Regd. No.: U03KU21C0140

**Under Supervision of
Mrs. Nagashree N Poojari
Assistant professor, Department of commerce
Soundarya Institute of Management and science
(Duration: 04th April, 2024 to 30th April, 2024)**



**DEPARTMENT OF COMMERCE
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE
NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka
Soundarya Nagar, Sidedahalli, Nagasanadra Post, Bangalore -560073
2021-2024**

INTERNSHIP REPORT

***“A Study on Employee Health safety & welfare measures programs in RAM ENTERPRISES
Bengaluru”***

A report submitted in partial fulfillment of the requirements for the Award of Degree of

BACHELOR OF COMMERCE

Of



BANGALORE UNIVERSITY

by

Mr. RAVI TEJA G

Regd. No.: U03KU21C0141

Under Supervision of

MRS. NAGASHREE R PUJARI

ASST PORFESSOR

DEPARTMENT OF COMMERCE

BANGALORE

(Duration: 15th March, 2014 to 30th April, 2024)



DEPARTMENT OF COMMERCE

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

**NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka Soundarya Nagar,
Sidedahalli, Nagasanadra Post, Bangalore -560073**

2021-2024

**“A INTERNSHIP REPORT ON INVENTORY MANAGEMENT AND CUSTOMER
RELATIONSHIP MANAGEMENT, BANGALORE...”**

**DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS OF BACHELOR OF COMMERCE DEGREE**



BANGALORE UNIVERSITY

2023-2024

BY

KEERTHI NAIDU N

REG NO: UO3KU21C0127

UNDER THE GUIDANCE

ASSISTANT PROFESSOR:

NAGASHREE

DEPARTMENT OF COMMERCE



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Soundarya Nagar, Sidedahalli, Nagasandra post, Bangalore-560073

AN INTERNSHIP REPORT ON
"A study on customer expectations level towards service provided at kia motors"

Project Report Submitted In Partial Fulfilment Of The Requirements For The Award Of The Degree
Of

BACHLORE OF COMMERCE



BANGALORE UNIVERCITY

varun v

REG NO: U03KU21C0125

UNDER THE GUIDAANCE OF

MS NAGASHRI

Asst Prof Department of Commerce, SIMS



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Soundarya Nagar, Sidedahalli, Nagasandara Post,

Bangalore 560073

2023-24

INTERNSHIP REPORT

ON

**“ASSESSING CONSUMER BEHAVIOUR: A STUDY OF JAI
MATAJI ENTERPRISE’S PRODUCTS AND SERVICES”**

*A report submitted in partial fulfillment of the requirements for the Award of
Degree of*

BACHELOR OF COMMERCE



BANGALORE UNIVERSITY

BY

MR. SHASHI KIRAN S

Regd. No.: U03KU21C0154

Under Supervision of

MRS. NAGASHREE PUJARI

ASSISTANT PROFESSOR

SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE

(Duration: 4th March 2024 to 3rd April 2024)



DEPARTMENT OF COMMERCE

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka

Soundarya Nagar, Siddedhalli, Nagasandra Post, Bangalore -560073

2021-2024

A STUDY ON SUPPLY CHAIN MANAGEMEN AT SONA FOOTWEAR

INTERNSHIP REPORT

“A STUDY ON SUPPLY CHAIN MANAGEMEN AT SONA FOOTWEAR”

*56 A report submitted in partial fulfillment of the requirements for the Award of
Degree of*

BACHELOR OF COMMERCE



BANGALORE UNIVERSITY

Submitted by

Ms. Mohammed Zaid

Regd. No.: U03KU21C0143

Under Supervision of

Mr. NAGASHREE R POOJARI

Assistance Professor, Department of Commerce

Soundarya Institute of Management and Science

(Duration: 25th March 2024 to 22th April, 2024)



DEPARTMENT OF COMMERCE

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

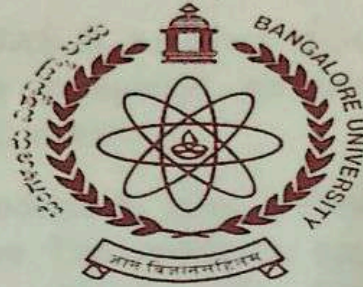
NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka

INTERNSHIP REPORT ON

“SALES AND DISTRIBUTION AT CAVIN KARE PRIVATE LIMITED”

A report submitted in partial fulfillment of the requirements for the Award of Degree of

**BACHELOR OF COMMERCE
Of**



BANGALORE UNIVERSITY

by
Mr. TEJAS D

Regd. No.: U03KU21C0134

**Under Supervision of
Prof. NAGASHREE. R PUJARI
Assistant Professor, Department of Commerce
Soundarya Institute of Management and Science
(Duration: 04th March, 2024 to 19th March, 2024)**



**DEPARTMENT OF COMMERCE
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE
NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka
Soundarya Nagar, Sidedahalli, Nagasanadra Post, Bangalore -560073
2021-2024**

INTERNSHIP REPORT

A study on TAX and GST Filing with reference to NEXA Varun motors pvt ltd

A report submitted in partial fulfillment of the requirements for the Award of Degree of

BACHELOR OF COMMERCE

Of



BANGALORE UNIVERSITY

Submitted by

YASHWANTH N

U03KU21C0152

Under Supervision of

PROF. Ms Nagashree

Assistant Professor, Department of Commerce

Duration: 10th March, 2024 to 10th April, 2024



DEPARTMENT OF COMMERCE

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka

Soundarya Nagar, Sidedahalli, Nagasanadra Post, Bangalore -560073

2021-24

**"A INTERNSHIP REPORT ON ACCOUNTING AND GST ASPECTS WITH REFERENCE
TO SCA HEAVY EQUIPMENT PVT LTD, BANGALORE..."**

**DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS OF
BACHELOR OF COMMERCE DEGREE**



BANGALORE UNIVERSITY

2023-2024

BY

ABHISHEK C

REG NO: UO3KU21C0151

UNDER THE SUPERVISION OF

ASST PROF.NAGASHREE R PUJARI



**SOUNDARYA INSTITUTE OF MANAGEMENT AND
SCIENCE**

NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka

Soundarya Nagar, Sidedahalli, Nagasandra post, Bangalore - 560073

INTERNSHIP REPORT

“ A STUDY ON FINANCE AND AUDITING AT SIGMA METALIKS “

A report submitted in partial fulfillment of the requirements for the Award of Degree of

**BACHELOR OF COMMERCE
Of**



BANGLORE UNIVERSITY

BY

Mr. SURYA .R

Regd. No.: U03KU21C0153

Under Supervision of

MRS. NAGASHREE R PUJARI

ASST PROFESSOR, DEPARTMENT OF COMMERCE

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

(Duration: 15th March, 2024 to 31th March, 2024)



DEPARTMENT OF COMMERCE

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka

Soundarya Nagar, Sidedahalli, Nagasanadra Post, Bangalore -560073

2021-2024

INTERNSHIP REPORT

“ Instant Coffee”

A report submitted in partial fulfillment of the requirements for the Award of Degree of

**BACHELOR OF COMMERCE
Of**



BANGALORE UNIVERSITY

By

Mr. STUDENT NAME

Balaji J

Regd. No.: UUCMS

U03KU21C0148

Under Supervision of

Asst Professor, Mrs. Nagashree R Pujari

Nescafe Company

No. 1755, 9th cross, 18th main, JP Nagar, 2nd phase, Bengaluru - 560078

(Duration: 8th March, 2024 to 30th April, 2024)



DEPARTMENT OF COMMERCE

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka

Soundarya Nagar, Sidedahalli, Nagasanadra Post, Bangalore -560073

2021-2024



TNM &Co
Chartered Accountant

CERTIFICATE OF INTERNSHIP

This to certify that Ms. **KUSUMA H.S**, bearing Register No: **U03KU21C0173** student at **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE**, studying in final year B.com. she has successfully completed her internship course on topic of "A STUDY ON STATUTORY INTERNAL AND EXTERNAL AUDIT" from 21 march 2024 to 20 April 2024 in our firm.

During her internship with TNM & Co, KUSUMA H.S demonstrated excellent organisational skills, a strong work ethic, and an interest in her assigned work. She has contributed positively to our projects and has shown great potential for future endeavours in her chosen field, and she has secured marks based on ratings on the below parameters.

SL NO.	PARAMETERS	MARKS
1.	Regularity work	02
2.	Attitude towards work	02
3.	Professional competence	02
4.	Ability to interact with other staffs/colleagues	02
5.	Willingness to learn	02
	Total marks obtained	10

We wish KUSUMA H.S the very best in her future academic professional pursuits and have no doubt that she will continue to excel in her endeavours.

For TNM & Co.

Manj

Manjunatha T N

Proprietor

Membership No: 244819

Date: 30-04-2024



CONSOLIDATED MARKSHEET FOR INTERNSHIP

This is to certify that Sri **Nayana.R** bearing **U03KU21C0171** is a student of 6th SEM B.COM of Soundarya Institutions of Management and Science. She has Successfully Completed internship Course from 1st March 2024 To 31st March 2024 from our Organization. His Conduct during stay with us Satisfactory. I Wish all the best for her endeavor.

The Marks Secured by her 9 out of 10

VISHNU ELECTRICALS & Co.,
No. 572, Sapthagiri Complex,
60ft KIADB Road, T. Dasarahalli,
BANGALORE - 560 057.

Signature with Company Seal





Innov Controls Technology (I) Pvt. Ltd.

02, 2nd Floor, 3rd Cross, Kammanahalli West

Opp, St. Plus "X" Church, Bengaluru – 560043

Ph: + 91 789-264-5547, Email : support@innovcontrols.com

Web : www.innovcontrols.com GSTIN : 29AACCI8837N1Z5

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. VIJAY KUMAR M.G** bearing registration No. : **U03KU21C0168**, studying **6th Sem. B.Com** student of **Soundarya Institute of Management and Science**, Bengaluru has successfully completed Internship in our firm from April 1st 2024 to April 30 2024 (90 hours).

With best Wishes to his career.

for **Innov Controls Technology (I) Pvt. Ltd.**

For Innov Controls Technology India Pvt. Ltd.

Authorized Signatory

Om Prakash Gupta
Managing Director.

Marks Obtained out of 10
10/10



SRI MARUTHI CREATIONS

#46 & 54 , Hegganahalli, 5th cross, Srigantha nagara, Bangalore-560091
E-mail : maruthicreations2021@gmail.com Contact: 8073179101,8553168617

GSTIN : 29AEFFS4976L1Z5

Date:13.04.2024

CERTIFICATE OF INTERNSHIP

This is to certify that Mr. Manoj D.R, Student of B.Com, Register No: U03KU210166, of Soundarya Institute of Management and Science, Soundarya layout, Sidehalli, Bangalore-560073. Affiliated to Bangalore University, Bangalore, has done project work "A Study on Sales Strategies Adopted at Maruthi Creations" at Sri Maruthi Creations, Bangalore-560091, from: 11.03.2024 to 13.04.2024.

During his project work in our company, He displayed enthusiasm, leadership, self-discipline, and self-motivation. We found his character & conduct is good.

We are lucky to have him as one our interns before and we would like to wish his success in Life and Career.

The marks secured by him 10 out of 10

SRI MARUTHI CREATIONS
No. 54, 6th Cross, Doddanna Industrial
Estate, Near Peenya 2nd Stage,
Bangalore - 560 091

GENERAL MANAGER



KARNATAKA SOAPS & DETERGENTS LIMITED.

BANGALORE-55

(A Government of Karnataka Undertaking)

No: 27, Industrial Suburb, P.B No: 5531

Bengaluru-Pune Highway, Rajajinagar, Bengaluru-560055, KARNATAKA

CERTIFICATE

NO: KSDL/HRD/TRAINING/24-25/36

Date: 17.05.2024

This is to certify that **Ms. Sahana H, Reg.No.U03KU21C0165**, Student of B.Com, Soundarya Institute of Management and Science, Soundarya Nagar, Sidedahalli, Nagasandra, Bangalore-5600730 has completed her Internship work on “**A Study on Accounting and Finance**” at Karnataka Soaps & Detergents Limited Bengaluru-560055 period from **14.03.2024** to **27.04.2024**.

During Internship work on her academic ability and character was good.

MANAGER

Human Resource Development

K.C. SUNDARAMUTHY

Manager (HRD)

KARNATAKA SOAP & DETERGENTS LTD.
BANGALORE-560055

Place: Bengaluru





SHREE VENKATESHWARA ENGINEERING

TO,
KARTHIK REDDY R,
Soundarya institute of
management and science,
Bangalore.

Dear sir/Madam, This is to certify that Mr. **KARTHIK REDDY R (U03KU21C0172)**
S/O- Mr. RAMA REDDY a student of BCOM, Soundarya institute of
management and science, Bangalore Karnataka, he has successfully completed
20 days (From 07th April 2024 to 27th April 2024) long Internship program at
SHREE VENKATESHWARA ENGINEERING

During Mr**KARTHIK REDDY R** internship, he was engaged in "A STUDY ON
CASH FLOW STATEMENT ANALYSIS" in which he worked on various Modules in
Hiring Department.

During the period of his internship program with us he was found punctual,
hardworking and Inquisitive. His association with us was very fruitful and we
wish him all the best in his future endeavors.

Yours sincerely,


Yuvaraj Thasildar,
HR Manager,

6 ,1ST MAIN ,9TH CROSS ,CHAMUNDESHWARI NAGAR ,BANGALORE 560058

EMAIL ID : venkateshwaraengineering02@gmail.com



MAY 12, 2024

CERTIFICATE

This is to certify that **Mr CHANDRASHEKAR G S** student of BCOM studying in soundarya institute of management and science, banglore has successfully completed internship in **SALES AND MARKETING** division of **Blue Dart Express limited** .

The duration of project was from **10-04-2024 to 10-05-2024**

During this period of training , we found him punctual, disciplined and proactive in assigned tasks and duties

We wish him all the success in future endeavors .

From **BLUE DART EXPRESS LIMITED**

Sridhar D.V

BLUE DART EXPRESS LTD.
52/3, Madanayakanahalli,
Tumkur Road,
Bangalore - 562 123.

SRIDHAR

Associate general manager

Mobile : 9964270640
9731223816



ANO PRINT TECHNOLOGIES

Spl. In : Aluminium Anodising, Al., S.S., Brass Name Plates,
Al. Fabrication, Chromating, Painting & Printing

#2, Kempalah Garden, Near 9th B.M.T.C Bus Depot, 4th Phase, Peenya Indl. Area, Bangalore-560058.

GSTIN : 29ALUPV8767C1Z1

Name : ANO PRINT TECHNOLOGIES

CERTIFICATE OF INTERNSHIP

This is to certify that Miss. PALLAVI. V bearing Regn No. U03KU21C0174,
Student of SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE College has
successfully completed internship course from 04/03/2024 to 06/04/2024 from
our organization. Her conduct during stay with us is satisfactory. I wish all the best
for her future carrier.

The marks secured by her are **10 out of 10** with respect to responsibilities
handled, regularity to work and attitude.

For ANO PRINT TECHNOLOGIES

(A.Venkatesh)

proprietor





Soundarya Souharda Credit Co-Operative Ltd.

Reg. No. JRB/RGN/SK/71/3674/2014-15

We Serve We Care ...

Soundarya Arcade,
Hesaraghatta Main Road,
Havanoor Extension,
Nagasandra Post, Bengaluru - 560073.
Phone : 080 28394789
soundaryasouhardha@gmail.com

CERTIFICATE

This is to certify that **Mr. Suraj M**, student of **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE**, VI semester B. Com having Reg No. U03KU21C016 7, has completed his internship work entitled, "A STUDY ON RISK ANALYSIS ON HOME LOAN at M/s SOUNDARYA SOUHARDA CREDIT CO OPERATIVE LIMITED, Bengaluru for the period from 18-03-2024 to 16-05-2024.

His conduct was found to be **Good** during project work and we wish him successful future.

The Marks secured by him is 9 out of 10.

Place: Bengaluru

Date: 17-05-2024

For SOUNDARYA SOUHARDA CREDIT CO-OPERATIVE LTD

Branch Manager



CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. NIKHIL L A**, a student of **Soundarya Institute of Manage and Science** has successfully completed his internship with Cavin Kare. The assignment was for a period of 4 weeks.

Our endeavor is to upskill students in Marketing, so that they may find suitable jobs in the FMCG space. The assignment has a good blend of theory & real- life learning, which we are sure, will help market the candidate better to our industry colleagues.

The internship involved the candidate visiting - a few distributors, Marketing to familiarize with the retail environment. An on-line learning module on sales & distribution basics (industry nomenclature, importance of 3 A's - Awareness, Affordability, Availability & sales uptick through high impact merchandizing) was also provided as reading material.

A case study was provided so as to gauge the candidate's understanding - which **Mr. NIKHIL L A** has solved to our fullest satisfaction, and scored 10 Marks.

We wish **him** all the best towards a bright career Marketing in the FMCG industry

Sincerely,


Shobha Venkatesh
Head of Consumer Insights & Analytics
CavinKare



CavinKare Private Limited

Registered Office: 12, Poonthamallee Road, Ekkattuthangal, Chennai – 600 032
Tel: 91 – 44 – 2225 1011/12/13 and 91 – 44 – 2225 0130. Website: www.cavinkare.com
CIN: U24246TN1990PTC046613



TEXPORT syndicate (I) LIMITED

No 84, Industrial. Suburv, 2nd Phase Yeshwanthpur, Bangalore-560 022. India.
Phone: +91(80)46457800 | fax: 080-46457826

CERTIFICATE

This is to certify that, Ms. Yashashwini S bearing Roll no: U03KU21C0162, student of Soundarya institute of management and science. As per Bangalore University, She has successfully completed her "Internship in Financial Statement Analysis" from 18th April to 30th April at "Texport Syndicate (I) Ltd."

The marks secured by her is 10 out of 10

We wish her all the best for her future endeavours.

With warm regards.

For Texport Syndicate (I) Ltd

Narendra L



Assistant Manager – Human Resources

Registered office:

Plot No.6, F-11/12, Western Ind.co.op Estate, opp. Seepz M.I.D.C Andheri, MUMBAI-400 093,

Tel: +022-45109500 | Fax: +022-28368746 | Website: www.texportsyndicate.com



KARNATAKA SOAPS & DETERGENTS LIMITED.

BANGALORE-55

(A Government of Karnataka Undertaking)

No: 27, Industrial Suburb, P.B No: 5531

Bengaluru-Pune Highway, Rajajinagar, Bengaluru-560055, KARNATAKA

CERTIFICATE

NO: KSDL/HRD/TRAINING/24-25/37

Date: 17.05.2024

This is to certify that **Mr. Yashwnath T R, Reg.No.U03KU21C0170**, Student of B.Com, Soundarya Institute of Management and Science, Soundarya Nagar, Sidedahalli, Nagasandra, Bangalore-5600730 has completed his Internship work on "A Study on Cost Control Analysis" at Karnataka Soaps & Detergents Limited Bengaluru-560055 period from **14.03.2024** to **27.04.2024**.

During Internship work on his academic ability and character was good.

MANAGER

Human Resource Development

K.C. SUNDARAMUTHY

Manager (HRD)

KARNATAKA SOAPS AND DETERGENTS LTD.
BANGALORE-560055

Place: Bengaluru





CERTIFICATE

This is to certify that Ms. Bhavana H S student of Soundarya Institute of Management & Science, Bangalore, studying 6th Semester, B.com., has fulfilled the requirements of his Project as a part of MARKETING curriculum and successfully completed at EM ELECTRONIX PVT LTD from 30.03.2024 to 29.04.2024

We wish her all the success in her future endeavors.

For EM ELECTRONIX PVT LTD

Shailesh Tukaye
Manager-Marketing



Date 25-04-2024

Place Bengaluru



CERTIFICATE OF INTERNSHIP

This is to certify that Ms. **HAJEERA BANU**, bearing Register No. **U53N0103150** student of **SEI INDIAVIA INSTITUTE OF MANAGEMENT & SCIENCE**, studying in Final year B.com. She has successfully completed internship course from 26th March 2024 to 25th April 2024 from our organization.

During her internship time with Himalaya Wellness Company, **HAJEERA BANU**, demonstrated excellent organizational skills, a strong work ethic, and a keen interest in her assigned work. She has contributed positively to our projects and has shown great potential for future endeavours in her chosen field, and she has secured marks based on ratings on the below parameters:

Sl. No.	Parameters	Marks
1	Regularity to work	50
2	Attitude towards work	50
3	Professional competence	50
4	Ability to interact with other staffs/colleagues	50
5	Willingness to learn	50
Total Marks		250

We wish **HAJEERA BANU** the very best in her future academic, professional pursuits and have no doubt that she will continue to excel in her endeavours.

Sincerely,

For Himalaya Wellness Company


Signature

GM, HR & Training, Bengaluru

Date: 14-04-2024

INTERNSHIP CERTIFICATE

This is to certify that, **Mr. MOHAN S**, bearing Register No: **U03KU21C0156** Who is pursuing his studies for the award of **B.Com** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE** Soundarya Nagar, Sidedahalli, Nagasandra Post, Bangalore 560073 has successfully completed his internship work at Vahini Irrigation Private Limited, for a period of 4 weeks From **15-03-2024** to **14-04-2024**.

He undertook the task of HR recruitment, selection responsibilities and job satisfaction, we appreciate your contribution and have thoroughly enjoyed having you as a inter at Vahini irrigation pvt ltd.

This certificate is issued only for academic purpose and his behaviour was good during his internship.

The marks secured by him 10 out of 10.

For Vahini Irrigation Private Limited



Authorised signatory



BCB KUSHAL SERVICES PVT.LTD.

Nanjundeshwara Nilaya, Site No.67/65, Thavera Layout, Maruthi Nagar, Vajarahalli,
Nelamangala, Bengaluru Rural District - 562 123.

Date :01-04-2024

CERTIFICATE

This is to certify that **Mr .Vikas U** , bearing **Reg No. U03KU21C0155** of 6th Semester B . Com From in Soundarya institute of management and science and science has successfully completed internship in our organization from 01-04-2024 to 30-04-2024.

His conduct during the stay with us is satisfactory , we wish all the best for his endeavour .

The marks scored by his⁹..... Of 10

For, BCB KUSHAL SERVICES PVT LTD

NARASE GOWDA

Administration Head





ADITYA FUTURE DRIVEN

#179, Bommasandra Indl Area, Bengaluru, Karnataka 560099

CERTIFICATE FOR INTERNSHIP

This is to certify that **MAHALAKSHMI Y N(Reg. No:U03KU21C0164)** pursuing "**B COM**" 6 semester in **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE**, Soundarya Nagar, Siddedahalli, Nagasandra Post, Bengaluru-560073, has successfully carried out "**EMPLOYEE TRAINING AND DEVELOPMENT**" from **11-03-2024** To **15- 04-2024** in **ADITYA AUTO PVT LTD.**

During her stay in the company has Intern, she displays enthusiasm, leadership, self-discipline, and self- motivation

We are lucky to have her as one of our interns before and we would like to wish her all the best .

The marks secured by her 10 out of 10

For Aditya Auto pvt ltd



PLACE:BANGALORE

Authorized Signatory

Date:15/4/2024



J-TECH SPECIALITIES

(AN ISO 9001-2015 CERTIFIED CO)

GSTIN : 29AAKFJ7217N1ZP



AUTHORISED SERVICE CENTRE / GENUINE SPARES SELLER FOR LINDE INDIA LTD. (BOC INDIA LTD.)

**Mfrs. : 'Arc On' Brand welding, Cutting, Welding automations & industrial safety products
Repair & rewinding of all types of welding and cutting equipment's**

118/10, 9th Cross, 1st Main Road, Rajagopal Nagar, Peenya 2nd Stage, Bangalore - 560 058
Ph : 080-2963 7290, Mob. : +91 99722 20373, +91 94837 07290, +91 76763 15743
E-mail : jtechspecialities@gmail.com Website : www.jtechspec.com

Date:04.05.2024

Certificate of Internship

This is to certify that **Mr. KEERTHI HM**, bearing **Reg. No. U03KU21C0160** Student of Soundarya Institute Of Management & Science , he has successfully completed Internship course from 10/04/2024 to 06/05/2024 from our Institution. His conduct during stay with us was Satisfactory. I wish all the best for Endeavour.

The Marks Secured By Him Is 10 Out Of 10

For J- Tech Specialities




Sowmya

Assistant General Manager-HR & Admin

Serviced by :



Equipments & Electrodes
Gas Regulators

Panasonic
ideas for life

Arc on

RILON
The No.1 Welding Inverter

Matador
The right choice



TEXPORT syndicate (I) LIMITED

No 84, Industrial. Suburv, 2nd Phase Yeshwanthpur, Bangalore-560 022. India.

Phone: +91(80)46457800 | fax: 080-46457826

CERTIFICATE

This is to certify that, Ms. Sujana M. bearing Roll no: U03KU21C0161, student of Soundarya institute of management and science, Bangalore. She has successfully completed her "Internship in Recruitment and On-boarding process" from 18th March to 30th March at "Texport Syndicate (I) Ltd."

The marks secured by her is 10 out of 10.

We wish her all the best for her future endeavours.

With warm regards.

For Texport Syndicate (I) Ltd

Narendra L

Assistant Manager – Human Resources



Registered office:

Plot No.6, F-11/12, Western Ind.co.op Estate, opp. Seepz M.I.D.C Andheri, MUMBAI-400 093,

Tel: +022-45109500 | Fax: +022-28368746 | Website: www.texportsyndicate.com



Date: 30-04-2024

CERTIFICATE

This is to certify that Ms. Chandrakala I N bearing registration number U03KU21C0053 Studying 6th semester B.Com, student of Soundarya institute of management and science, Bangalore has Successfully completed 90 Hours Internship in our company from 25th March 2024 to 29th April 2024.

During the period of her study, she was found sincere and also taken keen interest on organizational activities.

Our best wishes for her career growth.

For Engineering Enterprises

Authorized Signature

Engineering Enterprises

PB No. 293, 4th Phase, 4th Main,
Peenya Industrial Area, Bangalore - 560 058



KARNATAKA SOAPS & DETERGENTS LIMITED.

BANGALORE-55

(A Government of Karnataka Undertaking)

No: 27, Industrial Suburb, P.B No: 5531

Bengaluru-Pune Highway, Rajajinagar, Bengaluru-560055, KARNATAKA

CERTIFICATE

NO: KSDL/HRD/TRAINING/24-25/68

Date: 08.05.2024

This is to certify that **Ms. Poornima.T, Reg.No.U03KU21C0039**, Student of B.Com, Soundarya Institute of Management & Science, Soundarya Nagar, Sidedahalli, Nagasandra, Bangalore-560073, has completed her Internship work on "A Study on Cost Control Techniques" at Karnataka Soaps & Detergents Limited Bengaluru-560055 period from **21.03.2024** to **05.05.2024**.

During Internship work on her academic ability and character was good.


MANAGER

Human Resource Development

MANAGER (HRD)
KARNATAKA SOAPS AND DETERGENTS LTD.
BANGALORE-560055

Place: Bengaluru





TO WHOM IT MAY CONCERN

Dear Sir/Madam,

This is to certify that Yogesha N (U03KU21C0044), B.COM student studying at Soundarya Institute of Management & Science, has successfully completed an internship at Shreeji Marketing

The duration of the training period was from 08.04.2024 to 30.04.2024.

During this period of training, we found him disciplined, punctual, and proactive in assigned tasks and duties. We appreciate the time rendered and wish him all the very best for future success endeavours.

Yours sincerely,

Vivek U. Shah
Partner
Shreeji Marketing

Place: Bengaluru
Date: 30.04.2024



Mobile : 9891638831

E-mail : banashankarielectricals@gmail.com



BANASHANKARI ELECTRICALS

Mhs. of : HT and LT Control Panels

B-288, 6th Main, 2nd Stage, Peenya Industrial Estate, Bangalore-560 088.

Ref.:

Date :

16/04/24

To WHOM SO EVER IT MAY CONCERN.

This is to certify that Mr. Suhas.V, B.COM Student Bearing Register No U03KU21C0041 of Soundarya Institute Management and science Bengaluru-560073. Has undertaken and successfully completed the Training In our organization from 19/03/2024 to 15/04/2024 as part of him Internship under the Guidance of Mr. Vijay Kumar.

We appreciate him sincere efforts during Internship and we found him character and conduct was good.

We wish him all the best in him future endeavor.

HE GOT 10 out of 10

For BANASHANKARI ELECTRICALS

For Banashankari Electricals.
Proprietor



THE INSTITUTE OF COMPANY SECRETARIES OF INDIA

CERTIFICATE OF INTERNSHIP

This is to certified that **MR.SAGAR.D.K.**, bearing **Reg.NO U03KU21C0045** student of the Soundarya Institute of Management and Science College

Name he has successfully completed internship course from 21/3/2024 to 25/4/2024 from our institution. Her conduct during stay with us satisfactory. I wish all the best for endeavour

The marks secured by him 10 out of 10

Signature with company seal



Shashikala H
SHASHIKALA HEMANTH
Company Secretary

April 20th 2024

INTERNSHIP CERTIFICATE

This is to certify that **Mr. Darshan K**, bearing Register No: **U03KU21C0050**

Who is pursuing his studies for the award of **Bcom from Soundarya**

Institute of Management and Science Bangalore has successfully

Completed his internship work at **M/S Sankhla vinyl private limited**, for a

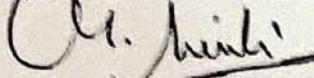
Period of 4 weeks Form **15.03.2024 to 14.04.2024**.

He undertook the task of **HR Recruitment and Selection Responsibilities**

His behavior was good during his internship.

The marks secured by him 10 out of 10

For SANKHLA VINYL PRIVATE LIMITED


Authorized Signatory

Company secretary

CS. Shashikala Hemanth
M.Com., A.G.S.



Shashikala Hemanth
Company Secretary

CERTIFICATE OF INTERNSHIP

This is to certified that **Ms. Keerthana.R**, bearing **Reg.NO. U03KU21C0045** student of the Soundarya Institute of Management and Science College

she has successfully completed internship course from 21/3/2024 to **25/4/2024** from our CS firm. Her conduct during stay with us satisfactory. I wish all the best for endeavour.

The marks secured by her 10 out of 10

Signature with company seal



Shashikala H
SHASHIKALA HEMANTH
Company Secretary

04, Second Floor, Site No. 36, "Mallika Plaza", KIADB, Peenya 2nd Phase,
Peenya Industrial Area, Opp to BWSSB, Bengaluru - 560 058.
Email : shashihemanth10@gmail.com Mob : 9986988049

SIGMA METALIKS

An ISO 9001 : 2015 Certified Company

Date : 02-04-2024

INTERNSHIP COMPLETION CERTIFICATE

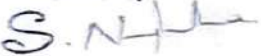
TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr.Jeevan S [U03KU21C0056] B.COM final year student from Bangalore University, Soundarya Institute of Management and Science, has visited our company as a part of his academic prescribed by the college [From 15-03-2024 to 31-03-2024, 90 hours] And worked in Accounts Department and understood the organization process.

We observed his active participation during his visit to the organization and dedication on the assigned tasks, we wish him all the best for his future endeavours.

The marks scored by him is 10 on 10.

Yours truly



SIGMA METALIKS
490-G, IV Phase,
Peenya Industrial Area,
BANGALORE - 560 058

Authorized signatory

Date: 13th April 2024

CERTIFICATE

This is to certify that, Mr. Pavan K (Reg No: U03KU21C0058) B.Com student of "Soundarya Institute of Management and Science", Bengaluru has successfully completed his internship in the Department of Accounts in our organization from 10th March 2024 to 10th April 2024.

The marks secured by him were 10 out of 10.

During his period he has shown keen interest in his work and his conduct was found good.

Yours faithfully,
For Varun Motors Pvt Ltd.,

Mr. Kishore Kumar



Varun Motors Pvt Ltd.

Survey No 18/3, Hebbala Ammanikere Village,
Yasaba Hobli, Hebbal, Bengaluru, Karnataka 560024
Ph: 080 4663 7007 Web: www.nexaexperience.com



SRI MARUTHI CREATIONS

#46 & 54, Hegganahalli, 5th cross, Sri gandha nagara, Bangalore-560091
E-mail : maruthicreations2021@gmail.com, Contact: 8078179101,8588168617

GSTIN : 29AEFF54976L1Z5

Date: 13.04.2024

CERTIFICATE OF INTERNSHIP

This is to certify that Mr. Karan L N, Student of B Com, Register No: U03KU21C0043, of Soundarya Institute of Management and Science, Soundarya layout, Sidehalli, Bangalore-560073. Affiliated to Bangalore University, Bangalore, has done project work "A Study on Cost Control Analysis" at Sri Maruthi Creations, Bangalore-560091, from 11.03.2024 to 13.04.2024.

During his project work in our company, He displayed enthusiasm, leadership, self-discipline, and self-motivation. We found his character & conduct is good.

We are lucky to have him as one our interns before and we would like to wish his success in Life and Career.

The marks secured by him 10 out of 10

SRI MARUTHI CREATIONS
No. 54, 6th Cross, Doddanna Industrial
Estate, Near Peenya 2nd Stage
Bangalore - 560 091
GENERAL MANAGER



PYRAMID TIMBER ASSOCIATES PVT. LTD., Sy No. 193/2 & 194, Murugur Road, Yehwal Post, Mysuru - 571 130
Tel : + 91 821 240 3284 / 3285. e-mail: ptapl@pyramidtimber.com / www.pyramidtimber.com

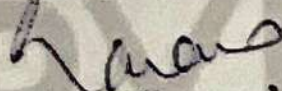
Date : 06.05.2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Chinthan A Pursuing 6th Semester in Bachelor of Commerce - Finance & Human Resource from Soundarya institute of management and science, Bangalore has completed an internship in our organisation starting from 08.04.2024 to 13.04.2024 the internship program was covered on Analysis of Financial Statement- A Study with reference to Pyramid Timber Associates Pvt Ltd, Mysore.

We wish his good luck and look forward for brilliant success in his carrier

For Pyramid Timber Associates Pvt Ltd


Authorized Signatory

PYRAMID™
TIMBER ASSOCIATES
PRIVATE LIMITED



CERTIFICATE OF INTERNSHIP

This to certify that Ms. LIKHITHA. P, bearing Register No: U03KU21C0042 student at SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, studying in final year B.com. She has successfully completed her internship course on topic of "A STUDY ON SUPPORTING WITH AUDIT PROCEDURES" from 26th March 2024 to 25th April 2024 in our firm.

During her internship with TNM & Co, LIKHITHA. P demonstrated excellent organizational skills, a strong work ethic, and an interest in her assigned work. She has contributed positively to our projects and has shown great potential for future endeavors in her chosen field, and she has secured marks based on ratings on the below parameters.

SL NO.	PARAMETERS	MARKS
1.	Regularity work	02
2.	Attitude towards work	02
3.	Professional competence	02
4.	Ability to interact with other staffs/colleagues	02
5.	Willingness to learn	02
	Total marks obtained	10

We wish LIKHITHA. P the very best in her future academic professional pursuits and have no doubt that she will continue to excel in her endeavors.

For TNM & Co.

Manj

Manjunatha T N

Proprietor

Membership No: 244819

Date: 17-05-2024





Shree Ganesh Medicals

**RAVICHANDRAN
D PHARMA**

CERTIFICATE OF INTERSHIP

This is to certified that Mr. Yashwanth Gowda bearing
Department of purchase and sales
Reg.NO: U03KU21C0046 student of the Soundarya
Institute of Management of Science

He has successfully completed internship course from
18/3/2024 to 18/4/2024 from our firm. His conduct
during stay with us satisfactory. I wish all the best for
endeavour.

The marks secured by him 10 out of 10

SHREE GANESH MEDICALS
Katha No. 53, Peenya 2nd Stage
Hegganahalli Main Road
Bangalore-91

Signature with company seal

RAVICHANDRAN
Company Manager

No 53, Kannapa building ,Peenya second stage,
Hegganahalli main road, banglore-91

GST No: 29AMRPM 2410P2ZF



SLV MARKETING

Katha No. 1956/1647, TAPCMS Compound, Behind KSRTC Bus stand,

Nelamangala, Bengaluru- 562 123 Mob: 9845788667,7411290495

E-mail: slvmarketing143@gmail.com

Date: 12-04-2024

TO WHOM SO EVER IT IS CONCERN

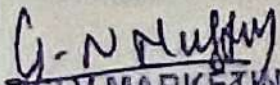
This is to certify that Mr Jeevan M Reg No. U03KU21C0047 student of Soundarya Institute of Management has completed his internship in Supply Chain and Marketing Department.

With reference to SLV MARKETING, Nelamangala

During this internship work we found that the student has gathered the required information and completed all the assigned tasks with high degree of accuracy within the prescribed time limit given to him. We wish all the success in future endeavour.

Thank you

SLV Marketing


SLV MARKETING

1956/1647 TAPCMS Compound,
Near KSRTC Bus Stand,
Nelamangala-562123.

17/3/2024

Certificate of Internship

This is to certify that Mr.Sagar B R , bearing Reg. No. U03KU21C0040 Student of Soundarya Institute Of Management & Science , he has successfully completed Internship course from 03/03/2024 to 17/03/2024 from our company. His conduct during stay with us was Satisfactory. I wish all the best for Endeavour.

The Marks Secured By Him Is 10 Out Of 10

Signature With Company Seal.


Phalguni Control Systems
No. 02, Kempalinganahalli,
Near Umesh Garden,
Nelamangala, Bangalore 562123

Sy No. 02, Kempalinganahalli,
Near Umesh Garden, Nelamangala,
Bangaluru - 562 123 India

Mob : 90084 24128,
97427 19455

E-Mail : mail.pcsystems@gmail.com



Ethnic Fashionista Private Limited

Date:.....

Certificate of Internship Completion

To Whomsoever It May Concern

This is to certify that Deekshitha V.B has successfully completed 1 Month Internship at Ethnicfashionista Pvt. Ltd. in the field of Finance. The internship commenced on 8th April 2024 and concluded on 8th May 2024.

During her internship Deekshitha V.B demonstrated exceptional dedication, enthusiasm, and a strong grasp of Finance concepts. He actively contributed to various projects, displaying commendable analytical and problem-solving skills. Deekshitha Y.B proved to be a valuable team member, collaborating effectively with colleagues and consistently achieving project objectives.

Her responsibilities during the Internship included, but were not limited to:

Gather, comprehend, process, verify and report accounting-related information. complete professional, analytical and managerial support work tasks. assist with the creation of monthly or weekly financial reports. make spreadsheets, databases and other computer programs.

Throughout her tenure Deekshitha V.B showed a willingness to learn and adapt, always seeking opportunities to enhance his knowledge and skills in the ever-evolving field of Deekshitha Y.B.

Ethnicfashionista Pvt. Ltd. commends Deekshitha V.B for his exceptional performance, hard work, and commitment to excellence. We believe that he has gained valuable practical experience and knowledge that will undoubtedly contribute to his future success in the field of Deekshitha V.B.

We wish Deekshitha V.B the very best in all his future endeavors and have no doubt that he will continue to excel in his professional pursuits.

Date: 08/5/2024

For Ethnic Fashionista Pvt. Ltd.

Navendra Kumar
Director

Certificate of Internship

This is to certify that Mr. SURAJ KUMAR SAHU , bearing Reg. No. U03KU21C0054 Student of Soundarya Institute Of Management & Science , he has successfully completed Internship course from 15/03/2024 to 20/04/2024 from our Institution. His conduct during stay with us was Satisfactory. I wish all the best for Endeavour.

The Marks Secured By Him Is 10 Out Of 10


ASHWIN GURURAJ
Managing Director

SITARA ENTERPRISES

ANJANADHRI GROUPS

No 17 1st Main Vinayakar East, Anandhalli Main Road, Herohalli
Vishveswaraiah post Bangalore-560091

Mobi: 9830383831

GST: 29AKIPP16081G2B

CERTIFICATE OF INTERNSHIP

This is to certify that Ms. DIVYASHREE V, bearing reg no. U03KU21C0059
Student of soundarya institute of management and science and she has
successfully completed internship course from 20-03-2024 to 25-4-2024
from our organisation. Her conduct during stays with us satisfactory.

I wish all the best for endeavor.

The marks secured by 10 out of 10.

For anjanadhri groups.



(Authorised signature)

N M GRANITES

Reg. Office: No. 289, 3rd Main, 11th Cross, Kirloskar layout, Bangalore - 560 073
Factory: No. 9/3, Channasahalli village, Tavarekere (H) Bangalore Rural district - 562 130
GST NO : 29AFQPM1736G124

Internship/ Project Work Permission

Permission is Hereby Granted To The Following Student To Carry Out

Project/ Internship Work At NM Granites,

Details Of Which Are Furnished Below:-

	NAME OF THE STUDENT	Course And Branch Of Study	Name Of The Institution
01	Mr./Ms. Pooja P Reg No. U03KU21C0055	B.Com Student	Soundarya Institute Of Management And Science, Soundarya Nagar Sidedahalli, Nagasandra, Bangalore - 73

Title Of Internship/ Project	Duration	Name & Designation Of Guide Sriyuth:	Signature
A Study On Product Packaging	05-04-2024 To 05-05-2024	1) Narshmi Murthy H L	

The Project Report Should Be Submitted And Certificate Collected

On Or Before 05-05-2024 Late Submission Is Not Entertained

D N M GRANITES


Pracheta
NM Granites

V TOOLS PRIVATE LIMITED

Office no. 9611805917, e-mail:- v7tools@gamil.com raghuvanahalli, kanakapura
main road ,
b'lore-560062

DATE :- 05-04-2024

CERTIFICATE

This is to certify that Mr. SUDEEP M L bearing registration number U03KU21C0063, studying 6th semester b.com student of Soundarya institute of management and science , Bengaluru has successfully completed internship in our firm from march 16th 2024 to 6th April 2024 (90 hours).

WITH BEST WISHES FOR THEIR CAREER,

For V TOOLS PRIVATE LIMITED,

Lakshmi V
V Tools

LAKSHMI V (managing director)

MARKS SCORED OUT OF 10,
10/10

COMPANY SECRETARY

CERTIFICATE OF INTERNSHIP

CS. Shashikala Hemanth
M.Com., A.C.S.



Shashikala Hemanth
Company Secretary

CERTIFICATE OF INTERNSHIP

This is to certified that Ms. **THANUSHREE**, bearing **Reg.NO. U03KU21C0073** student of the Soundarya Institute of Management and Science college

she has successfully completed internship course from 21/3/2024 to 25/4/2024 from our CS firm. Her conduct during stay with us satisfactory. I wish all the best for endeavour

The marks secured by her 10 out of 10

Signature with company seal



Shashikala.H
SHASHIKALA HEMANTH
Company Secretary

04, Second Floor, Site No. 36, "Mallika Plaza", KIADB, Peenya 2nd Phase,
Peenya Industrial Area, Opp to BWSSB, Bengaluru - 560 058.
Email : shashlhemanth10@gmail.com Mob : 9986988049



BENGALURU SQUAD SERVICES Pvt Ltd

#79, 1st Floor, B. Channasandra Bus Stop, Kasturi Nagar, Bengaluru,
Karnataka, 560043

Mobile No- 9916614923

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. SANJAY .L** bearing registration No. : **U03KU21C0079**, studying **6th Sem. B.Com** student of **Soundarya Institute of Management and Science**, Bengaluru has successfully completed Internship in our firm from April 1st 2024 to April 30 2024 (90 hours).

With best Wishes to his career.

for **Bengaluru Squad Services Pvt. Ltd.**

For Bengaluru Squad Services Pvt. Ltd.


Authorized Signatory
Amit Kumar Chandrvanshi
Managing Director.

Marks Obtained out of 10
10/10



S C A HEAVY EQUIPMENT PVT. LTD

10A, 2nd Phase, Peenya Industrial Area, Bangalore - 560 058. India.
Ph : +91 80 2839 4532 | E-mail : info@scahe.co.in | Website : www.scahe.co.in
GSTIN : 29AATCS7344B1ZY CIN : U74110KA2013PTC071160



Internship Experience Certificate

Date:27.04.2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Sagar R.** has successfully completed **3 weeks** of an internship program from **05.04.2024** to **27.04.2024** in the Accounts Department of our organization.

He was highly motivated and hardworking. He worked sincerely at his tasks and did a very good job.

We wish him great success in his future endeavours.

Sincerely,
For S C A Heavy Equipment Pvt Ltd


S Rajagopal
Managing Director



25th April, 2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Sanjay K Bhat**, Student of **Soundarya Institute of Management and Science, Bengaluru** pursuing **3rd Year B.Com (RegNo: U03KU21C0070)** has undergone **Internship** in the department of **Finance & Accounts** titled **Financial Planning and Budgeting** with **Manipal Hospitals - Hebbal, Bengaluru**, from **22nd March, 2024** to **22nd April, 2024**.

The marks secured by him were **10** out of **10**.

We wish him all the success.

Yours truly,

For Manipal Hospitals - Hebbal

Mr. Santhosha C P

Senior Officer - Human Resource





CERTIFICATE

This is to certify that Mr. Martin Anthony student of Soundarya Institute of Management & Science, Bangalore, studying 6th Semester, B.com., has fulfilled the requirements of his Project as a part of MARKETING curriculum and successfully completed at EM ELECTRONIX PVT LTD from 30.03.2024 to 29.04.2024

We wish her all the success in her future endeavors.

For EM ELECTRONIX PVT LTD

Shailesh Tukaye
Manager-Marketing



TEXPORT OVERSEAS PRIVATE LIMITED

Corporate Office: No. 86/D1, 2nd Stage, Yeshwanthpur Industrial Suburb,
Bengaluru – 5600022
CIN: U70200KA1995PTC016861

DATE: 25/04/2024

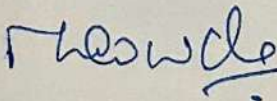
CERTIFICATE

This is to certify that Ms. Jayalakshmi K R bearing registration number U03KU21C0060, studying 6th Semester B.Com, student of Soundarya Institute of Management & Science, Bengaluru has Successfully Completed Internship in our company from 23rd March 2024 to 25th April 2024.

During the period of her study, she was found sincere and had also taken keen interest on organizational activities.

Our best wishes for her career growth.

For TEXPORT OVERSEAS PVT. LTD



MAHADEVE GOWDA
SENIOR G M – H R & COMPLIANCE



COMPANY CERTIFICATE



SRI VIGNESHWARA ENTERPRISES

AUTHORISED SALES & SERVICE CENTRE

No. 130, Ramaiah Complex, Indian Bank Building, 100 Ft. Road, Near Jalahalli Cross, Peenya, Bangalore - 560057.
Accounts: 080-28378658, 41531861, Spams: 9845232389, Service: 9742102597
E-mail: sve_btl@gmail.com, Web: www.svebosch.avysh.com

Date: April 27, 2024

From

Sri Vigneshwara Enterprises
No. 13/11, Ramaiah complex,
100 Ft. Road, Near Jalahalli Cross Circle
Peenya, Bengaluru-560057

TO WHOM IT MY CONCERN

This is to certify that Ms. Mouna, Student of Bachelor of Commerce of **Soundarya Institution of Management and Science** has successfully completed an internship in the field of finance from date 1st April 24 to 15th April 24

During the Period of her Internship program with us she had been exposed to different process was found punctual, hardworking and inquisitive

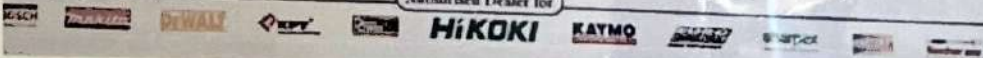
We wish her every success in her life and career

For Sri Vigneshwara Enterprises

Authorised Signatory



Authorised Dealer for



D Y N A M A T I C T E C H N O L O G I E S L I M I T E D



INTERNSHIP CERTIFICATE

This is to certify that **Mr. Akash B [U03KU21C0075]**

He has successfully completed his internship-program on

Financial Accounting

at **Dynamatic Hydraulics®** (A Division of Dynamatic Technologies Limited)
from 13-03-2024 to 29-04-2024(90 Hours).

This training program was aimed at Integrate theory and practice. During his internship,
the candidate has demonstrated him self-motivation skills to learn new skills.

His performance exceeded our expectations.

We wish him all the best for his upcoming career.



BLUEDART COMPANY

MADANAYAKANAHALLI BANGALORE 562123

Date: 12/04/2024

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. CHANDAN V (U03KU21C0076) B. Com final year student from Bangalore University , Soundarya Institute of Management and Science, has visited our department as a part of his academic prescribed by the college (90 Hours duration from 30th March 2024 to 12th April 2024) ,to working in the following organization and to understand the Organization Process.

He is involved in participation of the concern department and has completed internship work , we wish him all the best by observing his departmental work.

Rating secured by him is 09 /10

Your faithfully,

Authorized Signature
BLUE DART EXPRESS LTD.
52/3, Madanayakanahalli,
Tumkur Road,
Bangalore - 562 123.

ELGI™
Always Better



ATS ELGI
Think Long Run
Date:15/04/2024

INTERNSHIP CERTIFICATE

This is to certify that Ms, Manasa R Bearing Reg NO: (U03KU21C0067) B.com 6th Semester Student of Soundarya Institute of management and science, Soundarya Nagar, Sidedahalli, Nagasandra Post, Bengaluru- 560073, has undergone Training on our organization from 13th March to 15th April 2024 as a Part of her Internship training A Report on "Inventory management and Invoice Verification with reference to Industrial sales corporation Pvt Ltd". All the data collected by her is authentic and report has been done under our guidance. Her interaction and communication with us during the internship work were found satisfactory.

We wish her all the best for her future Endeavour.

The marks secured by her 10 out of 10.

For Industrial Sales Corporation Pvt Ltd.,



Authorized Signatory

Date:15/04/2024

AUTHORISED DEALER



INDUSTRIAL SALES CORPORATION

SB 117,1st Stage, 3rd Cross, Peenya Industrial Area, Bengaluru - 560 058.
M +91 98440 95781 / T : +91-080-28378181 / 82 / 83 E : isc.bng@gmail.com / www.iscblr.com
GSTIN : 29AABFI2706G1ZM



DATE: 16/03/2024

TO,

Principal,

Soundarya Institute of Management & Science,

Soundarya nagar, Sidedahalli,

Nagasandra Post,

Bengalore-560073.

Dear Sir/Madam,

Subject: Internship Acceptance / Confirmation.

This is to inform that Ms. Malashree.M bearing register number U03KU21C0081, studying 6th semester B.Com, student of Soundarya Institute of Management & Science, Bengaluru will undertake Internship in our company starting from 18th March 2024 to 6th April 2024.

We welcome Monika.M onboard for Internship & wish her good luck.

From K.Govindaraja & co

AUTHORISED SIGNATURE

Date: 15/04/2024

CERTIFICATE

This is to certify that Ms Pallavi BV bearing Reg No. U03KU21C0082, B.com 6th semester student of Soundarya Institute of Management and Science, Soundarya nagar, Sidedahalli, Nagasandra post, Bengaluru- 560073 has undergone Training in our organisation from 13th March to 15th April 2024 as a part of her Internship Training on "Employee Retention and attrition with reference to Unique Punch system Pvt Ltd". All the data collected by her is authentic and report has been done under our guidance. her interaction and communication with us during the internship work were found satisfactory.

We wish her all the best for her future endeavor.

The marks secured by her 10 out of 10.

For Unique Punch Systems Pvt Ltd.,



Authorized Signatory

Date: 15/04/2024



Sy #22/3, Ground Floor, Ganga Farms, Somashettihalli Main Road, Chikkabanavara Post, Bengaluru, Bengaluru Urban - 560 090. Karnataka. GSTIN/UIN: 29ACAF8515E1ZK
Ph: 8105250045, 7975262367 email: abindustriesmrfirm@gmail.com web: www.mayuriproducts.com

Date: 02/05/2024

INTERNSHIP CERTIFICATE

This is to certify that Ashwini Bai N Reg' No (U03KU21C0061), BCOM-6 t. h Sem student of Soundarya Institute of Management And Science has successfully completed her Internship Training on Organization And Accounts Study in AB INDUSTRIES Under guidance of Preetham M, From 05/04/24 to 30/04/24 during the period she has taken good initiative and interest in completing the study.

I have enclosed in this letter the official certificate of Ashwini Bai. N regarding her successful completion of our internship program. We at A B Industries wish her the best and success in her Life and Career.

The marks secured by her is 10 out of 10.

We wish all the best for her future end over.

A B Industries



Authorised
Seal & Signature

SRI LAKSHMI ENTERPRISES

Office no. 6361007054, K Bylappa layout, Dasananpura,
b'lore-562162

DATE :- 05-04-2024

CERTIFICATE

This is to certify that Mr. H S EKANTH bearing registration number U03KU21C0069, studying 6th semester b.com student of Soundarya institute of management and science , Bengaluru has successfully completed internship in our firm from march 16th 2024 to 6th April 2024 (90 hours).

WITH BEST WISHES FOR THEIR CAREER,

For SRI LAKSHMI ENTERPRISES,

SATHISHA (managing director)

MARKS SCORED OUT OF 10
10/10

For SRI LAKSHMI ENTERPRISES

Authorised Signatory

CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. **DHRUVA N** a student of **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE** has successfully completed his/her internship with CavinKare. The assignment was for a period of 2 weeks.

Our endeavour is to upskill students in sales & distribution, so that they may find suitable jobs in the FMCG space. The assignment has a good blend of theory & real-life learning, which we are sure, will help market the candidate better to our industry colleagues.

The internship involved the candidate visiting - a few distributors, over 150 outlets (all channel types) to familiarize with the retail environment. An on-line learning module on sales & distribution basics (industry nomenclature, importance of 3 A's - Awareness, Affordability, Availability & sales uptick thru high impact merchandizing) was also provided as reading material.

A case study was provided so as to gauge the candidate's understanding - which Mr. **DHRUVA N** has solved to our fullest satisfaction.

We wish him all the best towards a bright S&D career in the FMCG industry

Sincerely,



Shobha Venkopal
Head of Consumer Insights & Analytics
CavinKare



CavinKare Private Limited
Registered Office: 12, Poonthamallee Road, Ekkattuthangal, Chennai - 600 032
Tel: 91 - 44 - 2225 1011/12/13 and 91 - 44 - 2225 0130. Website: www.cavinkare.com
CIN: U24246TN1990PTC046613

PURUSHOTHAM & CO

Auditors & Tax Professionals

#10, 2nd floor, 30th Cross, Kilari Road, Avenue Road Cross, Bangalore - 560053



CERTIFICATE FOR INTERNSHIP

This is to certify that Ms **TEJASWINI K** (Reg.No:U03KU21C0062) pursuing “**B COM**” 6 Semester in **SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE**, Soundarya Nagar, Sidedahalli, Nagasandra Post, Bengaluru-560073, has successfully carried out “**INCOME TAX, TDS & GST**” from 11-03-2024 To 15-04-2024 in **Purushotham & Co.**

During her tenure of service with this organization we found her sincere, honest and hardworking with professional attitude. Her work is recommended for consideration towards partial fulfillment for the award of **B. COM Degree** of the **Bangalore University.**

For PURUSHOTHAM & CO


Authorized Signatory

PLACE: BENGALURU

DATE: 15-04-2024

Date: 25-04-2024

Place: Bengaluru



CERTIFICATE OF INTERNSHIP

This is to certify that Ms. **MEGHA M**, bearing Register No. **U03KU21C0077** student at **SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE**, studying in Final year B.com. She has successfully completed internship course from 26th March 2024 to 25th April 2024 from our organisation.

During her internship time with Himalaya Wellness Company, MEGHA M, demonstrated excellent organizational skills, a strong work ethic, and a keen interest in her assigned work. She has contributed positively to our projects and has shown great potential for future endeavours in her chosen field, and she has secured marks based on ratings on the below parameters:

Sl. No.	Parameters	Marks
1	Regularity to work	02
2	Attitude towards work	02
3	Professional competence	02
4	Ability to interact with other staffs/colleagues	02
5	Willingness to learn	02
Total Marks		10

We wish MEGHA M the very best in her future academic professional pursuits and have no doubt that she will continue to excel in her endeavours.

Sincerely

For Himalaya Wellness Company

GM - MIS & Treasury - Finance



Ref: CWT/Inter/2024-25

Date:08/05/2024

CERTIFICATE OF INTERNSHIP

This is to certify that **Mr. ROHAN ARADHYA** Bearing **Reg No. U03KU21C0080** student of Soundarya Institute of Management and Science College has successfully completed his internship course from 10/04/2024 to 08/05/2024 in our company.

During the course of internship study, we found him punctual, honest, obedient and conduct was good.

We wish him all the best for his future endeavors.

The Marks secured by him is 10 out of 10.

For CLOUDWAVE TECHNOLOGIES Pvt Ltd.,



Sharmila
Accounts Manager

To,

ROHAN ARADHYA
B.com 3rd year
Reg No.: **U03KU21C0080**
Soundarya Institution of Management and science
Soundarya Nagara, Sidedhalli ,
Nagasandra , Bangalore-560073



April 30,2024

CERTIFICATE

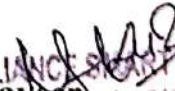
This is to certify that **Mr Siddarth C**, student of B.com studying in Soundarya Institute of Management and science , Bangalore has successfully completed internship in **“STUDY ON ATTRITION AT RELIANCE RETAIL”** at Reliance Smart Point .

The Duration of the project was from 04 -04 -2024 to 30 - 04 -2024 .

During this period of training , we found him punctual , disciplined and proactive in assigned tasks and duties.

We wish him all the success in future endeavours.

For **RELIANCE SMART POINT**


RELIANCE SMART POINT
Mr . Navin
Store No: 513, Durgamcherry, BMC,
Associate general manager





em electronix private limited

An ISO 9001:2015 Certified Company

TO WHOMSOEVER IT MAY CONCERN

This is to certify that B.Com Student of Soundarya Institute of Management & Science, Ms. Aishwarya A.S bearing the register number U03KU21C0229 has successfully completed internship at **EM Electronix Private Limited, Bangalore.**

Other details of internship are as follows:

Internship Period (Month Details)	30.03.2024 TO 29.04.2024
Total Number of days of Internship	20 Days
Total Number of hours of Internship	90 Hours

During the internship period, we have assessed the above student based on the following parameters like Responsibility Handled, Work Regularity, Attitude Toward the Work, Professional Competence, Interpersonal Skill, Willingness to Learn on a scale of 1 – 10 and has been awarded with 8 marks out of 10 marks (overall).

We wish him / her all the best for future endeavors.

INTERNAL GUIDE


SHAILESH N. TUKAYE





CERTIFICATE

This is to certify that Mr. Adarsh Pandey, Student of Soundarya Institute of Management & Science, Bangalore, studying 6th Semester, B.com., has fulfilled the requirements of his Project as a part of HR curriculum and successfully completed at EM ELECTRONIX PVT LTD from 30.03.2024 to 29.04.2024

We wish her all the success in her future endeavors.

For EM ELECTRONIX PVT LTD

Shailesh Tukaye
Manager-Marketing





CERTIFICATE

This is to certify that Ms. Aishwarya. A.S student of Soundarya Institute of Management & Science, Bangalore, studying 6th Semester, B.com., has fulfilled the requirements of his Project as a part of Accounting curriculum and successfully completed at EM ELECTRONIX PVT LTD from 30.03.2024 to 29.04.2024

We wish her all the success in her future endeavors.

For EM ELECTRONIX PVT LTD

Shailesh Tukaye
Manager-Marketing





SHREE VENKATESHWARA ENGINEERING

TO,
YASHVANTH K,
Soundarya institute of
management and science,
Bangalore.

Dear sir/Madam, This is to certify that Mr. **Yashvanth k (U03KU21C0225)** S/O-
Mr. Krishnamurthy a student of BCOM, Soundarya institute of management
and science, Bangalore Karnataka, he has successfully completed 20 days
(From 07th April 2024 to 27th April 2024) long Internship program at **SHREE
VENKATESHWARA ENGINEERING**

During Mr. Yashvanth k internship, he was engaged in "Talent Acquisition
Intern Role" in which he worked on various Modules in Hiring Department.

During the period of his internship program with us he was found punctual,
hardworking and Inquisitive. His association with us was very fruitful and we
wish him all the best in his future endeavors.

Yours sincerely,

Yuvaraj Thasildar,
HR Manager,
SHREE VENKATESHWARA ENGINEERING

6 ,1ST MAIN ,9TH CROSS ,CHAMUNDESHWARI NAGAR ,BANGALORE 560058

EMAIL ID : venkateshwaraengineering02@gmail.com



INTERNSHIP CERTIFICATE

This is to certify that **Mr. Jaishekar.R** bearing Reg No U03KU21C0212 student of 6th semester Bachelor of Commerce (B.com) Program, has undertaken a Internship in our organization under the guidance of Dheeraj. S from 14/03/2024 to 13/04/2024.

This report is being submitted in partial fulfillment of the Internship, as per the requirement by the University guidelines for the award of the degree of Bachelor of Commerce (B.com). His tenure during the internship in our organization is satisfactory.

We wish him a bright future and success in all his endeavor



Regards,

A handwritten signature in black ink that reads "Dheeraj S".

Dheeraj. S

ASST.PERSONNEL OFFICER

BANGALORE

April -12-2024



REF : MPP/INTERNSHIP/54/2024

20th May 2024

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Mr.ARAVIND KUMAR S** REG No U03KU21C0226, student pursuing Bachelor of Commerce VI Sem at Soundarya Institute Of Management & Science, Soundarya Nagar, Sidedahalli, Nagasandra Post, Bangalore - 560073 completed their Internship Training at **M/s. Maini Precision Products Limited.,**Peenya,Bangalore 560058.

Duration from **28th March 2024** to **23rd April 2024.**

During his **Internship period**, we found his conduct was good and we are wishing him all the success in his future endeavors.

For **Maini Precision Products Ltd**

Seetharam G N
Senior Manager – HR & IR



VISHNU FORGE INDUSTRIES LTD.

ISO 9001:2015



Ref No.VFIL/2024-2025/

Date : 15/04/2024

CERTIFICATE

This is to certify that **Ms. Bhavana**, bearing Reg.No. U03KU21C0215 of 6th Semester B.Com from Soundarya Institute of Management and Science has successfully completed internship in our Organization from 11.03.2024 to 10.04.2024.

Her conduct during the stay with us is satisfactory, We wish all the best for her endeavour.

The Marks scored by her of 10.

For Vishnu Forge Industries Limited.,



VENKATESH J
FINANCE MANAGER

Regd. Office : C-01 / C-02, HMT Industrial Estate, Jalahalli Post, Bengaluru - 560 013, India.
Phone : +91 - 80 - 2838 9195 / 2838 8410 / 2838 2446 Fax: +91 - 80 - 2838 8947
E-mai : vishnuforgeld@gmail.com Website: www.vishnuforge.com
CIN No. : U85110KA1991PLC012307 GSTIN No.: 29AAACV4170H1Z8





TO WHOM IT MAY CONCERN

Dear Sir/Madam,

This is to certify that **Shashank D N (U03KU21C0216)**, B.COM student studying at Soundarya Institute of Management & Science, has successfully completed an internship at Shreeji Marketing

The duration of the training period was from 08.04.2024 to 30.04.2024.

During this period of training, we found him disciplined, punctual, and proactive in assigned tasks and duties. We appreciate the time rendered and wish him all the very best for future success endeavours.

Yours sincerely,

Vivek U Shah
Partner
Shreeji Marketing

Place: Bengaluru
Date: 30.04.2024



ANAND KULKARNI & CO.

Chartered Accountants

302, 11th Cross, MEL Layout, Nagasandra Post, Bangalore - 560 073.

Email : kulkarniandco@gmail.com / info@anandkulkarni.co.in

Phone : 9986024120

Web : www.anandkulkarni.co.in



Internship Certificate

This is to certify that **Mr. PAVAN MURTHY D.S.** bearing Reg No **U03KU21C0207** student of Soundarya Institute of Management and Science college, B Com 6th Sem (Regular), Bengaluru has successfully completed his internship programme from 01st April, 2024 to 30th April, 2024 at Anand Kulkarni & Co. - Chartered Accountants.

During the above period, we found that he was consistent, honest, and diligent in his assigned duties and responsibilities.

We wish him all the success in his future endeavours.

FOR ANAND KULKARNI & CO

Chartered Accountants

Firm Reg No 012684s

Anand Kulkarni

Membership No. 222122

Proprietor

Bengaluru

1st May, 2024



Date: 30-04-2024

To whomever it may concern

Dear sir/Madam, This is to certify that **G N Vishwanatha Gowda (U03KU21C0227) B.com** Student studying in Soundarya Institute of Management and Science has successfully completed internship in UNIWORLD LOGISTICS PVT LTD.

The Duration of training period was from 08-04-2024 to 30-04-2024.

During this period of training we found him Discipline. punctual and proactive in assigned tasks and duties and we appreciate for time rendered and wish him all the very best for the future success endeavors.

Yours sincerely,


Avil Fernandes,
HR Manager,
UNIWORLD LOGISTICS PVT LTD



BLUEDART COMPANY

MADANAYAKANAHALLI BANGALORE 562123

Date: 12/04/2024

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr.DARSHAN P (U03KU21C0230) B. Com final year student from Bangalore University , Soundarya Institute of Management and Science, has visited our department as a part of his academic prescribed by the college (90 Hours duration from 30th March 2024 to 12th April 2024) ,to working in the following organization and to understand the Organization Process.

He is involved in participation of the concern department and has completed internship work , we wish him all the best by observing his departmental work.

Rating secured by him is 09 /10

Your faithfully

Authorized Signature
BLUE DART EXPRESS LTD.

52/3, Madanayakanahalli,
Tumkur Road,
Bangalore - 562 123.



CRS TOOLS AND MARKETING LTD.



Office address: B-165 3rd Cross, peenya 1st stage,
Netaji Nagar, peenya, Bengaluru, karnataka
Bengaluru-560058
Phone No: +91 9113937391

Date:11/03/2024

TO WHOM IT MAY CONCERN

This is to certify that (Ms/Mr/Mrs.) Jayanth H,
Student of Soundaraya institute of management and science,
has Successfully completed a summer internship in the
Field of marketing from 11/03/2024 to 10/04/2024
under guidance of Kiran Kumar.

During the period of her/his internship program
With us, she/he had been exposed to different
Processes and was found diligent, hardworking
And inquisitive.

We wish her/him every success in her/his life and
Career.

For CRS TOOLS AND MARKETING CO. LTD

Authorized Signature

C. R. S. POWER TOOLS AND SERVICE:
D. No. 22, Hesaraghatta Main Road,
Defence Colony, 1st Main Road, ↗
Nagasandra Post, Bangalore-560 077 •





Ramki enterprises

No.80G, 1st Main Road, Industrial subrub,2nd stage, Yeshwanthpur
Bangalore 560022

To whomever it may concern

Dear sir/Madam, This is to certify that ARJUN kV (U03KU21C0224) B.com Student studying in Soundarya Institute of Management and Science has successfully completed internship in ramki enterprises.

The Duration of training period was from 08-04-2024 to 30-04-2024.

During this period of training we found him Discipline. punctual and proactive in assigned tasks and duties and we appreciate for time rendered and wish him all the very best for the future success endeavors.

Yours sincerely.


Dilip R ,

Director ,

Ramki Enterprises





KONIGTRONICS (OPC) PRIVATE LIMITED

Website: www.konigtronics.com

A CORPORATE COMPANY REGISTERED UNDER MCA (Government of India)

CIRCULATING ANY DUPLICATE COPY IS A PUNISHABLE OFFENCE UNDER IPC SECTION 466

INTERNSHIP CERTIFICATE

This is to certify that **Mr. Lokesh M R (U03KU21C0186)**, pursuing **B.COM**, **Soundarya Institute of Management and Science, BU** has successfully completed his internship at **Konigtronics (OPC) Private Limited** from **20/03/2024** to **25/04/2024**. His conduct during stay with us was satisfactory.

The Marks secured by him is **10 out of 10**

We have found him to be a self-starter who is motivated, duty-bound and hardworking. He has worked sincerely on his assignments and his performance is par excellence.

We wish him all the best for his future endeavors.

Thanking you,

Regards,




Vishesh S (CIN: U80904KA2017OPC99075)

Managing Director

DIN: 07685912

Konigtronics (OPC) Private Limited

TO CONTACT THE SIGNING AUTHORITY – MAIL TO: visheshniranjan31@gmail.com or CALL +91 9380497511

**#4/1, 1ST FLOOR, 5TH MAIN, 5TH CROSS,
CHAMARAJPET, BANGALORE-560018**



WILL METAL CREATIVES

5, ANDRAHALI MAIN ROAD,
NEAR MULKATAMMA TEMPLE,
PEENYA 2ND STAGE,
BENGALURU - 560 091.
Email: willmetalcreatives@gmail.com
MOB: 9113548873

DATE: 01/05/2024

To Whom It may concern

This Certification proves that Janifa W as completed the Internship Program at Will Metal Creatives Co. As a Admin & Account Intern. Janifa .W started joining The program from Monday, April 01,2024 until Tuesday , April 30, 2024.



During her stay in company as a Intern she displays enthusiasm, leadership, self-discipline
And self-motivation

We are lucky to have her as one of our interns before and we would like to wish her all the best

SINCERELY,

DEEN MONISH
PROPRIETOR

WILL METAL CREATIVES





CERTIFICATE OF INTERNSHIP

This is to inform you that **SOURAV K M** Bearing Reg. No. **U03KU21C0197** student of the "Soundarya Institute of Management and Science College" had successfully completed internship course from **25 Mar 2024** to **25 Apr 2024** from our organization.

He has completed his internship under below specialization:

- Internal Auditing
- Cost Analysis and Control

His conduct during stay with us was satisfactory and we wish him all the best for his future endeavor.

For, Phikanet Solutions Private Limited




Pradeep Jagadish
Business Consultant



Soundarya Souharda Credit Co-Operative Ltd.

Reg. No. JRB/RGN/SK/71/3674/2014-15

We Serve We Care ...

Soundarya Arcade,
Hesaraghatta Main Road,
Havanoor Extension,
Nagasandra Post, Bengaluru - 560073.
Phone : 080 28394789
soundaryasouhardha@gmail.com

CERTIFICATE

This is to certify that Mr. ABHISHEK.H, student of SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, VI semester B. Com having Reg No. U03KU21C0203., has completed his internship work entitled, "A STUDY ON RISK ANALYSIS ON PERSONAL LOAN at M/s SOUNDARYA SOUHARDA CREDIT CO OPERATIVE LIMITED, Bengaluru for the period from 18-03-2024 to 16-05-2024.

His conduct was found to be Good during project work and we wish him successful future.

The Marks secured by him is 9 out of 10.

Place: Bengaluru

Date: 17-05-2024

For SOUNDARYA SOUHARDA CREDIT CO-OPERATIVE LTD

Branch Manager



V TOOLS PRIVATE LIMITED

Office no. 9611805917, e-mail:- v7tools@gamil.com raghuvanahalli, kanakapura
main road ,
b'lore-560062

DATE :- 05-04-2024

CERTIFICATE

This is to certify that Mr. DEEKSHITH T bearing registration number U03KU21C0181, studying 6th semester b.com student of Soundarya institute of management and science , Bengaluru has successfully completed internship in our firm from march 16th 2024 to 6th April 2024 (90 hours).

WITH BEST WISHES FOR THEIR CAREER,

For V TOOLS PRIVATE LIMITED,



LAKSHMI V (managing director)

MARKS SCORED OUT OF 10,
10/10

INTERNSHIP CERTIFICATE

This is to certify that **Mr. Kiran.R** bearing Reg No U03KU21C0183 student of 6th semester Bachelor of Commerce (B.com) Program, has undertaken a Internship in our organization under the guidance of **Dheeraj. S** from 21/03/2024 to 29/04/2024.

This report is being submitted in partial fulfillment of the Internship, as per the requirement by the University guidelines for the award of the degree of Bachelor of Commerce (B.com). His tenure during the internship in our organization is satisfactory.

We wish him a bright future and success in all his endeavour.

BANGALORE

April -28-2024

Dheeraj S



Dheeraj. S

Personnel Officer

MAY 12,2024

CERTIFICATE

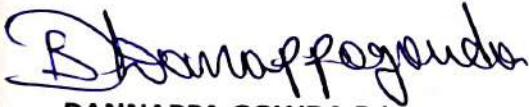
This is to certify that **ERANA GOWDA BD** Student of BCOM studying in soundarya institute of management and science, banglore has successfully completed internship in **SALES AND MARKETING** division of **SOMANTH TRADING CO. .**

The duration of project was from **24-03-2024 to 24-04-2024**

During this period of training , we found him punctual, disciplined and proactive in assigned tasks and duties

We wish him all the success in future endeavors .

From **SOMNATH TRADING CO.**



DANNAPPA GOWDA B I

PROPRIETOR RMC Code : 7049

ಟ್ರೇಡಿಂಗ್ ಕಂ.,
ಕಬ್ಬೆ ಮತ್ತು ಅಡುಗೆ ವ್ಯಾಪಾರಕ್ಕಾಗಿ ಕೆ.ಎಚ್.ಎಸ್. ವಿಜಯ
ನಂ. 179. 'ಬಿ' ಬ್ಲಾಕ್,
ದಾಸನಪುರ, ಎ.ಪಿ.ಎಂ.ಸಿ. ಸಬ್-ಮಾರ್ಕೆಟ್
ಬೆಂಗಳೂರು - 562 123

INTERNSHIP CERTIFICATE

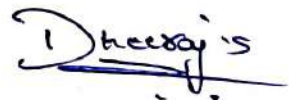
This is to certify that **Mr. Likith kumar k s** bearing Reg No U03KU21C0175 student of 6th semester Bachelor of Commerce (B.com) Program, has undertaken a Internship in our organization under the guidance of Dheeraj. S from 14/03/2024 to 13/04/2024.

This report is being submitted in partial fulfillment of the Internship, as per the requirement by the University guidelines for the award of the degree of Bachelor of Commerce (B.com). His tenure during the internship in our organization is satisfactory.

We wish him a bright future and success in all his endeavor



Regards,


Dheeraj. S

ASST.PERSONNEL OFFICER

BANGALORE

April -12-2024

milky mist

CERTIFICATE

TO WHOMSOEVER IT MAY

CONCERN

This is to certify that **Mr. TRIBHUVAN H N** a student of SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE has successfully completed his/her internship with MILKY MIST COMPANY. The assignment was for a period of 4 weeks.

Our endeavour is to upskill students in sales & distribution, so that they may find suitable jobs in the FMCG space. The assignment has a good blend of theory & real-life learning, which we are sure, will help market the candidate better to our industry colleagues.

The internship involved the candidate visiting - a few distributors, and customers over 150 outlets (all channel types) to familiarize with the retail and environment. An on-line learning module on Production and Customer satisfaction basics (industry nomenclature, importance of 3 A's - Awareness, Affordability, Availability & sales uptick thru high impact merchandizing) was also provided as reading material.

A case study was provided to gauge the candidate's understanding - which Mr. TRIBHUVAN H N has solved to our fullest satisfaction.

We wish him all the best towards a bright S&D career in the industry.

Sincerely,

For **L.C. ENTERPRISES**

Lokesh SC
Proprietor

Milky Mist Dairy Products Company
Registered Office: NO 48, AGB Layout near Chikkabanavara, Bangalore — 560090
Tel:9611051523/9731843237. Website: www.Milkymist.com

GST NO :29AJCPL3496L1ZM

ಗೋಪಾಲಪುರ ಕೃಷಿ ಪತ್ತಿನ ಸಹಕಾರ ಸಂಘ (ಸಿ)

ಗೋಪಾಲಪುರ, ಬೆಂಗಳೂರು ಉತ್ತರ ತಾಲ್ಲೂಕು-562123, ಬೆಂಗಳೂರು ನಗರ ಜಿಲ್ಲೆ.

ಉಲ್ಲೇಖ:-

ದಿನಾಂಕ: 31/05/2024

CERTIFICATE

This is to certified that **Mr.GOVINDARAJU.G.N** bearing **Reg No.U03KU21C0201** student of **Soundarya Institute of management & Science**, has successfully completed the internship course, From **25/04/2024** to **25/05/2024** from our organization is conduct during stays with us satisfactory. I wish all the best for this endeavor.

The Marks secured by him 10 out of 10

Authorized Signature with seal

ಮುಖ್ಯಕಾರ್ಯನಿರ್ವಹಣಾಧಿಕಾರಿ


ಗೋಪಾಲಪುರ ಕೃಷಿ ಪತ್ತಿನ ಸಹಕಾರ ಸಂಘ (ಸಿ)
ದಾಸನಪುರ ಪೋಸ್ಟ್, ಬೆಂಗಳೂರು ಉತ್ತರ ತಾಲ್ಲೂಕು

SHREE BHAGYA ENGINEERING INDUSTRIES

Manufacturers of : Jigs & Fixtures, Machine Tool Components & Accessories.

Edwards Building, # (1), F-1, 1st Cross, 1st Stage, Peenya Industrial Area, Bangalore - 560 058.
Mobile : 09342250966 / 9110259127, E-mail : honingtools@yahoo.com GSTIN : 29AAOFS0982K1ZG

Ref.:

06-04-2024
Date:.....

CERTIFICATE OF INTERNSHIP

THIS IS TO CERTIFY THAT SUSHMITHA.M.R. STUDENT OF SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, BANGALORE STUDYING IN B.COM 6 th SEM REGISTER NUMBER NO :- UO3KU21CO185 HAS SUCCESSFULLY COMPLETED HER PROJECT ON "A STUDY ON OVERHEAD COST IMPACT ON PROFITABILITY" IN OUR COMPANY FROM DATE : 11/03/ 2024 TO 03/04/2024

DURING THE ABOVE PERIOD HER CONDUCT WAS GOOD AND SHE SHOWED EAGERNESS TO LEARN THE TOPIC WHICH SHE HAS SELECTED.

I SINCERELY THANK TO THE ABOVE STUDENT DURING THE PERIOD SHE WAS PUNCTUAL AND HAS TAKEN VERY KEEN INTEREST AND INITIATIVE IN HER PROJECT.

WE WISH HER VERY BEST IN ALL HER FURURE ENDEAORS

The marks secured by her 10 out of 10

FOR :- SHREE BHAGYA ENGINEERING INDUSTRIES

H.D. Alegandappa



TEXPORT OVERSEAS PRIVATE LIMITED

Corporate Office: No. 86/D1, 2nd Stage, Yeshwanthpur Industrial Suburb,
Bengaluru – 560022
CIN: U70200KA1995PTC016861

DATE: 25/04/2024

CERTIFICATE

This is to certify that Ms. Vidyashree R bearing registration number U03KU21C0193, studying 6th Semester B.Com, student of Soundarya Institute of Management & Science, Bengaluru has Successfully Completed Internship in our company from 23rd March 2024 to 25th April 2024.

During the period of her study, she was found sincere and had also taken keen interest on organizational activities.

Our best wishes for her career growth.

For TEXPORT OVERSEAS PVT. LTD.



MAHADEVE GOWDA
SENIOR G M – H R & COMPLIANCE





management services

Vacant plot

Internship completion certificate

This is to certify that Mr.Dhruva A poojarl (Reg No :U03KU21C0199) a student of Bachelor of commerce (B.com) From Soundarya Degree College Bangalore, has undergoes Internship program with Myprop .He has learned Business development in our organization from 13th April 2024 To 14th May 2024.

Durning this period,He has shown interest to learn things with good conduct & behavior.

We wish all the best in his Future Endeavors.

Date: 19-05-2024

Place: Bangalore



For Myprop
[Signature]
Authorized Signatory

LandWatchman Technologies Pvt Ltd

No.5, 1st Floor, 4th Cross, New BEL Road, RMV Extension, Bangalore - 560094

+91 9289375566 www.mypropindia.com info@mypropindia.com



PHIKANET SOLUTIONS

CERTIFICATE OF INTERNSHIP

This is to inform you that **St. YOGESH R** bearing Reg. No. **U03KU21C0198** student of the "Soundarya Institute of Management and Science College" had successfully completed internship course from **25 Mar 2024** to **25 Apr 2024** from our organization.

He has completed his internship under below specialization.

- Internal Auditing
- Cost Analysis and Control

His conduct during stay with us was satisfactory and we wish him all the best for his future endeavour.

For, Phikanet Solutions Private Limited


Pradeep Jagadish
Business Consultant



PHIKANET SOLUTIONS PRIVATE LIMITED

Ground Floor, No. 2A, 2784/2097/2A, Kothnuru Village,
Raghavanapalya, Uttarahalli, Bengaluru Urban,
Karnataka 560076
<https://www.phikanet.in/>

GRIHUM HOUSING FINANCE

Kengeri Bangalore -560060



GRIHUM

HOUSING FINANCE

Apna Ghar. Apni Pehchan.

Date: 26/04/2024

CERTIFICATE

This is to certify that **Mr.DARSHAN B R** Reg No **U03KU21C0192** Student of B.com 6th sem at Sonundaya Institute of Management & Science. She has successfully completed his academic Project report "A study on Risk Analysis on Home Loans at Bangalore City Grihum Housing Finance Limited" during the period Frome 22/03/2024 to 23/04/2024 in our organization, under the guidance of **Mr. Sanjeev kumar**, Branch Manager of our Housing Finance.

He has showed hid extensive interest during his project which is worth appreciating.

Kengeri Bangalore Grihum Housing Finance Limited Wish **Darshan B R** bright Future.

For Grihum Housing Finance Ltd.
Sanjeev Kumar

(Branch Manager)
Authorised Signatory

CERTIFICATE

This is to certified that **Mr. KULDEEP R** bearing **Reg. No: U03KU21C0176** student of **Soundarya Institute of Management & Science**, has successfully completed the internship course, From 10/03/2024 to 27/04/2024 from our organization is conduct during stays with us satisfactory. I wish all the best for this endeavor.

The Marks secured by him 10 out of 10.

Authorized Signature with company seal

Eureka Forbes Ltd
Mahalakshmi Metro Station,
1st R Block, Rajajinagar,
Bengaluru, Karnataka - 560010



Eureka Forbes Limited CIN: U27109WB193IPLC007019
Registered Office: 3, 2nd Floor, Above Food World, Sanjaynagar, Bangalore, Karnataka
Corporate Office: B1/B2, 701, 7th Floor, Marathon Innova Marathon NextGen,
Off Ganpatrao Kadam Marg Lower Parel, Mumbai - 400 013, India.

5th march 2024.

CERTIFICATE

This is to certify **MR SHARATH KUMAR S., REG. NO. U03KU21C0184**, B com
Student of **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCES**,
Siddehalli, Bangalore -560073, has successfully completed the project titled, **A
Study on RECRUITMENT & SELECTION PROCESS AT ICICI BANK,
YELAHANKA BRANCH, BENGALURU-560064**", during the period from 5th
March 2024 to 15th April 2024.

The marks secured by him 10 out of 10

For **ICICLBANK LTD.**,



**M.S. KRISHNA DAS
BRANCH MANAGER**

GSTIN: 29AVWPS8137K1ZD

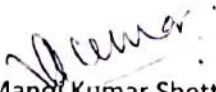
Name: **VAN MAN CONSULTANCY SERVICES**

CERTIFICATE OF INTERNSHIP

This is to certify that Miss. VEDHASHREE N. S. bearing Regn No. U03KU21C0195, student of SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE College has successfully completed internship course from 16/03/2024 to 06/04/2024 from our Organisation. Her conduct during stay with us is satisfactory. I wish all the best for her future carrier.

The marks secured by her are **10 out of 10** with respect to responsibilities handled, regularity to work and attitude.

For Van Man Consultancy Services

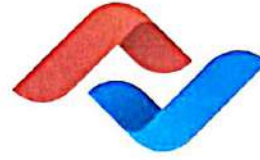

(Manoj Kumar Shetty)
Proprietor

Van Man Consultancy Services

#216/331/45, Kebbehalla Road, Near Govt School, Sunkadakatte, Bangalore-560091
Contact No: 7899631772; Email:vmcs.shetty@gmail.com

GRIHUM HOUSING FINANCE

Kengeri Bangalore -560060



GRIHUM
HOUSING FINANCE

Apna Ghar. Apni Pehchan.

Date: 26/04/2024

CERTIFICATE

This is to certify that **Miss.KEERTHANA K** Reg No **U03KU21C0180** Student of B.com 6th sem at Sonundaya Institute of Management & Science. She has successfully completed his academic Project report "A study on Risk Analysis on Home Loans at Bangalore City Grihum Housing Finance Limited" during the period Frome 25/03/2024 to 26/04/2024 in our organization, under the guidance of **Mr. Sanjeev kumar**, Branch Manager of our Housing Finance.

She has showed hid extensive interest during his project which is worth appreciating.

Kengeri Bangalore Grihum Housing Finance Limited Wish **Keerthana K** bright Future.

For Grihum Housing Finance Ltd.
Sanjeev Kumar

(Branch Manager)
Authorised Signatory





V TOOLS PRIVATE LIMITED

Office no. 76/1/30/17, 2nd floor, V Tools Building, 1st floor, Bangalore
main road,
K. J. Somayaji Nagar


DATE: 05-04-2024

CERTIFICATE

This is to certify that Mr. CHETAN V L having registration number
UD060210010, studying B.Tech. in Computer Science and Engineering at
Sri Jayachamarajendra College of Engineering, Bangalore has successfully completed semester in our
firm from March 18th 2024 to 17th April 2024 (90 days).

WITH BEST WISHES FOR THEIR CAREER.

For V TOOLS PRIVATE LIMITED


CAANISH V, Managing Director

MARKET BOUNDED OUT OF IN
10/10



TEXPORT syndicate (I) LIMITED

No. 81, Industrial Estate, 2nd Phase, HSR Layout, Bangalore 560 022 India.
Phone: +91 9845441300 | Fax: 081-4641923

CERTIFICATE

This is to certify that, Mr. Chetan V having Roll no: UD060210010, student of
Sri Jayachamarajendra College of Engineering, Bangalore, has
successfully completed his "Internship in Merchandising" from 18th March to
17th April at "Texport Syndicate (I) Ltd."

The marks secured by him is 20 out of 25.

We wish him all the best for his future endeavours.

With warm regards,

For Texport syndicate (I) Ltd.

Karanth S.
Assistant Manager - Human Resources



Registered office:

No. 81, Industrial Estate, 2nd Phase, HSR Layout, Bangalore 560 022 India.
Phone: +91 9845441300 | Website: www.texport.com



vesh Auto Pvt Ltd
 6, 5, Rajwade Road, Chhatrapati Shahu Maharaj
 Road, Bangalore Karnataka - 560024
 info@vesh.com | www.vesh.com

Mahindra

Date: 18th April 2024

TO WHOM SO EVER IT MAY CONCERN


This is to certify that, Mr. Praveen Kumar S (Reg No: U83KJ21C005) B.Com
 student of Sreebharya Institute of Management and Science, Bangalore has
 successfully completed his internship in the Department of Sales. His duration
 of service from 15th March 2024 to 15th April 2024.

The marks secured by him were 10 out of 10.

He is sincere, diligent, and analytical in all his undertakings. We wish him all the
 best for his future endeavors.

Respectfully,

For Vesh Auto Pvt Ltd,



Mr. Ravish Reddy
 HR - HUMAN RESOURCES

NEXA

Date: 18th April 2024

CERTIFICATE

This is to certify that, Mr. Praveen S G (Reg No: U83KJ21C005) B.Com
 student of "Sreebharya Institute of Management and Science", Bangalore
 has successfully completed his internship in the Department of Sales in our
 organization from 15th March 2024 to 15th April 2024.

The marks secured by him were 10 out of 10.

During his period he has shown keen interest in his work and his conduct
 was found good.

Yours faithfully,

For NEXA Motors Pvt Ltd,



Mr. Ravish Reddy
 HR - HUMAN RESOURCES





Date: 13th April 2024

CERTIFICATE

This is to certify that, Valbhav Gowda(Reg no U03KU21C0122) B.Com student of "Soundarya Institute of Management and Science", Bengaluru has successfully completed his internship in the Department of Sales in our organization from 10th March 2024 to 10th April 2024.

The marks secured by him were 10 out of 10.

During his period he has shown keen interest in his work and his conduct was found good.

Your's faithfully,
For Varun Motors Pvt Ltd.,

Mr. Kishor Kumar
General Manager



Varun Motors Pvt Ltd.

Survey No 18/3, Hebbala Ammanikere Village,
Kasaba Hobli, Hebbal, Bengaluru, Karnataka 560024
Ph: 080 4683 7007 Web : www.nexaexperience.com



MARUTHI MEDICALS

AN ISO 9001:2016 CERTIFIED COMPANY

CERTIFICATE OF INTERNSHIP

This is to certify that Mr. SUDEEP MR (Regd. No: U03KU21CO114) is a student of VI semester B.Com of soundarya institute of management and science college. He has successfully completed his internship course from "An internship on medical source and pharmacy from 8th of April to 8th of May at partial at maruthi medicals of the requirements for the award of the degree of Bachelor of Commerce of Bangalore University

His performance was good.

The marks scored by him was 10 out of 10.

For maruthi medicals and pharmacy

VISHNUVARDHAN

Shop owner

To,

Sudeep MR

Bcom 3 rd. year

Soundarya institute of management and science

Nagsnadra Bangalore -560073



Shreeji Marketing

NESCAFÉ

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

This is to certify that **Manoj N S (U03KU21C0118)**, B.COM student studying at Soundarya Institute of Management & Science, has successfully completed an internship at Shreeji Marketing

The duration of the training period was from 08.04.2024 to 30.04.2024.

During this period of training, we found him disciplined, punctual, and proactive in assigned tasks and duties. We appreciate the time rendered and wish him all the very best for future success endeavours.

Yours sincerely,

Vivek U Shah
Partner
Shreeji Marketing

Place: Bengaluru

Date: 30.04.2024



No. 1755, 9th Cross, 18th Main, J.P. Nagar, 2nd Phase, Bangalore – 560078.

Ph: +91 80 2659 2950, +91 80 2659 4552, +91 80 4852 8320

Email: info@shreejimarketing.com Web: www.shreejimarketing.com





Shreeji Marketing

NESCAFÉ.

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

This is to certify that **Srinivas S (U03KU21C0106)**, B.COM student studying at Soundarya Institute of Management & Science, has successfully completed an internship at Shreeji Marketing

The duration of the training period was from 08.04.2024 to 30.04.2024.

During this period of training, we found him disciplined, punctual, and proactive in assigned tasks and duties. We appreciate the time rendered and wish him all the very best for future success endeavours.

Yours sincerely,

Vivek U Shah
Partner
Shreeji Marketing

Place: Bengaluru

Date: 30.04.2024



No. 1755, 9th Cross, 18th Main, J.P. Nagar, 2nd Phase, Bangalore – 560078.

Ph: +91 80 2659 2950, +91 80 2659 4552, +91 80 4852 8320

Email: info@shreejimarketing.com Web: www.shreejimarketing.com



Date: 12/04/2024

TO WHOMSOEVER IT MAY CONCERN

Certificate of Internship

This is to certify that **Ms. Chandana.R** has successfully completed **5 weeks** of an internship program from **11/03/2024** to **12/04/2024** in the Accounts department of our M/s. **JAQUAR & COMPANY PVT LTD** organization.

She was highly motivated and hardworking. She worked sincerely at his tasks and did a very good job.

We wish her great success in her future endeavours.

Sincerely,
Prashant. K
(Manager)



JAQUAR & COMPANY PVT. LTD.

10, V.N. Street, Tasker Town, Shivajinagar, Bangalore 560 051.

Tel: 080-33002233 Fax: 080-22862518, E-mail: bangalore@jaquar.com | bangalore.care@jaquar.com

Orientation Centre - 33002233* | Customer Service - 1800 - 121 - 6808

*Add nearest Orientation Centre city code before the number.

ORIENTATION CENTRES :

AHMEDABAD • BANGALORE • BHOPAL • BHUBANESWAR • CHANDIGARH • CHENNAI • COCHIN • GUWAHATI • HYDERABAD • INDORE
JAIPUR • JAMMU • JAMSHEDPUR • KOLKATA • LUCKNOW • LUDHIANA • MUMBAI • NEW DELHI • PUNE • SILIGURI • SURAT

jaquar.com



Soundarya Souharda Credit Co-Operative Ltd.

Reg. No. JRB/RGN/SK/71/3674/2014-15

We Serve We Care ...

Soundarya Arcade,
Hesaraghatta Main Road,
Havanoor Extension,
Nagasandra Post, Bengaluru - 560073.
Phone : 080 28394789
soundaryasouhardha@gmail.com

CERTIFICATE

This is to certify that **Ms. Harshitha R**, student of **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE**, VI semester BCom having Reg No. U03KU21C0119, has completed her Internship work entitled, "A STUDY ON LOANS AND ADVANCES at M/s **SOUNDARYA SOUHARDA CREDIT CO OPERATIVE LIMITED**", Bengaluru for the period from 20-04-2024 to 16-05-2024.

Her conduct was found to be **Good** during the course of project work and we wish her successful future.

Place: Bengaluru

Date: 16-05-2024



[Signature]
Branch Manager

SRINIVAS & ASSOCIATES

(TAX CONSULTANT)

1, 1st Floor Durga Complex 100 Feet Road, Opp. ETDC Chokkasandra Jalahalli Cross, Bangaluru - 560 057.
Mob. : 09886281657 E-mail : bmsrinivasamuethy@yahoo.co.in bmsri80@gmail.com

EF: 004/IP/2024-25

Date : 28/04/2024

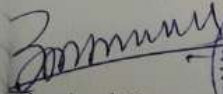
INTERNSHIP CERTIFICATE

We hereby certify that, Miss. **Rakshitha .M** studying in third year B.COM., in Soundarya Institute of Management and Science has completed her internship training from 24th March 2024 to 24th April 2024.

This internship training was mandatory to complete her degree her was found extremely capable and efficient to learn all the processes and the procedures in our company. Her talent was evident from the way her learnt and applied her mind and understood whatever was taught.

We wish her all the best for her future.

For SRINIVASA & ASSOCIATES


Authorized Signatory





DEVA INDUSTRIES

B119, 3rd Main Road,
2nd Stage Peenya,
Bangalore - 560 058.
Telephone : +91 80 2836 3326
 : +91 80 41172326
E-mail : devaind@deva.net.in
Web : www.deva.net.in

To
The Department of Commerce
The Soundarya Institute of Management
& Science
Soundarya Nagar, Sidedehalli,
Bangalore - 560073

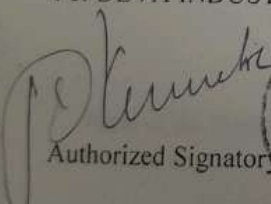
Subject : Certificate of Internship

This is certified that **Mr. AKASH P K**, bearing [Reg. no.UO3KU21C0107], B.Com 6th semester Student of Soundarya Institute of Management of Science. Soundarya Nagar, Sidedahalli, Nagasandra Post, Bangalore has undergone training in our organization from 22nd March to 20th April 2024 as a part of her training. All the data collected by her is authentic and project has been done under guidance. His interaction and communication with during the project work were found satisfactory. (Accounts titled to Auiditing).

We wish him all the best for his future endeavors.

The marks secured by him 10 out 10.

For DEVA INDUSTRIES


Authorized Signatory



29ABKPN8630Q1ZP

M : 9036341758

@ : abhiskeent99@gmail.com



ABHISHEK ENTERPRISES

Old Post Office Road, Behind Jayadeva Hospital, Nelamangala - 562123

INTERNSHIP CERTIFICATE

We hereby certify that, **MR. ABHISHEK NV** studying in final year **B.COM**, Reg no: **U03KU21C0124** in **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE**, Soundarya Nagar, Sidedahalli, Nagasanadra Post, Bangalore -560073 college has completed his Internship training starting from **25/03/2024** to **22/04/2024**.

**TITLE OF THE INTERNSHIP REPORT IS,
DISTRIBUTION CHANNEL OF "ABHISHEK ENTERPRISES"
IN WHOLESALE.**

The marks secured by his is 10 out of 10.

We wish him all the best for his future.

For ABHISHEK ENTERPRISES


Proprietor

From ABHISHEK ENTERPRISES

SEAL AND SIGN

CERTIFICATE OF INTERNSHIP

This is to certified that **Mr. Pratham Patel**, bearing Reg. No. **U03KU21C0121** student of Soundarya Institute of Management & Science has successfully completed Internship course from 13/03/2024 to 29/04/2024 from our institution. His conduct during stays with us satisfactory. I wish all the best for his endeavour.

The marks secured by him 10 out of 10.

Authorised Signature with company seal





CERTIFICATE OF INTERNSHIP

This to certify that Ms. JEEVITHA N, bearing Register No: U03KU21C0112 student at SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, studying in final year B.com. She has successfully completed her internship course on topic of "A STUDY ON PREPARING FINANCIAL STATEMENT AND REPORT" from 26th March 2024 to 25th April 2024 in our firm.

During her internship with TNM & Co, JEEVITHA N demonstrated excellent organizational skills, a strong work ethic, and an interest in her assigned work. She has contributed positively to our projects and has shown great potential for future endeavors in her chosen field, and she has secured marks based on ratings on the below parameters.

SL NO.	PARAMETERS	MARKS
1.	Regularity work	02
2.	Attitude towards work	02
3.	Professional competence	02
4.	Ability to interact with other staffs/colleagues	02
5.	Willingness to learn	02
	Total marks obtained	10

We wish JEEVITHA N the very best in her future academic professional pursuits and have no doubt that she will continue to excel in her endeavors.

For TNM & Co.

Manj

Manjunatha T N

Proprietor

Membership No: 244819

Date: 17-05-2024





HR/INTERN/2023-24/05

Date: 15-05-2024

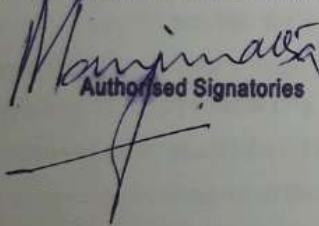
INTERNSHIP CERTIFICATE

This is to certify that **Mr. BYRESH M J** bearing the Reg. no. **U03KU210113** Pursuing B.COM 6TH semester in SOUNDARYA INSITTUTE MANAGEMENT & SCIENCE, has successfully carried out this "**Corporate Internship**" in the field of Financial Statement Analysis from **25/3/2024** to **24/04/2024** under the guidance of Mr. Manjunath Reddy, DML. During his tenure, we found his active, hardworking highly professional and showed keen interest to learn. The work has been found satisfactory and is recommended for consideration towards partial fulfilment for the award of Bachelor of Commerce Degree of Bangalore University.

The marks secured by him 10 out of 10

We wish him all the best for his future endeavours.

For DYNAMATIC MANUFACTURING LIMITED


Authorized Signatories

Registered Office
Plot No. V-77 & 78 Peenya Industrial Estate
Peenya II Stage Bangalore 560058 India

Corporate Identity Number: U27310KA2007PLC102763



PAVAN ASSOCIATES
COST ACCOUNTANTS

Mob : +91 9844023472
Mob : +91 8088196418
E-Mail : Pavanassociates4@gmail.com

Date: 13-05-2024

CERTIFICATE FOR INTERNSHIP

To whom so ever it may concern

We are glad to inform you that **M/s Pavithra H.G [U03KU21C0123]**, pursuing her **Bachelor of Commerce**, from college of **Soundarya Institute of Management and Science** in Soundarya Layout, Sidedahalli - Bangalore-73 has successfully completed her Internship Training Programme in **PAVAN ASSOCIATES - COST ACCOUNTANT FIRM, BANGALORE** from 11th April 2024 to 27th April 2024 duration of 90hours.

During the Internship, **M/s Pavithra H.G** was exposed to the **"Internal Audit, Accounting and Taxation"**. Exposure activities under the guidance of our Senior Accountant's

Her association with us was fruitful and we wish her all the best for her future Endeavour's.

The Marks secured by her is 10 out of 10

Thanking you,

For Pavan Associates,
For Pavan Associates

Proprietor

(Authorised Signatory)



SHREE BHAGYA ENGINEERING INDUSTRIES

Manufacturers of : Jigs & Fixtures, Machine Tool Components & Accessories.

Edwards Building, # (1), F-1, 1st Cross, 1st Stage, Peenya Industrial Area, Bangalore - 560 058.
Mobile : 09342250966 / 9110259127, E-mail : honingtools@yahoo.com **GSTIN : 29AAOFS0982K1ZG**

CERTIFICATE OF INTERNSHIP

10-04-2024
Date:.....

Ref.:

This is to certify that **Ms. Kavyashree G.K.** bearing Register No: **U03KU21C0117** student at **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE**, studying in final year B.com., She has successfully completed the internship program titled “ **A STUDY ON ORGANISATIONAL INDUSTRY at SHREE BHAGYA ENGINEERING INDUSTRIES** ” From 11th march 2024 to 30th April 2024 in fulfillment of the requirement for the award of the degree of Bachelor of commerce prescribed by Bangalore university .

During the period her internship program with us she had been exposed to different process was found, and punctual, hardworking, and inquisitive.

We wish her every success in her life and career.

The marks secured by her 10 out of 10

FOR SHREE BHAGYA ENGINEERING INDUSTRIES

H.D. Alagendappa





25th April, 2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Yuvaraj C**, Student of **Soundarya Institute of Management and Science, Bengaluru** pursuing **3rd Year B.Com (RegNo: U03KU21C0116)** has undergone **Internship** in the department of **Finance & Accounts** titled **Capital Expenditure and Investment** with **Manipal Hospitals - Hebbal, Bengaluru**, from **22nd March, 2024** to **22nd April, 2024**.

The marks secured by him were **10** out of **10**.

We wish him all the success.

Yours truly,

For Manipal Hospitals - Hebbal

Mr. Santhosha C P

Senior Officer - Human Resource



Manipal Hospital Hebbal
Kirkoskar Business Park, Bellary Road, Hebbal, Bengaluru 560 024, Karnataka
Ph: +91 80 6060 0666

Manipal Hospitals Private Limited
(Formerly Columbia Asia Hospitals Private Limited.)
CIN: U85110KA2003PTC033055
Regd. Off. The Annexe, #98/2, Rustom Bagh, Off. HAL Airport Road, Bengaluru - 560 017
Ph: +91 80 4935 0300 Email: info@manipalhospitals.com www.manipalhospitals.com

TEXPORT OVERSEAS PRIVATE LIMITED

Corporate Office: No. 86/D1, 2nd Stage, Yeshwanthpur Industrial Suburb,
Bengaluru – 5600022

CIN: U70200KA1995PTC016861

DATE: 27/04/2024

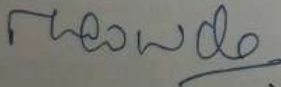
CERTIFICATE

This is to certify that Mr. Charan Kumar S R bearing registration number U03KU21C0111, studying 6th Semester B.Com, student of Soundarya Institute of Management & Science, Bengaluru has Successfully Completed Internship in our company from 23rd March 2024 to 25th April 2024.

During the period of his study, he was found sincere and had also taken keen interest on organizational activities.

Our best wishes for his career growth.

For TEXPORT OVERSEAS PVT. LTD.



MAHADEVE GOWDA
SENIOR G M – H R & COMPLIANCE



Date: 31/03/2024

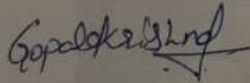
CERTIFICATE OF INTERSHIP

This certification proves that **Navyashree M** pursuing her 6th semester, B.com from Soundarya Institute of Management and Science, Bengaluru. She has completed the internship program at **M/S. ASCENT INTEGRATED FACILITY MANAGEMENT** as an account assistant; **Navyashree M** started joining the program from 1st March 2024 to 31st March 2024.

During her stay in the company as an intern, she displays enthusiasm, leadership, self-discipline and self-motivation.

We wish her success.

Best regards



GOPALAKRISHNA G H

(Managing Partner)





30th April 2024

TO WHOMSOEVER IT MAY CONCERN

This certificate acknowledges that Mr. Asif Khan has successfully completed his internship at "Mis Elite India Constructions Pvt Ltd" located at #20/2, Vittal Mallya Road, Bangalore -560 001, for a period of 30 days from 25-March-2024 to 25-April-2024. He demonstrated good interest in learning the entire process of Finance, Accounting and Human Resources proved to be a quick learner. He showed initiative and was able to accept responsibilities to carry out basic operations without any need of supervision. Throughout his term at M/S Elite India Constructions Pvt Ltd he was keen and energetic and contributed to the creative development of new products.

Yours sincerely,



Ameen Basha M
Group Accounts & Admin Manager

STUDENT DECLARATION

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



TIN : 29821384721

Mob. : 8147870188
7676102042
8123880972



AMS ENTERPRISES

23, 1st Cross, Opp. Gas Petrol Bunk, Hegganahalli Main Road,
Near Peenya 2nd Stage, Bengaluru - 560 091.

Ref. No. :

Date :

CERTIFICATE

This is to certify that Mr Athiq Ahmed student of SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, VI semester BCom having Reg No. U03KU21C0234. has completed her Internship work entitled, "A STUDY ON DIGITAL MARKETING at AMS ENTERPRISES, Bengaluru for the period from 22-04-2024 to 16-05-2024.

Her conduct was found to be Good during the course of project work and we wish her successful future.

PLACE : BANGLORE

DATE : 16-05-2024

FOR AMS ENTERPRISES

Ph: 2836 4457 Mob: 94487 63244
A.M.S. ENTERPRISES
1st Cross, Behind Ganesh Temple
Hegganahalli Main Road
Peenya 2nd Stage
BANGALORE-560 091

PROPRIETOR

For A.M.S, Enterprises

Proprietor



REF : MPP/INTERNSHIP/55/2024

20th May 2024

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Mr.PRASHANTH S** REG No U03KU21C0252, student pursuing Bachelor of Commerce VI Sem at Soundarya Institute Of Management & Science, Soundarya Nagar, Sidedahalli, Nagasandra Post, Bangalore - 560073 completed their Internship Training at **M/s. Maini Precision Products Limited**, Peenya, Bangalore 560058.

Duration from **28th March 2024 to 23rd April 2024.**

During his **Internship period**, we found his conduct was good and we are wishing him all the success in his future endeavors.

For Maini Precision Products Ltd

Seetharam G N

Senior Managaer – HR & IR

CRS TOOLS AND MARKETING LTD.

Office address: B-165 3rd Cross, peenya 1st stage,
Netaji Nagar, peenya, Bengaluru, karnataka
Bengaluru-560058

Phone No: +91 9113937391

ate:11/03/2024

TO WHOM IT MAY CONCERN

This is to certify that (Ms/Mr/Mrs.) Rahul Sihag , Student of Soundaraya institute of management and science, has successfully completed a summer internship in the field of marketing from 11/03/2024 to 10/04/2024 under guidance of Kiran Kumar.

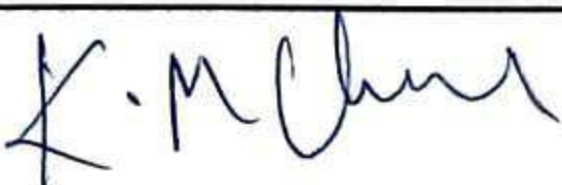
During the period of her/his internship program with us, she/he had been exposed to different processes and was found diligent, hardworking and inquisitive.

We wish her/him every success in her/his life and career.

For CRS TOOLS AND MARKETING CO. LTD

Authorized Signature

S. POWER TOOLS AND SERVICES
No. 22, Hesaraghatta Main Road,
Fence Colony, 1st Main Road,
K. M. Chandra Post. Bangalore-560 077





ALUR GRAMA PANCHAYAT OFFICE

Alur post, DasanapuraHobli, Bengalooru North-562 162

E-mail: aalooru.bnrth@gmail.com

Bangalore

Date: 20/4/2024

INTERNSHIP CERTIFICATE

This is to certify that **Ms. Charulatha V (U03MZ21C0016)** pursuing BCOM final year in **Soundarya Institute of Management and Science, Bangalore** has successfully completed her internship in our organization at Alur Grama Panchayat from **18/3/2024 to 20/4/2024** for a period of one month. She has done her internship in **Taxation and Revenue Collection Department** in our organization.

We have found her to be self-starter who is motivated, duty-bounded and hardworking. She has worked sincerely on her assignments and her performance is par excellence.

We wish her all the best for her future endeavors.

Regards

ಕಾರ್ಯದರ್ಶಿ
ಕಲಾಪು ಗ್ರಾಮ ಪಂಚಾಯತ್
ಬೀದರ್ ಜಿಲ್ಲಾ ಸುತ್ತರ ಕಾಲಾಪು



Cloudwave Technologies Pvt. Ltd.

An ISO 9001 : 2015 Certified Company

Ref: CWT/Inter/2023-24

Date: 22/03/2024

To ,

Muniraju C R

B.com 3rd year

Reg No.: U03KU21C0247

Soundarya Institution of Management and science

Soundarya Nagara, Sidedhalli ,

Nagasandra , Bangalore-560073

Sub: Internship acceptance letter

Ref : Your Request for internship letter No. SIMS:2023-24 Dated : 21/03/2024

With reference to your letter dated 21/03/2024 , requesting for internship in **Accounts and Finance** has been accepted in our company for the period of 90 Hrs , between From 01/04/2024 to 30/04/2024

For CLOUDWAVE TECHNOLOGIES PVT LTD

Sharmila

Accounts Manager

MFRS. of PRECISION SHEETMETAL PARTS & ENCLOSURES, MACHINED PARTS AND BUS BARS

UNIT-I : # 433, 11th Cross, 4th Main, 4th Phase, Industrial Area, Bangalore - 560 058, INDIA

UNIT-II : # 393, 10th Cross, 4th Phase, Peenya Industrial Area, Bangalore - 560 058, INDIA

Phone : 080-41162333, 9591233005, 9019755074 E-mail : prakash@cloudwave.in / satishkumar@cloudwave.in Website : www.cloudwave.in

CERTIFICATE OF INTERNSHIP



This internship program certificate is proudly
awarded to

Sanjay A

For his outstanding completion of the compulsory internship
program at Saphthagiri hospital. from April to May 2024.

SIGNATURE

Dr. Ravi
Program Manager



Inflow Technologies Pvt,Ltd.

Inflow House, #33 & 34, Indiranagar 1st stage,
Bangalore – 560038.

info@inflowtechnologies.com / inflowtechnologies.com

CIN NO,: U72200KA2008PTC048560

CERTIFICATE OF INTERNSHIP

This is to inform that **Mr. Abhishek RK. Reg.No : U03KU21C0237** Student of the Soundarya Institute of Management and Science has completed his 6 weeks internship in our company from **March 18th to April 26th 2024** towards fulfilling his academics requirement for the completion of his course.

The Marks secured by him 10 out of 10.

Your sincerely

For Inflow Technologies Pvt Ltd

Punith
HR & Admin





SRI MARUTHI PRECISION WORKS

ISO 9001:2015 CERTIFIED COMPANY



Mfrs. of : CNC Precision Machine Parts, Dies, Fixtures, Turning & Milling Components, Ferrous & Non Ferrous Castings.
We undertake : Fabrication & Cylindrical Grinding Works.

No. B-140/2, 3rd Cross, 1st Stage, Peenya Industrial Estate, Bangalore-560 058.

Date :

INTERNSHIP CERTIFICATE

This is to certify that **Mr. Abhishek.R** bearing Reg: No **U03KU21C0231** student of 6th semester Bachelor of Commerce (B.com) Program, has undertaken an Internship in our A study on digital marketing and artificial intelligence-the new face of marketing communication from 25/03/2024 to 03/05/2024.

This report is being submitted in partial fulfilment of the Internship, as per the requirement by the University guidelines for the award of the degree of Bachelor of Commerce (B.com). His tenure during the internship in our organization is satisfactory.

We wish him a bright future and success in all his endeavour.

Thanking You

For Sri Maruthi Precision works

For SRI MARUTHI PRECISION WORKS

Proprietor

Euro Clothing Company

(A Unit of Gokaldas Exports Ltd.)

No. 122/1, Doddabidraklu Village, Yeshwanthpura Hobli,
Bengaluru, India

Date:25/03/2024

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms. Dheekshith K.S [U03KU21C0235] B. Com final year student from University of Bangalore, Soundarya Institute of Management and Science, has visited our company as a part of her academic prescribed by the college (90 hours duration from 11th March 2024 to 25th March 2024), to collect the information about the organization and to understand the Organization process.

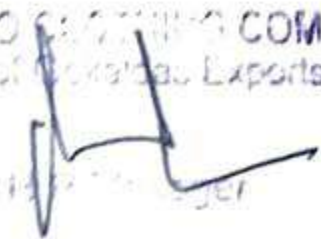
We observed his active participation during his visit to the organization and dedication on the assigned tasks, we wish her all the best for her future endeavors.

The marks secured by him is 10 out of 10

Yours Truly,

Authorized Signatory

Euro Clothing Company
(A Unit of Gokaldas Exports Ltd)





TEXPORT syndicate (I) LIMITED

No 84, Industrial. Suburv, 2nd Phase Yeshwanthpur, Bangalore-560 022. India.

Phone: +91(80)46457800 | fax: 080-46457826

CERTIFICATE

This is to certify that, Ms. Varshini.V bearing Roll no: U03KU21C0240, student of Soundarya institute of management and science, Bangalore. She has successfully completed her "Internship in Corporate Social Responsibilities" from 18th March to 30th March at "Texport Syndicate (I) Ltd."

The marks secured by her is 10 out of 10.

We wish her all the best for her future endeavours.

With warm regards.

For Texport Syndicate (I) Ltd

Narendra L

Assistant Manager – Human Resources



Registered office:

Plot No.6, F-11/12, Western Ind.co.op Estate, opp. Seepz M.I.D.C Andheri, MUMBAI -400 093,

Tel: +022-45109500 | Fax: +022-28368746 | Website: www.texportsyndicate.com



KONIGTRONICS (OPC) PRIVATE LIMITED

Website: www.konigtronics.com

A CORPORATE COMPANY REGISTERED UNDER MCA (Government of India)

CIRCULATING ANY DUPLICATE COPY IS A PUNISHABLE OFFENCE UNDER IPC SECTION 466

INTERNSHIP CERTIFICATE

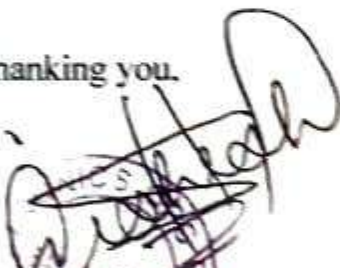
This is to certify that **Mr. Rakesh N(U03KU21C0245)** pursuing **B.COM. Soundarya Institute of management and Science, Bangalore** has successfully completed his internship at Konigtronics (OPC) Private Limited from **20/03/2024** to **25/04/2024**. He was working in the **Marketing Domain**. His conduct during his stay with us was satisfactory.

He has obtained **10 out of 10 marks**

We have found him to be a self-starter who is motivated, duty-bound and hardworking. He has worked sincerely on his assignments and his performance is par excellence.

We wish him all the best for his future endeavors.

Thanking you.



Regards



*Vishesh S (CIN: U80904KA2017OPC99075)

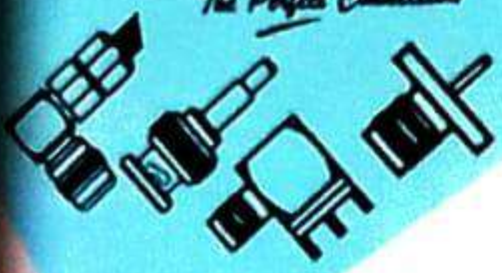
Managing Director

DIN: 07685912

Konigtronics (OPC) Private Limited

TO CONTACT THE SIGNING AUTHORITY - MAIL TO: visheshniranjan31@gmail.com or CALL +91 9380497511

**#4/1, 1ST FLOOR, 5TH MAIN, 5TH CROSS,
CHAMARAJPET, BANGALORE-560018**



Ref.No: LM2024/0084

Date: 18/04/2024

CERTIFICATE OF INTERNSHIP

This is to certify that **Mr. GAGAN.K** bearing Reg No. **U03MX21C0014** has successfully completed 1 month of internship at Limai Electronics in the field of "Accounts and Administration" It has been commenced from 11th March to 13th April

Throughout his tenure Gagan K showed his willingness to learn and adapt, always seeking opportunities to enhance his knowledge and skills in the field.

We wish Gagan K the very best in all his future endeavours and have no doubt that he will continue to excel in his professional pursuits.

The Marks secured by him **10** out of **10**

For:  
Signature

[Mr.Srinivasan]



GSTIN: 29AADCD2510L1ZQin.

MOB: 09844500335

Date: 05/04/2024

CERTIFICATE OF INTERNSHIP

This is certified that **Mr. Gaurav Thakur**, bearing Reg. No. **U03KU21C0242** student of Soundarya Institute of Management & Science has successfully completed internship course from 05/03/2024 To 05/04/2024 from our institution. His conduct during stays with us satisfactory.

I wish all the best for his endeavour.

The marks secured by him 10 out of 10


DRL LOGISTICS PVT. LTD.
Nelamangala North
Authorised Signature with company seal

SY no. 44/1, Visveshwarapura, NH-4, Nelamangala taluk

Bangalore, Karnataka 562123 INDIA. Tel: 09844500335

E-mail: bangalore@drllogistis.com

Date : 30/04/2024

CERTIFICATE OF INTERNSHIP

This certification proves that Venkatesh A S Pursuing his 6th semester, B.Com from Soundharya Institute of Management and Science, Bengaluru. He has completed the internship program at **APTECH COMPUTER EDUCATION** as an accountant; Venkatesh A S Started the program from 1st April 2024 to 30th April 2024.

During his stay in the company as an intern, he displayed enthusiasm, leadership, self-discipline and self-motivation.

We wish him success.


Best regards

Aptech Computer Education

#16, 2nd floor, Opposite Wedia school Bus stop, Hesaraghatta main road, Bengaluru - 560057 Ph:
7482945133



Soundarya Souharda Credit Co-Operative Ltd.

Reg. No. JRB/RGN/SK/71/3674/2014-15

We Serve We Care ...

Soundarya Arcade,
Hesaraghatta Main Road,
Havanoor Extension,
Nagasandra Post, Bengaluru - 560073.
Phone : 080 28394789
soundaryasouhardha@gmail.com

CERTIFICATE

This is to certify that Ms. Smita Sahu , student of **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE**, VI semester BCom having Reg No. U03KU21C0243, has completed her Internship work entitled, "**A STUDY ON NON PERFORMING ASSETS** at **M/s SOUNDARYA SOUHARDA CREDIT CO OPERATIVE LIMITED**, Bengaluru for the period from 22-04-2024 to 16-05-2024.

Her conduct was found to be **Good** during the course of project work and we wish her successful future.

Place: Bengaluru

Date: 16-05-2024



Branch Manager



DOMINO'S PIZZA

Nelamangala , Bangalore Rural District


Date: 25/03/2024

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. **SANJAY A** (U03KU21C0249) B. Com final year student from Bangalore University , Soundarya Institute of Management and Science, has visited our stores as a part of his academic prescribed by the college (90 Hours duration from 4th April 2024 to 25th April 2024) ,to working in the following organization and to understand the Organization Process.

He is involved in participation of the concern department and has completed internship work , we wish him all the best by observing his work in internship.

Rating secured by him is 10 /10


Jubilant Food Works Ltd,
DP-64397 Domino's Pizza
Ground Floor, No1977/932, Opp
KEB, BH Road, Subhash Nagar,
Nelamangala, Bangalore Rural,
Karnataka - 562 123.

Authorized Signature

CRS TOOLS AND MARKETING LTD.

CRS

Office address: B-165 3rd Cross, peenya 1st stage,
Netaji Nagar, peenya, Bengaluru, karnataka
Bengaluru-560058
Phone No: +91 9113937391

Date: 11/03/2024

TO WHOM IT MAY CONCERN

This is to certify that (Ms/Mr/Mrs.) Sudhamshu D K,
student of Soundaraya institute of management and science,
has Successfully completed a summer internship in the
field of marketing from 11/03/2024 to 10/04/2024
under guidance of Kiran Kumar.

During the period of her/his internship program
with us, she/he had been exposed to different
processes and was found diligent, hardworking
and inquisitive.

We wish her/him every success in her/his life and
career.

For CRS TOOLS AND MARKETING CO. LTD

Authorized Signature

C. R. S. POWER TOOLS AND SERVICE:

D. No. 22, Hesaraghatta Main Road,

Defence Colony, 1st Main Road,

Narasandra Post, Bengaluru-560 077

K M V



CERTIFICATE OF INTERNSHIP

This is to certify that Ms **Monika.M** bearing register number **U03KU21C0253**, student of Soundarya Institute of Management & Science has successfully completed internship course from 18th March 2024 to 6th April 2024 from our company. Her conduct during the stay with us is satisfactory. I wish all the best for endeavor .

The marks secured by her is 10 out of 10.



Signature with company's seal

POWERICA LIMITED



A PROMISE FOR POWER

Tumkur Road, 31st KM,
Bommanahalli Village,
Nelamangla Taluk,
Bangalore - 562 123

Tel +91 8029512719 / 7304555190
+91 9611671123

E-mail nelaadmin@powericaltd.com

Web www.powericaltd.com

CIN : U31100MH1984PLC032825

PL-19/NEL/HRD/BLR/IT/05/2024
20th May 2024

CERTIFICATE

This is to certify that Mr. SUHAS GOWDA. A, Reg. No.: U03KU21C0083, B.COM, 6th semester, student of "SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE, Bangalore, has done "INTERNSHIP TRAINING" at our organization during the period from 04-04-2024 to 28-04-2024.

During the Internship Training period his performance and conduct were found to be satisfactory.

We wish him all the best in his future endeavors.

For POWERICA LIMITED,

Shivaprasad

SR. GM- HR & ADMIN





ಜನವಿಕಾಸ ಸೌಹಾರ್ದ ಕ್ರೆಡಿಟ್ ಕೋ-ಆಪರೇಟಿವ್ ಲಿ.,
JANAVIKASA SOUHARDA CREDIT CO-OPERATIVE LIMITED



Our Ref: JV-InternshipCertificate/20240429/Charan

Date: 29/04/2024

Subject:Certificate of Completion of Internship

This is to certify that Charan has successfully completed an internship with **M/S Janavikasa Souharda Credit Co-Operative Ltd., M.S.Ramaiah Enclave, Bangalore-73.**In **Accounts and Finance Department** From 25/03/2024 to 24/04/2024 a total of 90 hours.

During his internship, he demonstrated exceptional dedication and enthusiasm in his role Contributing significantly to account handling, tally, ledger maintenance and customer service. His ability in communicating with customers and account handling is commendable.

This internship certificate is issued as a formal recognition of Charan's valuable contribution to M/S Janavikasa Souharda Credit Co-Operative Ltd.

We wish him success in his future endeavours.

Date of Issuance:29/04/2024

JANAVIKASA SOUHARDA CREDIT CO-OPERATIVE LIMITED

Signature
Authorised Signatory

TIRANGA AEROSPACE
501 4th Floor GG complex HMT Layout,
Above post office, Vidyanarayapura, Bengaluru, Karnataka 560097

Date: 10/04/2024

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms. Vinutha Y. U. [U03KU21C0084] B.COM final year student from University of banglore, soundarya institute of management science, has visited our company as a Part of her academic prescribed by the college (90 hours duration from 25th march 2024 to 10th April 2024), to collect the information about the organization and understand the organization process.

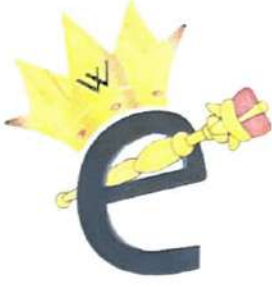
We observed her active participation during her visit to the organization and dedication on the assigned tasks, we wish her all the best for her future endeavors.

The marks secured by her is 10 out of 10

Yours truly,

Authorized signatory





KONIGTRONICS (OPC) PRIVATE LIMITED

Website: www.konigtronics.com

A CORPORATE COMPANY REGISTERED UNDER MCA (Government of India)

CIRCULATING ANY DUPLICATE COPY IS A PUNISHABLE OFFENCE UNDER IPC SECTION 466

INTERNSHIP CERTIFICATE

This is to certify that **Mr. Likhith H D (U03KU21C0091)**, pursuing **B.COM, Soundarya Institute of Management and Science, BU** has successfully completed his internship at Konigtronics (OPC) Private Limited from **20/03/2024** to **25/04/2024**. His conduct during stay with us was satisfactory.

The Marks secured by him is **10 out of 10**

We have found him to be a self-starter who is motivated, duty-bound and hardworking. He has worked sincerely on his assignments and his performance is par excellence.

We wish him all the best for his future endeavors.

Thanking you,

Regards




Vishesh S (CIN: U80904KA2017OPC99075)

Managing Director

DIN: 07685912

Konigtronics (OPC) Private Limited

TO CONTACT THE SIGNING AUTHORITY - MAIL TO: visheshniranjan31@gmail.com or CALL +91 9380497511

**#4/1, 1ST FLOOR, 5TH MAIN, 5TH CROSS,
CHAMARAJPET, BANGALORE-560018**



VISHNU FORGE INDUSTRIES LTD.

ISO 9001:2015



Ref No.VFIL/2024-2025/

Date : 15/04/2024

CERTIFICATE

This is to certify that **Ms. Kusuma K**, bearing Reg.No. U03KU21C0095 of 6th Semester B.Com from Soundarya Institute of Management and Science has successfully completed internship in our Organization from 11.03.2024 to 10.04.2024.

Her conduct during the stay with us is satisfactory, We wish all the best for her endeavour.

The Marks scored by her⁹..... of 10.

For Vishnu Forge Industries Limited.,



VENKATESH J

FINANCE MANAGER

Hectronic

Hectronic India Retail & Parking
Automation Pvt Ltd.

P6, 1st Cross, 3rd Stage
Peenya Industrial Estate
Bangalore - 560 058, India
Phone: +91-9663711669
Fax: +91-80-28363408

E-Mail: mail@hectronic.in

Website: www.hectronic.in

CIN: U14999KA2006PTC019707

MSME - UDYAM KB 03 005006E

CERTIFICATE OF INTERNSHIP

This is to certify that **Ms. Navya Lakshmi R S**, bearing **Reg. No. U03KU21C0096** Student of **Soundarya Institute of Management and Science** and she has successfully completed internship course from **20/03/2024 to 25/04/2024** from our company. Her conduct during stays with us satisfactory. I wish all the best for endeavor.

The marks secured by her 10 out of 10

For Hectronic India Retail and Parking Automation Pvt Ltd


(Authorized Signatory)





Student Internship Programme 2024

Completion certificate

This is to certify that Mr Akshay M student of SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore has completed his internship with Reliance Retail Ltd., Marketing and customer services function at Video school Bangalore, from 15-Mar-24 to 15-Apr -24.

As a part of the internship programme, he has worked on the following project.

Project Title: "Study on impact of visual merchandising on impulsive buying behaviour at Reliance Retail.

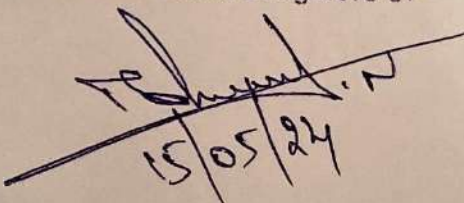
His performance and conduct during the internship programme has been professional and satisfactory.

On behalf of the Reliance Retail, we wish him all the very best for his future endeavours.

The Marks Secured by Him 10 out of 10.

Human Resources

Reliance Retail
Reliance Retail Ltd
Pipeline Road, Mailasandra
T.Dasarahalli, Bangalore-57


15/05/24

Sri Lakshmi venkateswara enterprises

SRI LAKSHMI VENKATESHWARA ENTERPRISES
Ground Floor, No.7, 1st Cross, Suraj Enclave, Abbigere
Bangalore - 560090.

CERTIFICATE OF INTERNSHIP

This is to certified that Miss Amrutha.R bearing Reg.NO
U03KU21C0008 student of the Soundarya Institute of
Management and Science College

Name she has successfully completed Internship course from 1/3/2024
to 25/4/2024 from our Institution. Her conduct during stay with us
satisfactory. I wish all the best for endeavour

The marks secured by her 10 out of 10

Signature with company seal

Your's faithfully,

SRI LAKSHMI VENKATESHWARA ENTERPRISES
Ground Floor, No. 7, 1st Cross,
Suraj Enclave, Abbigere,
Bangalore - 560 090.

Chandan Kanthraj



Shot on OnePlus
Amrutha

soundarya institute of management and science



CERTIFICATE

OF INTERNSHIP

THIS CERTIFIES THAT

Sneha Krishnamurthy

has successfully completed an internship program with Elewayte from Mar-24 to Apr-24 . During the internship. He/She demonstrated a strong commitment to learning and developing his/her skills in the field of Digital Marketing through hands-on projects

Handwritten signature of Giri Menta in black ink.

Giri Menta
CEO

Scan to verify



Handwritten signature of Madhukar M in black ink.

Madhukar M
General Manager HR

ID: IC1220239153

Date: 03-04-2024

INTERNSHIP CERTIFICATE

This is certifying that **Mr. Harshit.P** bearing **Reg No. U03KU21C0223** student of 6th semester Bachelor of Commerce (B. Com) Program, has undertaken an Internship in our organization under the guidance of Basavesh BR from 04/03/2024 to 03/04/2024.

This report is being submitted in partial fulfilment of the Internship, as per the requirement by the University guidelines for the award of the degree of Bachelor of Commerce (B. Com). His tenure during the internship in our organization is satisfactory.

We wish him a bright future and success in all his endeavour.

Place: Bengaluru

Regards





TEXPORT syndicate (I) LIMITED

No 84, Industrial. Suburv, 2nd Phase Yeshwanthpur, Bangalore-560 022. India.

Phone: +91(80)46457800 | fax: 080-46457826

CERTIFICATE

This is to certify that, Mr.HARSHA S bearing Roll no: U03FX21C0012, student of Soundarya institute of management and science, Bangalore. He has successfully completed his "Internship in Customer satisfaction" from 18th March to 30th March at "Texport Syndicate (I) Ltd."

The marks secured by him is 10 out of 10

We wish him all the best for his future endeavours.

With warm regards.

For Texport Syndicate (I) Ltd

Narendra L

Assistant Manager – Human Resources



Registered office:

Plot No.6. F-11/12, Western Ind.co.op Estate, opp. Seepz M.I.D.C Andheri, MUMBAI -400 093.

Tel: +022-45109500 | Fax: +022-28368746 | Website: www.texportsyndicate.com



CERTIFICATE OF INTERNSHIP

This is to certified that **Mr. Ankit Sharma**, bearing Reg. No. **U03KU21C0006** student of Soundarya Institute of Management & Science has successfully completed internship course from 11/03/2024 to 13/04/2024 from our institution. His conduct during stays with us satisfactory. I wish all the best for his endeavour.

The marks secured by him 10 out of 10

Authorised Signature with company Seal





INTERNSHIP CERTIFICATE

This is to certify that **Ms. Janhavi H R [U03ED21C0007]**

has successfully completed internship program on **Human Resources**
at **Dynamatic Hydraulics®** (A Division of Dynamatic Technologies Limited)
from 11-03-2024 to 30-04-2024(90 Hours).

This training program was aimed at Integrate theory and practice. During her internship,
the candidate has demonstrated her self-motivation skills to learn new skills.

Her performance exceeded our expectations.

We wish her all the best for her upcoming career.

Anand S Boragave
General Manager - HR, IR & Admin



VISHNU FORGE INDUSTRIES LTD.

ISO 9001:2015



Ref No.VFIL/2024-2025/

Date : 15/04/2024

CERTIFICATE

This is to certify that **Ms. Anjana A**, bearing Reg.No. U03KU21C0005 of 6th Semester B.Com from Soundarya Institute of Management and Science has successfully completed internship in our Organization from 11.03.2024 to 10.04.2024.

Her conduct during the stay with us is satisfactory, We wish all the best for her endeavour.

The Marks scored by her⁹..... of 10.

For Vishnu Forge Industries Limited.,



VENKATESH J

FINANCE MANAGER

Regd. Office : C-01 / C-02, HMT Industrial Estate, Jalahalli Post, Bengaluru - 560 013, India.

Phone : +91 - 80 - 2838 9195 / 2838 8410 / 2838 2446 Fax: +91 - 80 - 2838 8947

E-mai : vishnuforgeld@gmail.com Website: www.vishnuforge.com

CIN No. : U85110KA1991PLC012307 GSTIN No.: 29AAACV4170H1Z8



KONIGTRONICS (OPC) PRIVATE LIMITED

Website: www.konigtronics.com

A CORPORATE COMPANY REGISTERED UNDER MCA (Government of India)

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INTERNSHIP CERTIFICATE

This is to certify that **Ms. Shree Lakshmi S V (U03ED21C0033)**, pursuing **B.COM, Soundarya Institute of Management and Science, BU** has successfully completed her internship at Konigtronics (OPC) Private Limited from **20/03/2024** to **25/04/2024**. Her conduct during stay with us was satisfactory.

The Marks secured by her is **10 out of 10**

We have found her to be a self-starter who is motivated, duty-bound and hardworking. She has worked sincerely on her assignments and her performance is par excellence.

We wish her all the best for her future endeavors.

Thanking you,



Regards

Vishesh S (CIN: U80904KA2017OPC99075)

Managing Director

DIN: 07685912

Konigtronics (OPC) Private Limited

TO CONTACT: AUTHORITY - MAIL TO: visheshniranjan31@gmail.com or CALL +91 2280497511

#4/1, 1ST FLOOR, 5TH MAIN, 5TH CROSS,
CHAMARAJPET, BANGALORE-560018

Euro Clothing Company

(A Unit of Gokaldas Exports Ltd.)
No. 122/1, Doddabidirakllu Village, Yeshwanthpura Hobli,
Bengaluru, India

Date: 25/03/2024

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms. Bindu U [U03KU21C0007] B. Com final year student from University of Bangalore, Soundarya Institute of Management and Science, has visited our company as a part of her academic prescribed by the college (for 10 hours duration from 11th March 2024 to 25th March 2024), to collect the information about the organization and to understand the Organization process.

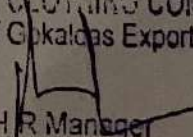
We observed her active participation during her visit to the organization and dedication on the assigned tasks, we wish her all the best for her future endeavors.

The marks secured by her is 10 out of 10

Yours Truly,

Authorized Signatory

EURO CLOTHING COMPANY
Unit of Gokaldas Exports Ltd


H/R Manager

ADVERTISING AND SALES PROMOTION

A REPORT ON

“A Study on Advertising and Sales Promotion at
Rooman Technology ”



Submitted in partial fulfillment of the requirements for the award of the

BACHELOR OF COMMERCE

Bangalore University.



Bangalore University

Submitted by

Neha Muskan

REG NO:- U03ED21C0013

Under the Guidance of

Professor of commerce department Prithvi Heggde

SOUNDARYA INSTITUTION OF MANAGEMENT AND SCIENCE

(Affiliated to Bangalore University)

2023- 2024

COMPANY CERTIFICATE

TIN : 29821384721

Mob. : 8147870188
7676102042
8123880972



AMS ENTERPRISES

23, 1st Cross, Opp. Gas Petrol Bunk, Hegganahalli Main Road,
Near Peenya 2nd Stage, Bengaluru - 560 091.

Ref. No. :

Date :

CERTIFICATE

This is to certify that Mr Athiq Ahmed student of SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, VI semester BCom having Reg No. U03KU21C0234. has completed her Internship work entitled, "A STUDY ON DIGITAL MARKETING at AMS ENTERPRISES, Bengaluru for the period from 22-04-2024 to 16-05-2024.

Her conduct was found to be Good during the course of project work and we wish her successful future.

PLACE : BANGLORE

DATE : 16-05-2024

FOR AMS ENTERPRISES

Ph: 2836 4457 Mob: 94487 63244
A.M.S. ENTERPRISES
1st Cross, Behind Ganesh Temple
Hegganahalli Main Road
Peenya 2nd Stage
BANGALORE-560091

PROPRIETOR

For A.M.S. Enterprises

Proprietor

CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO:

Bharath S

on completion of the 14 days internship program as a **Business Development Specialist Intern** for the month of September, 2023 at Younity.in. During the period of internship you were found to be punctual, hardworking and inquisitive.

We wish you all the best for your future!

#startupindia



UID:YIID/8067



FOUNDER & CEO

PRAFFUL GARG



SHREE VENKATESHWARA ENGINEERING

TO,
Shashi Kumar,
Soundarya institute of
management and science,
Bangalore.

Dear sir/Madam, This is to certify that Mr. SHASHI KUMAR (U03KU21C0085) S/O- Mr. JAGADISH a student of BCOM, Soundarya institute of management and science, Bangalore Karnataka, he has successfully completed 20 days (From 07th April 2024 to 27th April 2024) long Internship program at **SHREE VENKATESHWARA ENGINEERING**

During Mr. SHASHI KUMAR internship, he was engaged in "SUCCESS THROUGH MOTIVATION: BEST PRACTICES FOR EMPLOYEE ENGAGEMENT" in which he worked on various Modules in Hiring Department.

During the period of his internship program with us he was found punctual, hardworking and Inquisitive. His association with us was very fruitful and we wish him all the best in his future endeavors.

Yours sincerely,

Yuvaraj Thasildar,
HR Manager,
SHREE VENKATESHWARA ENGINEERING



KONIGTRONICS (OPC) PRIVATE LIMITED

Website: www.konigtronics.com

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INTERNSHIP CERTIFICATE

This is to certify that Ms. Moulya N (U03ED21C0029), pursuing B.COM, Soundarya Institute of Management and Science, BU has successfully completed her internship at Konigtronics (OPC) Private Limited from 20/03/2024 to 25/04/2024. Her conduct during stay with us was satisfactory.

The Marks secured by her is 10 out of 10

We have found her to be a self-starter who is motivated, duty-bound and hardworking. She has worked sincerely on her assignments and her performance is par excellence.

We wish her all the best for her future endeavors.

Thanking you



Regards

Vishesh S (CIN: U80904KA2017OPC99075)

Managing Director

DIN: 07685912

Konigtronics (OPC) Private Limited

TO CONTACT THE SIGNING AUTHORITY - MAIL TO: visheshniranjan31@gmail.com or CALL +91 9380497511

#4/1, 1ST FLOOR, 5TH MAIN, 5TH CROSS,
CHAMARAJPET, BANGALORE-560018

|| JAI MATA DI ||

J.M.D TRANSPORT

Transport Contractor & Commission Agents

Spl. In : 17Ft, 19 Ft, 20 Ft, Open Container All Over India

21, Narayanswamy Building, B.J.P. Office Road, Anchepalya, Srikantapura, Bangalore-560 073.

E-mail: jmdtransport2020@gmail.com

M: 9341637058, 7400265145, 8660638720, 8792457740

Ref :

Date

CERTIFICATE OF INTERNSHIP

This is to Certified that Mr. Rahul Pandey , bearing Reg. No. U03KU21C0090 Student Of "Soundarya Institute Of Management & Science" has Successfully Completed Internship Course From 04.03.2024 to 06.04.2024 From Our Company. His Conduct during Stays with Us Satisfactory. I wish All The Best for his Endeavcur.

The Marks Secured By him 10 Out of 10

Authorized Signature with company seal



Euro Clothing Company

(A Unit of Gokaldas Exports Ltd.)
No. 122/1, Doddabidirakallu Village, Yeshwanthpura Hobli,
Bengaluru-560073

Date:25/03/2024

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms. Darshini R [U03KU21C0102] B. Com final year student from University of Bangalore, Soundarya Institute of Management and Science, has visited our company as a part of her academic prescribed by the college (for a duration of 10 hours from 11th March 2024 to 25th March 2024), to collect the information about the organization and to understand the Organization process.


We observed her active participation during her visit to the organization and commendation on the assigned tasks, we wish her all the best for her future endeavors.

The marks secured by her is 10 out of 10

Yours Truly,

Authorized Signatory

EURO CLOTHING COMPANY
A Unit of Gokaldas Exports Ltd


HR Manager

ashirvad

by **alixis**

Date :- 18/03/2024

INTERNSHIP CERTIFICATE

This is to certify that **Mr . MITESH . G**
REG NO (U03KU21C0087) student of B.COM from "**SOUNDARYA INSTUTION**
OF MANAGEMENT AND SCIENCE " has successfully completed his internship
In "**PURCHASE AND SALES** " course at our ASHIRVAD PIPES PVT LTD from
04/03/2024 to 18/3/2024 during the internship period his performance has
found satisfactory

For Ashirvd Pipes pvt .Ltd

Chitvan

Chitvan Bohra

General Mnager - TM and Org Effectivess



Hectronic

Hectronic India Retail & Parking
Automation Pvt Ltd.
P6, 1st Cross, 3rd Stage
Peenya Industrial Estate
Bangalore - 560 058, India
Phone: +91-9663711669
Fax: +91-80-28363408

E-Mail: mail@hectronic.in

Website: www.hectronic.in

CIN: U74999KA2006PTC039707

MSME: UDIYAM-KR-03-0050046

CERTIFICATE OF INTERNSHIP

This is to certify that **Ms. Rakshitha G**, bearing **Reg. No. U03KU21C0086** Student of **Soundarya Institute of Management and Science** and she has successfully completed internship course from **20/03/2024 to 25/04/2024** from our company. Her conduct during stays with us satisfactory. I wish all the best for endeavor.

The marks secured by her 10 out of 10

For Hectronic India Retail and Parking Automation Pvt Ltd



(Authorized Signatory)

Regd Office:
Hectronic India
P6, 1st Cross 3rd Stage
Peenya Industrial Estate
Bangalore - 560058
Phone +91 9663711669

Support: Unit No 208, Yashada Industrial Premises Co-op Society,
Survey No 50/40, 41, 42, 43 Narhe
Ambegaon Road Narhe
Pune - 411 041
Phone +91 20 24394767

Euro Clothing Company

(A Unit of Gokaldas Exports Ltd.)
No. 122/1, Doddabidirakllu Village, Yeshwanthpura Hobli,
Bengaluru.India

Date:25/03/2024

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms.Chinmayee M Raj [U03KU21C0098] B. Com final year student from University of Bangalore, Soundarya Institute of Management and Science, has visited our company as a part of her academic prescribed by the college (90 hours duration from 12th March 2024 to 25th March 2024), to collect the information about the organization and to understand the Organization process.

We observed her active participation during her visit to the organization and dedication on the assigned tasks, we wish her all the best for her future endeavors.

The marks secured by her is 10 out of 10

Yours Truly,

Authorized Signatory

BY EURO CLOTHING COMPANY
A Unit of Gokaldas Exports Ltd.

H R Manager



Shreeji Marketing

NESCAFÉ.

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

This is to certify that **Abhi V (U03KU21C0103)**, B.COM student studying at Soundarya Institute of Management & Science, has successfully completed an internship at Shreeji Marketing

The duration of the training period was from 08.04.2024 to 30.04.2024.

During this period of training, we found him disciplined, punctual, and proactive in assigned tasks and duties. We appreciate the time rendered and wish him all the very best for future success endeavours.

Yours sincerely

Vivek U Shah
Partner
Shreeji Marketing

Place: Bengaluru
Date: 30.04.2024



No. 1755, 9th Cross, 18th Main, J.P. Nagar, 2nd Phase, Bangalore - 560078.
Ph: +91 80 2659 2950, +91 80 2659 4552, +91 80 4852 8320
Email: info@shreejimarketing.com Web: www.shreejimarketing.com



CERTIFICATE OF INTERNSHIP

This is to certify that Ms.CHANDANA .A. bearing reg no.(U03KU21C0094) student of Soundarya institue of management and and science and she was successfully completed her internship course from 20-03-2024 to 26-04-2024 from our organization.her conduct during stays with us satisfactory.i wish all the best for future.

The marks secured by 10 Out of 10 .





TOPSACK
Packaging Pvt. Ltd.

Intertek

Ref: TSPL/Inter/2023-24

Date: 16/03/2024

To,

Pavithra R

B.com 3rd year

Reg No.: U03KU21C0089

Soundarya Institution of Management and science

Soundarya Nagara, Sidedahalli,

Nagasandra, Bangalore-560073

Sub: Internship acceptance letter

Ref : Your Request for Internship letter No. SIMS:2023-24 Dated : 15/03/2024

With reference to your letter dated 21/03/2024, requesting for internship in **Human Resources Management** has been accepted in our company for the period of 90 Hrs, between 21/03/2024 to 20/04/2024

For Top Sack Packaging Pvt Ltd

Subhash S

Manager – Human Resources



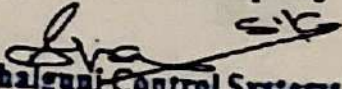
17/3/2024

Certificate of Internship

This is to certify that Mr. PAVANN , bearing Reg. No. U03KU21C0088 Student of Soundarya Institute Of Management & Science , he has successfully completed Internship course from 03/03/2024 to 17/03/2024 from our company. His conduct during stay with us was Satisfactory. I wish all the best for Endeavour.

The Marks Secured By Him Is 10 Out Of 10

Signature With Company Seal.


Phalguni Control Systems
No. 02, Kempalinganahalli,
Near Umesh Garden,
Nelamangala, Bangalore 562123



SAPTHAGIRI ASSOCIATES

AUDITORS & TAX CONSULTANTS



DATE: 16/04/2024

Ph : 8073113730

Email:ajlthanush13@gmail.com

TO WHOM SOEVER IT MAY CONCERN

This is to certify that **Mr. NIRANJAN.S**, BCOM student Bearing Register Number: U03KU21C0097 of Soundarya Institute Management and Science, Bengaluru -560073, has undertaken and successfully completed the training in our organization from 19/03/2024 to 15/04/2024 as part of him Internship Under The Guidance of Ajith kumar.

We appreciate him sincere efforts during internship and we found him character and conduct was good.

We wish him all the best in him future endeavor.

For SAPTHAGIRI ASSOCIATES

Mr.Ajithkumar R

AUDITOR

For Sapthagiri Associates


PARTNER



Tele Fax 080-2345 5701, 02
Mobile: +91 7022185153
E-Mail limaitronics@gmail.com
limailali2006@gmail.com

Mfrs. of : RF Co-axial Connectors and Cable Assemblies

Ref.No: LM2024/0084

Date: 18/04/2024

CERTIFICATE OF INTERNSHIP

This is to certify that **Mr. GAGAN.K** bearing Reg No. **U03MX21C0014** has successfully completed 1 month of internship at Limai Electronics in the field of "Accounts and Administration" It has been commenced from 11th March to 13th April

Throughout his tenure Gagan K showed his willingness to learn and adapt, always seeking opportunities to enhance his knowledge and skills in the field.

We wish Gagan K the very best in all his future endeavours and have no doubt that he will continue to excel in his professional pursuits.

The Marks secured by him **10** out of **10**

For

Signature

[Mr.Srinivasan]



ALUR GRAMA PANCHAYAT OFFICE

Alur post, DasanapuraHobli, Bengalooru North-562 162

E-mail: aalooru.bnrtth@gmail.com

Bangalore

Date: 20/4/2024

INTERNSHIP CERTIFICATE

This is to certify that **Ms. Charulatha V (U03MZ21C0016)** pursuing BCOM final year in **Soundarya Institute of Management and Science, Bangalore** has successfully completed her internship in our organization at Alur Grama Panchayat from **18/3/2024 to 20/4/2024** for a period of one month. She has done her internship in **Taxation and Revenue Collection Department** in our organization.

We have found her to be self-starter who is motivated, duty-bounded and hardworking. She has worked sincerely on her assignments and her performance is par excellence.

We wish her all the best for her future endeavors.

Regards

ಕಾರ್ಯದರ್ಶಿ

ಕಲಬುರಗಿ ಗ್ರಾಮ ಪಂಚಾಯತ್
ಮಂಗಳೂರು ಉತ್ತರ ತಾಲ್ಲೂಕು

CRS TOOLS AND MARKETING LTD.

Office address: B-165 3rd Cross, peenya 1st stage,
Netaji Nagar, peenya, Bengaluru, karnataka
Bengaluru-560058
Phone No: +91 9113937391

Date: 11/03/2024

TO WHOM IT MAY CONCERN

This is to certify that (Ms/Mr/Mrs.) Sudhamshu D K,
student of Soundaraya institute of management and science,
has Successfully completed a summer internship in the
field of marketing from 11/03/2024 to 10/04/2024
under guidance of Kiran Kumar.

During the period of her/his internship program
with us, she/he had been exposed to different
processes and was found diligent, hardworking
and inquisitive.

We wish her/him every success in her/his life and
career.

For CRS TOOLS AND MARKETING CO. LTD

Authorized Signature

C. R. S. POWER TOOLS AND SERVICE:
D No. 22, Hesaraghatta Main Road,
Defence Colony, 1st Main Road,
Narasandra Post, Bangalore-560 071

Kiran Kumar



TIN : 29821384721

Mob. : 8147870188
7676102042
8123880972



AMS ENTERPRISES

23, 1st Cross, Opp. Gas Petrol Bunk, Hegganahalli Main Road,
Near Peenya 2nd Stage, Bengaluru - 560 091.

Ref. No. :

Date :

CERTIFICATE

This is to certify that Mr Athiq Ahmed student of SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, VI semester BCom having Reg No. U03KU21C0234. has completed her Internship work entitled, "A STUDY ON DIGITAL MARKETING at AMS ENTERPRISES, Bengaluru for the period from 22-04-2024 to 16-05-2024.

Her conduct was found to be Good during the course of project work and we wish her successful future.

PLACE : BANGLORE

DATE : 16-05-2024

FOR AMS ENTERPRISES

Ph: 2836 4457 Mob: 94487 63244
A.M.S. ENTERPRISES
1st Cross, Behind Ganesh Temple
Hegganahalli Main Road
Peenya 2nd Stage
BANGALORE-560 091

PROPRIETOR

For A.M.S, Enterprises

Proprietor



TEXPORT syndicate (I) LIMITED

No 84, Industrial. Suburv,2nd Phase Yeshwanthpur, Bangalore-560 022. India.
Phone: +91(80)46457800 | fax: 080-46457826

CERTIFICATE

This is to certify that, Ms. Varshini.V bearing Roll no: U03KU21C0240, student of Soundarya institute of management and science, Bangalore. She has successfully completed her "Internship in Corporate Social Responsibilities" from 18th March to 30th March at "Texport Syndicate (I) Ltd."

The marks secured by her is 10 out of 10.

We wish her all the best for her future endeavours.

With warm regards.

For Texport Syndicate (I) Ltd

Narendra L

Assistant Manager – Human Resources



Registered office:

Plot No.6, F-11/12, Western Ind.co.op Estate, opp. Seepz M.I.D.C Andheri, MUMBAI -400 093,

Tel: +022-45109500 | Fax: +022-28368746 | Website: www.texportsyndicate.com



GSTIN: 29AADCD2510L1ZQin.

MOB: 09844500335

Date: 05/04/2024

CERTIFICATE OF INTERNSHIP

This is certified that **Mr. Gaurav Thakur**, bearing Reg. No. **U03KU21C0242** student of Soundarya Institute of Management & Science has successfully completed internship course from 05/03/2024 To 05/04/2024 from our institution. His conduct during stays with us satisfactory.

I wish all the best for his endeavour.

The marks secured by him 10 out of 10


DRL LOGISTICS PVT. LTD.
Nelamangala North
Authorised Signature with company seal

SY no. 44/1, Visveshwarapura, NH-4, Nelamangala taluk

Bangalore, Karnataka 562123 INDIA. Tel: 09844500335

E-mail: bangalore@drlogistis.com

Date : 30/04/2024

CERTIFICATE OF INTERNSHIP

This certification proves that **Venkatesh A S** Pursuing his 6th semester, B.Com from Soundharya Institute of Management and Science, Bengaluru. He has completed the internship program at **APTECH COMPUTER EDUCATION** as an accountant; **Venkatesh A S** Started the program from 1st April 2024 to 30th April 2024.

During his stay in the company as an intern, he displayed enthusiasm, leadership, self-discipline and self-motivation.

We wish him success.



Best regards

Aptech Computer Education

#16, 2nd floor, Opposite Wedia school Bus stop, Hesaraghatta main road, Bengaluru – 560057 Ph:

7482945133



KONIGTRONICS (OPC) PRIVATE LIMITED

Website: www.konigtronics.com

A CORPORATE COMPANY REGISTERED UNDER MCA (Government of India)

CIRCULATING ANY DUPLICATE COPY IS A PUNISHABLE OFFENCE UNDER IPC SECTION 466

INTERNSHIP CERTIFICATE

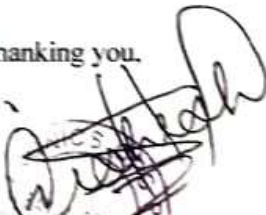
This is to certify that Mr. Rakesh N(U03KU21C0245) pursuing B.COM. Soundarya Institute of management and Science, Bangalore has successfully completed his internship at Konigtronics (OPC) Private Limited from 20/03/2024 to 25/04/2024. He was working in the Marketing Domain. His conduct during his stay with us was satisfactory.

He has obtained 10 out of 10 marks

We have found him to be a self-starter who is motivated, duty-bound and hardworking. He has worked sincerely on his assignments and his performance is par excellence.

We wish him all the best for his future endeavors.

Thanking you,



Regards



* Vishesh S (CIN: U80904KA2017OPC99075)

Managing Director

DIN: 07685912

Konigtronics (OPC) Private Limited

TO CONTACT THE SIGNING AUTHORITY - MAIL TO: visheshniranjan31@gmail.com or CALL +91 9380497511

#4/1, 1ST FLOOR, 5TH MAIN, 5TH CROSS,
CHAMARAJPET, BANGALORE-560018



Inflow Technologies Pvt,Ltd.
Inflow House, #33 & 34, Indiranagar 1st stage,
Bangalore – 560038.
info@inflowtechnologies.com / inflowtechnologies.com
CIN NO,: U72200KA2008PTC048560

CERTIFICATE OF INTERNSHIP

This is to inform that **Mr. Abhishek RK. Reg.No : U03KU21C0237** Student of the Soundarya Institute of Management and Science has completed his 6 weeks internship in our company from **March 18th to April 26th 2024** towards fulfilling his academics requirement for the completion of his course.

The Marks secured by him 10 out of 10.

Your sincerely
For Inflow Technologies Pvt Ltd

Punith
HR & Admin



Euro Clothing Company

(A Unit of Gokaldas Exports Ltd.)
No. 122/1, Doddabidrakllu Village, Yeshwanthpura Hobli,
Bengaluru.India

Date:25/03/2024

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms. Dheekshith K.S [U03KU21C0235] B. Com final year student from University of Bangalore, Soundarya Institute of Management and Science, has visited our company as a part of her academic prescribed by the college (90 hours duration from 11th March 2024 to 25th March 2024), to collect the information about the organization and to understand the Organization process.

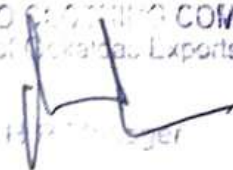
We observed his active participation during his visit to the organization and dedication on the assigned tasks, we wish her all the best for her future endeavors.

The marks secured by him is 10 out of 10

Yours Truly,

Authorized Signatory

EURO CLOTHING COMPANY
(A Unit of Gokaldas Exports Ltd)

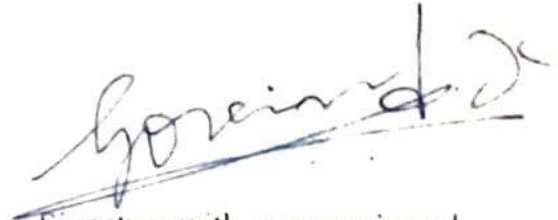




CERTIFICATE OF INTERNSHIP

This is to certify that **Ms Monika.M** bearing register number **U03KU21C0253**, student of Soundarya Institute of Management & Science has successfully completed internship course from 18th March 2024 to 6th April 2024 from our company. Her conduct during the stay with us is satisfactory. I wish all the best for endeavor .

The marks secured by her is 10 out of 10.



Signature with company's seal

Ph : 080-41170096
Mobile : 9845699667



SRI MARUTHI PRECISION WORKS

ISO 9001:2015 CERTIFIED COMPANY



Mfrs. of : CNC Precision Machine Parts, Dies, Fixtures, Turning & Milling Components, Ferrous & Non Ferrous Castings,
We undertake : Fabrication & Cylindrical Grinding Works.

No. B-140/2, 3rd Cross, 1st Stage, Peenya Industrial Estate, Bangalore-560 058.

Date :

INTERNSHIP CERTIFICATE

This is to certify that **Mr. Abhishek.R** bearing Reg: No **U03KU21C0231** student of 6th semester Bachelor of Commerce (B.com) Program, has undertaken an Internship in our A study on digital marketing and artificial intelligence-the new face of marketing communication from 25/03/2024 to 03/05/2024.

This report is being submitted in partial fulfilment of the Internship, as per the requirement by the University guidelines for the award of the degree of Bachelor of Commerce (B.com). His tenure during the internship in our organization is satisfactory.

We wish him a bright future and success in all his endeavour.

Thanking You

For Sri Maruthi Precision works

For SRI MARUTHI PRECISION WORKS

Proprietor



REF : MPP/INTERNSHIP/55/2024

20th May 2024

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Mr.PRASHANTH S** REG No U03KU21C0252, student pursuing Bachelor of Commerce VI Sem at Soundarya Institute Of Management & Science, Soundarya Nagar, Sidedahalli, Nagasandra Post, Bangalore - 560073 completed their Internship Training at **M/s. Maini Precision Products Limited**.,Peenya,Bangalore 560058.

Duration from **28th March 2024 to 23rd April 2024.**

During his **Internship period**, we found his conduct was good and we are wishing him all the success in his future endeavors.

For Maini Precision Products Ltd

Seetharam G N
Senior Managaer – HR & IR



DOMINO'S PIZZA

Nelamangala , Bangalore Rural District

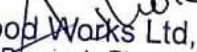
Date: 25/03/2024

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. **SANJAY A** (U03KU21C0249) B. Com final year student from Bangalore University , Soundarya Institute of Management and Science, has visited our stores as a part of his academic prescribed by the college (90 Hours duration from 4th April 2024 to 25th April 2024) ,to working in the following organization and to understand the Organization Process.

He is involved in participation of the concern department and has completed internship work , we wish him all the best by observing his work in internship.

Rating secured by him is 10 /10


Jubilant Food Works Ltd,
DP-64397, Domino's Pizza
Ground Floor, No1977/932, Opp
KEB, BH Road, Subhash Nagar,
Nelamangala, Bangalore Rural,
Karnataka - 562 123.

Authorized Signature



Cloudwave Technologies Pvt. Ltd.

An ISO 9001 : 2015 Certified Company

Ref: CWT/Inter/2023-24

Date: 22/03/2024

To ,

Muniraju C R

B.com 3rd year

Reg No.: U03KU21C0247

Soundarya Institution of Management and science

Soundarya Nagara, Sidedhalli ,

Nagasandra , Bangalore-560073

Sub: Internship acceptance letter

Ref : Your Request for internship letter No. SIMS:2023-24 Dated : 21/03/2024

With reference to your letter dated 21/03/2024 , requesting for internship in **Accounts and Finance** has been accepted in our company for the period of 90 Hrs , between From 01/04/2024 to 30/04/2024

For CLOUDWAVE TECHNOLOGIES PVT LTD

Sharmila
Accounts Manager

MFRS. of PRECISION SHEETMETAL PARTS & ENCLOSURES, MACHINED PARTS AND BUS BARS

UNIT-I : # 433, 11th Cross, 4th Main, 4th Phase, Industrial Area, Bangalore - 560 058, INDIA

UNIT-II : # 393, 10th Cross, 4th Phase, Peenya Industrial Area, Bangalore - 560 058, INDIA

Phone : 080-41162333, 9591233005, 9019755074 E-mail : prakash@cloudwave.in / satishkumar@cloudwave.in Website : www.cloudwave.in

CERTIFICATE OF INTERNSHIP



This internship program certificate is proudly
awarded to

Sanjay A

For his outstanding completion of the compulsory internship
program at Sapthagiri hospital. from April to May 2024.

SIGNATURE

Dr. Ravi
Program Manager



Soundarya Souharda Credit Co-Operative Ltd.

Reg. No. JRB/RGN/SK/71/3674/2014-15

We Serve We Care ...

Soundarya Arcade,
Hesaraghatta Main Road,
Havanoor Extension,
Nagasandra Post, Bengaluru - 560073.
Phone : 080 28394789
soundaryasouhardha@gmail.com

CERTIFICATE

This is to certify that Ms. Smita Sahu , student of SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, VI semester BCom having Reg No. U03KU21C0243, has completed her Internship work entitled, "A STUDY ON NON PERFORMING ASSETS at M/s SOUNDARYA SOUHARDA CREDIT CO OPERATIVE LIMITED, Bengaluru for the period from 22-04-2024 to 16-05-2024.

Her conduct was found to be **Good** during the course of project work and we wish her successful future.

Place: Bengaluru

Date: 16-05-2024


Branch Manager

CRS TOOLS AND MARKETING LTD.

Office address: B-165 3rd Cross, peenya 1st stage,
Netaji Nagar, peenya, Bengaluru, karnataka
Bengaluru-560058
Phone No: +91 9113937391

ate:11/03/2024

TO WHOM IT MAY CONCERN

This is to certify that (Ms/Mr/Mrs.) Rahul Sihag , Student of Soundaraya institute of management and science, has successfully completed a summer internship in the Field of marketing from 11/03/2024 to 10/04/2024 under guidance of Kiran Kumar.

During the period of her/his internship program With us, she/he had been exposed to different Processes and was found diligent, hardworking And inquisitive.

We wish her/him every success in her/his life and Career.

For CRS TOOLS AND MARKETING CO. LTD

Authorized Signature

S. POWER TOOLS AND SERVICES
No. 22, Hesaraghatta Main Road,
ence Colony, 1st Main Road,
K. S. Chandra Post. Bangalore-560 072

K. M. Chandra



Dominos's Pizza

Ground Floor, No 1048, Khatha No 1309, Ward No -12, Shettihalli 3rd Stage,
Chikkabanavara Village, Hesaraghatta Main Road, Chikkabanavara, Bangalore - 560090

From :

Arun Kumar

Manager

Dominos Pizza

Nagasandra, Bangalore - 560073

To :

Mr. Adarsh .B

3rd Year 6 Sem BBA

Soundarya institute of management,

Bangalore - 560073

Subject :- Certificate of Internship Ref No:- U03KU21M0016

This is to certify that

Mr. Adarsh .B Reference Reg No U03KU21M0016

Student of Soundarya institute of management,

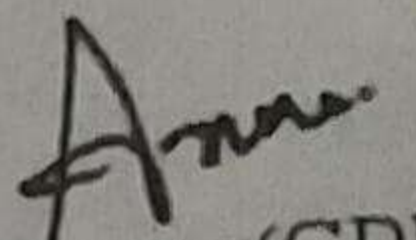
Adarsh .B has successfully completed internship course from 27th March to 23rd April of 28 days from our institution. He has worked here to related topic of Inventory Management.

During his service period,

he has been found sincere, reliable, trustworthy and open to all challenges.

wish him all the best for his future Regards:- The marks secured by him 8 out of 10.

Date :-


Manager(GDM)

Jubilant Foodworks Ltd
Formerly Known as DOMINO'S PIZZA
Kudur Plaza, Ground Floor,
Khata No. 38, Site No. 1, Nagasandra F
Yeshwanthpura Hobli, Bangalore-560

An CSR Initiative of

FINASTRA

**STUDENT
TRANSFORMATION
PROGRAM**

Implemented by



This is to certify that

ANJALI B

has successfully completed the internship and training on BFSI Overview and Financial Products under **Finastra Student Transformation Program** held from 15 Apr 2024 to 15 May 2024 at Finastra Software Solutions.

Shivani Pankhawala
Director - Global Delivery, Regional Success
Management Head, Finastra

Srikanth V.
Chief Executive Officer (CFO), ICT Academy



CERTIFICATE

OF INTERNSHIP

THIS CERTIFIES THAT

Darshan Gowda J

U03KU21M0038

has successfully completed an internship program with Elewayte from Mar-24 to Apr-24 . During the internship. He/She demonstrated a strong commitment to learning and developing his/her skills in the field of Human Resources through hands-on projects

Scan to verify



Giri Menta

Giri Menta
CEO

Madhukar M

Madhukar M
General Manager HR



May 20, 2024

CERTIFICATE OF COMPLETION

This is to certify that **Miss Divya M "U03KU21M0017"** pursuing 6th semester in Bachelor of Business Administration at Soundarya Institution of Management and Science has successfully completed her internship in **"IKEA Food (IF)"** at IKEA.

The internship period was from **18.04.2024** to **17.05.2024**

During this period, she was found to be regular and hard working. We wish her all the best in her future endeavours.

This is only the first step. The real learning starts when you apply what you have learnt in your job and share it with your colleagues.

Trevlig resa - the journey continues!



Authorised Signatory People and Culture Manager.

For IKEA India Pvt.Ltd



Dear Harshitha M S,

We are pleased to confirm that you have successfully completed your internship with Sahasra Jewells (Tanishq Store Hesaragatta) as a "Sales Intern." Your internship, which ran from April 22, 2024, to May 25, 2024, was conducted with great dedication and is highly appreciated.

We wish you all the best in your future studies and endeavors.

Warm regards,

Naga Vijay Kumar Gannamani
Managing Director
Sahasra Jewells



Phone : 9743206444



Email : sahasrajewels.tanishq@gmail.com



Address :

Ground Floor, Old No.61, New No.28/34,
Seetharamapalya, Sonnenahalli, Mahadevapura,
Bengaluru, Bengaluru Urban, Karnataka, 560048

ORCHID ELEVATORS CERTIFICATE OF INTERNSHIP

This certificate is presented to

Name of Candidate

JANAKI.H.PATEL

For completing 1 month duration from (06.3.2024 to 06.04.2024) internship as the assistant business analyst, During her stay in the company as intern, she displays enthusiasm, leadership self-disciplined and self-motivation.

We are lucky to have her as one our interns before and we would like to wish her all the best.

Given This on
06.04.2024

Orchid Elevators
Mr Mohammed Sufiyan
(Proprietor)





MALAYAPPAN PROJECTS PVT LTD.

Neelakanteshwara Temple Road, Muddinapalya
Vishwaneedam post Bangalore-560098

This is to certify Mr. Jashva. D Reg No: U03KU21M0025 Student pursuing Bachelor of Business Administration (BBA), From " Soundarya Institution of Management and Science". Bangalore has been successfully completed the Organizational study and Internship at Malayappan Projects Pvt Ltd., Bangalore complex, during the period between 15/04/2024 To 16/05/2024.

As we observed during his service with the company, He was a motivated with his work. Thanks to him commitment, contribution, and dedication toward his work, we wish him success in his career path.

Jashva D has exhibited commendable performance and professionalism in completing the tasks and projects assigned. and successfully scored 8.5 out of 10

Thanking You

Yours FaithFully





Ce-Chem
PHARMACEUTICALS Pvt. Ltd.,
AN ISO 9001 COMPANY

GST No.: 29AAAC13514N1ZE
Drug Mfr. Lic No. NB-139/83
SP - 87/83

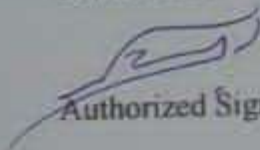
Date: 15.05.2024

CERTIFICATE OF INTERNSHIP

This is to certify that Miss Karishma K Jain, REG NO, U03KU/21M0037 Student of **SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE** has successfully completed **INTERNSHIP COURSE** from 16-4-2024 to 15-5-2024 from our institution. Her conduct during stay with us is satisfied. I wish all the best for endeavor.

The marks secured by her is 9 out of 10.

For Ce-Chem Pharmaceuticals Pvt Ltd,


Authorized Signatory



GS/HRM
22/04/2024

CERTIFICATE

This is to certify that Ms. Latha B T, bearing Reg. No U03KU21M0013 is bonafide student of VI semester BBA, Soundarya Institute of Management & Science has successfully completed her internship programme in Human Resource Department at “Kongovi Private Limited”, Peenya Industrial Area, Bangalore. The duration of Internship was from 05-04-2024 to 20-04-2024.

During this period of training, we found her punctual, disciplined, and proactive in assigned tasks and duties.

We wish her all the success in future endeavors.

For Kongovi Pvt Ltd.



Govindarajan S
AGM - HR & Admin



Broadfield HR Solutions Pvt Ltd.

"Sri Ganesha", Narayanagar, 1st Block, Anjanapura Main Road, Doddakallasandra,
Kanakapura Road, Bengaluru - 560 062.

This is to certify **Mr. Nagabhushan B C**, Reg No: **U03KU21M0008** Student pursuing Bachelor of Business Administration (BBA), From "Soundarya Institution of Management and Science", Bangalore has been successfully completed the organizational study and Internship at **Broadfield HR Solution Pvt Ltd**, Bangalore complex, during the period between **15/03/2024 To 16/04/2024**.

As we observed during his service with the company, He was a motivated with his work. Thanks to him commitment, contribution and dedication toward his work, we wish him success in his career path.

Thank you.

Yours faithfully,





SHREE VENKATESHWARA ENGINEERING

TO,

NAVEEN A

Soundarya institute of
management and science,
Bangalore.

Dear sir/Madam, This is to certify that Mr. **NAVEEN A (U03KU21M0002)** S/O-
Mr. ASHWATH NARAYAN P a student of B.B.A Soundarya institute of
management and science, Bangalore Karnataka, he has successfully completed
30 days (From 01th April 2024 to 30th April 2024) long Internship program at
SHREE VENKATESHWARA ENGINEERING

During Mr. NAVEEN A internship, he was engaged in "Talent Acquisition Intern
Role" in which he worked on various Modules in Hiring Department.

During the period of his internship program with us he was found punctual,
hardworking and Inquisitive. His association with us was very fruitful and we
wish him all the best in his future endeavors.

Yours sincerely,

For SHREE VENKATESHWARA ENGINEERING

Authorized Signatory

Yuvaraj Thasildar
HR Manager, 
SHREE VENKATESHWARA ENGINEERING



SONI SPECIAL STEELS AND ALLOYS (INDIA) PVT LTD.

SB-41, 1st Cross, 1st Stage, Peenya Indl. Estate, Bangalore-560 058.

Telefax : 080-28397154 / 28397155 / 41179363 / 41283037 Mobile : 9341229277

E-mail : info@sonisteels.com Website : www.sonisteels.com CIN : U27100KA2011PTC058511



Dt. 15.04.2024

To

M/s. Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli, Nagasandra Post,
Bangalore 560 073

Sub: Internship in our company for your student Mr. Nikhil. G
(Reg No U03KU21M0004)

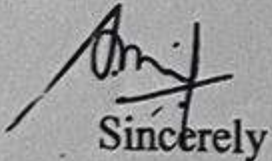
Dear Sir/ Madam,

We would like to confirm that your application for internship is accepted.

Here are the terms of internship while working with the company.

- 1) Duration of internship will be 90 working hours.
- 2) You will be designated as trainee in HR department.

Please feel free to contact us for further details.


Sincerely

Sunil K Soni

For SONI SPECIAL STEELS AND ALLOYS (INDIA) PVT. LTD.



Managing Director.

Soni Special Steels & Alloys (India) Pvt Ltd.,
SB-41, 1ST Cross, 1ST Stage, Peenya Indl Estate,
Bangalore 560 058.



Domino's Pizza

Ground Floor, No 1048, Kudur Plaza, Nagasandra, Hesaraghatta Main Road,
Bangalore - 560073

From :
Arava Thilak
Manager
Domino's Pizza
Nagasandra, Bangalore - 560073

To :
Mr. Raghavendra .B
3rd Year 6 Sem BBA
Soundarya institute of management,
Bangalore - 560073

Subject :- Certificate of Internship Ref No:- U03KU21M0036

This is to certify that
Mr. Raghavendra .B Reference Reg No U03KU21M0036
Student of Soundarya institute of management,
Raghavendra .B has successfully completed internship course from 27th March to 23rd April
of 28 days from our institution. He has worked here to related topic of Inventory Management.
During his service period,

he has been found sincere, reliable, trustworthy and open to all challenges.
wish him all the best for his future Regards:- The marks secured by him 10 out of 10.

Date :-

Thilak
Manager(GDM)
Jubliant Foodworks Ltd.
Formerly Knows as DOMINO'S PIZZA
Kudur Plaza, Ground Floor,
Khata No. 38, Site No. 1, Nagasandra Post,
Yeshwanthpura Hcbli, Bangalore-560 073.



SHREE VENKATESHWARA ENGINEERING

TO,

RAKESH V B

Soundarya institute of
management and science,
Bangalore.

Dear sir/Madam, This is to certify that Mr. RAKESH V B (U03KU21M0009) S/O-
Mr. BASAVARAJU a student of B.B.A, Soundarya institute of management
and science, Bangalore Karnataka, he has successfully completed 30 days
(From 01th April 2024 to 30th April 2024) long Internship program at **SHREE
VENKATESHWARA ENGINEERING**

During Mr. RAKESH V B internship, he was engaged in "Talent Acquisition
Intern Role" in which he worked on various Modules in Hiring Department.

During the period of his internship program with us he was found punctual,
hardworking and Inquisitive. His association with us was very fruitful and we
wish him all the best in his future endeavors.

Yours sincerely,



HR Manager, 
SHREE VENKATESHWARA ENGINEERING

Certificate of Internship

Date: 24-May-2024

This is to certify that Ranjini MA, a BBA student of Soundarya Institute of Management & science, has successfully completed an internship at keyroot.tech, located at PP layout, Uttarahalli, Bengaluru, from 20th April 2024 to 20th May 2024. During this period, she was engaged as an Intern of client satisfaction in digital marketing.

Ranjini MA has exhibited commendable performance and professionalism in completing the task and projects assigned; And successfully scored 8.5 out of 10.

We appreciate her contribution to our team and wish her all the best in future endeavours.

For KEYROOT TECH

Authorised Signatory

HR Manager,
Ganesh PG



S.T.S. TOOLS MFG. SOLUTIONS

118, 3rd Phase, 7th Cross, Peenya Industrial Area, Bengaluru - 560 058.

Mobile : 99005 51177, 99006 68877.

DATE :- 15.05.2024

TO WHOM SO EVER IT MAY CONCERN

We confirm that Mr. SAMITH .S.T. was employed by us as Production Assistant management Intern during the period from 6th March, 2024 to 6th April, 2024 His duties involved the documenting of job card and inspection report which involved of raw material and finished goods, managing the job card, both softcopy and in writing, monitoring of deadlines, registrations & preparations of month end report,

During his period of Employment/ Internship, he has demonstrated that he has the ability to communicate with all levels of staff. More importantly he had a professional aptitude towards organizing and tackling the varied types of assignments that he undertook. He was found to be good responsible member of the production management.

Yours Faithfully,

For, STS TOOLS MFG SOLUTIONS

(Partners)

SURENDRA



IKEA India Private Limited



May 20, 2024

CERTIFICATE OF COMPLETION

This is to certify that **Mr Shashank R "U03KU21M0012"** pursuing 6th semester in Bachelor of Business Administration at Soundarya Institution of Management and Science has successfully completed his internship in "**Human Resources (HR)**" at IKEA.

The internship period was from **18.04.2024** to **17.05.2024**

During this period, he was found to be regular and hard working. We wish him all the best in his future endeavours.

This is only the first step. The real learning starts when you apply what you have learnt in your job and share it with your colleagues.

Trevlig resa - the journey continues!

Authorised Signatory People and Culture Manager.

For IKEA India Pvt.Ltd

Registered Office:



ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್
भारत हेवी इलेक्ट्रिकल्स लिमिटेड
Bharat Heavy Electricals Limited
(A Government of India Undertaking)
ELECTRONICS DIVISION
P.B. No 2606, Mysore Road, Bangalore - 560 026

PHONE : 080-26999084
: 080-26998880/8526
E-MAIL : hrd-edn@bhel.in
solanki@bhel.in
navin.chandra@bhel.in

Certificate

This is to certify that
Ms. SINCHANA K

A STUDENT OF BBA

[COMMERCE IN HUMAN RESOURCE]

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE
BENGALURU

Were provided with facilities to do Internship at BHEL, ELECTRONICS DIVISION,
BENGALURU as per following details:

INTERNSHIP/PROJECT TITLED

"A STUDY ON RECRUITMENT AND SELECTION PROCESS"

UNDER THE GUIDANCE OF

SRI PARTHA DATTA
DY. MANAGER / HR

Duration of Internship/Project	4 Weeks	From	18.04.2024	To	17.05.2024
--------------------------------	---------	------	------------	----	------------

This permission to do the Internship was accorded as per request from the institution where the students are studying, for partial fulfilment of the completion of the course.

The Student showed keen interest in the training and has completed the Internship. Her Character and Conduct during the training period was found as 'EXCELLENT'.

Place : Bengaluru.
Date : 31.05.2024


Signature of Issuing Authority
with Seal

ನವೀನ್ ಚಂದ್ರ, ಹಿ. ಉ.ಪ್ರ.ವ್ಯ./ಮಾ.ಸಂ.-ರಾ.ಭಾ. ಮತ್ತು ಮಾ.ಸಂ.ಉ.
ನವೀನ್ ಚಂದ್ರ, ವರಿ. ತ.ಮ.ಪ್ರ./ಮಾ.ಸಂ.-ರಾ.ಭಾ. ಎಂ.ಮಾ.ಸಂ.ವಿ.
NAVIN CHANDRA, SR. DY.GM/HR-OL & HRD
BHEL-EDN, MYSURU ROAD, BENGALURU-560026

03-05-2024

TO WHOMEVER IT MAY CONCERN

This is to certify that Mr. Sunil B R (U03KU21M0023) has successfully completed her Internship Program as a "Marketing Intern" with our organization for 30 Days (01-04-2024 to 30-04-2024).

During this internship, we found he efficiently contributed to the work, punctual, focused and was found to be hard-working, keen to learn & ready to accept responsibilities.

We congratulate him on the successful completion of the Internship Program and wish him all the best for his future endeavors.

For Hikoki Power Tools India Private Limited,



Shivappa Yankatapur
Director – Human Resources

HIKOKI POWER TOOLS INDIA PRIVATE LIMITED

(CIN: U31900KA1996PTC020380)

Registered Office : No 11, Old No 9A, 1st Main Road, KIADB Peenya 1st Stage, Bengaluru - 560058, India
Tel : 080 - 41170777, Fax : 080 - 41171222, E-mail : ho.mktg@hikoki-powertools.in, website : www.hikoki-powertools.in

(Formerly known as Hitachi Koki India Private Limited)

GEETHA MOTORS

AUTHORISED DEALER FOR : INDIA YAMAHA MOTOR PVT. LTD.

Head Office : # 135/273, Vinayakanagar, Binnamangala, Opp. Nursery, Nelamangala-562 123.
Branch Office : #2/A, Om Sri Annapoorneshwari Devi Complex, 6th Main, M.S. Ramaiah Enclave, Near IKEA,
Nagasandra, Bangalore. Karnataka-560 073.

Ref.

Date :

CERTIFICATE OF INTERNSHIP

This is to certify that Uday Gowda. V.N, bearing Reg. NO. U03KU21M0010
Student of Soundarya Institute Management And Science He has completed
an Internship course from 90hrs from our institution. His conduct during
his stay with us was satisfactory. I wish you all the best for the endeavor

The marks secured by Him 10 out of 10

For GEETHA MOTORS

Authorised Signatory

Signature with company seal



Certificate of Internship

This is to certified that Ms. Usha.S bearing Reg No. U03KU21M0001 Student of Business Administration at Soundarya Institute of Management and Science. She has successfully completed the 4weeks of Internship on “A study on compensation incentives” Dated from 16/4/2024 to 14/5/2024

Throughout your time here, you demonstrated a remarkable ability to learn quickly and apply your knowledge effectively. We have also appreciated your positive attitude and willingness to take on any challenge that came your way. You have a bright future ahead, and we are confident that you will excel in your future endeavors.

V-One Interiors
Survey No. 424/4, Kalkere Village,
Kalkere Main Road, Horamavu Post,
Bangalore - 560043
Ph. : 8639072076 / 8892227608

Signature with company seal

CHETHANA R

Managing Director

GSTIN:29AATFV4276G1ZE

Survey No. 424/4, kalkere village, Kalkere main Road, Horamavu Post, Bangalore, Karnataka -560043, Mob 8892227608,8639072076, Email: voneinteriorsblore@gmail.com



CERTIFICATE

OF INTERNSHIP

THIS CERTIFIES THAT

Yashwanth Gowda C

has successfully completed an internship program with Elewayte from Mar-24 to Apr-24 . During the internship. He/She demonstrated a strong commitment to learning and developing his/her skills in the field of Human Resources through hands-on projects

Scan to verify



Powered by Wipro DICE ID

Handwritten signature of Giri Menta in black ink.

Giri Menta
CEO

Handwritten signature of Madhukar M in black ink.

Madhukar M
General Manager HR

INTERNSHIP REPORT ON RIYA TOURS AND TRAVELS

RIYA TOURS AND TRAVELS

A report submitted in partial fulfillment of the requirements for the award of the

Degree of

BACHELOR OF BUSINESS ADMINISTRATION

(AVIATION MANAGEMENT)



Submitted by

AKSHITHA.K

UUCMS REGISTER NUMBER: U09KU21M0092

Under the guidance of

PROF. PREMA VENKATRAMAN

Department of Business Administration



Soundarya Institute of Management and Science

Soundarya Nagar, Sidedahalli, Nagasandra Post, Bengaluru-78

Batch 2021-2024




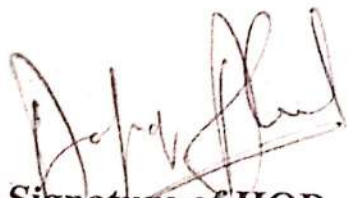
PROJECT COMPLETION LETTER

Date: 29-02-2024

This is to certify that the "Internship report on RiyaTours and Travels" is a work of Ms.Akshitha K bearing UUCMS Register Number U03KU21M0032 and is being submitted in partial fulfillment for the award of the Bachelor of Business Administration (Aviation Management) of Bangalore University. The report has not been submitted earlier either to this University/Institution for the fulfillment of the requirement of a course of study.

Ms. Akshitha K is guided by Ms. Prema Venkatraman who is the Faculty Guide as per the regulations of Bangalore University.


Signature of Faculty Guide
29/02/2024


Signature of HOD
Date: 29/02/2024
Head of the Department
Department of Business Administration
Soundarya Institute of Management & Science
Soundarya Nagar, Siddalahalli,
Nagasandra Post, Bangalore - 560 073.


Signature of Principal
Date: 29/02/2024
PRINCIPAL
Soundarya Institute of Management & Science
Soundarya Nagar, Siddalahalli,
Nagasandra Post, Bangalore-73.

UNIT 1: INTRODUCTION

The first part of the course is devoted to the study of the history and development of the business system in India. It covers the growth of business enterprise in India and the role of business in the development of the Indian economy. It also discusses the various forms of business organization and the factors influencing their growth.

The second part of the course is devoted to the study of the various forms of business organization. It covers the characteristics, advantages and disadvantages of sole proprietorship, partnership, joint venture, company, and co-operative society.

Dr. P. Srinivasan

Dr. P. Srinivasan

Dr. P. Srinivasan

Dr. P. Srinivasan

INTERNSHIP REPORT ON RAPTOR VISA AND PERMITS

RAPTOR VISA AND PERMITS

A report submitted in partial fulfillment of the requirements for the award of the

Degree of

BACHELOR OF BUSINESS ADMINISTRATION

(AVIATION MANAGEMENT)



Submitted by

ANHILYA SADANANDAN

UJCMS REGISTER NUMBER: UJCMS13A0029

Under the guidance of

PROF. PREMA VEERKATRASAN

Department of Business Administration



Secndarya Institute of Management and Science

Saundarya Nagar, Siddalahalli, Nagasandra Post, Bengaluru - 75

Batch 2021-2026



PROJECT COMPLETION LETTER

Date: 29-02-2024

It is to certify that the "Internship report on Raptor Visa and Permits" is a work of Ms. **Shalpya Sadanandan** bearing UUCMS Register Number U03KU21M0029 and is being submitted in partial fulfillment for the award of the Bachelor of Business Administration (Business Administration Management) of Bangalore University. The report has not been submitted earlier to this University/Institution for the fulfillment of the requirement of a course of study.

Shalpya Sadanandan is guided by Ms. **Prema Venkatraman** who is the Faculty Guide under the regulations of Bangalore University.

Signature of Faculty Guide

Date: 29/02/2024

Signature of HOD

Date: 29/02/2024

Head of the Department
Department of Business Administration
Soundarya Institute of Management & Science
Soundarya Nagar, Siddahalli,
Nagasandra Post, Bengaluru - 560 073.

Signature of Principal

Date: 29/02/2024

Principal
Soundarya Institute of Management & Science
Soundarya Nagar, Siddahalli,
Nagasandra Post, Bengaluru - 560 073.

DECLARATION

thereby declare that "INTERNSHIP REPORT ON RAPTOR VISA AND PERMITS." is the result of the work carried out by me under the guidance of Prof. **Prema Venkatraman** in partial fulfillment for the award of **Bachelor of Business Administration (Aviation Management)** by Bangalore University.

I also declare that this project is the outcome of my own efforts and that it has not been submitted to any other university or Institute for the award of any other degree or Diploma or Certificate.

Place: Bangalore

Date: 29/02/2024



AHALLYA SADANANDAN

U03KU21M0029

INTERNSHIP REPORT ON RAPTOR VISA AND PERMITS

RAPTOR VISA AND PERMITS

A report submitted in partial fulfillment of the requirements for the award of the Degree of

BACHELOR OF BUSINESS ADMINISTRATION

(AVIATION MANAGEMENT)



Submitted by

BHADRA P

UUCMS REGISTER NUMBER: U03KU24M0033

Under the guidance of

PROF. PREMA VENKATRAMAN

Department of Business Administration



Soundarya Institute of Management and Science

Soundarya Nagar, Sidedahalli, Nagasandra Post, Bengaluru-73

Batch 2021-2024



PROJECT COMPLETION LETTER

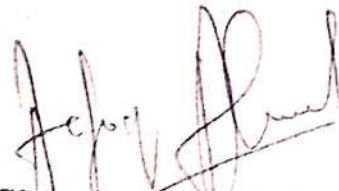
Date: 29-02-2024

This is to certify that the "Internship report on Raptor Visa and Permits" is a work of Ms. Bhadra P bearing UUCMS Register Number U03KU21M0033 and is being submitted in partial fulfillment for the award of the Bachelor of Business Administration (Aviation Management) of Bangalore University. The report has not been submitted earlier either to this University/Institution for the fulfillment of the requirement of a course of study.

Ms. Bhadra P is guided by Ms. Prema Venkatraman who is the Faculty Guide as per the regulations of Bangalore University.


Signature of Faculty Guide

29/02/2024


Signature of HOD

Date: 29/02/2024

Head of the Department
Department of Business Administration
Soundarya Institute of Management & Science
Soundarya Nagar, Siddahalli,
Nagasandra Post, Bangalore - 570 073.



Signature of Principal

Date: 29/02/2024

PRINCIPAL
Soundarya Institute of Management & Science
Soundarya Nagar, Siddahalli,
Nagasandra Post, Bangalore-73.

QUESTION 1

1. Explain the concept of 'strategic management' and its importance in an organization. Discuss the key components of strategic management and how they contribute to the overall success of the organization.

2. Discuss the role of the board of directors in strategic management. How does the board influence the organization's strategic direction and performance? Provide examples to support your answer.

3. Explain the concept of 'strategic planning' and its importance in an organization. Discuss the key components of strategic planning and how they contribute to the overall success of the organization.

4.



5. Explain the concept of 'strategic planning' and its importance in an organization. Discuss the key components of strategic planning and how they contribute to the overall success of the organization.

6. Explain the concept of 'strategic planning' and its importance in an organization. Discuss the key components of strategic planning and how they contribute to the overall success of the organization.

APPLICATION FOR INTERNSHIP

1.	Name of the candidate	BHOOMIKA R SHEKAR
2.	Gender	FEMALE
3.	Complete Permanent address	No54 55 NEAR MAMATHA WATER SUPPLY TG HALLI NAGASANDRA POST BANGALURU 560073
4.	E-Mail	Bhoomikarsheakr94@gmail.com
5.	Address and person to be contacted in case of emergency along with phone number	No54 55 NEAR MAMATHA WATER SUPPLY TG HALLI NAGASANDRA POST BANGALURU 560073 PH NO:9591950229
6.	Mobile No's	9980778894
7.	Course currently being studied by the candidate	BACHELOR OF ARTS
8.	Year in which studying	3 rd year
9.	Name of the Agency supervisor	Mr.Homesh
10.	Contact No	
11.	Date of joining the agency for internship	02 MAY 2024
12.	Date of Completion of Internship	13 MAY 2024

Date: 01-May-2024 .

Bhoomika R Shekar.
Signature of student

Recomondation of Head Of The Depeartement

Bhoomika R Shekar

6th sem BA

Soundarya Institute of Management & Science

Date: May 02nd 2024

To,

Head of the Department,

ASST.PROF RAMYA H.S

Coordinator of Humanities

Department of political science

Soundarya institute of management and science

Bengaluru-73

Respected Mam,

Subject: Request letter for internship.

As mentioned in the above subject, I am Bhoomika R Shekar of 6th sem BA (2021) studying in Soundarya Institute of Management and Science. I hereby request you to grant permission for joining Internship in Raj News kannada , From May 02nd 2024 to May 13th 2024. As per the instructions from Bangalore University, it is a part of our academics. I hope you will allow me to work as an intern in Raj News Kannada.

Thank you

*Permitted to
go to the
internship*

Ramya
Signature



Soundarya Educational Trust (Regd.)
SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE
(Recognised by Govt. of Karnataka & Affiliated to Bangalore University)
Accredited by NAAC with "B+" Grade

FORMAT FOR NOC TO BE OBTAINED FROM COLLEGE / INSTITUTION

(To be given to letter Head)/ To be signed by HOD/ Principal

Date: 01-May-2024.

SUB: No Objection Certificate for Internship Programme at

It is certified that Mr/ Ms is a bonafide student (Student ID no, Semester, name of the programme) of this (College/ Institution).

The (College/ Institution) has no objection for doing the Internship programme at SHIVASHRI MEDIA for the period from 02-May to 13-May It is certified that he/ she is not registered for any course requiring, his/ her attendance in the class during the said period.

The conduct of the student as recorded by the (College/Institution) has been found good/ satisfactory/unsatisfactory.

Ramya

Co-ordinator
Department of Arts
Soundarya Institute of Management and Science
Sidedahalli, Nagasandra Post,
Bengaluru - 560 073

[Signature]

(Signature and Seal)

PRINCIPAL
Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore-73



Soundarya Educational Trust (Regd.)
SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE
(Recognised by Govt. of Karnataka & Affiliated to Bangalore University)
Accredited by NAAC with "B+" Grade

FORMAT OF INTERNSHIP COMPLETION
CERTIFICATE

(To be given on Letter Head)

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr/ Ms BHOOMIKA. R. SHEKAR a student of SIMB
(Name of the institution studying) has successfully completed his/ her internship with
SHIVASHRI MEDIA PRIVATE LIMITED During the period of Internship he/ she worked under
in the following areas.

i. Understanding Media operations.

* Public opinion and influence.

* Communication skills.

ii. Networking.

* Understanding policy & legislation.

* Crisis Reporting etc.,

2. He/ She has shown special flair for News anchoring, Reporting and

His/ her performance in preparation of the report has been rated as _____ (1 to 10 Points /
Grade)

3. During the period his/ her internship program he / she was punctual and hardworking.

4. I wish him/ her every success in his/ her career and life.

Rasmya

Co-ordinator

Department of Arts

Soundarya Institute of Management and Science

Sidedahalli, Nagasandra Post,

Bengaluru - 560 073

Jama

Signature

PRINCIPAL

Soundarya Institute of Management & Science

Soundarya Nagar, Sidedahalli,

Nagasandra Post, Bangalore-73



Shivashri Media Private Limited



INTERNSHIP CERTIFICATE

This is to Certify

Bhoomika

For completing her Internship Program from
May 02, 2024 to May 13, 2024.

for SHIVASHRI MEDIA PRIVATE LIMITED

Managing Director

Dr. D S Shivarudrappa

Managing Director

CIN : U64200KA2020PTC139232

Office Address : Shivashri Media Private Limited
16/1, KKMP Building, Millers Tank Bund Road,
Vasantha Nagara, Bengaluru-560 052. Ph.: 080-69156600

REG. OFFICE : Shivashri Media Private Limited
40, K. No. 867/45/5/40, Thindlu Village, Virupaksha Pura,
Vidyaranya Pura Post, Bengaluru-560 097.

INTERNSHIP REPORT

"RAJ NEWS KANNADA"

A report submitted in partial fulfillment of the requirements for the Award of Degree of

BACHELOR OF ARTS OF

BANGALORE UNIVERSITY



by

Ms. BHOMIKA R SHEKAR

Regd. No.: U03KU21A0012

Under Supervision of

Mrs. Ramya H S (PROFESSOR)

Company Name: RAJ NEWS KANNADA

Place: Bangalore

(Duration: 02 MAY 2024 to 13 MAY, 2024)



DEPARTMENT OF ARTS

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka Soundarya Nagar,

Siddedahalli, Nagasandra Post, Bangalore -560073

SUMMARY:

Duration: 02 MAY 2024-13MAY 2024

Overview: During my internship RAJ NEWS KANNADA had the privilege to delve deep into the realm of political reporting. I actively contributed to covering political events, conducting interviews, and analyzing policy developments. Political Event Coverage: Participated in live coverage and analysis of key political events, including elections, debates, and legislative sessions. Research and Analysis: Conducted in-depth research on political issues and policies, providing background information and context for news stories. Interviews and Reporting: Assisted in conducting interviews with political figures and stakeholders, contributing to the creation of balanced and informative news reports. Script Writing and Editing: Played a role in crafting scripts for political segments, ensuring clarity, accuracy, and relevance to current political discourse. Social Media Engagement: Supported the channel's social media strategy by generating content related to political news, engaging with the audience, and monitoring political discussions online. Editorial Participation: Attended editorial meetings where I contributed ideas and insights into political news coverage strategies. The Skills Developed by me are Political Journalism: Enhanced understanding of political processes, institutions, and dynamics. Interviewing Skills: Improved ability to conduct insightful and probing interviews with political figures. Research and Analysis: Strengthened research skills for gathering and verifying political information. Writing and Editing: Developed proficiency in writing clear, concise, and compelling news scripts. Media Engagement: Learned strategies for effective audience engagement through social media platform. My internship at RAJ NEWS KANNADA was instrumental in deepening my knowledge of political reporting and sharpening my journalistic skills. I gained firsthand experience in navigating the complexities of political journalism, from covering breaking news to analyzing policy implications. This internship has prepared me to contribute meaningfully to political discourse and informed public debate.

APPLICATION FOR INTERNSHIP

1.	Name of the candidate	KIRAN R
2.	Gender	MALE
3.	Complete Permanent address	PIPELINE ROAD T DASARAHALLI
4.	E-Mail	Kiranempire14@gmail.com
5.	Address and person to be contacted in case of emergency along with phone number	MUNESHWARA BLOCK T DASARAHALLI PH NO:7760550489
6.	Mobile No's	7760550489
7.	Course currently being studied by the candidate	BACHELOR OF ARTS
8.	Year in which studying	3 rd year
9.	Name of the Agency supervisor	Mr.Homesh
10.	Contact No	
11.	Date of joining the agency for internship	02 MAY 2024
12.	Date of Completion of Internship	13 MAY 2024

Date: 01-May-2024.


Signature of student

Recemondation of Head Of The Depeartement

Kiran R

6 th sem BA

Soundarya Institute of Management & Science

Date: May 02nd 2024

To,

Head of the Department,

ASST.PROF RAMYA H.S

Coordinator of Humanities

Department of political science

Soundarya institute of management and science

Bengaluru-73

Respected Mam,

Subject: Request letter for internship.

As mentioned in the above subject, I am Kiran R of 6th sem BA (2021) studying in Soundarya Institute of Management and Science. I hereby request you to grant permission for joining Internship in Raj News kannada , From May 02nd 2024 to May 13th 2024. As per the instructions from Bangalore University, it is a part of our academics. I hope you will allow me to work as an intern in Raj News Kannada.

Thank you


Signature



Soundarya Educational Trust (Regd.)
SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE
(Recognised by Govt. of Karnataka & Affiliated to Bangalore University)
Accredited by NAAC with "B+" Grade

FORMAT FOR NOC TO BE OBTAINED FROM COLLEGE / INSTITUTION

(To be given to letter Head)/ To be signed by HOD/ Principal

Date: 01 - May - 2024.

SUB: No Objection Certificate for Internship Programme at

It is certified that Mr/ Ms is a bonafide student (Student ID no, Semester, name of the programme) of this (College/ Institution).

The (College/ Institution) has no objection for doing the Internship programme at SHIVASHRI MEDIA for the period from 02 May to 13 May. It is certified that he/ she is not registered for any course requiring, his/ her attendance in the class during the said period.

The conduct of the student as recorded by the (College/Institution) has been found good/ satisfactory/unsatisfactory.

Romya

Co-ordinator
Department of Arts
Soundarya Institute of Management and Science
Sidedahalli, Nagasandra Post,
Bengaluru - 560 073

[Handwritten Signature]

(Signature and Seal)

PRINCIPAL
Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore-73



Soundarya Educational Trust (Regd.)
SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE
(Recognised by Govt. of Karnataka & Affiliated to Bangalore University)
Accredited by NAAC with "B+" Grade

FORMAT OF INTERNSHIP COMPLETION
CERTIFICATE

(To be given on Letter Head)

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr/ Ms KIRAN, P. a student of SIMS
(Name of the institution studying) has successfully completed his/ her internship with
SHIVASHRI MEDIA PRIVATE LIMITED During the period of Internship he/ she worked under
in the following areas.

i) Giving voice over.

* Communication skills.

* Editing

ii) * Crisis reporting.

* Understanding policy & legislation.

* Field reporting.

2. He/ She has shown special flair for News editing, Voice over and

His/ her performance in preparation of the report has been rated as _____ (1 to 10 Points /
Grade)

3. During the period his/ her internship program he / she was punctual and hardworking.

4. I wish him/ her every success in his/ her career and life.

Ramya

Co-ordinator
Department of Arts
Soundarya Institute of Management and Science
Sidedahalli, Nagasandra Post,
Bengaluru - 560 073

Vamsi

Signature
PRINCIPAL
Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore-73



Shivashri Media Private Limited



INTERNSHIP CERTIFICATE

This is to Certify

Kiran

For completing his Internship Program from May
02, 2024 to May 13, 2024.

for SHIVASHRI MEDIA PRIVATE LIMITED



Managing Director

Dr. D S Shivarudrappa
Managing Director

CIN : U64200KA2020PTC139232

Office Address : Shivashri Media Private Limited
16/1, KKMP Building, Millers Tank Bund Road,
Vasantha Nagara, Bengaluru-560 052. Ph.: 080-69156600

REG. OFFICE : Shivashri Media Private Limited
40, K. No. 867/45/5/40, Thindlu Village, Virupaksha Pura,
Vidyaranyapura Post, Bengaluru-560 097.

INTERNSHIP REPORT

“RAJ NEWS KANNADA”

A report submitted in partial fulfillment of the requirements for the Award of Degree of

BACHELOR OF ARTS OF
BANGALORE UNIVERSITY



by

Mr.Kiran R

Regd. No.: U03KU21A0017

Under Supervision of

Mrs.Ramya H S (PROFESSOR)

Company Name: RAJ NEWS KANNADA

Place: Bangalore

(Duration: 02 MAY 2024 to 13 MAY, 2024)



DEPARTMENT OF ARTS

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka Soundarya Nagar,
Sidedahalli, NagasandraPost, Bangalore -560073

SUMMARY:

Duration: 02 MAY 2024-13MAY 2024

Overview: During my internship RAJ NEWS KANNADA had the privilege to delve deep into the realm of political reporting. I actively contributed to covering political events, conducting interviews, and analyzing policy developments. Political Event Coverage: Participated in live coverage and analysis of key political events, including elections, debates, and legislative sessions. Research and Analysis: Conducted in-depth research on political issues and policies, providing background information and context for news stories. Interviews and Reporting: Assisted in conducting interviews with political figures and stakeholders, contributing to the creation of balanced and informative news reports. Script Writing and Editing: Played a role in crafting scripts for political segments, ensuring clarity, accuracy, and relevance to current political discourse. Social Media Engagement: Supported the channel's social media strategy by generating content related to political news, engaging with the audience, and monitoring political discussions online. Editorial Participation: Attended editorial meetings where I contributed ideas and insights into political news coverage strategies. The Skills Developed by me are Political Journalism: Enhanced understanding of political processes, institutions, and dynamics. Interviewing Skills: Improved ability to conduct insightful and probing interviews with political figures. Research and Analysis: Strengthened research skills for gathering and verifying political information. Writing and Editing: Developed proficiency in writing clear, concise, and compelling news scripts. Media Engagement: Learned strategies for effective audience engagement through social media platform. My internship at RAJ NEWS KANNADA was instrumental in deepening my knowledge of political reporting and sharpening my journalistic skills. I gained firsthand experience in navigating the complexities of political journalism, from covering breaking news to analyzing policy implications. This internship has prepared me to contribute meaningfully to political discourse and informed public debate.

Application for Internship

1.	Name of the Candidate (In Block Letters)	LAVANYA.K
2.	Gender (Male/ Female/ Others)	FEMALE
3.	Complete Permanent Address	#50 4 th cross 1 st main road , Kanteerava Nagar, Nandini Layout, Bangalore 560096
4.	E-mail	Lavanyalavie618@gmail.com
5.	Adress and person to be contacted in case of emergency along with phone number	#50 4 th cross 1 st main road, Kanteerava Nagar, Nandini Layout, Bangalore 560096 Father: R G Kariyappa Phone no: 8147349357
6.	Mobile no's	8147349357/ 9663693577
7.	Course currently being studied by the candidate	BACHELOR OF ARTS
8.	Year in which studying	3 rd year
9.	Name of the Agency Supervisor	Mr. Ravi Muddi
10.	Contact No	9980510137
11.	Date of joining the Agency for internship	April 29th 2024
12.	Date of Completion of Internship	May 11 th 2024

Date: 27/04/2024

Lavanya K.
Signature of Student:

Recommendations of Head of Department/ Coordinator

LAVANYA. K

6th sem BA

Soundarya Institute of Management & Science

Date: April 27th 2024

To,

Head of the Department,

ASST.PROF RAMYA H.S

Coordinator of Humanities

Department of political science

Soundarya institute of management and science

Bengaluru-73

Respected Mam,

Subject: Request letter for internship.

As mentioned in the above subject, I am Lavanya.K of 6th sem BA (2021) studying in Soundarya Institute of Management and Science. I request you to grant permission for joining Internship in TV9 Kannada, From April 29th 2024 to May 11th 2024. As per the instructions from Bangalore University, it is a part of our academics. I kindly request you will allow me to work as an intern in TV9 Kannada.

Thank you

To give permission
to attend the
internship course for
15 days

Ramya
Signature



Soundarya Educational Trust (Regd.)
SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE
(Recognised by Govt. of Karnataka & Affiliated to Bangalore University)
Accredited by NAAC with "B+" Grade

FORMAT FOR NOC TO BE OBTAINED FROM COLLEGE / INSTITUTION

(To be given to letter Head) To be signed by HOD/ Principal

Date: 27-04-2024

SUB: No Objection Certificate for Internship Programme at

It is certified that Mr/ Ms is a bonafide student (Student ID no, Semester, name of the programme) of this (College/ Institution)

The (College/ Institution) has no objection for doing the Internship programme at TV 9 Kannada for the period from 29-4-2024 to 5-5-24. It is certified that he/ she is not registered for any course requiring his/ her attendance in the class during the said period.

The conduct of the student as recorded by the (College/Institution) has been found good/ satisfactory/unsatisfactory.

Ramya

Co-ordinator
Department of Arts
Soundarya Institute of Management and Science
Sidedahalli, Nagasandra Post,
Bengaluru - 560 073

(Signature and Seal)

PRINCIPAL
Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bengaluru - 560 073



FORMAT OF INTERNSHIP COMPLETION
CERTIFICATE

(To be given on Letter Head)

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr/ Ms Laranya. K a student of SIMS
(Name of the institution studying) has successfully completed his/ her internship with
TV 9 Kannada. During the period of Internship he/ she worked under
in the following areas.

- i. Political journalism.
- ii. Political news coverage.

2. He/ She has shown special flair for Social media marketing and
His/ her performance in preparation of the report has been rated as _____ (1 to 10 Points /
Grade)

3. During the period his/ her internship program he / she was punctual and hardworking.
4. I wish him/ her every success in his/ her career and life.

Romya

Co-ordinator
Department of Arts
Soundarya Institute of Management and Science
Sidedahalli, Nagasandra Post,
Bengaluru - 560 073

[Signature]

Signature
PRINCIPAL
Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore-73

INTERNSHIP REPORT

“TV9 KANNADA”

A report submitted in partial fulfillment of the requirements for the Award of Degree of

**BACHELOR OF ARTS
OF**



BANGALORE UNIVERSITY

**By: LAVANYA. K
REG.NO: U03KU21A0002**

Under Supervision of :
Mrs. RAMYA H S (PROFESSOR)
Channel Name: TV9 KANNADA

Place: Bangalore
(Duration: 29th April 2024 to 11th May, 2024)



DEPARTMENT OF POLITICAL SCIENCE
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE
NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka
Soundarya Nagar, Sidedahalli, Nagendra Post, Bangalore -560073
2021-2024

SUMMARY

During my internship with the political science team at TV9 Kannada, I had the opportunity to delve deeply into the intricacies of political journalism and witness firsthand the dynamics of political news coverage in a leading media environment. Over the course of my internship, which lasted from 29th april 2024 to 11th may 2024, I engaged in a variety of tasks that provided a comprehensive understanding of the field. My responsibilities included gathering and analyzing political news, conducting thorough research to prepare background information for stories, and supporting the team in editing and fact-checking to ensure accuracy and credibility in our reports.

One of the most significant experiences during my internship was being part of the team that covered the Prajwal Revanna controversy. This high-profile political case required meticulous attention to detail and a deep understanding of the political landscape. I contributed to the live coverage over three consecutive days, assisting in the production control room (PCR) where I was involved in coordinating the live broadcast, managing video feeds, and ensuring the seamless integration of on-air graphics and commentary. This experience highlighted the challenges of handling sensitive political content in real-time and the importance of quick decision-making and teamwork in a fast-paced news environment.

Additionally, I had the privilege of working closely with Sunil, a seasoned political reporter, who provided valuable insights into the nuances of political reporting. Through our interactions, I learned the significance of building a robust network of contacts for reliable news gathering and the skills required to conduct effective and insightful interviews with political figures. Observing Sunil's approach to interviewing political leaders underscored the importance of asking the right questions and maintaining a balanced and objective stance, even in the face of contentious issues.

The fast-paced and high-pressure environment at TV9 taught me the critical importance of accuracy, ethical considerations, and the necessity of maintaining objectivity in political journalism. I gained firsthand experience in verifying information from multiple sources to combat misinformation and ensure the credibility of our reports. This internship has not only enriched my understanding of political reporting but has also equipped me with practical skills and insights that will be invaluable in my future career in political science and journalism. The exposure to real-time news production, ethical challenges, and the dynamics of political news coverage at TV9 has provided a solid foundation for my professional development in this field.

INTERNSHIP REPORT

"RAJ NEW KANNADA"

A report submitted in partial fulfillment of the requirements for the Award of Degree of

**BACHELOR OF ARTS
OF**



BANGALORE UNIVERSITY

**By: PUSHPA REKHA G
REG.NO: U03KU21A0001**

**Under Supervision of :
Mrs. RAMYA H S (PROFESSOR)
Channel Name: RAJ NEWS KANNADA
Shivashri Media Pvt Ltd**

**Place: Bangalore
(Duration: 02nd May 2024 to 13th may, 2024)**



**DEPARTMENT OF POLITICAL SCIENCE
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE
NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka
Soundarya Nagar, Sidedahalli, Nagendra Post, Bangalore -560073
2021-2024**

Pushpa Rekha G

6th sem BA

Soundarya Institute of Management & Science

Date: May 1st 2024

To,

Head of the Department,

ASST.PROF RAMYA H.S

Coordinator of Humanities

Department of political science

Soundarya institute of management and science

Bengaluru-73

Respected Mam,

Subject: Request letter for internship.

As mentioned in the above subject, I am Pushpa Rekha G of 6th sem BA (2021) studying in Soundarya Institute of Manegmt and Science. I request you to grant permission for joining Internship in Raj News Kannada, From May 2nd 2024 to May 13th 2024. As per the instructions from Banglore University, it is a part of our academics . I kindly request you to allow for the internship in Raj news Kannada.

Thank you

Signature



FORMAT FOR NOC TO BE OBTAINED FROM COLLEGE / INSTITUTION

(To be given to letter Head)/ To be signed by HOD/ Principal

Date: 01 - 05 - 2024

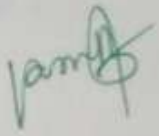
SUB: No Objection Certificate for Internship Programme at

It is certified that Mr/ Ms is a bonafide student (Student ID no, Semester, name of the programme) of this (College/ Institution).

The (College/ Institution) has no objection for doing the Internship programme at Raj news Kannada for the period from 2-5-24 to 13-5-24. It is certified that he/ she is not registered for any course requiring, his/ her attendance in the class during the said period.

The conduct of the student as recorded by the (College/Institution) has been found good/ satisfactory/unsatisfactory.

Co-ordinator
Department of Arts
Soundarya Institute of Management and Science
Sidedahalli, Nagasandra Post,
Bengaluru - 560 073


(Signature and Seal)

PRINCIPAL
Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore-73



FORMAT OF INTERNSHIP COMPLETION

CERTIFICATE

(To be given on Letter Head)

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr/ Ms Pushpa Rekha.G a student of SIMS
(Name of the institution studying) has successfully completed his/ her internship with
Raj news Kannada. During the period of Internship he/ she worked under
in the following areas.

- i. Election Survey team.
- ii. Script writing.

2. He/ She has shown special flair for Anchoring and

His/ her performance in preparation of the report has been rated as _____ (1 to 10 Points / Grade)

3. During the period his/ her internship program he / she was punctual and hardworking.

4. I wish him/ her every success in his/ her career and life.

Co-ordinator
Department of Arts
Soundarya Institute of Management and Science
Sidedahalli, Nagasandra Post,
Bengaluru - 560 073

Signature
PRINCIPAL
Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore-73

Application for Internship

1.	Name of the Candidate (In Block Letters)	PUSHPA REKHA G
2.	Gender (Male/ Female/ Others)	FEMALE
3.	Complete Permanent Address	#15 Vibhav Nilaya , Rajeshwarinagar, Lakshmipura main road, Madanayakanahalli Banglore 562162
4.	E-mail	Pushparekhag921@gmail.com
5.	Adress and person to be contacted in case of emergency along with phone number	#15 Vibhav Nilaya , Rajeshwarinagar, Lakshmipura main road, Madanayakanahalli Banglore 562162 Father: Govindaraju C G Phone no: 9740927568
6.	Mobile no's	8431564521/ 9845915454
7.	Course currently being studied by the candidate	BACHELOR OF ARTS
8.	Year in which studying	3 rd year
9.	Name of the Agency Supervisor	Dr.Shivarudrappa
10.	Contact No	
11.	Date of joining the Agency for internship	May 2 nd 2024
12.	Date of Completion of Internship	May 13 th 2024

Date:


Signature of Student:

Recommendations of Head of Department/ Coordinator



Shivashri Media Private Limited



INTERNSHIP CERTIFICATE

This is to Certify

Pushparekha

For completing her Internship Program from
May 02, 2024 to May 13, 2024.

for SHIVASHRI MEDIA PRIVATE LIMITED

Managing Director

Dr. D S Shivarudrappa
Managing Director

CIN : 254200KA2020PTC139232

Office Address : Shivashri Media Private Limited

167, KMP Building, Millers Tank Bund Road,

Basant Nagar, Bengaluru-560 052. Ph.: 080-69156600

REG. OFFICE : Shivashri Media Private Limited

40, K. No. 867/45/5/40, Thindlu Village, Virupaksha Pura,

Vidyaranyapura Post, Bengaluru-560 097.

SUMMARY

Internships play a crucial role in bridging the gap between academic learning and real-world application. They offer invaluable hands-on experience and insights into professional environments. The enriching experience of interning at Raj News Kannada, a prominent regional news channel in Karnataka, India. The internship not only provided practical knowledge but also an understanding of the media landscape in the Kannada-speaking regions. As an intern at Raj News Kannada, my role encompassed a variety of tasks that contributed to the news production process in political aspects. Initially, I was introduced to the basics of information gathering, which involved attending press conferences and reporting it this senior reports and editors. This phase was instrumental in honing my skills, particularly in the areas of research and effective communication. I was also involved in the newsroom, assisting with scriptwriting, editing, and the production of news bulletins. Working closely with seasoned journalists and editors, I learned the importance of accuracy and timeliness. The fast-paced environment of the newsroom taught me to work under pressure and adhere to tight deadlines, a crucial skill in the media industry. One of the significant learning outcomes from this internship was the development of a strong content. Understanding what constitutes worthy content and how to present it in an engaging manner was a critical aspect of my training. The experience also enhanced my technical skills, particularly the internship provided a deep dive into the workings of a regional news channel. I gained insights into the preferences and interests of the Kannada-speaking audience, which differ from those of a national audience. While I was with election survey team I understood that their was in need of educating people and public about importance of election and value of every single vote. The internship was not without its challenges. One of the primary challenges was adapting to the fast-paced environment of a news channel. The constant need for immediate and accurate reporting required quick thinking and decision-making. With guidance from mentors and a supportive team, I gradually adapted to these demands. Another challenge was overcoming language barriers. While I am fluent in Kannada, the dialects and local slang used in different parts of Karnataka required some getting used to. This experience, however, improved my linguistic abilities and helped me connect better with the local populace. The internship at Raj News Kannada was a transformative experience, equipping me with practical skills and a comprehensive understanding of the media industry. It bridged the gap between theoretical knowledge and practical application, preparing me for a future. The challenges faced and the lessons learned during this period will serve as a strong foundation for my professional journey. Raj News Kannada provided not just an internship, but a launchpad for aspiring my profession.

Application for Internship

1.	Name of the Candidate (In Block Letters)	SURYA.S
2.	Gender (Male/ Female/ Others)	MALE
3.	Complete Permanent Address	no. 21, saphagiri Nilaya, 1st cross, Nandana Nagar, Shettihalli Main Rd, Jalahalli West, Bengaluru, Karnataka 560015
4.	E-mail	<u>SURYA.SUDHIR02@GMAIL.COM</u>
5.	Adress and person to be contacted in case of emergency along with phone number	no. 21, saphagiri Nilaya, 1st cross, Nandana Nagar, Shettihalli Main Rd, Jalahalli West, Bengaluru, Karnataka 560015 Father: SUDHIR.G Phone no: 9742670362/8618264029
6.	Mobile no's	7483217136
7.	Course currently being studied by the candidate	BACHELOR OF ARTS
8.	Year in which studying	3 rd year
9.	Name of the Agency Supervisor	DHIRM KUMAR
10.	Contact No	08049686666
11.	Date of joining the Agency for internship	APRIL 22 nd 2024
12.	Date of Completion of Internship	May 10 th 2024

Date: 22/04/2024

Surya.S
Signature of Student:

Recommendations of Head of Department/ Coordinator



Soundarya Educational Trust (Regd.)
SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE
(Recognised by Govt. of Karnataka & Affiliated to Bangalore University)
Accredited by NAAC with "B+" Grade

FORMAT OF INTERNSHIP COMPLETION
CERTIFICATE

(To be given on Letter Head)

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr/ Ms SURYA S. a student of SIMS
(Name of the institution studying) has successfully completed his/ her internship with
EAGLE EIGHT MEDIA PVT. LTD. During the period of Internship he/ she worked under
in the following areas.

- i. Editing.
News working organization.
- ii. Reporting.

2. He/ She has shown special flair for Editing and
His/ her performance in preparation of the report has been rated as _____ (1 to 10 Points /
Grade)

3. During the period his/ her internship program he / she was punctual and hardworking.

4. I wish him/ her every success in his/ her career and life.

Romya

Co-ordinator
Department of Arts

Soundarya Institute of Management and Science
Sidedahalli, Nagasandra Post,
Bengaluru - 560 073

[Signature]

Signature
PRINCIPAL

Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore-73



FORMAT FOR NOC TO BE OBTAINED FROM COLLEGE / INSTITUTION

(To be given to letter Head/ To be signed by HOD/ Principal)

Date *20 April 2024*

OUR No Objection Certificate for Internship Programme at

It is certified that Mr/ Ms is a bonafide student (Student ID no, Semester, name of the programme) of this (College/ Institution).

The (College/ Institution) has no objection for doing the Internship programme at CRIS Global MEDIA LTD for the period from 22 April to 10 May. It is certified that he/ she is not registered for any course requiring, his/ her attendance in the class during the said period.

The conduct of the student as recorded by the (College/Institution) has been found good/ satisfactory/satisfactory

Ramy
Co-ordinator
Department of Arts
Soundarya Institute of Management and Science
Sidedahalli, Nagasandra Post,
Bangalore - 560 073

Ramy
(Signature and Seal)
PRINCIPAL
Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore-73

INTERNSHIP REPORT

“BTV KANNADA NEWS CHANNEL

A report submitted in partial fulfillment of the requirements for the Award of Degree of

**BACHELOR OF ARTS
OF**



BANGALORE UNIVERSITY

**By: SURYA.S
REG.NO: U03KU21A0004**

**Under Supervision of :
Mrs. RAMYA H S (PROFESSOR)
Channel Name: BTV KANNADA NEWS**

**Place: Bangalore
(Duration: 22nd April 2024 to 10th May 2024)**



**DEPARTMENT OF POLITICAL SCIENCE
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE
NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka
Soundarya Nagar, Sidedahalli, Nagendra Post, Bangalore -560073
2021-2024**

SUMMARY

Internships play a crucial role in bridging the gap between academic learning and real-world application. They offer invaluable hands-on experience and insights into professional environments. The enriching experience of interning at BTV KANNADA NEWS, a prominent regional news channel in Karnataka, India. The internship not only provided practical knowledge but also an understanding of the media landscape in the Kannada-speaking regions.

As an intern at BTV KANNADA NEWS , my role encompassed a variety of tasks that contributed to the news production process in political aspects. Initially, I was introduced to the basics of information gathering, which involved attending press conferences and reporting it this senior reports and editors. This phase was instrumental in honing my skills, particularly in the areas of research and effective communication. I was also involved in the newsroom, assisting with scriptwriting, editing, and the production of news bulletins. Working closely with seasoned journalists and editors, I learned the importance of accuracy and timeliness. The fast-paced environment of the newsroom taught me to work under pressure and adhere to tight deadlines, a crucial skill in the media industry. One of the significant learning outcomes from this internship was the development of a strong content. Understanding what constitutes worthy content and how to present it in an engaging manner was a critical aspect of my training. The experience also enhanced my technical skills, particularly the internship provided a deep dive into the workings of a regional news channel. I gained insights into the preferences and interests of the Kannada-speaking audience, which differ from those of a national audience. While I was with election survey team I understood that their was in need of educating people and public about importance of election and value of every single vote. The internship was not without its challenges. One of the primary challenges was adapting to the fast-paced environment of a news channel. The constant need for immediate and accurate reporting required quick thinking and decision-making. With guidance from mentors and a supportive team, I gradually adapted to these demands. Another challenge was overcoming language barriers. While I am fluent in Kannada, the dialects and local slang used in different parts of Karnataka required some getting used to. This experience, however, improved my linguistic abilities and helped me connect better with the local populace. The internship at BTV Kannada NEWS was a transformative experience, equipping me with practical skills and a comprehensive understanding of the media industry. It bridged the gap between theoretical knowledge and practical application, preparing me for a future. The challenges faced and the lessons learned during this period will serve as a strong foundation for

Application for Internship

1.	Name of the Candidate (In Block Letters)	VARUN.B.S.
2.	Gender (Male/ Female/ Others)	MALE
3.	Complete Permanent Address	#45/13 6 th cross 2nd main road , Kanteerava Nagar, Nandini Layout, Bangalore 560096
4.	E-mail	Varunbs3313@gmail.com
5.	Adress and person to be contacted in case of emergency along with phone number	#45/13 6 th cross 2nd main road , Kanteerava Nagar, Nandini Layout, Bangalore 560096 Father: Siddappa.B. Phone no: 9880356730
6.	Mobile no's	9113894645
7.	Course currently being studied by the candidate	BACHELOR OF ARTS
8.	Year in which studying	3 rd year
9.	Name of the Agency Supervisor	Mr. Ravi Muddi
10.	Contact No	9980510137
11.	Date of joining the Agency for internship	April 29th 2024
12.	Date of Completion of Internship	May 11 th 2024

Date:

Signature of Student:

Recommendations of Head of Department/ Coordinator

VARUN.B.S.

6th sem BA

Soundarya Institute of Management & Science

Date: April 27th 2024

To,

Head of the Department,

ASST.PROF RAMYA H.S

Coordinator of Humanities

Department of political science

Soundarya institute of management and science

Bengaluru-73

Respected Mam,

Subject: Request letter for internship.

As mentioned in the above subject, I am Varun.B.S. of 6th sem BA (2021) studying in Soundarya Institute of Management and Science. I request you to grant permission for joining Internship in TV9 Kannada, From April 29th 2024 to May 11th 2024. As per the instructions from Bangalore University, it is a part of our academics. I kindly request you will allow me to work as an intern in TV9 Kannada.

Thank you

*Granted permission
to discharge
the internship
process*

Ramya
Signature



Soundarya Educational Trust (Regd.)
SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE
(Recognised by Govt. of Karnataka & Affiliated to Bangalore University)
Accredited by NAAC with "B+" Grade

FORMAT FOR NOC TO BE OBTAINED FROM COLLEGE / INSTITUTION

(To be given to letter Head)/ To be signed by HOD/ Principal

Date: 27-04-2024

SUB: No Objection Certificate for Internship Programme at

It is certified that Mr/ Ms is a bonafide student (Student ID no, Semester, name of the programme) of this (College/ Institution).

The (College/ Institution) has no objection for doing the Internship programme at TN9 Kannada for the period from 29-4-24 to 11-5-24. It is certified that he/ she is not registered for any course requiring, his/ her attendance in the class during the said period.

The conduct of the student as recorded by the (College/Institution) has been found good/ satisfactory/unsatisfactory.

Ramya
Co-ordinator
Department of Arts
Soundarya Institute of Management and Science
Sidedahalli, Nagasandra Post,
Bengaluru - 560 073

Ramya
(Signature and Seal)

PRINCIPAL
Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore-73



FORMAT OF INTERNSHIP COMPLETION
CERTIFICATE

(To be given on Letter Head)

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr/ Ms Varun. B. S a student of SIMS

(Name of the institution studying) has successfully completed his/ her internship with
TN 9 Kannada. During the period of Internship he/ she worked under
in the following areas.

- i. Editing.
Production
- ii. Show production.
Field Reporting
Anchoring

2. He/ She has shown special flair for field reporting. and

His/ her performance in preparation of the report has been rated as _____ (1 to 10 Points / Grade)

3. During the period his/ her internship program he / she was punctual and hardworking.

4. I wish him/ her every success in his/ her career and life.

Ramya

Co-ordinator
Department of Arts
Soundarya Institute of Management and Science
Sidedahalli, Nagasandra Post,
Bengaluru - 560 073

Jamb

Signature
PRINCIPAL
Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore-73

INTERNSHIP REPORT

"TV9 KANNADA"

A report submitted in partial fulfillment of the requirements for the Award of Degree of

**BACHELOR OF ARTS
OF**



BANGALORE UNIVERSITY

By: VARUN.B.S.
REG.NO: U03KU21A0018

Under Supervision of :
Mrs. RAMYA H S (PROFESSOR)
Channel Name: TV9 KANNADA

Place: Bangalore
(Duration: 29th April 2024 to 11th May, 2024)



**DEPARTMENT OF POLITICAL SCIENCE
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE**
NAAC 'B+' Accredited Institution, Affiliated to Bangalore University Karnataka
Soundarya Nagar, Sidedahalli, Nagendra Post, Bangalore -560073
2021-2024

SUMMARY

During my internship with the political science team at TV9 Kannada from [Start Date] to [End Date], I had an invaluable opportunity to dive deep into the world of political journalism and witness the complexities and nuances of political news coverage. My role at TV9 encompassed a broad range of responsibilities, from gathering and analyzing political news to supporting the team in editing and ensuring the accuracy of reports. One of the most impactful experiences was contributing to the live coverage of the Prajwal Revanna controversy, a significant political event that required not only meticulous attention to detail but also a comprehensive understanding of the political landscape. I was actively involved in the production control room (PCR), where I assisted in managing video feeds, coordinating live broadcasts, and ensuring the accuracy of on-air graphics and commentary. This experience was a testament to the fast-paced and dynamic nature of news production, highlighting the importance of quick decision-making, teamwork, and the ability to handle real-time pressure.

Working closely with experienced journalists like Sunil provided me with deep insights into the world of political reporting. I learned the art of conducting insightful interviews with political figures, which involved preparing relevant questions and understanding the broader political context. Sunil's emphasis on building a robust network of contacts underscored the necessity of relationships in journalism for obtaining reliable information and gaining exclusive insights into political developments. My tasks also included researching and preparing background information for political stories, which taught me the critical importance of context in shaping public perception and understanding of political events.

The internship exposed me to the ethical dilemmas faced by journalists, such as maintaining objectivity, ensuring the accuracy of information, and dealing with the spread of misinformation. I witnessed firsthand the ethical considerations that must be balanced in political journalism, such as the need for impartiality and the responsibility to provide truthful and unbiased information to the public. These experiences have reinforced the importance of journalistic integrity and the impact of responsible reporting in shaping public discourse.

Overall, my time at TV9 Kannada has provided me with a comprehensive understanding of the complexities of political journalism and the skills necessary to navigate this challenging field. The internship has equipped me with practical experience in political news gathering and reporting, the intricacies of live news production, and the ethical considerations inherent in journalism. This experience has not only deepened my interest in political reporting but has also prepared me to approach the challenges of this profession with confidence and a commitment to journalistic excellence. The knowledge and skills I have gained during this internship will undoubtedly serve as a strong foundation for my future career in political science and journalism.



Ref: TV9/HR/011/01

Date: 27/06/2024

To whomsoever it may concern

This is to certify that Mr. Varun B.S successfully completed his internship training from 27/04/2024 to 11/05/2024.

During this period, he learnt the basics of television journalism. We wish him all the best in his future endeavors.

For Associated Broadcasting Company Pvt Ltd


Authorized Signatory





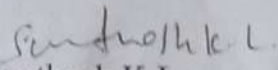
LETTER OF COMPLETION OF INTERNSHIP

This is to inform you that Miss NAVYA N POOJARI, REG NO. P03KU22M015059 Of Soundarya Institute Of Management and Science affiliated to Bangalore University, has successfully completed her Internship Training in our organization from 24th July 2023 to 10th September 2023.

During her training we found her to be sincere and hardworking,

We wish her all the best for her future endeavours.

For Santhosh K.L & Co
Chartered Accountants,
Firm Registration No 022387S


Santhosh K.L
Proprietor
M No 254311

Date: 11.09.2023



LETTER OF COMPLETION OF INTERNSHIP

This is to inform you that Miss BHAVYA S, REG NO. P03KU22M015054 Of Soundarya Institute Of Management and Science affiliated to Bangalore University, has successfully completed her Internship Training in our organization from 24th July2023 to 10th September 2023.

During her training we found her to be sincere and hardworking,

We wish her all the best for her future endeavours.

For Santhosh K.L & Co
Chartered Accountants,
Firm Registration No 022387S

Santhosh K.L.
Santhosh K.L
Proprietor
M No 254311

✓

Date: 11.09.2023



WORKFALL
PTE LTD



105 Cecil Street
#22-11 The Octagon
Singapore 069534



contact@workfall.com



(+65) 6978 1008



www.workfall.com

TO WHOMSOEVER IT MAY CONCERN

3rd October 2023

This is to certify that **Huzaifa J** had worked with us as a **Tech Talent Acquisition Intern** from **31st July 2023** to **3rd October 2023**. During his tenure we found him to be creative, sincere and hardworking.

We wish him all the best in his future endeavors.

For Workfall Pte Ltd,

Ritu Ashar

Co-Founder & Chief Learning Officer

Certificate of Internship

This is to certify that **Mr. Anand R** has successfully completed an internship with Planotech Events and Marketing as a **Finance and Accounts Intern** in the **Finance and Accounts** Department from 15 Jul 2023 to 08 Sep 2023. During the internship, he was exposed to different processes of this industry and developed considerable skills, including soft skills such as communication, teamwork, adaptability, and resilience.

Besides showing high comprehension capacity, managing assignments with the utmost expertise, and exhibiting maximal efficiency, he has maintained an outstanding professional demeanor and showcased an excellent positive attitude throughout the internship.

We certify that overall he was found to be hardworking, diligent, and inquisitive to the best of my knowledge.

We wish him the best of luck in his all future endeavors.

For Planotech Events and Marketing,



Authorised Signatory



Certificate of Internship

This is to certify that **Mr. Rahul Sharma** has successfully completed an internship with Planotech Events and Marketing (OPC) Pvt Ltd as a **Finance and Accounts Intern** in the **Finance and Accounts** Department from 15 Jul 2023 to 06 Sep 2023. During the internship, he was exposed to different processes of this industry and developed considerable skills, including soft skills such as communication, teamwork, adaptability, and resilience.

Besides showing high comprehension capacity, managing assignments with the utmost expertise, and exhibiting maximal efficiency, he has maintained an outstanding professional demeanor and showcased an excellent positive attitude throughout the internship.

We certify that overall he was found to be hardworking, diligent, and inquisitive to the best of my knowledge.

We wish him the best of luck in him all future endeavors.

For Planotech Events and Marketing (OPC) Pvt Ltd,



Authorised Signatory

Certificate of Internship

This is to certify that **Ms. Pallavi C** has successfully completed an internship with Planotech Events and Marketing (OPC) Pvt Ltd as a **Finance and Accounts Intern** in the **Finance and Accounts Department** from 15 Jul 2023 to 06 Sep 2023. During the internship, she was exposed to different processes of this industry and developed considerable skills, including soft skills such as communication, teamwork, adaptability, and resilience.

Besides showing high comprehension capacity, managing assignments with the utmost expertise, and exhibiting maximal efficiency, she has maintained an outstanding professional demeanor and showcased an excellent positive attitude throughout the internship.

We certify that overall she was found to be hardworking, diligent, and inquisitive to the best of my knowledge.

We wish her the best of luck in her all future endeavors.

For Planotech Events and Marketing(OPC) Pvt Ltd,



Authorised Signatory



PLANOTECH™

Events & Marketing (OPC) Pvt. Ltd.
Crafting Transformative Experiences

Certificate of Internship

This is to certify that **Ms. Heena Khouser** has successfully completed an internship with Planotech Events and Marketing (OPC) Pvt Ltd as a **Finance and Accounts Intern** in the **Finance and Accounts** Department from 15 Jul 2023 to 06 Sep 2023. During the internship, she was exposed to different processes of this industry and developed considerable skills, including soft skills such as communication, teamwork, adaptability, and resilience.

Besides showing high comprehension capacity, managing assignments with the utmost expertise, and exhibiting maximal efficiency, she has maintained an outstanding professional demeanor and showcased an excellent positive attitude throughout the internship.

We certify that overall she was found to be hardworking, diligent, and inquisitive to the best of my knowledge.

We wish her the best of luck in her all future endeavors.

For Planotech Events and Marketing (OPC) Pvt Ltd,



Authorised Signatory

Certificate of Internship

This is to certify that **Mr. Yashwanth A N** has successfully completed an internship with Planotech Events and Marketing (OPC) Pvt Ltd as a **Finance and Accounts Intern** in the **Finance & Accounts Department** from 15 Jul 2023 to 06 Sep 2023. During the internship, he was exposed to different processes of this industry and developed considerable skills, including soft skills such as communication, teamwork, adaptability, and resilience.

Besides showing high comprehension capacity, managing assignments with the utmost expertise, and exhibiting maximal efficiency, he has maintained an outstanding professional demeanor and showcased an excellent positive attitude throughout the internship.

We certify that overall he was found to be hardworking, diligent, and inquisitive to the best of my knowledge.

We wish him the best of luck in him all future endeavors.

For Planotech Events and Marketing (OPC) Pvt Ltd,



Authorised Signatory

Certificate of Internship

This is to certify that **Mr. Akash M** has successfully completed an internship with Planotech Events and Marketing (OPC) Pvt Ltd as a **HR and Marketing Intern** in the **HR and Business Development** Department from 15 Jul 2023 to 06 Sep 2023. During the internship, he was exposed to different processes of this industry and developed considerable skills, including soft skills such as communication, teamwork, adaptability, and resilience.

Besides showing high comprehension capacity, managing assignments with the utmost expertise, and exhibiting maximal efficiency, he has maintained an outstanding professional demeanor and showcased an excellent positive attitude throughout the internship.

We certify that overall he was found to be hardworking, diligent, and inquisitive to the best of my knowledge.

We wish him the best of luck in his all future endeavors.

For Planotech Events and Marketing (OPC) Pvt Ltd,



Authorised Signatory



PLANOTECH
Events & Marketing (OPC) Pvt. Ltd

Certificate of Internship

This is to certify that **Ms. Sindhu L K** has successfully completed an internship with Planotech Events and Marketing (OPC) Pvt Ltd as a **HR Intern** in the **Human Resource** Department from 15 Jul 2023 to 06 Sep 2023. During the internship, she was exposed to different processes of this industry and developed considerable skills, including soft skills such as communication, teamwork, adaptability, and resilience.

Besides showing high comprehension capacity, managing assignments with the utmost expertise, and exhibiting maximal efficiency, she has maintained an outstanding professional demeanor and showcased an excellent positive attitude throughout the internship.

We certify that overall she was found to be hardworking, diligent, and inquisitive to the best of my knowledge.

We wish her the best of luck in her all future endeavors.

For Planotech Events and Marketing (OPC) Pvt Ltd,

Authorised Signatory



PLANOTECH™

Events & Marketing (OPC) Pvt. Ltd.
Crafting Transformative Experiences

Certificate of Internship

This is to certify that **Mr. Vishnu G L** has successfully completed an internship with Planotech Events and Marketing (OPC) Pvt Ltd as a **Finance and Accounts Intern** in the **Finance & Accounts and BD** Department from 15 Jul 2023 to 06 Sep 2023. During the internship, he was exposed to different processes of this industry and developed considerable skills, including soft skills such as communication, teamwork, adaptability, and resilience.

Besides showing high comprehension capacity, managing assignments with the utmost expertise, and exhibiting maximal efficiency, he has maintained an outstanding professional demeanor and showcased an excellent positive attitude throughout the internship.

We certify that overall he was found to be hardworking, diligent, and inquisitive to the best of my knowledge.

We wish him the best of luck in him all future endeavors.

For Planotech Events and Marketing (OPC) Pvt Ltd,



Authorised Signatory

Certificate of Internship

This is to certify that **Mr. Akash M** has successfully completed an internship with Planotech Events and Marketing (OPC) Pvt Ltd as a **Finance and Accounts Intern** in the **Finance & Accounts and BD** Department from 15 Jul 2023 to 06 Sep 2023. During the internship, he was exposed to different processes of this industry and developed considerable skills, including soft skills such as communication, teamwork, adaptability, and resilience.

Besides showing high comprehension capacity, managing assignments with the utmost expertise, and exhibiting maximal efficiency, he has maintained an outstanding professional demeanor and showcased an excellent positive attitude throughout the internship.

We certify that overall he was found to be hardworking, diligent, and inquisitive to the best of my knowledge.

We wish him the best of luck in him all future endeavors.

For Planotech Events and Marketing (OPC) Pvt Ltd,



Authorised Signatory



PLANOTECH
Events & Marketing (OPC) Pvt. Ltd

Certificate of Internship

This is to certify that **Ms. Bhoomika S D** has successfully completed an internship with Planotech Events and Marketing (OPC) Pvt Ltd as a **HR and Marketing Intern** in the **HR and Business Development** Department from 15 Jul 2023 to 06 Sep 2023. During the internship, she was exposed to different processes of this industry and developed considerable skills, including soft skills such as communication, teamwork, adaptability, and resilience.

Besides showing high comprehension capacity, managing assignments with the utmost expertise, and exhibiting maximal efficiency, she has maintained an outstanding professional demeanor and showcased an excellent positive attitude throughout the internship.

We certify that overall she was found to be hardworking, diligent, and inquisitive to the best of my knowledge.

We wish her the best of luck in her all future endeavors.

For Planotech Events and Marketing (OPC) Pvt Ltd,

Authorised Signatory

03 February 2024

**CERTIFICATE OF INTERNSHIP
TO WHOMSOEVER IT MAY CONCERN**

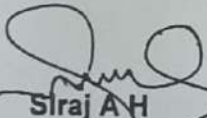
This is to certify that **Mr. Manoj M** student of **Soundarya Institute of Management and Science, 296, 9th Cross Rd, Prakruthi Layout, Siddeshwar Layout, Soundarya Layout, Bengaluru, Karnataka 560073**, was trainee with us as **Internship – Finance** from **04th January 2024 to 03rd February 2024**, as part of academic study.

He has done an exemplary training while intern with us & has always maintained professional relations with the team & colleagues.

During his internship he has demonstrated his skills with self-motivation to learn new skills. His performance exceeded our expectations, and he was able to complete the project on time.

We wish him all the best for his upcoming career and future opportunities.

For, Lulu International Shopping Malls Private Limited


Sriraj A H
Manager – HR



03 February 2024

CERTIFICATE OF INTERNSHIP
TO WHOMSOEVER IT MAY CONCERN

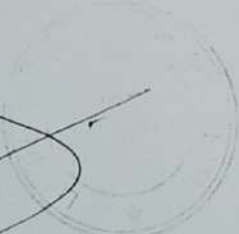
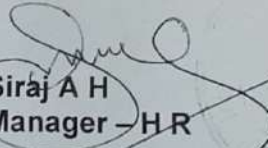
This is to certify that **Ms. Devika Rani M** student of **Soundarya Institute of Management and Science, 296, 9th Cross Rd, Prakruthi Layout, Siddeshwar Layout, Soundarya Layout, Bengaluru, Karnataka 560073**, was trainee with us as **Internship – Marketing** from **04th January 2024** to **03rd February 2024**, as part of academic study.

She has done an exemplary training while intern with us & has always maintained professional relations with the team & colleagues.

During her internship she has demonstrated her skills with self-motivation to learn new skills. Her performance exceeded our expectations, and she was able to complete the project on time.

We wish her all the best for her upcoming career and future opportunities.

For, **Lulu International Shopping Malls Private Limited**



Siraj A H
Manager –HR



SOUTHERN ELECTRONICS (BANGALORE) PVT. LTD.

16-A, PEENYA INDUSTRIAL AREA, PHASE-1, PEENYA, BANGALORE - 560 058.

Phone : +91-80-69180304 / 335

e-mail : admin@seonics.co.in / marketing@seonics.co.in http : // www.seonics.co.in

CIN No. U31909KA1971PTC002095

SEB/PRJ/70

Date: 01.02.2024

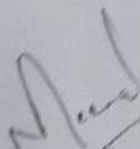
TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Pavithra B. V.** (Reg. No. P03KU22M015064), student of **SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE** pursuing 3rd Semester, MBA programme, has successfully completed internship programme at Southern Electronics (B) Pvt. Ltd. Under the guidance of Mrs. Beena Miranda (HR Executive) from 03-01-2024 to 31-01-2024.

The Performance and conduct during her stay in the organization was found to be satisfactory.

We wish her all the very best in her future endeavors.

For **SOUTHERN ELECTRONICS (BANGALORE) PVT. LTD.**


Meena Kumari S.
Manager-HR





Fwd: OFFER OF INTERNSHIP - ALPHA DESIGN TECHNOLOGIES

2 messages

Surabhi Raj <surabhiraj1951@gmail.com>
To: sims.placements@soundaryainstitutions.in

Wed, Jan 10, 2024 at 4:51 PM

----- Forwarded message -----

From: **Shilpa** <shilpapatil@adtl.co.in>

Date: Fri, 5 Jan 2024 at 12:10 PM

Subject: OFFER OF INTERNSHIP - ALPHA DESIGN TECHNOLOGIES

To: surabhiraj1951@gmail.com <surabhiraj1951@gmail.com>

Cc: Sheelaa <sheela@adtl.co.in>, Kishore Kumar S R <kishorekumar.sr@adtl.co.in>, Girish M <girish.m@adtl.co.in>,
Manoj Kumar N <manojkumar.n@adtl.co.in>, Aruna Devi S <aruna@adtl.co.in>, Madesh M <madesh.m@adtl.co.in>

Dear Surabhi,

With reference to our telephonic conversation,

We are pleased to offer you an Internship in our Organization for a period of One Month.

1. Please convey your acceptance to facilitate other formalities at our end.
2. The following documents / details are required on your reporting date at **09:30 AM on Monday, 08th January 2024** at the below mentioned address.

Alpha Design Technologies Pvt. Ltd

HR Department

09, Service Road, HAL II Stage,

Indiranagar, Bangalore - 560 008.

- a) All testimonials / certificates pertaining to your education including completion certificate.
 - b) Original AADHAAR card (mandatory).
 - c) Photocopies of the above (a),(b),
 - e) Covid vaccination certificate (mandatory).
 - f) 02 Passport size photographs of self
3. Kindly acknowledge receipt.

Thanks & Regards,

Shilpa

Executive (Human Resources)

ALPHA DESIGN TECHNOLOGIES PVT. LTD - SEZ

No. 20, Aerospace SEZ Sector, Hitech Defence and Aerospace Park,

Kavadadasanahalli, Devanahalli Taluk, Bangalore Rural.

Karnataka - 562 110.

Mob No. +916362344793

E-mail: shilpapatil@adtl.co.in

DISCLAIMER: The information contained in this electronic message and any other attachment to this message are intended solely for the addressee and may contain information that is confidential, privileged and exempt from disclosure under applicable law. If you are not the intended recipient, you are hereby formally notified that any use, copying or distribution of this e-mail, in whole or in part, is strictly prohibited. Please immediately notify the sender by return e-mail and delete all copies of this e-mail and any attachments from your system. Any views or opinions presented in this email are solely those of the author and do not necessarily represent those of the company.
WARNING: Computer viruses can be transmitted via email. The recipient should check this email and any attachments for the presence of viruses. Alpha Design Technologies accepts no liability for any damage caused by any virus transmitted by this email.--

Placements and Training <sims.placements@soundaryainstitutions.in>
To: sahana.s@soundaryainstitutions.in

Wed, Jan 10, 2024 at 4:54 PM

[Quoted text hidden]



30/08/2023

Internship Completion Certificate

This is to certify that Mr. Justin James from Soundarya Institute of Management and Science, Karnataka has completed Internship / Project in ABB India Limited, as partial fulfillment of the University course requirements from 18 July 2023 to 31 Aug 2023.

During this period Mr. Justin has completed a study on **Organizational Study under the guidance of Ms. Manjula Narayanan.**

During this period, he proved to be resourceful, hardworking and a fast learner.

We wish him all the best for his future endeavors.

Thanking you,

Yours faithfully,

For ABB India Limited.



Sd/-

TKS Nair

Head - Payroll & Employee Benefits

SUPERVISOR EVALUATION OF INTERN

Confidential Report: (enclose in separate envelop)

Students Name: Justin James

Industry Supervisor Name & Designation: Ms. Manjula Narayanan
H.R - Welfare Officer

Company Name & Address: ABB India Limited Plot No 5 E6, 2nd Phase
Peenya Industrial Estate Bangalore 560058

Period of Internship: From 18 July 2023 to 31 August 2023

Please evaluate the intern by indicating the frequency with which you observed the following behaviour.

PO	Parameters	Needs improvement	Satisfactory	Good	Very Good	Excellent
1	Acquires knowledge quickly				✓	✓
2	Analyzes problems effectively				✓	✓
3	Takes initiative				✓	✓
4	Cooperates with co-workers and				✓	✓
5	Accepts responsibility and is confident				✓	✓
6	Effective in communication			✓	✓	
7	Demonstrates creativity/originality					
8	Student is dependable					

Sl. No.	Parameters	Needs improvement	Satisfactory	Good	Very Good	Excellent
1	Shows interest in work				✓	✓
2	Is self-reliant				✓	✓
3	Demonstrates organizational skills				✓	✓
4	Shows good judgment				✓	✓
5	Accepts criticism				✓	✓
6	Produces high quality work				✓	✓
7	Exhibits a professional attitude				✓	✓
8	Professional in appearance				✓	✓
9	Is punctual and disciplined				✓	✓
10	Uses time effectively				✓	✓

Overall performance of the student intern: (Please tick mark)

Needs improvement / Satisfactory / Good / Very Good / Excellent.

Additional Comments if any: - Overall his performance is good.

The intern's status with respect to stipend: Stipend given / Not given

Stipend amount sanctioned: Nil

Signature of the Industry Supervisor / HR Manager: [Signature]

Official Seal:

Date: 31 August 2023





30/08/2023

Internship Completion Certificate

This is to certify that Ms. Chaitra C from Soundarya Institute of Management and Science, Karnataka has completed Internship / Project in ABB India Limited, as partial fulfillment of the University course requirements from 18 July 2023 to 31 Aug 2023.

During this period Ms. Chaitra has completed a study on **Organizational Study under the guidance of Mr. Murthy K M (Labor Relations Partner)**.

During this period, she proved to be resourceful, hardworking and a fast learner.

We wish her all the best for her future endeavors.

Thanking you,

Yours faithfully,

For ABB India Limited.



Sd/-

TKS Nair

Head - Payroll & Employee Benefits

ABB India Limited
6, 7th Floor
Brigade Magnum
Kodigehalli Post
Bengaluru - 560 092

CIN: L32202KA1949PLC032923
GST: 29AAACA3634B124
Phone: +91 80 2294 1990
Fax: +91 80 2294 1998

Registered Office and Corporate Office
Plot No. 5 & 6, 2nd Stage
Peenya Industrial Area IV, Peenya
Bengaluru - 560 058
Karnataka

Phone: +91 80 2294 9150 - 54
Fax: +91 80 2294 9148
www.abb.com/in



24/08/2023

Internship Completion Certificate

This is to certify that **Ms. Gopika M** from Soundarya Institute of Management and Science, Bengaluru has completed Internship / Project in ABB India Limited, as partial fulfillment of the University course requirements from 25 July 2023 to 24 August 2023.

During this period Ms. Gopika has completed a study on **Organizational Study under the guidance of Manjula K.**

During this period, she proved to be resourceful, hardworking and a fast learner.

We wish her all the best for her future endeavors.

Thanking you,

Yours faithfully,

For ABB India Limited.



Sd/-

TKS Nair

Head – Payroll & Employee Benefits

ABB India Limited
6, 7th Floor
Brigade Magnum
Kodigehalli Post
Bengaluru – 560 092

CIN: L32202KA1949PLC032923
GST: 29AAACA38348124

Phone: +91 80 2294 1990
Fax: +91 80 2294 1998

Registered Office and Corporate Office
Plot No. 5 & 6, 2nd Stage
Peenya Industrial Area IV, Peenya
Bengaluru – 560 058
Karnataka

Phone: +91 80 2294 9100-54
Fax: +91 80 2294 9148

www.abb.com/in

digitosis

Digital Made Simple

CERTIFICATE

— OF INTERNSHIP —

The internship program certificate is proudly awarded to

Genal R Chhabhaiya

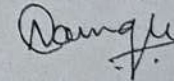
For the outstanding completion of the internship program on

Digital Marketing (Social Media Marketing and SEO)

at Digitosis Private Limited from July to September 2023.

25 September, 2023

Bengaluru



Nagesh P M
Founder and Director

digitosis

Digital Made Simple

CERTIFICATE

OF INTERNSHIP

The internship program certificate is proudly awarded to

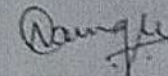
Harskit P

For the outstanding completion of the internship program on
Digital Marketing (Social Media Marketing and SEO)

at Digitosis Private Limited from July to September 2023.

25 September, 2023

Bengaluru



Nagesh P M
Founder and Director



LETTER OF COMPLETION OF INTERNSHIP

This is to inform you that **Miss CHANDRIKA D, REG NO. P03KU22M015057** Of **Soundarya Institute Of Management and Science** affiliated to Bangalore University, has successfully completed her Internship Training in our organization from 24th July 2023 to 10th September 2023.

During her training we found her to be sincere and hardworking,

We wish her all the best for her future endeavours.

For Santhosh K.L & Co
Chartered Accountants,
Firm Registration No 022387S

Santhosh K.L.
Santhosh K.L
Proprietor
M No 254311

4

Date: 11.09.2023

Accredited by



Celebrating

5

Years of Excellence



BGS Gleneagles Global Hospital
KENGRI, BENGALURU

Date: 24th August 2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Vandana R (P03KU22M015020)** has completed her Internship from 24th July 2023 to 24th August 2023 in the Department of Finance & Accounts.

We wish her success in all his future endeavours.

Thanking you

Regards,

For BGS Gleneagles Global Hospitals,
(A Unit of Ravindranath GE Medical Associates Pvt Ltd),

Sachin Shet
Cluster Head - Human Resources
Gleneagles Global Hospitals, Bangalore

Accredited by



Celebrating

15

Years of Excellence



BGS Gleneagles Global Hospital
KENGRI, BENGALURU

Date: 24th August 2023

To,

Ms Pavithra B V

Soundarya Institute of Management and Science

Bangalore

Dear Ms Pavithra B V,

Sub: Letter of Appreciation of participating in Internship.

I would like to take this opportunity to thank you for the hard work that you put in has an inter in our Business Process Control Department at for company. BGS Gleneagles Global Hospitals. It was a pleasure to work closely, and we sincerely hope that your experiences at our firm were engaging and edifying.

You were an enormous help, and we appreciate you interning with us.

So thank you again for participating in our internship program.

Thanking You

For RAVINDRANATH GE MEDICAL ASSOCIATES PVT LTD

Sachin B.S.
Authorized Signatory

Mr Sachin B.S.

Manager – Business Process Control



Accredited by



Celebrating

5

Years of Excellence



BGS Gleneagles Global Hospital
KENGRI, BENGALURU

Date: 26th August 2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Anuradha P N (P03KU22M015036) has completed her Internship from 24th July 2023 to 26th August 2023 in the Department of Digital Marketing.

We wish her success in all her future endeavours.

Thanking you

Regards,

For BGS Gleneagles Global Hospitals,
(A Unit of Ravindranath GE Medical Associates Pvt Ltd),

Sachin Shet
Cluster Head - Human Resources
Gleneagles Global Hospitals, Bangalore

Accredited by



Celebrating



Years of Excellence



BGS Gleneagles Global Hospital
KENGRI, BENGALURU

Date: 26th August 2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Shobitha J (P03KU22M015033)** has completed her Internship from **24th July 2023 to 26th August 2023** in the **Department of Human Resources**.

We wish her success in all her future endeavours.

Thanking you

Regards,

For **BGS Gleneagles Global Hospitals,**
(A Unit of Ravindranath GE Medical Associates Pvt Ltd),




Sachin Shet
Cluster Head-Human Resources
Gleneagles Global Hospitals, Bangalore

03 February 2024

**CERTIFICATE OF INTERNSHIP
TO WHOMSOEVER IT MAY CONCERN**

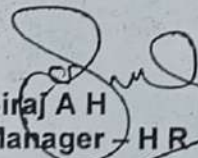
This is to certify that **Ms. Priya S** student of **Soundarya Institute of Management and Science, 296, 9th Cross Rd, Prakruthi Layout, Siddeshwar Layout, Soundarya Layout, Bengaluru, Karnataka 560073**, was trainee with us as **Internship – Finance** from **04th January 2024 to 03rd February 2024**, as part of academic study.

She has done an exemplary training while intern with us & has always maintained professional relations with the team & colleagues.

During her internship she has demonstrated her skills with self-motivation to learn new skills. Her performance exceeded our expectations, and she was able to complete the project on time.

We wish her all the best for her upcoming career and future opportunities

For, **Lulu International Shopping Malls Private Limited**


Siraj A H
Manager - HR



Amazing Industry

#2/4, Peenya Industrial area . 1 st Phase , Tumkur Road Bangalore-560058

30/01/2024

TO

Genal R Chabhaiya

Internship completion certificate.

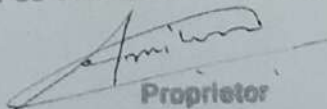
Congratulations on successful completion of your 1month internship with the marketing department in our company from 2nd Jan to 30th Jan 2024.

Your willingness to learn and adapt, involvement in the tasks assigned is appreciable.

We are happy to hand over your internship completion certificate with this letter.

Wish you all the best for your career.

For AMAZING INDUSTRY


Proprietor



KPCL

ಕರ್ನಾಟಕ ವಿದ್ಯುತ್ ನಿಗಮ ನಿಯಮಿತ

KARNATAKA POWER CORPORATION LTD.,

(A premier power generating company of Government of Karnataka)

CIN U85110KA1970SGC001919

No. A1 P2 B-B1 / 99

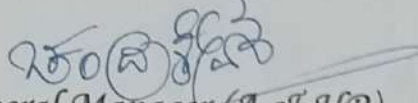
Date: 24.05.2024

CERTIFICATE

This is to certify that *Mr. YASHAS.N (PO3KU22M015040)* student of *M.B.A* has completed his Project work / Internship on "*Organization Study*" at *Karnataka Power Corporation Limited, Bengaluru*, from *19/04/2024* to *23/05/2024*.

He has exhibited punctuality and diligence during the Project period.

For *Karnataka Power Corporation Limited.*,


General Manager (A & HR)

Mr. YASHAS.N (PO3KU22M015040)

Student of MBA

Soundarya Institute of Management and Science

Soundarya Naga, Sidedahalli

Bangalore-560073



09th February 2024
Bangalore

CERTIFICATE

This is to certify that **Ms. Chaitra C**, bearing Regd. No: P03KU22M015002, Master of Business Administration Student from Soundarya Institute of Management and Science, has successfully completed her "**Internship**" in our organization from **08th January 2024 to 07th February 2024**.

We wish her all the success in her future endeavors.

For Kennametal India Limited

A circular stamp of Kennametal India Limited with a signature over it. The stamp contains the text 'KENNAMETAL INDIA LIMITED' and 'SAMYAKTH BALLAR'.

Samyakth Ballar
Deputy General Manager - Human Resource.



19th March 2024
Bangalore

CERTIFICATE

This is to certify that **Ms. Gopika M**, bearing Regd. No: P03KU22M015069, Master of Business Administration Student from Soundarya Institute of Management and Science, has successfully completed her internship on "**Role if Short Term Operational Financial Decisions**" in our organization from **08th January 2024 to 07th February 2024**.

We wish her all the success in her future endeavors.

For Kennametal India Limited


Samyakth Ballal
Deputy General Manager - Human Resource.



Date: 30 Dec 2023

To,
 RAMYA SHESHADRI
 TPO
 Soudarya Institute of Management & Science
 BANGALORE

Subject: Appointment of Trainee/s

Dear Sir / Madam,

In reference to conversation for Trainee/s Appointment, we are pleased to inform you that we have selected the following student/s for Summer Internship in our organization.

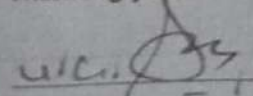
Name	Branch	Reporting to	Duration
HEENA KHOUSER	Bangalore - Malleshwaram	PRAMOD K PADAKI	02/01/2024-02/02/2024
SAHANA L	Bangalore - Malleshwaram	PRAMOD K PADAKI	02/01/2024-02/02/2024

During the course of internship, the trainee/s is/are required to follow the rules and regulations of the organization and should be regular and disciplined. In case, the behavior of the trainee/s is found improper, appropriate actions may be taken by the management and may even result in immediate termination from the internship. During the internship,

- The senior executives of the organization will provide all the necessary support and guidance as needed by the trainee/s for successful completion of the internship.
- The trainee/s are expected to follow the orders issued by the superiors and should regularly report to them.
- The trainee/s is/are not entitled for any food allowance or traveling allowance or any claims of expenses spend by them on the project work. At the end of the internship, the trainee/s are required to submit a copy of the project report along with the recommendations of the superiors.

The internship is a great opportunity for your students to get valuable leanings and industry exposure and we are sure that your students would exploit this opportunity to the maximum and give their best performance. We warmly welcome your students to our organization and wish them the very best of luck.

Thanking you,



Vatsal Soni

(Authorised Signatory-Human Resource)



STOCK BROKING | DEPOSITORY SERVICES | NPS
 FINANCIAL PRODUCT DISTRIBUTION: MUTUAL FUNDS | LOANS | PMS



CERTIFICATE OF INTERNSHIP

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Manasa.M student of Soundarya Institute of Management & Science, Soundarya Nager, Sidedahalli, Nagasandra Post, Bangalore-560 073, Karnataka, India. Was trainee with us Internship-Finance From .01st January 2024 to 31st January2024, as part of academic study.

She has done an exemplary training while intern with us & has always maintained professional relations with the team & colleagues.

During her internship she has demonstrated her skills with self-motivation to learn new skills, her performance exceeded our expectation, and she was able to complete the project on time.

We wish her all the best for her upcoming career and future opportunities

For, Naveen Kumar & Co.,

Naveen Kumar
Naveen Kumar
Proprietor



Date:31.01.2024
Place:Bangalore

GSTIN: 29AACFH1113R1Z8
Email: springsbil@gmail.com
info@hsmc_uadp.com

Ph: 2514256, 2416614
2515034



HINDUSTAN SPRING MFG. CO. Unit - 1



QUALITY SPRING MANUFACTURERS

Our Ref. No
HSMC / SIMS /23-24/

Date :
January 3, 2024

To

The Principal & Director
Soundarya Institute of Management & Science,
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bengaluru - 560 073

Kind Attn: Dr. Vasu B.A.

Dear Sir,

Sub: Permission to carry out Internship
Ref: Your letter dated 26.12.2023

With reference to your above letter, we hereby give our consent to undergo the Internship in our works / office of your 3rd Semester student Mr.L.Ganesh. bearing Reg.No. P03KU22M015089 from 03.01.2024 to 03.02.2024.

Thanking You,

Yours faithfully,
For Hindustan Spring Mfg.Co

Neeb
Authorised Signature

HariBhargo Engineering Stamping & Tooling's

#110/2, 7th Main, 3rd Phase, Peenya Industrial Area, Bangalore-560058

Ph: +91-9945615015, +91-9844778324, Email-bhargoengineering@gmail.com, GST 29AAGFH4704G1ZG

Date: 06-02-2024

INTERSHIP CERTIFICATE

This is to certify that Ms. Prathibha G (Reg No.P03KU22M015004), student of Soundarya Institute of Management and Science, Bangalore has carried out a internship project "A Study on Finance performance analysis: Evaluating the success of the Hari Bhargo Engineering Stamping & Tooling's company was trainee with us **Internship-Finance** from 3rd January 2024 to 06th February 2024, as part of academic study.

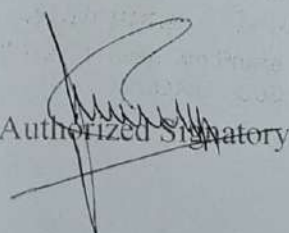
She has done an exemplary training while training & has always maintained professional relations with the team and colleagues.

During her internship she has demonstrated her skills with self-motivation to learn new skills. Her performance exceeded our expectations. And she was able to complete project on time.

We wish her all best for her upcoming career and future opportunities.

Your's sincerely

HariBhargo Engineering
Stamping & Tooling's
Bangalore
2024



Authorized Signatory

Hari Bhargo Engineering Stamping & Tooling's

#110/2, 7th Main, 3rd Phase, Peenya Industrial Area, Bangalore-560058

Ph: +91-9945615015, +91-9844778324, Email: bhargoengineering@gmail.com, GST 29AAGFH4704G1Z6

Date: 06-02-2024

INTERSHIP CERTIFICATE

This is to certify that Ms. Shilpa G (Reg No.P03KU22M015031), student of Soundarya Institute of Management and Science, Bangalore has carried out a internship project "A Study on Budgetary control system with special reference to the Hari Bhargo Engineering Stamping & Tooling's was trainee with us **Internship-Finance** from 3rd January 2024 to 06th February 2024, as part of academic study.

She has done an exemplary training while training & has always maintained professional relations with the team and colleagues.

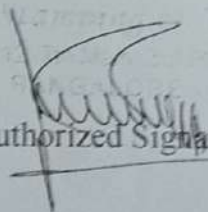
During her internship she has demonstrated her skills with self-motivation to learn new skills. Her performance exceeded our expectations. And she was able to complete project on time.

We wish her all best for her upcoming career and future opportunities.

Your's sincerely

*Hari Bhargo Engineering
Stamping & Tooling's*

#110/2, 7th Main, 3rd Phase, Peenya Industrial Area,
Bangalore-560058


Authorized Signatory



OFFER LETTER

6th January 2024

To,
Mr. Yatheesh S P
Seethakallu Post,
Urdigere Hobali,
Tumkur, Karnataka
PIN: 572140.

Dear **Yatheesh,**

With reference to your application and subsequent interactions, we are pleased to offer you the position of **Finance Intern** at C Electric Automotive Drives Pvt. Ltd.

Your stipend for this role will be **INR 5,000** per month.

We look forward to welcoming you at C Electric Automotive Drives Pvt. Ltd on the **8th of January 2024.**

Best regards,

Sincerely,

Babil Varghese
Chief Executive Officer
C Electric Automotive Drives Pvt. Ltd.

Internship Certificate

Date: 02 February 2024.


To Whomsoever It May Concern

With reference to your letter dated **02/02/2024**, This Certification proves that **Mr. NAVEEN KUMAR C (Reg no. P03KU22M015068)** of III Semester MBA has completed the internship program and project in finance department at M/s. Pyome Infra Solutions Pvt Ltd from 02 January 2024 to 02 February 2024.

During his tenure of internship in our company as an Intern, he displays enthusiasm, self-discipline and self-motivation. We would like to wish him all the best.

Sincerely,

For Pyome Infra Solutions Pvt Ltd,


Assistant manager HR



Pyome Infra Solutions Pvt Ltd

No.08, 1st Floor, "Sai Prabhu" Building, Sirur Park, "Opp. Malleshwaram Mantri Mall", Sheshadripuram, Bengaluru - 560 020.

M: +91 98451 22399 P: +91 080 4233 2399 E: info@pyome.com W: www.pyome.com

Branch Office: Chennai Pune Maharashtra

INTEGRATED FACILITY MANAGEMENT & PROPERTY MANAGEMENT SERVICES
Certified by ISO 9001:2015 14001:2015 18001: 2007

Internship Certificate

Date: 02 February 2024.

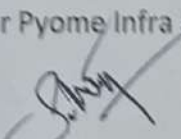
To Whomsoever It May Concern

With reference to your letter dated 02/02/2024, This Certification proves that **Mr. ANANTHA D (Reg no. P03KU22M015083)** of III Semester MBA has completed the internship program and project in finance department at M/s. Pyome Infra Solutions Pvt Ltd from 02 January 2024 to 02 February 2024.

During his tenure of internship in our company as an Intern, he displays enthusiasm, self-discipline and self-motivation. We would like to wish him all the best.

Sincerely,

For Pyome Infra Solutions Pvt Ltd,


Assistant manager HR



Pyome Infra Solutions Pvt Ltd

No.08, 1st Floor, "Sai Prabhu" Building, Sirur Park, "Opp. Malleshwaram Mantri Mall", Sheshadripuram, Bengaluru - 560 020.

M: +91 98451 22399 P: +91 080 4233 2399 E: info@pyome.com W: www.pyome.com

Branch Office: Chennai Pune Maharashtra

INTEGRATED FACILITY MANAGEMENT & PROPERTY MANAGEMENT SERVICES

Certified by ISO 9001:2015 14001:2015 18001:2007



SOUTHERN ELECTRONICS (BANGALORE) PVT. LTD.

16-A, PEENYA INDUSTRIAL AREA, PHASE-1, PEENYA, BANGALORE - 560 058.

Phone : +91-80-69180304 / 335

e-mail : admin@seonics.co.in / marketing@seonics.co.in http : // www.seonics.co.in

CIN No. U31909KA1971PTC002095

SEB/PRJ/71

Date: 01.02.2024

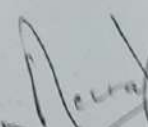
TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Meghana S.** (Reg. No. P03KU22M015005), student of SOUNDRYA INSTITUTE OF MANAGEMENT & SCIENCE pursuing 3rd Semester, MBA programme, has successfully completed internship programme at Southern Electronics (B) Pvt. Ltd. Under the guidance of Mrs. Beena Miranda (HR Executive) from 03-01-2024 to 31-01-2024.

The Performance and conduct during her stay in the organization was found to be satisfactory.

We wish her all the very best in her future endeavors.

For SOUTHERN ELECTRONICS (BANGALORE) PVT. LTD.


Meena Kumari S.
Manager-HR



Date:03-02-2024

TO WHOMSOEVER IT MAY CONCERN

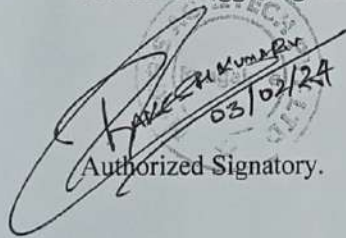
This is to certify that Ms. **Poojapachi M M** of Soundrya Institute of management and science College college completed her internship in our organization as a HR intern from 08/01/2024 to 03/02/2024.

She has worked on the project work titled – “A study on Onboarding practice for new hires”.

During the aforementioned period, he/she proved to be sincere and hard-working.

We look forward to her success in all of her future endeavours.

For the “Mogg's Agritech pvt ltd”,


Authorized Signatory.

MOGG'S AGRITECH PVT. LTD.



Date: 03rd Feb 2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Sandeep Rao N**, has completed his Internship from 29th Dec 2023 to 03rd Feb 2024 in the **Department of Finance & Accounts**.

We wish him success in all his future endeavors.

Thanking you

For Gleneagles Healthcare India Private limited



Sachin Shet
Cluster Head-Human Resources
Gleneagles Healthcare India Private limited,
Bengaluru.

Gleneagles Healthcare India Private Limited

(Formerly known as Ravindranath GE Medical Associates Private Limited)

Hospital Address: Uttarahalli Main Road, Kengeri, Bengaluru, Karnataka 560060

Registered Office: Plot No. 439, Cheran Nagar, Perumbakkam, Chennai, Tamil Nadu 600 100 | CIN: U85110TN1998PTC093106

For appointment (080) 2625 5555 For emergency (080) 2424 2424



Date: 06th Feb 2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Sangipogu Justus Benarji**, has completed his Internship from 29th Dec 2023 to 06th Feb 2024 in the Department of Human Resource.

We wish him success in all his future endeavors.

Thanking you

For Gleneagles Healthcare India Private limited



Sachin Shet
Cluster Head-Human Resources
Gleneagles Healthcare India Private limited,
Bengaluru.

Gleneagles Healthcare India Private Limited

(Formerly known as Ravindranath GE Medical Associates Private Limited)

Hospital Address: Uttarahalli Main Road, Kengeri, Bengaluru, Karnataka 560060

Registered Office: Plot No. 439, Cheran Nagar, Perumbakkam, Chennai, Tamil Nadu 600 100 | CIN: U85110TN1998PTC093106

For appointment (080) 2625 5555 For emergency (080) 2424 2424



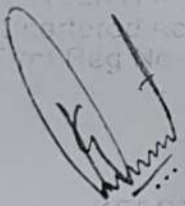
CERTIFICATE OF INTERNSHIP

This is to certify that Mrs. Aishwarya K has successfully completed an internship with Keerthi and Co, as a Auditor in the Finance Department from 10th January 2024 to 10th February 2024. During the internship, She Displays Enthusiasm, Leadership Self Discipline and self-motivation .

We certify that overall She was found to be hardworking, diligent, and inquisitive to the best of my knowledge.

We wish her the best of luck in his all future endeavors.

For Keerthi and Co

KEERTHI AND CO
Chartered Accountant
Firm Reg. No. 318/228

KEERTHI
Proprietor
Firm No. 242078

HEAD OFFICE

A8 402, 'Aishwarya' 4th Floor, Sri Vaari Sannidhi, 3rd Main Road
Whitefield Layout Hope Farm, Whitefield, Bengaluru - 560 066

8880533352 / 8095641480

keerthiandco@gmail.com

BRANCH OFFICE

1st Floor, K.M.P.S Complex, Near K.E.B Office
Opp. Canara Bank, K.R. Road, Hoskote - 562114

8884533353 / 9108383722

cakeerthiandcohoskote@gmail.com



CERTIFICATE OF INTERNSHIP

This is to certify that Mr. Vishwas D has successfully completed an internship with Keerthi and Co, as a HR in the HR Department from 10th January 2024 to 10th February 2024. During the internship, He Displays Enthusiasm, Leadership Self Discipline and self-motivation .

We certify that overall He was found to be hardworking, diligent, and inquisitive to the best of my knowledge.

We wish him the best of luck in his all future endeavors.

For Keerthi and Co

For KEERTHI AND CO.
Chartered Accountant
Firm Reg No. 018022S

KEERTHI
Proprietor
Mem No. 243258

**VISHAL INFRASTRUCTURE LTD.**

Head Office : # 52, R.V. Road, Basavanagudi, Bengaluru - 560 004. INDIA

Tel : +91 80 2625 4000, Fax : +91 80 2625 4025 E-mail : vishal1@vishalinfra.com



Ref.:VIL/BLR/HR/0872/2023-24

Date : 29th January 2024.**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that **Ms. ANURADHA PN** (Reg. No. P03KU22M015036) has undergone internship training at **VISHAL IINFRASTRUCTURE LTD.** Head office - Bangalore, she is pursuing her MBA at Soundarya Institute of Management and Science.

She worked on the project work titled - "A Study on 360 Degree Performance Appraisal" from 27-12-2023 to 27-01-2024.

We have found her service was satisfactory. We wish her success in the future endeavors.

Thanking you,

for Vishal Infrastructure Ltd.,

(AUTHORISED SIGNATORY)



**VISHAL INFRASTRUCTURE LTD.**

Head Office : # 52, R.V. Road, Basavanagudi, Bengaluru - 560 004. INDIA

Tel : +91 80 2625 4000, Fax : +91 80 2625 4025 E-mail : vishal1@vishalinfra.com



Ref:VIL/BLR/HR/0873/2023-24

Date : 29th January 2024.**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that **Ms. SHOBITHA. J** (Reg. No. P03KU22M015033) has undergone internship training at **VISHAL INFRASTRUCTURE LTD.** Head Office - Bangalore, she is pursuing her MBA at Soundarya Institute of Management and Science.

She worked on the project work titled - "A Study on Professional Development Programs on Employee Performance" from 27-12-2023 to 27-01-2024.

We have found her service was satisfactory. We wish her success in the future endeavors.

Thanking you,

for Vishal Infrastructure Ltd.,

(AUTHORISED SIGNATORY)



Ref : CCL/HR/IN/FEB/2024/004

Dated : 5 February 2024

Subject: Internship Completion Certificate

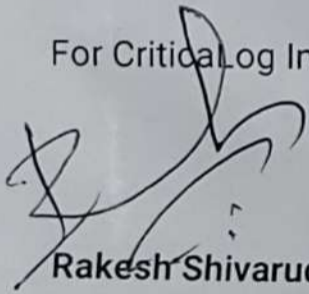
To whomsoever it may concern:

This is to certify that **MS. NEHA B R** (Register No. P03KU22M015112) has successfully completed the internship program from 3 January 2024 to 3 February 2024 at our headquarters which is located in Bangalore.

She has done her internship in Business Development Department.

MS. NEHA B R displayed professional traits during her internship period and managed to complete all assigned tasks as requested. We found her hardworking, dedicated, and committed during her internship tenure.

For CriticalLog India Private Limited



Rakesh Shivarudra



Assistant Manager – Human Resources

Ref : CCL/HR/IN/FEB/2024/003

Dated : 5 February 2024

Subject: Internship Completion Certificate

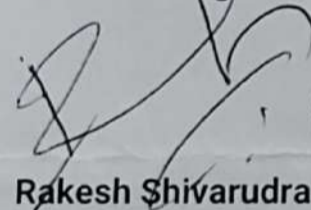
To whomsoever it may concern:

This is to certify that **MR. ADARSH MOULI D** (Register No. P03KU22M015090) has successfully completed the internship program from 3 January 2024 to 3 February 2024 at our headquarters which is located in Bangalore.

He has done his internship in Finance Department.

MR. ADARSH MOULI D displayed professional traits during his internship period and managed to complete all assigned tasks as requested. We found him hardworking, dedicated, and committed during his internship tenure.

For CriticalLog India Private Limited



Rakesh Shivarudra

Assistant Manager – Human Resources





Soundarya Educational Trust (Regd.)
SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE
(Recognised by Govt. of Karnataka & Affiliated to Bangalore University)
Accredited by NAAC with "B+" Grade

Date: 15/03/2023

Internship Appreciation Letter

This is to certify that Ms. Neha B R, has successfully completed her Internship for 30 days (15-02-2023 to 15-03-2023) as a Admission Counselor Intern in Marketing Department.

During her tenure, she demonstrated her commitment in learning and her approach on the work was enthusiastic. Her positive attitude and contribution at work is really appreciable.

We wish her to excel in her academics and succeed in her future endeavors.

PRINCIPAL

Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore-73

SOUNDARYA



Soundarya Educational Trust (Regd.)
SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE
(Recognised by Govt. of Karnataka & Affiliated to Bangalore University)
Accredited by NAAC with "B+" Grade

Date: 15/03/2023

Internship Appreciation Letter

This is to certify that Ms. Hema S , has successfully completed her Internship for 30 days (15-02-2023 to 15-03-2023) as a Admission Counselor Intern in Marketing Department.

During her tenure, she demonstrated her commitment in learning and her approach on the work was enthusiastic. Her positive attitude and contribution at work is really appreciable.

We wish her to excel in her academics and succeed in her future endeavors.

Principal
Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore-73



Soundarya Educational Trust (Regd.)
SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE
(Recognised by Govt. of Karnataka & Affiliated to Bangalore University)
Accredited by NAAC with "B+" Grade

Date: 15/03/2023

Internship Appreciation Letter

This is to certify that Mr Yashwanth H S , has successfully completed his Internship for 30 days (15-02-2023 to 15-03-2023) as a Digital marketing Intern in Marketing Department.

During his tenure, he demonstrated his commitment in learning and his approach on the work was enthusiastic. His positive attitude and contribution at work is really appreciable.

We wish him to excel in his academics and succeed in his future endeavors.

PRINCIPAL

Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore-73

SOUNDARYA



Soundarya Educational Trust (Regd.)
SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE
(Recognised by Govt. of Karnataka & Affiliated to Bangalore University)
Accredited by NAAC with "B+" Grade

Date: 15/03/2023

Internship Appreciation Letter

This is to certify that Mr Yashwanth S , has successfully completed his Internship for 30 days (15-02-2023 to 15-03-2023) as a Digital marketing Intern in Marketing Department.

During his tenure, he demonstrated his commitment in learning and his approach on the work was enthusiastic. His positive attitude and contribution at work is really appreciable.

We wish him to excel in his academics and succeed in his future endeavors.

PRINCIPAL
Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore-73.

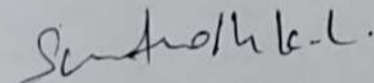


LETTER OF COMPLETION OF INTERNSHIP

This is to inform you that **Miss RAMYA P N, REG NO. P03KU22M015007** Of **Soundarya Institute Of Management and Science** affiliated to Bangalore University, has successfully completed her Internship Training in our organization from 24th July 2023 to 10th September 2023.

During her training we found her to be sincere and hardworking,
We wish her all the best for her future endeavours.

For Santhosh K.L & Co
Chartered Accountants,
Firm Registration No 022387S


Santhosh K.L
Proprietor
M No 254311

Date: 11.09.2023



Date: 06th Feb 2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Hema S**, has completed her Internship from 29th Dec 2023 to 06th Feb 2024 in the **Department of Human Resource**.

We wish her success in all her future endeavors.

Thanking you

For Gleneagles Healthcare India Private limited



Sachin Shet
Cluster Head-Human Resources
Gleneagles Healthcare India Private limited,
Bengaluru.

Gleneagles Healthcare India Private Limited

(Formerly known as Ravindranath GE Medical Associates Private Limited)

Hospital Address: Uttarahalli Main Road, Kengeri, Bengaluru, Karnataka 560060

Registered Office: Plot No. 439, Cheran Nagar, Perumbakkam, Chennai, Tamil Nadu 600 100 | CIN: U85110TN1998PTC093106

For appointment (080) 2625 5555 For emergency (080) 2424 2424

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

HARI KRISHNAN S

UUCMS. No.: U03KU21S0041

(Duration: 12th April, 2024 to 31th May, 2024)



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **HARI KRISHNAN S(UUCMS. No.: U03KU21S0041)** is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Department of BCA
Prof. Swami MR

Head of the Department
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D]

CERTIFICATE OF INTERNSHIP

THIS CERTIFICATE IS AWARDED TO

HARI KRISHNAN.S

This is to certify that the bearer of this certificate, with registration number U03KU2150041, pursuing a BCA from SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE, has successfully completed an internship with our company.

The internship was completed under the guidance of **Mr. Shankar Narayan** in the domain of Java, with the position of "**Java Full Stack Intern**" held from 12/04/2024, to 31/05/2024.

We have found the intern to be a self-starter who is motivated, duty-bound, and hardworking.

Assignments were completed sincerely, and the performance was excellent.

We wish all the best in future endeavors


LEAD NAME




Manager
JSPIDERS & PYSPIDER:
Development training institute
Unit Of Test Yantra Software Solutions Pvt. Ltd.
A-83, 5th Main, Industrial Estate
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ACKNOWLEDGEMENT

First I would like to thank Mr. Shankar Narayan, HR, Head of **JSPIDERS, Rajajinagar** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me **JSPIDERS, Rajajinagar** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely grateful to my department staff members and friends who helped me in successful completion of this internship.

SUSHIN RAJ A (U03KU21S0084)

ABSTRACT

E-commerce thrives on the seamless integration of diverse data to deliver smooth shopping experiences and optimize operations. Integrating this data involves complex, data-intensive processes tailored to specific business requirements. Designing and managing these processes manually is challenging due to the dynamic nature of e-commerce environments. This paper addresses the challenge of efficiently designing and maintaining these data processes and introduces Commerce, an incremental approach designed to semi-automate the consolidation of e-commerce data processes to meet specific business needs. Commerce operates at a logical level, consolidating data flows based on high-level business requirements or platform-specific implementations. When integrating new data processes, Commerce prioritizes maximizing the reuse of existing components and employs a customizable cost model to minimize overall operational costs. We demonstrate the efficiency and effectiveness of our approach through experimental evaluations using a developed prototype.

Our approach focuses on critical areas such as inventory management, customer behavior analysis, and personalized marketing strategies within e-commerce. Commerce ensures efficient processing and integration of data from various sources, including sales transactions, customer feedback, and browsing patterns. By optimizing existing data processes and reducing redundancy, Commerce enhances system performance and decreases operational costs. Extensive testing with our prototype yielded significant improvements in data processing times and the accuracy of business insights. These findings underscore Commerce's ability to streamline data integration while flexibly adapting to evolving business demands, offering a scalable solution for modern e-commerce platforms.

Organisation Information:

JSpiders is the world's ace software course training organization with an aim to bridge the gap between the demands of the industry and the curriculum of educational institutions. JSpiders has a proven track record of successfully training and placing thousands of students in leading IT companies. Alumni testimonials frequently highlight the quality of training, the practical approach to learning, and the valuable support provided during job placements. With centers across the Globe, the institute is a platform where young minds are given the opportunity to build successful careers. JSpiders stands out as a premier training institute due to its commitment to quality education, industry-relevant curriculum, and robust placement support. Whether you are a fresh graduate or a professional looking to upskill, JSpiders provides the necessary tools and training to help you achieve your career goals in the IT industry.



Programs and opportunities:

JSpiders emphasizes practical knowledge through hands-on learning with live projects and real-world scenarios, ensuring students gain significant practical experience. The curriculum is designed in collaboration with industry experts to meet current market demands. The experienced faculty, consisting of instructors with extensive industry experience and strong teaching backgrounds, provides high-quality education. Additionally, JSpiders offers comprehensive support for job placement, including resume building, mock interviews, and direct placement opportunities with partner companies.

Methodologies:

We follow a structured methodology for our projects which starts from designing the solution to the implementation phase. Well planned Project reduces the time to deliver the project and any additional ad-hoc costs to our clients, hence we dedicate the majority of our time understanding our clients business and gathering requirements. This ground up approach helps us deliver not only the solution to our clients but also add value to your investments.

Key parts of the report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies.

Benefits of the Company/Institution through our report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies. We emphasize on building relationships with our clients by delivering projects on time and within budget.

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LEARNING OBJECTIVES

Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.

An objective for this position should emphasize the skills you already possess in the area and your interest in learning more

Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.

Some internships are used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.

Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

Internships provide valuable networking opportunities by allowing interns to interact with professionals in their chosen field. These connections can lead to future job opportunities, collaborations, and valuable industry insights. Building a professional network during an internship can be instrumental in navigating and advancing one's career, as it opens doors to mentorship, advice, and potential references.

Interns often work alongside experienced professionals who can provide guidance, advice, and mentorship. This close interaction allows interns to learn best practices, industry standards, and practical skills that are not always covered in academic settings. Mentors can also help interns navigate challenges, set career goals, and offer constructive feedback, which is invaluable for professional growth.

1. INTRODUCTION

This report details my internship experience at Jspiders, where I developed an e-commerce website using Java Full Stack technologies. The project was built with the Spring Boot framework, Tailwind CSS for styling, and SQL for the database. This internship provided an invaluable opportunity to apply theoretical knowledge to a practical, real-world project.

Jspiders is renowned for its comprehensive training programs, and my experience was no exception. The trainers at Jspiders were exceptionally supportive, offering guidance and encouragement throughout the development process. Their expertise and commitment to teaching were instrumental in helping me overcome challenges and enhance my skills in full-stack development. The best part of the training was the one on one interactions with the trainer and the personal attention that I received during the training period, through which I was able to complete my internship with the exact knowledge that I required and I was seeking for.

The project involved designing and implementing a robust e-commerce platform that supports various functionalities, such as user authentication, product management, shopping cart, and order processing. By leveraging Spring Boot's capabilities for back-end development, Tailwind CSS for responsive design, and SQL for efficient data management, I was able to create a seamless and scalable web application.

This internship not only honed my technical skills but also provided insights into best practices for full-stack development. The hands-on experience and the supportive learning environment at Jspiders significantly contributed to my professional growth, preparing me for future endeavors in the field of software development.

2. TECHNOLOGY

2.1 HTML

(HyperText Markup Language) is the standard markup language for creating web pages, forming the backbone of web development alongside CSS and JavaScript. HTML defines the structure and layout of a web document using various elements and tags.

An HTML document begins with `<!DOCTYPE html>` and is enclosed within `<html>`. This document contains two main sections: `<head>` and `<body>`. The `<head>` section holds meta-information such as the title and links to stylesheets, while the `<body>` section contains the actual content of the document.

HTML employs tags to structure content, each consisting of an opening tag, content, and a closing tag. Common tags include `<h1>` to `<h6>` for headers, `<p>` for paragraphs, `<a>` for hyperlinks, `` for images, and ``, ``, and `` for lists. The `<div>` and `` tags are used to group and style block and inline elements, respectively.

Attributes provide additional information about HTML elements and are included in the opening tag. Key attributes include `id` for unique identification, `class` for specifying class names for CSS and JavaScript, `src` for defining the source of images and scripts, `href` for URLs in links, and `alt` for alternative text in images.

HTML also includes elements for creating forms and capturing user input. These elements include `<form>` for defining a form, `<input>` for input fields, `<textarea>` for multiline text input, `<button>` for clickable buttons, and `<select>` and `<option>` for dropdown lists.

HTML5 introduces semantic elements that provide clearer structure and meaning to web pages. Examples include `<header>` for introductory content or navigation, `<nav>` for navigation sections, `<main>` for the main content, `<article>` for self-contained content, `<section>` for sections of content, and `<footer>` for footer sections.

HTML supports multimedia content through elements like `<audio>` for embedding sound, `<video>` for embedding video, and `<canvas>` for drawing graphics via JavaScript.

2.2 TAILWIND CSS

Tailwind CSS is a utility-first CSS framework designed to provide a highly customizable and efficient way to build responsive and modern web interfaces. Unlike traditional CSS frameworks that come with predefined components, Tailwind CSS offers low-level utility classes that allow developers to construct custom designs directly in their HTML. Tailwind CSS's utility-first approach means that instead of writing custom CSS for each element, developers use predefined utility classes to style elements. This method encourages consistency, reusability, and reduces the need for writing custom CSS. For example, classes like 'bg-blue-500', 'text-center', and 'p-4' are used directly in the HTML to apply styles.

Tailwind CSS is highly configurable. It comes with a default configuration that can be customized to fit the specific needs of a project. Developers can modify or extend the default configuration by editing the `tailwind.config.js` file. This includes changing colors, fonts, spacing, breakpoints, and other design tokens. Additionally, Tailwind supports a plugin system that allows for further customization and addition of new utilities.

Tailwind CSS has built-in support for responsive design. Utility classes can be applied conditionally based on the viewport size using responsive variants. For example, by prefixing a utility class with `md:`, the style will only be applied on medium screens and above. This approach makes it straightforward to create responsive layouts without writing media queries manually. Using utility classes helps maintain a consistent design system across the application. Since the same classes are reused, there is less variation and inconsistency in styles. This is particularly beneficial in large projects with multiple developers, ensuring that the design language remains uniform.

Tailwind CSS offers a unique and efficient approach to styling web applications with its utility-first methodology. Its high degree of customization, built-in responsive design support, and emphasis on performance make it an attractive choice for developers seeking a scalable and maintainable CSS framework. Whether for rapid prototyping or building production-ready applications, Tailwind CSS provides the tools necessary to create consistent and visually appealing designs.

2.3 JAVA

Java is a versatile programming language used for web, enterprise, mobile, and embedded applications. It provides a robust platform and follows the "write once, run anywhere" (WORA) principle, meaning compiled Java code can run on any platform with a Java Virtual Machine (JVM).

➤ Java Fundamentals

Java is a high-level, object-oriented language known for its portability, scalability, and robustness. Core concepts include:

- Encapsulation: Bundling data and methods into a class and restricting access.
- Inheritance: Allowing new classes to inherit properties from existing ones.
- Polymorphism: Treating objects as instances of their parent class.
- Abstraction: Hiding complex implementation details.

➤ Memory Management

Java uses automatic garbage collection to manage memory, freeing up unused objects and ensuring efficient memory use.

➤ Java SE and EE

Java Standard Edition (Java SE) provides core functionality, while Java Enterprise Edition (Java EE) adds libraries for large-scale, multi-tiered applications.

➤ JDK and JRE

The Java Development Kit (JDK) includes tools for developing Java applications. The Java Runtime Environment (JRE) provides the necessary components to run Java applications but lacks development tools.

➤ IDEs

Popular Java IDEs like IntelliJ IDEA, Eclipse, and NetBeans offer features such as code completion, debugging, and project management.

➤ Frameworks and Libraries

Java's ecosystem includes frameworks like:

- Spring Framework: For enterprise applications.
- Hibernate: For simplifying database interactions.
- Apache Struts: For web applications.

Java is essential for modern applications, offering platform independence, robust memory management, and a comprehensive ecosystem. Its core principles and extensive tools allow developers to build scalable, efficient, and maintainable applications across various domains.

2.4 Spring Boot

As you develop applications using Spring Boot, you will encounter various requirements for building and deploying Java-based web applications. In some scenarios, you might need to create a microservice architecture, while in other situations, you may want to develop a monolithic application with a comprehensive set of features.

Regardless of your specific needs, there are certain fundamental concepts about Spring Boot that are essential to understand. You might not need to delve into all the intricacies of Spring Boot configuration—for instance, you may never need to customize the auto-configuration behavior extensively—but understanding the core architecture, major components, and how they interact is highly beneficial.

This introduction provides a high-level overview of the most critical concepts. The discussion intentionally avoids many details—such as the full extent of Spring Boot's auto-configuration capabilities—in favor of introducing the foundational ideas behind the Spring Boot framework.

➤ Spring Boot Fundamentals:

Spring Boot simplifies the development of production-ready applications by providing a set of conventions and default configurations. It eliminates the need for extensive configuration and boilerplate code, allowing developers to focus on business logic.

Spring Boot applications leverage an embedded server model, where the server (such as Tomcat, Jetty, or Undertow) is packaged within the application. This approach simplifies deployment and eliminates the need for an external application server.

➤ Scalability and Performance:

Spring Boot is designed to be highly scalable. Applications built with Spring Boot can easily be scaled horizontally by deploying multiple instances. The framework's lightweight and modular nature ensures that performance remains optimal, even under significant load.

Spring Boot supports microservices architecture, allowing different components of an application to scale independently. This modularity enables efficient resource utilization and improves overall system resilience.

2.5 Spring Boot Suite:

The Spring Boot Suite includes a collection of tools and frameworks that enhance the development experience. These tools are designed to work seamlessly with Spring Boot, providing integrated support for building, testing, and deploying applications.

➤ Spring Boot Starters:

Spring Boot Starters are a set of convenient dependency descriptors that you include in your application. They simplify the process of adding commonly used libraries and frameworks. Each starter brings in a group of dependencies that are typically used together, reducing the need for manual configuration.

➤ Auto-Configuration:

Spring Boot's auto-configuration mechanism automatically configures your application based on the dependencies present on the classpath. This feature minimizes the need for explicit configuration and speeds up the development process. Auto-configuration is extensible, allowing developers to override default behaviors when necessary.

➤ Spring Boot Actuator:

Spring Boot Actuator provides production-ready features that help you monitor and manage your application. These include health checks, metrics, and auditing capabilities. Actuator endpoints expose runtime information and management functions, facilitating the monitoring and maintenance of Spring Boot applications.

➤ Spring Boot CLI:

The Spring Boot CLI is a command-line tool that allows you to quickly prototype and run Spring Boot applications. It supports Groovy scripts, making it easy to experiment with Spring Boot features without the need for a full project setup.

➤ Spring Boot DevTools:

Spring Boot DevTools enhances the development experience by providing features like automatic restarts, live reload, and configurations specific to the development environment. These tools significantly reduce the time taken for iterative development and testing.

Spring Boot streamlines the development of Java-based applications by providing a robust framework with sensible defaults and extensive tools for building, testing, and deploying applications. Its design principles emphasize minimal configuration, embedded servers, and scalability, making it a popular choice for modern application development. The Spring Boot Suite further enhances productivity by offering integrated support tools, simplifying the development lifecycle from prototyping to production.

3. DATABASE

About Microsoft SQL Server 2008

Microsoft SQL server is a Structured Query Language (SQL) base, client/server relational database. Each of these terms describes a fundamental part of the architecture of SQL server. A database is similar to a data file in that it is a storage place for data. Like a data file, a database does not present information directly to a user, the user runs an application that accesses data from the database and presents it to the users in an untreatable format. A database typically has two components: the files holding the physical database access data.

The DBMS is responsible for enforcing database structure, including:

- Maintaining the relationships between data in the database.
- Ensuring that data is stored correctly, and the rules that define data relationships are not violated.
- Recovering all data to a point of known consistency in case of system failures.

Relational Database

Relational databases are widely recognized as one of the most effective ways to organize data. They apply mathematical set theory to data organization, ensuring efficiency and reliability. In relational database theory, data is collected into tables known as relations. These tables consist of rows and columns, with each row representing a unique record and each column representing a specific attribute of the data.

When organizing data into tables, there are multiple ways to define the table structures. To ensure these tables effectively organize the data, relational database theory introduces a process called normalization. Normalization systematically decomposes tables to reduce redundancy and dependency, enhancing data integrity and efficiency. This process involves several normal forms, each providing a higher level of data integrity.

Client/Server Architecture

In a Client/Server system, a central server, typically a powerful computer, manages resources and services that multiple users access from their computers, known as clients. This architecture is prevalent in database management, where the server hosts the database files and DBMS (Database Management System) software. Clients connect to the server over a network to access and manipulate the data.

In a Client/Server database architecture, the server is responsible for handling requests from clients, processing them, and sending back the required data. The SQL server communication component facilitates this interaction, allowing client applications to send SQL queries to the server and receive results. This setup also enables applications running on the server itself to communicate with the SQL server.

Server applications are designed to handle multiple clients simultaneously. For example, SQL servers can manage thousands of concurrent client connections, ensuring efficient data processing and retrieval. They incorporate features to handle logical problems, such as concurrency control, which ensures data integrity when multiple users access and modify the data simultaneously.

While SQL servers are primarily designed to function as servers in a Client/Server network, they are also capable of operating as standalone databases on client machines. This versatility allows SQL servers to scale from single-user applications to large, multi-user systems. The scalability and ease-of-use features of SQL servers ensure they perform efficiently on client devices without consuming excessive resources, making them suitable for various applications and environments.

Structured Query Language (SQL)

To effectively work with data in a database, you need to use a set of commands and statements, collectively known as a language, defined by the Database Management System (DBMS) software. This language allows users to perform various operations such as querying, updating, and managing the data within the database. Among the various languages available for relational databases, Structured Query Language (SQL) is the most widely used and recognized.

Overview of SQL

SQL, or Structured Query Language, is a standardized language specifically designed for managing and manipulating relational databases. It allows users to perform a wide range of functions, including:

- **Data Querying:** Extracting specific data from the database using SELECT statements.
- **Data Manipulation:** Inserting new data (INSERT), updating existing data (UPDATE), and deleting data (DELETE).
- **Data Definition:** Defining and managing database structures such as tables, indexes, and constraints using Data Definition Language (DDL) commands like CREATE, ALTER, and DROP.
- **Data Control:** Controlling access to data within the database using Data Control Language (DCL) commands like GRANT and REVOKE.
- **Transaction Control:** Managing transactions to ensure data integrity using Transaction Control Language (TCL) commands like COMMIT, ROLLBACK, and SAVEPOINT.

Standardization of SQL

SQL is governed by standards set by both the American National Standards Institute (ANSI) and the International Standards Organization (ISO). These standards ensure that SQL remains a universal language for database management, promoting compatibility and consistency across different DBMS platforms. The standardization process involves periodic updates and enhancements to include new features and address the evolving needs of database technologies.

4. SCREENSHOTS

Home page:

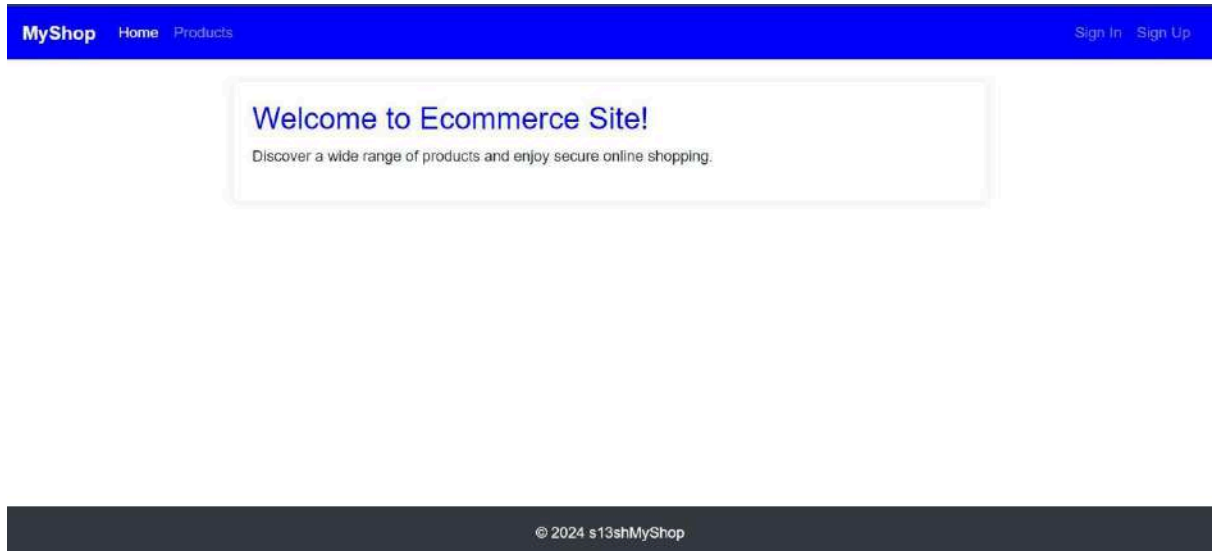


fig no. 1

Registration page:

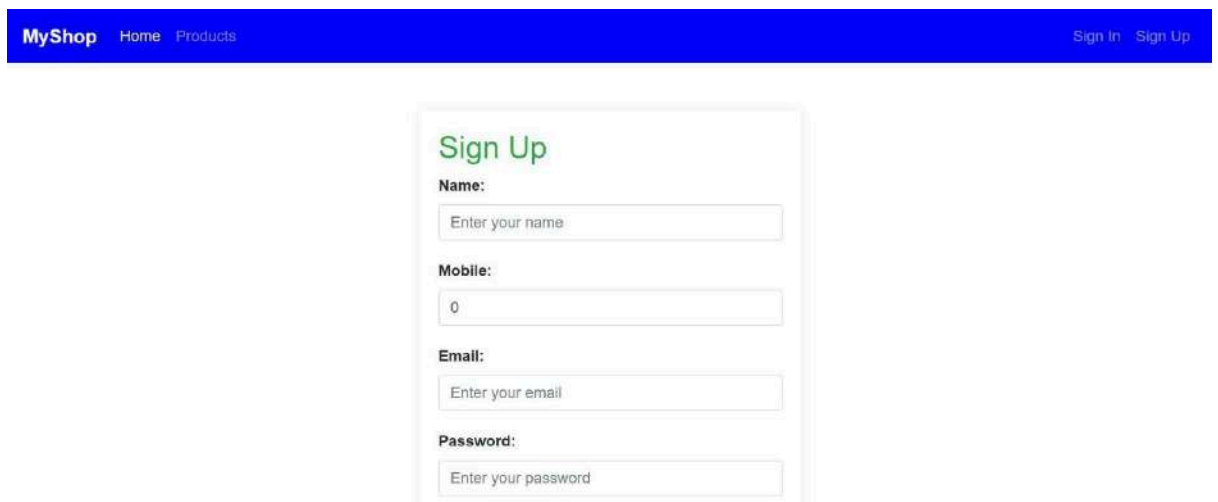


fig no. 2

Mobile:

Email:

Password:

Date of Birth:

Gender:

fig no. 3

Login Page:

MyShop Home Products Sign In Sign Up

Login

Email:

Password:

© 2024 s13shMyShop

fig no. 4

CONCLUSION

Our methodology streamlines the incremental integration of e-commerce website functionalities, starting with individual features that meet specific user needs. We systematically explore integration possibilities for new functionalities within the existing multi-functional framework, prioritizing the reuse of established components. Subsequently, we propose a cohesive website design, assessed against user-defined cost criteria.

A fully functional prototype has been developed to validate our approach. Through rigorous evaluation, we have assessed the efficiency, scalability, and overall quality of the implemented solutions. Significant improvements in execution time and enhanced integration of functionalities underscore the benefits of our approach.

Our ultimate objective is to establish a comprehensive platform that autonomously manages the entire lifecycle of e-commerce solutions. This encompasses everything from initial user requirements to the deployment and operational execution of advanced website functionalities.

BIBLIOGRAPHY

- 1. Github** - For code samples, foundational code was provided by the institution, with accessible github repositories, where we were allowed to get the codes and modify them according to our desired functionality requirements.
- 2. w3schools**- for referencing SQL database queries
- 3. Mobirise** - mobirise is a website with hundreds of usable website templates.

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Company Name: Jspiders		
Address: A-83, 5th main, Industrial Estate, Rajajinagar 6th block, Bengaluru		
SI. No.	Date	Activities / Work Done
HTML/CSS		
1	12.04.2024	Developed a basic webpage layout - utilized HTML tags <code><div></code> , <code><p></code> , <code><h1></code> , and <code><a></code> for structuring content and adding navigation links.
2	15.04.2024	Improved web page accessibility - implemented semantic HTML tags <code><header></code> , <code><footer></code> , <code><nav></code> for clearer structure and navigation..
3	17.04.2024	Enhanced user interaction - created hyperlinks using <code><a></code> tags to navigate between web pages or sections within the same page..
4	18.04.2024	Structured web page content - utilized HTML elements to format text, create links, and integrate media like images using <code></code> tags.
5	19.04.2024	Integrated images into web pages - added images using <code></code> tags with appropriate URLs and alternative text for accessibility.
6	22.04.2024	Styled webpage elements - applied CSS using inline, internal, and external stylesheets to achieve desired visual presentation.
7	23.04.2024	Organized data presentation - created tables with <code><table></code> , <code><tr></code> , <code><td></code> , and <code><th></code> tags to display information in rows and columns.
8	24.04.2024	Structured content presentation - designed ordered and unordered lists using <code></code> and <code></code> tags for proper numbering and bullet points.
9	25.04.2024	Implemented user input forms - developed HTML forms using <code><form></code> tags with input elements for data collection and submission.
10	26.04.2024	Styled webpage elements selectively - utilized various CSS selectors like Type, Class, ID, and Pseudo-classes/elements for targeted styling.

11	29.04.2024	Customized element rendering - applied CSS box model concepts to control content, padding, border, and margin for precise element rendering.
12	30.04.2024	Positioned webpage elements - utilized CSS positioning techniques like Static, Relative, Absolute, Fixed, and Sticky for element placement.
13	01.05.2024	Styled text content - utilized CSS text properties for font styling, alignment, decoration, spacing, transformation, and shadow effects.
14	02.05.2024	Enhanced background styling - applied CSS background properties for color, image, repeat, position and attachment settings to web page elements.
15	03.05.2024	Controlled element stacking - utilized CSS z-index property to manage the stacking order of positioned elements on web pages.
16	06.05.2024	Created flexible layouts - applied the flex property in CSS to create flexible layouts by controlling flex item properties like growth, shrinkage, and basis.
Java Basics		
17	07.05.2024	Declared Variables in Java - learned to declare variables to store and manipulate data, understanding variable types and their usage.
18	08.05.2024	Implemented Methods in Java - defined methods within classes to perform specific tasks, including parameter handling and return values.
19	09.05.2024	Utilized Constructors - created constructors in Java classes to initialize objects, understanding their role in object instantiation.
20	10.05.2024	Practiced Method Overloading - implemented method overloading to define multiple methods with the same name but different parameters in Java classes.
21	13.05.2024	Applied Method Overriding - utilized method overriding to provide specific implementations for superclass methods in Java subclass.

22	14.05.2024	Explored Upcasting in Java - learned about upcasting to convert a subclass reference to a superclass reference, understanding its implications.
23	15.05.2024	Investigated Spring Framework - learned about the Spring framework for building Java applications, understanding its core concepts and features.
24	16.05.2024	Explored Inversion of Control (IoC) - understood the IoC principle in Spring for managing object dependencies and lifecycle.
25	17.05.2024	Learned Model-View-Controller (MVC) Architecture - understood MVC design pattern in Spring for separating application concerns into model, view, and controller components.
26	20.05.2024	Utilized Spring Tools Suite - explored Spring Tools Suite (STS) for development, understanding its features for Spring application development.
27	21.05.2024	Explored Spring Initializer - learned to use Spring Initializer for quickly creating Spring Boot projects with desired dependencies and configurations.
28	25.05.2024	Developed CRUD Application with Spring Boot - built a CRUD (Create, Read, Update, Delete) application using Spring Boot, understanding its features for rapid development.
29	26.05.2024	project - built an E-commerce website using all the topics learnt
30	31.05.2024	project - continued building the E-commerce website with functional payment options.


Internal Guide

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Vasu B A
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Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)

INTERNSHIP REPORT

*A report submitted in partial fulfilment of the requirements for the Award of
Degree of*

BACHELOR OF COMPUTER APPLICATION

by

ABHISHEK K

UUCMS. No.: U03KU21S0043

Duration: 01ST May, 2024 to 31ST May, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

**BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE**



CERTIFICATE

This is to certify that the "Internship report" submitted by **ABHISHEK K(UUCMS. No.: U03KU21S0043)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Department of BCA
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Head of the Department
Department of BCA
Prof. Vijay Kumar A S



CERTIFICATE



Corporate Identification Number
UB0903DL2020NPL371984

14364000019918180



Ybi Foundation

This is to Certify that

Abhishek K

has successfully completed

Data Science and Machine Learning Internship

Duration :1 Month completed on Friday, May 31 2024

demonstrated exceptional dedication with strong willingness to learn and actively engaged in various projects, tasks exhibiting remarkable skills with high level of professionalism.

Credential ID :
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Verify Certificate Here

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24	24-05-2024	Feature analysis and selection using pandas and sci-kit learn.
25	25-05-2024	Model selection and Training.
26	26-05-2024	Assignment-4
27	27-05-2024	Project selection.
28	28-05-2024	Handling missing elements in duplicate data.
29	29-05-2024	Advanced visualization using Seaborn.
30	30-05-2024	Project submission.
31	31-05-2024	Proof of completion(Certificate).



Internal Guide
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BA. Vasu

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Examiner

INTERNET REFORM
I

*A report submitted in partial fulfilment of the requirements for the
Award of Degree of*

BACHELOR OF COMPUTER APPLICATION

by

ABHISHEK S

UUCMS. No.: U03KU21 S0078

Duration: 1st May, 2024 to 31st
May, 2024



**SOUNDARYA EDUCATIONAL TRUST
MANAGEMENT AND
SCIENCE**

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 — 2024

B•tCIJELOR OF COMPUTER APPLICATION
SOUNDARY>t INSTITUTE OF III tNAG EMENT AND SCIENCE



CERTIFICATE

This is to certify that the "Internship report" submitted by ABHISHEK S (UUCMS. No.: U03KU21S0078) is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the aivard of the degree of BACHELOR OF COMPUTER APPLICATIONS from SOUNDARYA INSTITUTE OF NIANAGE 11ENT AND SCIENCE, Bungnlore.

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SUP RI YA D

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EXAMINER
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CERTIFICATE

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ACKNOWLEDGEMENT

First I would like to thank Mr. Alok Yadav, IIT Delhi for giving me the opportunity to do an internship in the organization.

I also would like all the people that worked along with me in Ybi foundation, New Delhi with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal Dr. Vasu BA for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department Mr. Vijay Kumar A.S for his constructive criticism throughout my internship.

I am extremely grateful to my department staff members and friends who helped me in successful completion of this internship.

ABHISH EK S (U03KU21 50078)

ABSTRACT

Machine Learning is a subset of Artificial Intelligence (AI) where it is possible to create algorithms to teach a particular machine to perform a task. It is done by feeding data into the machine and from that data, explore the correlation between them, discovering patterns and applying algorithms, which makes it possible to take a sum of input data and based on certain patterns to produce the outputs. Each entry in this dataset has its own features, and generates models that can be generalized for a specific task. The idea of machines learning on their own from a vast volume of data may be the simplified definition of machine learning. In general, machine learning is a field of artificial intelligence that is intended to explore constructs of algorithms that make it possible to understand autonomously, where it creates the possibility to recognize and extract patterns from a large volume of data, thus building a model of Learning.

Organisation Information:

"YBI Foundation: IMPART LEARNING TO EMPOWER & TRANSFORM YBIF Offers Job Guarantee Program, Free Internship, Micro Credential and Full Stack Programs YBIF Learning Portal(www.ybifoundation.org). DATA SCIENCE // MACHINE LEARNING // ARTIFICIAL INTELLIGENCE // BUSINESS ANALYTICS | DATA VISUALIZATION // BIG DATA // PROGRAMMING // MATH & STATISTICS | CLOUD COMPUTING"

Programs and opportunities:

Artificial Intelligence Machine Learning | Data Science Marketing Analytics Social Network Analytics Business And Data Analytics | And provides career programs and learning upskilling based on upskilling platform and provides the opportunities of both technical and non-technical fields.

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We follow a structured methodology for our projects which starts from designing the solution to the implementation phase. Well planned Project reduces the time and cost of the project and any additional charges come to our clients hence we

helps us deliver not only the solution to our clients but also add value to your investment.

Key parts of the report.

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INTRODUCTION

Data Science: is an interdisciplinary field that focuses on extracting knowledge and insights from structured and unstructured data. It encompasses various techniques from statistics, computer science, and domain-specific knowledge to analyze and interpret complex data. The goal of data science is to use this data to inform decision-making, optimize processes and uncover patterns that can lead to actionable insights.

Machine Learning (ML): It is a subset of artificial intelligence (AI) that involves the development of algorithms that enable computers to learn from and make predictions or decisions based on data. ML algorithms build models based on sample data, known as training data to make predictions or decisions without being explicitly programmed to perform the task. This process of "learning" allows systems to improve their performance on tasks over time with more data and experience.

Together, data science and machine learning drive many of the technological advancements we see today, from personalized recommendations on streaming services to predictive maintenance in industrial settings. They are integral to various industries, including finance, healthcare, marketing, and technology, and continue to transform how businesses operate and compete in the market.

INTERNSHIP OBJECTIVES

• Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships.

Internships in order to receive real world experience and develop their skills.

An objective for this position should emphasize the skills you already possess in the area and your interest in learning more.

Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.

Some internships are used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.

Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

OBJECTIVES Or PROJECT

The primary objective of this Weight Prediction project is to develop a machine learning model that can predict the weight of a fish based on various physical attributes. This project aims to utilize statistical techniques to analyze and model the relationship between fish characteristics and its weight.

j. Quality Control: Detect anomalies in manufacturing or production processes to maintain quality standards.

J. Anomaly Detection: Identify unusual patterns that may indicate fraudulent activity.

3. Descriptive Analytics: Summarize historical data to understand what has happened.

J. Exploratory Data Analysis: Identify patterns, trends and relationships within data.

5. Predictive Analytics: Use statistical models and machine learning algorithms to forecast future events based on historical data.

6. Time Series Analysis: Predict future values based on previously observed values.

PROJECT SCOPE

The project scope included the following steps:

1. **Data Collection:** You would need to gather a significant amount of data related to various fish species, their characteristics (like length, width, etc.), and their corresponding weights. This data is crucial for training the prediction model.

2. **Data Pre-processing:** This involves cleaning the data, handling missing values, and possibly scaling or normalizing the features to ensure the model performs well.

3. **Feature Selection:** Identifying the most relevant features that have the most impact on the appropriate machine learning algorithm for the predicting fish weight. This step helps in improving the efficiency of the model.

DEPARTMENT OF BCA

more advanced models like random forests or neural networks.

5. Model Training: Utilizing a portion of the collected data to train the model, allowing it to learn the patterns between fish characteristics and their weights.

6. Model Evaluation: Assessing the performance of the trained model using metrics such as Mean Squared Error (MSE) or Root Mean Squared Error (RMSE) to determine how well the model predicts fish weights.

7. Deployment: Once the model is trained and evaluated, you can deploy it to predict fish weights on new, unseen data.

8. Testing and Fine-tuning: Testing the model with new data and fine-tuning it based on the performance to enhance its accuracy.

CHNO S

Use

1. Matplotlib: Matplotlib is a 2-D plotting library for Python. It is the standard way of creating static, animated, and interactive visualizations in Python. It can be used in Python scripts, the IPython shell, the Jupyter Notebook, web applications, and more. It can be used to embed plots into various GUI toolkits. So you can create plots, bar charts, pie charts, histograms, scatter plots, error bars, and whatever visualization charts you want! The Pyplot module also provides a MATLAB-like interface that is just as versatile and useful as MATLAB while being totally free and open source.

2. Pandas: Pandas provides various high-performance and easy-to-use data structures and operations for manipulating data in the form of numerical tables and time series. Pandas also has multiple tools for reading and writing data between in-memory data structures and different file formats. In short, it is perfect for quick and easy data manipulation, data aggregation, reading, and writing the data and data visualization. Pandas can also take in data from different types of files such as CSV, Excel, etc., or a SQL database and create a Python object known as a data frame. A data frame contains rows and columns and it can be used for data manipulation with operations such as join, merge, group by, concatenate, etc.

5. Scikit-learn: Scikit-learn is among those libraries for Python that is a free software library for Machine Learning coding primarily in the Python programming language. Scikit-learn is built on top of other Python libraries like NumPy, SciPy, Matplotlib, Pandas, etc. and it provides full interoperability with those libraries while Scikit-learn is written mainly in Python, it has also used Cython to write some core algorithms in order to improve performance. You can implement various Supervised and Unsupervised Machine learning models on Scikit-learn like Classification, Regression, Support Vector Machines, Random Forests,

4. Numpy: NumPy is a free Python software library for numerical computing that provides a fast array structure and various mathematical functions. It is used in many scientific computing applications, such as Nearest Neighbours, Naive Bayes, Decision Trees, and Clustering, etc. with SciKit-

dimensional matrices. These are the main data structures in NumPy. The dimensions of an array are given by the `shape` attribute. For example, the shape of a 2D array is given by `array.shape`. NumPy also provides various tools to work with these arrays, such as `np.linalg` for linear algebra, `np.random` for random number generation, etc. Some of the basic NumPy operations include:

- `np.dot`: Matrix multiplication.
- `np.sum`: Sum of elements along an axis.
- `np.mean`: Mean of elements along an axis.
- `np.std`: Standard deviation of elements along an axis.
- `np.reshape`: Reshaping an array.
- `np.concatenate`: Concatenating arrays.
- `np.vstack`: Stacking arrays vertically.
- `np.hstack`: Stacking arrays horizontally.
- `np.broadcast_arrays`: Broadcasting arrays to a common shape.

Other advanced functions include `np.linalg.pinv` for pseudo-inverse, `np.linalg.lstsq` for least squares, and `np.linalg.eig` for eigenvalues and eigenvectors. NumPy is a fundamental library for scientific computing in Python.

5. Seaborn: Seaborn is among the best data visualization library for Python that is based on

Matplotlib and closely integrated with the NumPy and Pandas data structures. Seaborn has

a set of dataset-oriented plotting functions that operate on data frames and arrays that handle

large datasets within them. Then it internally performs the necessary statistical operations and
 mapping functions to create informative plots that the user desires. It has a high-level

interface for creating beautiful and informative statistical graphics that are integral to exploring

and understanding data. The Seaborn data graphics can include bar charts, plots,

charts, histograms, scatterplots, error charts, etc. Seaborn also has various tools for choosing
 colour palettes that can reveal patterns in the data.

SCItEENSHOTS

```
fish.head()
```

```
1)
```

	Category	Species	Weight	Height	Width	Length1	Length2
0	1	Bream	242.0	11.5200	4.0200	23.2	25.4
1	1	Bream	290.0	12.4800	4.3056	24.0	26.3
2	1	Bream	340.0	12.3778	4.6961	23.9	26.5
3	1	Bream	383.0	12.7300	4.4555	26.3	29.0
4	1	Bream	430.0	12.4440	5.1340	26.5	29.0

```
fish.info()
```

```
<class 'pandas.core.frame.DataFrame'>
```

```
RangeIndex: 159 entries, 0 to 158
```

```
Data columns (total 8 columns):
```



1 age 127 non-null float64

2 weight 159 non-null float64

4 height 159 non-null float64

dtypes: float64(6), int64(1), object(1)

mean	3.264151	368.326415	8.970994	4.417486	26.247170	28.415723	31.227344
std	1.704248	357.878317	4.288208	1.685304	9.996441	10.716328	11.810246
min	1.000000	0.000000	1.728400	1.047600	7.500000	8.400000	8.800000
25%	2.000000	120.000000	5.944800	3.385650	19.060000	21.000000	23.150000
50%	3.000000	273.000000	7.766000	4.248500	25.200000	27.300000	29.400000
75%	4.500000	650.000000	12.385900	5.584500	32.700000	35.500000	38.850000
max	7.000000	1650.000000	18.857000	8.142000	58.000000	63.400000	68.000000

```
# Step 3 : define target (y) and features (X)
```

```
fish.columns
```

```
Index(['Category', 'Species', 'Weight', 'Height', 'Width', 'Length1',  
      'Length2', 'Length3'],  
      dtype='object')
```

```
X = fish[['Category', 'Height', 'Width', 'Length1',
```

```
# Step 4 : train test split
```

```
from sklearn.model_selection import train_test_split
```

```
X_train, X_test, y_train, y_test = train_test_split(X, y, train_size=0.7, random_state=2529)
```

```
# check shape of train and test sample
```

```
X_train.shape, X_test.shape, y_train.shape, y_test.shape
```

```
(111, 4), (41, 4), (111),  
(41,)
```

```
# Step 5 : select model
from sklearn.linear_model import LinearRegression
model = LinearRegression()
```

```
# Step 6 : train or fit model
model.fit(X_train,y_train)
```

```
array([ 35.19634977,  52.19372157, -37.13069125,  11.2218449 ,
        > 1000, -151!
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```

```
.,, " ..... - .
```



```
rray([ 475.93351387, 525.81918195, 77.63275849, 887.18235121
      168.9685664 , 255.94371856, 361.87829932, 358.87868894
      499.83411868, -158.87334151, -115.91818869, 428.65478115
      114.67533484, 812.51385122, 586.5871178 , 273.38518858,
      579.63988729, 225.18126845, 639.26868837, 85.88828599,
      136.92159841, -87.7778887 , 629.97231846, 732.63897812,
      859.8728695 , -166.76928687, 342.84289934, 722.92198147,
      321.44827179, 787.98248357, 486.93194673, 541.89982795,
      376.74813845, 624.81211282, -178.11945883, 917.76513881,
      792.26439518, -21.15655885, 388.24921659, 914.87325473,
      621.85636286, 934.17373986, 676.85479574, 653.92384483,
      615.51226767, 336.61888622, 585.75519147, -33.53283763])
```

```
# Step 8 : model accuracy
```

```
from sklearn.metrics import mean_absolute_error, r2_score
```

```
mean_absolute_error(y_test,y_pred)
```

```
99.58918266731813
```

CONCLUSION

Machine learning (ML) and data science are used across various industries to solve complex problems, improve decision-making, and drive innovation.

Data-Driven Decision Making

- **Objective:** To transform vast amounts of data into actionable insights.
- **Application:** Businesses use ML and data science to analyze customer behaviour, market trends, and operational data to make informed decisions.
- **Example:** Retail companies analyze purchase history to forecast demand and optimize inventory management.

Automation and Efficiency

- **Objective:** To automate repetitive and complex tasks.
- **Example:** Banks use ML models to automatically detect and prevent fraudulent transactions in real-time.
- **Application:** ML algorithms automate processes such as data entry, customer service (through chatbots), and fraud detection.

Predictive Analytics

- **Objective:** To predict future outcomes based on historical data.
- **Application:** Industries like finance, healthcare, and marketing use predictive analytics to forecast trends, customer behaviours, and potential risks.
- **Example:** Healthcare providers use predictive models to anticipate patient readmissions and manage hospital resources effectively.

~~BIBLIOGRAPHY~~

<https://www.coursera.org/courses/course-details?id=coursera/courses/data-science>

<https://www.javatpoint.com/python/python-ml-getting-started>

https://www.3schools.com/python/python_ml_getting_started.asp

<https://www.kaggle.com>

<https://colab.research.google.com>



Bangalore University

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B) BCA)ût9F_nShip Report on

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"Data Science and Machine Learning"

Submitted by

ABHISHEKS

U03KU21S0078



Department of Computer Applications - BCA

Soundarya Institute of Management and
Science

Soundarya Nagar, Sidedahalli, Nagasandra Post, Bangalore-
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Soundarya Institute of Management and
Science

Department of Computer Applications - BCA

Internship Day Book

Sl.	Date	Activities / Work Done
		Introduction to online Classes.
1	01-05-2024	Introduction to online Classes.
2	02-05-2024	Instructions to Complete online internship.
3	03-05-2024	Scope of Data Skills and AI.
4	04-05-2024	Data Collection and Cleaning.
5	06-05-2024	Assignment-1.
6	07-05-2024	Introduction to pytlion and google colab.
7	08-05-2024	Introduction to Machine learning
8	08-05-2024	Overview of Machine learning Types-Supervised and Unsupervised learning.
	09-05-2024	Overview of Machine learning Types-reinforcement and semi-supervised learning.
	10-05-2024	Overview of Machine learning libraries (Pandas and Matplotlib).
	11-05-2024	Overview of Machine learning libraries (Sci-kit learn and Seaborn).
12	12-05-2024	Assignment-2
13	13-05-2024	Overview of Machine learning libraries (Numpy and Scipy).
14	14-05-2024	Read Data as dataframe and exploring the datasets.
15	15-05-2024	Kaggle and feedback assignment.
16	16-05-2024	Data integration and schema alignment using pandas.
17	17-05-2024	Initial data cleaning using pandas and Numpy.
18	18-05-2024	Outlier detection and data handling.
19	19-05-2024	Assignment-3.
	20-05-2024	Train test and split.
	21-05-2024	Linear regression Models.
22	22-05-2024	Logistic regression Models.
23	23-05-2024	Exploratory Data Analysis (EDA).
24	24-05-2024	Feature analysis and selection using pandas and sci-kit learn.

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Bangalore - 560 086

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BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the "Internship report" submitted by **BALAJIA** (UUCMS. No.: **U03KU21S0065**) is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Prof. Supriya D, M. Tech

DEPT. OF COMPUTER SCIENCE
Soundarya Institute of Management and Science
Nagasandra, Bangalore 560 073.
Department of BCA
Prof. Vijay Kumar A S, M. Tech.,[Ph.D.]

EXAMINERS

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

BY

BALAJI A

UUCMS. No.: U03KU21S0065

Duration: 28th Feb, 2024 to 25th April, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

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Internship Coordinator
Prof. Supriya D, M. Tech

Head of the department
Department of BCA
Prof. Vijay Kumar A S, M. Tech.,[Ph.D.]



CERTIFICATE OF APPRECIATION

INTERNSHIP_170662655565b90dfb357f2

PROUDLY PRESENTED TO

BALAJI A

STU65d727301b4761708599088

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Full Stack Web Development** under the **Next Gen Employability Program 2023-24**.

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

ACKNOWLEDGEMENT

First I would like to thank SHARATH KUMAR of **EY, Bangalore** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me in **EY, Bangalore** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

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I am extremely grateful to my department staff members and friends who helped me in successful completion of this internship.

BALAJI A (U03KU21S0065)

ABSTRACT

A car rental application provides a platform where users can easily rent vehicles for short periods, typically ranging from a few hours to several days. It facilitates seamless transactions between car owners (or rental agencies) and renters, offering a variety of vehicles registration, vehicle browsing, booking and payment processing, location-based search, ratings and reviews, as well as customer support. Such applications aim to simplify the process of renting a car while ensuring to choose from based on preferences such as size, model, and price range. Key features typically include user convenience, reliability, and transparency for both parties involved.

ORGANISATION INFORMATION:

About EY GDS:

Ernst & Young Global Delivery Services, a global leader in professional services, has expanded its commitment to corporate social responsibility (CSR) to include a robust skilling component. Recognizing the critical role that education and skill development play in fostering sustainable communities, EY has launched numerous initiatives aimed at equipping individuals with the skills they need to thrive in a rapidly changing world. These programs extend beyond traditional business interests and reflect EY's dedication to making a positive impact beyond its core services. The Next Gen Employability Program is an initiative by Edunet & AICTE in collaboration with EY GDS to enhance the employability of students in the technical education ecosystem.

About Edunet:

Edunet Foundation (EF) was founded in 2015. Edunet promotes youth innovation, and tinkering, and helps young people prepare for industry 4.0 jobs. Edunet has a national footprint of training 300,000+ students. It works with regulators, state technical universities, engineering colleges, and high schools throughout India to enhance the career prospects of the beneficiaries.

METHODOLOGIES:

We follow a structured methodology for our projects which starts from designing the solution to the implementation phase. Well planned Project reduces the time to deliver the project and any additional ad-hoc costs to our clients, hence we dedicate majority of our time understanding our clients business and gather requirements. This ground up approach helps us deliver not only the solution to our clients but also add value to your investments.

KEY PARTS OF THE REPORT:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies.

BENEFITS OF THE COMPANY/INSTITUTION THROUGH OUR REPORT:

Under each division we further provide specific industry solution on focused domains with cutting edge technologies. We emphasize on building relationships with our clients by delivering projects on time and within budget.

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1.1 INTERNSHIP OBJECTIVES

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
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- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

2.1 MODULES

- Car module
- Bike module
- Bicycle module
- Views.py module
- Urls.py module
- Manage.py module

3.1 SOFTWARE REQUIREMENT SPECIFICATIONS

A Software Requirements Specification (SRS) document outlines the requirements and specifications for a software project. Here's a high-level outline of what the SRS for building a car rental application using Django might include:

1. Introduction

- **Purpose:** Describe the purpose of the document and the car rental application.
- **Scope:** Define the scope of the application, including its features and functionalities.
- **Definitions, Acronyms, and Abbreviations:** Provide a glossary of key terms used throughout the document.

2. Functional Requirements

- **User Roles:**
 - Define different user roles (e.g., customer, admin, employee) and their permissions.
- **Use Cases:**
 - List and describe typical interactions and scenarios within the application (e.g., booking a car, managing reservations, reporting issues).
- **Functional Requirements:**
 - Specify the detailed functionalities of the application, such as:
 - User registration and authentication.
 - Car catalog management (add, edit, delete cars).
 - Booking and reservation management.
 - Payment processing integration.
 - User profile management.
 - Admin dashboard for managing users, bookings, and cars.
 - Notifications (e.g., booking confirmation, reminders).
 - Reporting and analytics (optional).

3. Non-Functional Requirements

- **Performance:**
 - Specify performance metrics such as response times, concurrent user handling, and scalability requirements.
- **Security:**

- Describe security requirements, including data encryption, secure authentication, and protection against common web vulnerabilities (e.g., CSRF, XSS).
- **Reliability:**
 - Define uptime requirements and disaster recovery plans.
- **Usability:**
 - Specify user interface requirements, accessibility guidelines, and ease of navigation.
- **Compatibility:**
 - Specify browser and device compatibility requirements.
- **Legal and Compliance:**
 - Ensure compliance with data protection regulations (e.g., GDPR, CCPA) and legal requirements for car rentals.

4. System Architecture

- **Architecture Overview:**
 - Describe the overall architecture of the application, including Django components (e.g., ORM, Views, Templates) and third-party integrations.
- **Database Design:**
 - Outline the database schema using Django models, including relationships between entities (e.g., cars, users, bookings).

5. User Interface Design

- **Wireframes and Mockups:**
 - Provide wireframes or mockups of key screens (e.g., homepage, booking form, admin dashboard) to illustrate the user interface design.

3.0 TECHNOLOGY

3.1 HTML

HTML (HyperText Markup Language) is the standard markup language for creating web pages and web applications. It defines the structure of content on a web page using tags like `<html>`, `<head>`, `<body>`, `<div>`, `<p>`, etc. HTML elements are combined to form the skeleton of a webpage, determining how text, images, forms, and other elements are displayed and interacted with by users.

HTML is the fundamental building block of the World Wide Web. It defines the structure and content of web pages using a markup language that consists of a set of elements or tags, each with specific attributes and purposes. HTML works in conjunction with CSS (Cascading Style Sheets) and JavaScript to create visually appealing, interactive, and dynamic web pages.

KEY CONCEPTS AND STRUCTURE

Elements and Tags:

- **Elements:** These are the basic building blocks of HTML, represented by tags enclosed in angle brackets(`<>`).
- **Tags:** Tags denote the beginning and end of an element (`<tagname>` and `</tagname>`). Some elements are self-closing (`<tagname />`) when they don't have any content.

Attributes:

- **Attributes:** These provide additional information about HTML elements and are included within the opening tag. Attributes modify the behavior or appearance of elements.

Document Structure:

- **Document Type Declaration (DOCTYPE):** Specifies the HTML version and document type.
- **HTML:** The root element that encapsulates the entire content of the web page.
- **Head:** Contains meta-information about the document, such as title, character encoding, and links to external resources (CSS, JavaScript).
- **Body:** Encloses the main content of the web page, including text, images, videos, forms, and other elements.

3.2 CSS

CSS (Cascading Style Sheets) is a stylesheet language used to describe the presentation of a document written in HTML or XML. CSS defines styles such as colors, fonts, margins, padding, and layout for web pages. It allows web designers to separate the structure and content of a document from its presentation, enabling them to create visually appealing and responsive websites that adapt to different screen sizes and devices.

Importance in Modern Web Development

CSS plays a crucial role in modern web development by enabling:

- **Consistency:** Ensuring consistent branding and design across web pages.
- **Accessibility:** Improving readability and usability for all users, including those with disabilities.
- **Performance:** Optimizing page load times and rendering efficiency through efficient CSS coding practices.
- **SEO:** Helping search engines understand the structure and content hierarchy of web pages.

Key Concepts and Syntax

CSS uses selectors to target HTML elements and apply styles to them. Selectors can target elements based on their tag name, class, ID, attributes, and relationships with other elements (e.g., parent-child). CSS rules consist of a selector and a declaration block enclosed in curly braces {}. Each declaration within the block specifies a property (e.g., `color`, `font-size`) and its corresponding value (e.g., `blue`, `16px`).

```
/* Example of a CSS rule */  
  
p {  
  
    color: blue;  
  
    font-size: 16px;  
  
}
```

Cascading and Specificity

CSS stands for Cascading Style Sheets, where "cascading" refers to the mechanism by which styles are applied to elements. Multiple CSS rules may apply to the same element, and the rules are resolved based on specificity and inheritance. Specificity determines which rule takes precedence when multiple rules conflict, while inheritance dictates how styles are passed from parent to child elements.

Box Model and Layout

The CSS Box Model describes the structure of every HTML element as a rectangular box with content, padding, borders, and margins. Understanding the Box Model is crucial for controlling the size, spacing, and

positioning of elements on a web page. CSS provides properties to manipulate each aspect of the Box Model (width, height, padding, border, margin), enabling precise control over layout and spacing.

Responsive Design and Media Queries

With the proliferation of various devices and screen sizes, responsive design has become essential. CSS supports responsive web design through Media Queries, which allow developers to apply different styles based on factors like screen width, device orientation, and resolution. Media Queries enable websites to adapt seamlessly to different devices, ensuring optimal user experience across desktops, tablets, and smartphones.

Preprocessors and CSS Frameworks

CSS preprocessors like Sass (Syntactically Awesome Style Sheets) and Less enhance CSS with features like variables, mixins, nested rules, and functions. These preprocessors improve code maintainability and allow for more efficient styling workflows. Additionally, CSS frameworks like Bootstrap, Foundation, and Materialize provide pre-written CSS and JavaScript components for rapid prototyping and consistent design across projects.

CSS Grid and Flexbox

CSS Grid Layout and Flexbox are modern layout models introduced in CSS3, revolutionizing web layout design. CSS Grid enables two-dimensional layout control, defining rows and columns to arrange elements in a grid-like structure. Flexbox, on the other hand, is a one-dimensional layout model for arranging elements along a single axis (either horizontally or vertically). These layout tools simplify complex web layouts, providing more flexibility and control than traditional CSS methods.

Animation and Transitions

CSS supports animations and transitions to create interactive and dynamic user experiences without JavaScript. CSS Animations allow developers to define keyframes and animate properties over time, while CSS Transitions smoothly change property values over a specified duration. These CSS features enhance user engagement and visual appeal, making websites more engaging and responsive.

Conclusion

In conclusion, CSS is a cornerstone of web development, providing the means to control the visual presentation and layout of web pages. It empowers developers to create responsive, accessible, and aesthetically pleasing websites that cater to diverse user needs and devices. As web technologies evolve, CSS continues to evolve with them, maintaining its essential role in shaping the modern web experience. Mastering CSS fundamentals and keeping up with its latest advancements is essential for every web developer aiming to create compelling and user-friendly web applications.

3.3 Python

Python is a versatile and widely-used high-level programming language known for its simplicity, readability, and ease of learning. It supports multiple programming paradigms, including procedural, object-oriented, and functional programming. Python's popularity has surged in recent years due to its applicability across various domains, including web development, data analysis, artificial intelligence, scientific computing, and automation. Here's a comprehensive overview of Python, its features, capabilities, and importance in the programming landscape:

Key Features of Python

1. **Simple and Readable Syntax:** Python emphasizes readability with its clean and straightforward syntax, using indentation to define code blocks rather than curly braces or keywords.
2. **Expressive and Elegant:** Python allows developers to express ideas and solutions in a clear and concise manner, enhancing productivity and reducing development time.
3. **Interpreted and Interactive:** Python is an interpreted language, which means code execution occurs line by line, making it suitable for interactive use, rapid prototyping, and scripting.
4. **Multi-paradigm:** Python supports multiple programming paradigms, including procedural, object-oriented, and functional programming styles, providing flexibility in code design.
5. **Extensive Standard Library:** Python's standard library includes modules and packages for tasks ranging from text processing to network programming, offering robust support for various application domains without needing external libraries.
6. **Community and Ecosystem:** Python has a vibrant community of developers and enthusiasts who contribute to its ecosystem with third-party libraries (e.g., NumPy, Pandas, Django) and frameworks that extend its capabilities for specific tasks like data analysis, web development, and machine learning.

Applications of Python

Python's versatility makes it suitable for a wide range of applications:

- **Web Development:** Frameworks like Django and Flask enable rapid development of web applications with clean and maintainable code.
- **Data Science and Machine Learning:** Python is widely used in data analysis and machine learning due to libraries like NumPy, Pandas, SciPy, and scikit-learn, as well as frameworks such as TensorFlow and PyTorch.
- **Scientific Computing:** Python's numerical computing capabilities and libraries make it popular in scientific computing and research.
- **Automation and Scripting:** Python's simplicity and cross-platform compatibility make it ideal for automation tasks, system administration, and scripting.

- **Game Development:** Python is used in game development with libraries like Pygame, providing tools for creating interactive games.
- **Desktop GUI Applications:** Python can be used to create desktop GUI applications using libraries like Tkinter, PyQt, or wxPython.

Future Directions and Trends

Python's popularity continues to grow, driven by its adaptability, community support, and expanding ecosystem. Emerging trends include:

- **Artificial Intelligence and Machine Learning:** Python's dominance in AI and ML is expected to continue, with advancements in frameworks and libraries for deep learning and neural networks.
- **Web Development:** Python web frameworks like Django and Flask are evolving to meet modern web development needs, focusing on performance, scalability, and security.
- **Data Science:** Python's libraries and tools for data manipulation, visualization, and analysis will continue to be enhanced to support larger datasets and more complex analytics.

Python in Education and Industry

Python's readability and ease of learning have made it a popular choice for introductory programming courses in universities and coding bootcamps. Its robustness and large community support have also contributed to its widespread adoption in industry, with companies like Google, Facebook, Dropbox, and NASA using Python for various purposes ranging from web services to data analysis and automation.

Conclusion

Python's versatility, readability, and community support make it a powerful tool for developers across various domains. Whether you're building web applications, analyzing data, or developing machine learning models, Python's intuitive syntax and extensive libraries streamline development and foster innovation. Its continued evolution and widespread adoption ensure that Python will remain a cornerstone of modern programming for years to come, driving advancements in technology and empowering developers worldwide.

3.4 Django

Django is a high-level Python web framework that encourages rapid development and clean, pragmatic design. It follows the MVC (Model-View-Controller) architectural pattern but uses slightly different terminology: Models define data structures, Views handle the presentation logic, and Templates render the HTML. Django provides built-in features such as an ORM (Object-Relational Mapping) system for database interactions, URL routing, authentication, and admin panel generation, enabling developers to build complex web applications efficiently.

Together, HTML, CSS, Python, and Django form a powerful stack for developing modern web applications. HTML provides the structure, CSS enhances the presentation, Python handles the application logic, and Django streamlines the development process by providing a robust framework with many built-in features and conventions. This combination allows developers to create dynamic, scalable, and maintainable web applications effectively.

Key Features of Django

1. MTV Architecture: Django follows the Model-Template-View (MTV) architectural pattern, which is similar to the Model-View-Controller (MVC) pattern but with a few key differences. In Django:

- **Model:** Represents the data structure, typically mapped to a database table using Django's ORM (Object-Relational Mapping).
- **Template:** Handles the presentation layer, containing HTML with Django template language and embedded Python code.
- **View:** Handles the business logic, processing requests from the user, interacting with models, and rendering templates.

2. Admin Interface: Django provides a powerful admin interface automatically generated from models, following developers and administrators to manage and manipulate data in the application. The admin interface can be customized to fit specific application requirements.

3. ORM (Object-Relational Mapping): Django's ORM enables developers to interact with databases using Python objects, abstracting away the complexities of SQL queries. It supports multiple database backends (e.g., PostgreSQL, MySQL, SQLite) and facilitates database schema migrations.

4. URL Routing: Django uses a robust URL routing system that maps URL patterns to views, enabling clean and SEO-friendly URLs. It supports regular expressions and named URL patterns for dynamic routing.

- **Forms Handling:** Django simplifies form handling and validation with its form library, making it easy to define forms in Python classes and render them in templates. It includes built-in protection against common security threats like CSRF (Cross-Site Request Forgery).
- **Security:** Django emphasizes security best practices by providing protection against SQL injection, cross-site scripting (XSS), clickjacking, and other vulnerabilities. It includes built-in mechanisms for user authentication, authorization, and session management.

- **Template Engine:** Django's template engine allows developers to build dynamic web pages using Django template language (DTL), which includes template inheritance, filters, tags, and template includes for code reuse and separation of concerns.
- **Internationalization and Localization:** Django supports internationalization (i18n) and localization (l10n) out of the box, enabling developers to create applications that support multiple languages and cultures.
- **Middleware:** Django middleware allows developers to process requests and responses globally, enabling features like authentication, logging, or modifying requests before reaching views.
- **Testing Support:** Django provides a testing framework for writing unit tests and integration tests for applications, ensuring code reliability and identifying bugs early in the development cycle.

Django Ecosystem

Django's popularity has led to a rich ecosystem of third-party packages, extensions, and reusable apps that extend its functionality. These include:

- **Django REST framework:** A powerful and flexible toolkit for building Web APIs.
- **Django CMS:** A content management system built on Django for creating complex, content-rich websites.
- **Celery:** Distributed task queue for asynchronous processing.
- **Django Allauth:** Authentication, registration, account management.

Community and Adoption

Django has a large and active community of developers who contribute to its ecosystem through code, documentation, tutorials, and support. The Django community values inclusivity, transparency, and collaboration, fostering an environment where developers can learn, share knowledge, and contribute to open-source projects.

Use Cases

Django is used by organizations of all sizes and across various industries for building scalable and secure web applications. Use cases include:

- **E-commerce platforms:** Building online stores with robust backends for inventory management, order processing, and payment gateways.
- **Content management systems:** Developing content-rich websites with customizable workflows for content creation and publishing.
- **Social networking sites:** Creating community-driven platforms with user profiles, feeds, messaging, and interaction features.

- **Data-driven applications:** Implementing data analytics dashboards, reporting tools, and integration with external APIs.

Conclusion

Django continues to be a preferred choice for developers seeking a powerful, scalable, and secure framework for web development. Its pragmatic design, extensive features, and active community support make it suitable for building a wide range of web applications efficiently. Whether you're a beginner exploring web development or an experienced developer scaling complex applications, Django provides the tools and resources necessary to succeed in today's dynamic web landscape.

3.5 DATABASE

SQLite is a lightweight, serverless, self-contained, and open-source relational database management system (RDBMS). Unlike traditional SQL databases, SQLite does not require a separate server process to operate, making it highly suitable for embedded systems, mobile applications, and small to medium-scale applications.

Key features of SQLite include:

1. **Self-contained:** The entire SQLite database is contained in a single disk file, making it easy to distribute and manage.
2. **Serverless:** SQLite operates directly with the application that accesses it, eliminating the need for a separate server process.
3. **Transactional:** SQLite databases support ACID (Atomicity, Consistency, Isolation, Durability) transactions, ensuring data integrity even in the event of interruptions or failures.
4. **Cross-platform:** SQLite runs on multiple platforms, including Windows, macOS, Linux, and various other operating systems.
5. **Wide adoption:** SQLite is widely used in software applications that need a local database for data storage, caching, or as an embedded database within larger systems.
6. **Performance:** SQLite is known for its efficiency and speed, handling moderate volumes of data and concurrent accesses effectively.

Overall, SQLite is favored for its simplicity, reliability, and ease of integration, making it a popular choice for developers needing a lightweight and efficient database solution for their applications.

Use Cases for SQLite:

SQLite is commonly used in scenarios where a lightweight, embedded database solution is required, such as:

- **Mobile Applications:** Many mobile apps use SQLite as the local storage for managing app data, user preferences, and offline capabilities.
- **Embedded Systems:** IoT devices, embedded systems, and applications running on limited-resource hardware often use SQLite due to its small footprint and efficiency.
- **Testing and Development:** SQLite is often used in development and testing environments where quick setup and prototyping are essential.

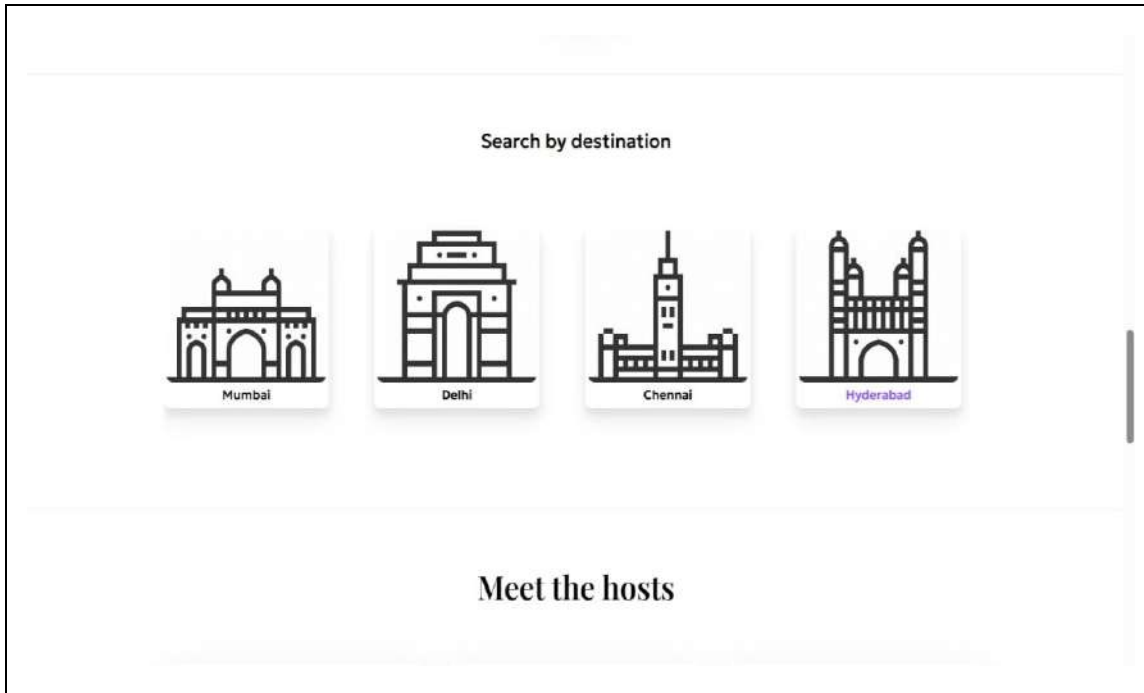
Structured Query Language (SQL)

To work with data in a database, you must use a set of commands and statements (language) defined by the DBMS software. There are several different languages that can be used with

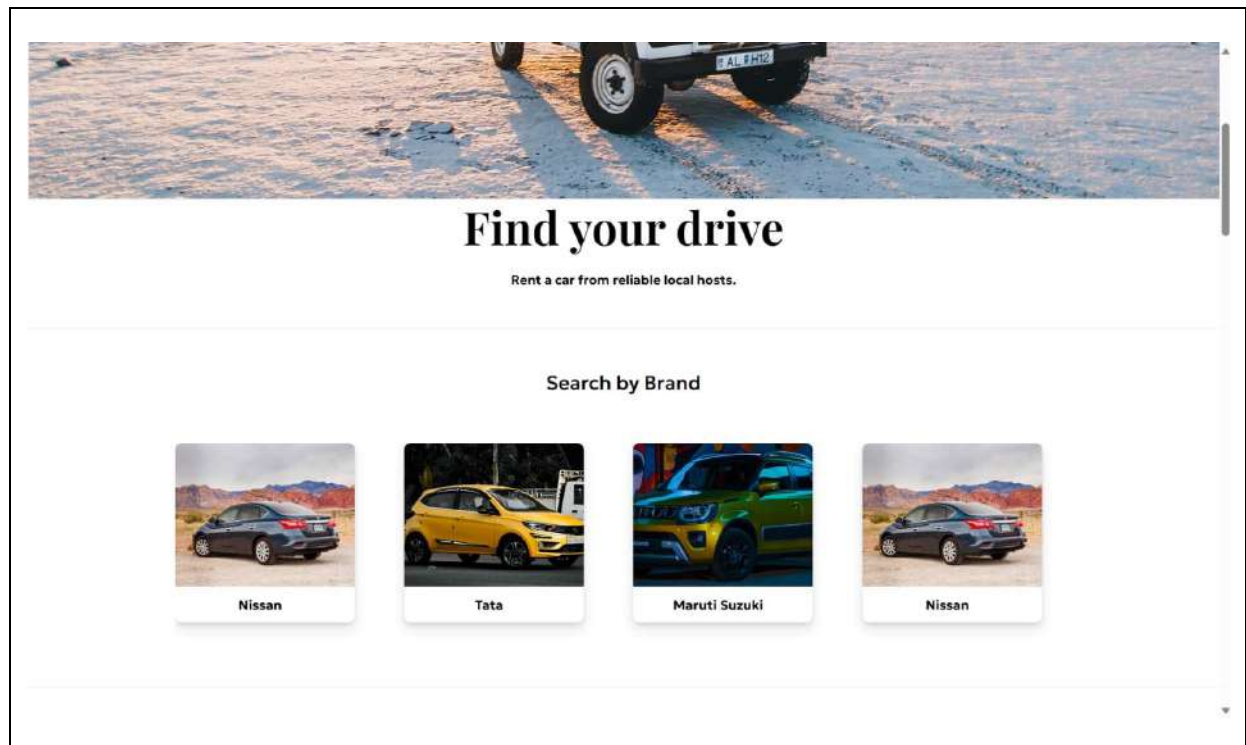
relational database; the most common is SQL. Both the American national standards institute (ANSI) and the International Standards Organization (ISO) has defined standards for SQL.

4.1 SCREENSHOTS

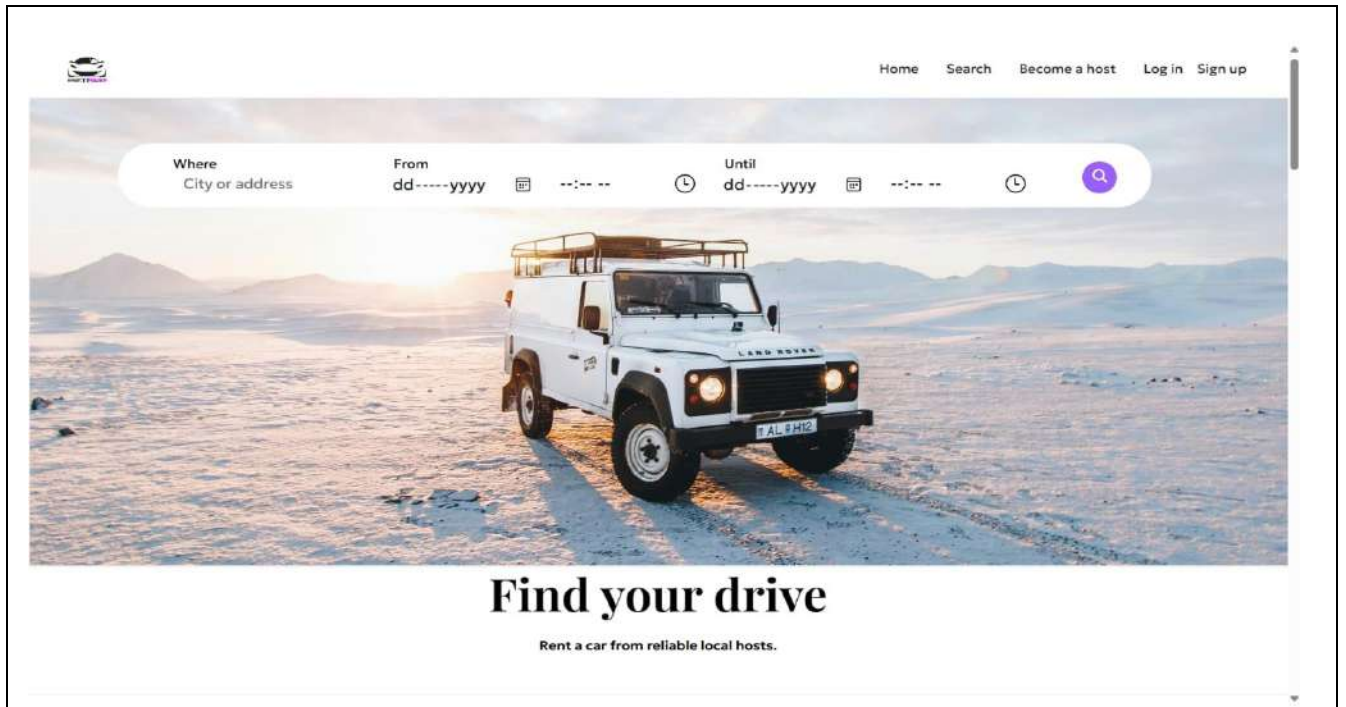
Home page:



Brand selection:



Login Page:



5.1 CONCLUSION

In conclusion, a Car Rental application built using HTML, CSS, Python, Django, and Bootstrap represents a robust and modern approach to developing a user-friendly and feature-rich platform. HTML and CSS provide the foundational structure and styling necessary for creating an intuitive user interface, ensuring a seamless browsing and booking experience. Python, with its versatility and extensive libraries, empowers developers to implement complex business logic and database interactions efficiently within the Django framework.

Django further enhances the application with its built-in features like ORM for database management, authentication, and URL routing, streamlining development and ensuring scalability. Bootstrap, with its responsive design components and CSS framework, enhances the application's aesthetic appeal and responsiveness across different devices and screen sizes.

Together, these technologies form a powerful stack that not only simplifies the development process but also ensures the application is secure, maintainable, and capable of meeting the dynamic demands of a car rental service. Such an application not only improves user experience with its intuitive interface but also provides administrators with robust tools for managing inventory, bookings, and customer interactions effectively. Thus, leveraging HTML, CSS, Python, Django, and Bootstrap results in a well-rounded Car Rental application poised for success in today's competitive digital landscape.

6.1 BIBLIOGRAPHY

The following platforms are referred during the analysis and execution phase of the project

1. Google -----<https://www.google.com>
2. YouTube-----<https://www.youtube.com>
3. ChatGPT -----<https://chatgpt.com>

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

Chandan M

UUCMS. No.: U03KU21S0023

Duration: 28th Feb, 2024 to 25th April, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

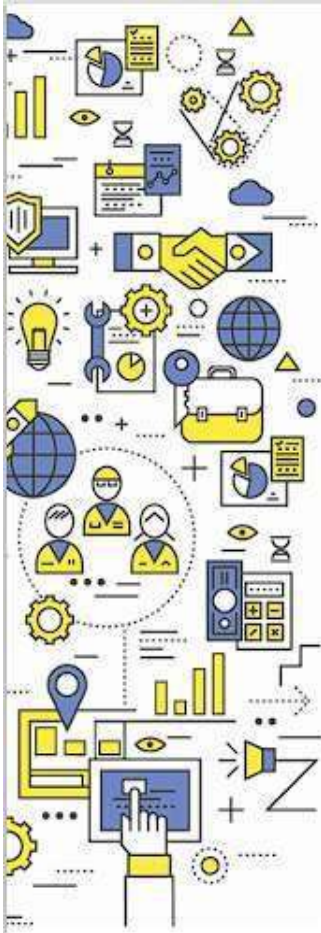


CERTIFICATE

This is to certify that the “**Internship report**” submitted by **Chandan M (UUCMS. No.: U03KU21S0023)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Prof. Yatish S J

Head of the Department
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D.]



CERTIFICATE OF APPRECIATION

INTERNSHIP_170662655565b90dfb357f2

PROUDLY PRESENTED TO

CHANDAN M
STU65d608a609f381708525734

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Advanced Data Analytics** under the **Next Gen Employability Program 2023-24**.

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

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CHANDAN M (U03KU21S0023)

ABSTRACT

This report summarizes the application of advanced data analytics during an internship at Edu net Foundation, a leading non-profit focused on enhancing education through technology. The internship involved using Power BI to perform comprehensive data analysis and visualization tasks. Key activities included data collection, cleaning, modeling, and creating interactive dashboards. These advanced techniques provided actionable insights, improved decision-making, and enhanced program evaluation. The experience significantly contributed to both personal skill development and the foundation's mission of leveraging data to drive educational improvements.

These insights have significant implications for investors, entrepreneurs, and policymakers. Understanding the critical success factors and regional dynamics of unicorn companies can guide investment strategies, support the development of startup ecosystems, and inform policy decisions aimed at fostering innovation and economic growth. Future research could expand the dataset to include emerging unicorns and explore the impact of macroeconomic factors on startup valuations.

Organization Information:

Edu net Foundation is a social enterprise which was founded in 2015 and focuses on bridging the academia- industry divide, enhancing student employability, promoting innovation and creating an entrepreneurial ecosystem in India. Working primarily with emerging technologies, and striving to leverage them to augment, upgrade the knowledge ecosystem and equip the beneficiaries to become contributors themselves, we work extensively to build a workforce with an IR 4.0 enabled career. The organization has enjoyed Special Consultative Status with the Economic and Social Council (ECOSOC) of the United Nations since 2020. With a national footprint, EF's programs, online and instructor-led, benefit tens of thousands of learners every year.

Programs and opportunities:

The Next Gen Employability Program recognizes the existing gap between the nation's youth and employment opportunities. The program aims to bridge the gap between industry and higher education by introducing an experiential and hands on training program for the youth of the country. The program aims to provide a comprehensive and integrated solution that empowers learners with dynamic curriculum, making them industry-ready from day one. The program is designed to be delivered in two phases; Core Program Delivery which focuses on learning and acquiring industry relevant technical skills along with AICTE Internship wherein students will be developing a project prototype on the basis of technologies learnt during the program, followed by activity led Modular Engagement sessions focused on acquiring and enhancing employability skills under the guidance of industry experts to ensure job readiness of the students. These sessions will provide an open knowledge sharing platform for the students to seek career guidance from the industry experts

Methodologies:

We follow a structured methodology for our projects which starts from designing the solution to the implementation phase. Well planned Project reduces the time to deliver the project and any additional ad-hoc costs to our clients, hence we dedicate majority of our time understanding our client's business and gather requirements. This ground up approach helps us deliver not only the solution to our clients but also add value to your investments.

Key parts of the report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies.

Benefits of the Company/Institution through our report:

Under each division we further provide specific industry solution on focused domains with cutting edge technologies. We emphasize on building relationships with our clients by delivering projects on time and within budget

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Learning Objectives/Internship Objectives

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

Introduction

1. Introduction

1.1 Background

Unicorn companies, privately held startups valued at over \$1 billion, have become a significant phenomenon in the global economy. The term "unicorn," coined by venture capitalist Aileen Lee in 2013, underscores the rarity and exceptional growth potential of these startups. Over the past decade, the number of unicorns has surged, driven by technological innovation, venture capital investment, and an increasingly globalized market. These companies span various industries, including technology, healthcare, finance, and consumer goods, and are often seen as indicators of future economic trends and technological advancements.

1.2 Purpose

The primary purpose of this project is to analyze and interpret data on unicorn companies to uncover key trends, patterns, and factors that contribute to their success. By examining a comprehensive dataset of unicorn companies, this study aims to provide insights into their geographic distribution, industry sectors, funding stages, and growth trajectories. These insights will be valuable for investors, entrepreneurs, policymakers, and academics interested in understanding the dynamics of high-growth startups.

1.3 Scope

This project focuses on a dataset comprising detailed information on over 500 unicorn companies worldwide. The analysis involves extensive data preprocessing and exploratory data analysis (EDA), leveraging Power BI for data visualization and advanced analytical techniques. Power BI is used to create interactive dashboards and visualizations that help uncover patterns and insights. The scope includes the integration of various data sources, the cleaning and transformation of data, and the visualization of key metrics and trends. While the project provides a comprehensive analysis of the dataset, it does not include primary data collection through surveys or interviews, nor does it delve into individual company case studies or qualitative assessments.

2. Project Objectives

2.1 Primary Objectives

1. **Identify Key Trends and Patterns:** Analyze the dataset of unicorn companies to uncover significant trends and patterns in their geographic distribution, industry sectors, funding stages, and growth trajectories.
2. **Determine Success Factors:** Identify and evaluate the critical factors that contribute to the success and high valuations of unicorn companies, including funding amounts, investor profiles, and market conditions.
3. **Create Interactive Visualizations:** Utilize Power BI to develop interactive dashboards and visualizations that effectively present the data, making it easier to identify insights and communicate findings to stakeholders.
4. **Predict Future Unicorns:** Apply advanced analytical techniques and machine learning models to predict potential future unicorns based on historical data and identified success factors.

2.2 Secondary Objectives

1. **Benchmark Performance:** Compare the performance and growth metrics of unicorn companies across different regions and industry sectors to identify areas of strength and opportunities for improvement.
2. **Assess Funding Dynamics:** Analyze the stages of funding (e.g., seed, series A, B, etc.) and their impact on the growth trajectory and valuation of unicorn companies.
3. **Understand Regional Dynamics:** Examine the geographic distribution of unicorn companies to understand the regional dynamics and factors contributing to the concentration of unicorns in certain areas.
4. **Evaluate Investor Influence:** Investigate the role of different types of investors (e.g., venture capitalists, angel investors) in the success of unicorn companies, and assess how their involvement influences company growth and valuation.
5. **Provide Strategic Recommendations:** Based on the analysis, offer actionable recommendations for investors, entrepreneurs, and policymakers to support the growth and development of future unicorn companies.

3. Literature Review

3.1 Overview of Unicorn Companies

Unicorn companies, a term popularized by venture capitalist Aileen Lee in 2013, refer to privately held startups valued at over \$1 billion. These companies are typically characterized by rapid growth, innovative business models, and significant market disruption. The emergence of unicorns is often seen as a barometer of technological advancement and economic vitality in the startup ecosystem. Over the years, the number of unicorns has increased significantly, driven by advancements in technology, access to venture capital, and the globalization of markets.

3.2 Previous Research on Factors Influencing Unicorn Success

Numerous studies have explored the factors contributing to the success and high valuations of unicorn companies. Key factors identified in the literature include:

1. **Innovation and Technology:** Unicorns often leverage cutting-edge technologies and innovative business models to disrupt traditional industries. Research indicates that technological innovation is a critical driver of growth and market valuation (Lee, 2013; Brown, 2015).
2. **Funding and Investment:** Access to substantial venture capital funding is a common trait among unicorns. Studies have shown that early-stage funding, the presence of prominent investors, and the ability to secure multiple funding rounds significantly impact a company's growth trajectory and valuation (Smith & Robinson, 2017).
3. **Market Potential:** The addressable market size and the company's ability to scale rapidly are essential factors in achieving unicorn status. Research highlights that companies operating in large and growing markets are more likely to achieve high valuations (Johnson et al., 2018).
4. **Leadership and Talent:** The role of visionary leadership and a talented team is frequently cited as a crucial factor in the success of unicorns. Effective leadership drives strategic decision-making and innovation, while attracting top talent contributes to execution capabilities (Kumar & Sharma, 2019).
5. **Business Model:** The scalability and sustainability of the business model play a significant role in the valuation of unicorns. Studies suggest that companies with highly scalable and adaptable business models tend to attract more investment and achieve higher valuations (Nguyen & Chang, 2020).

4. Data Collection

4.1 Data Sources

The dataset for this project was collected from multiple reputable sources, ensuring comprehensive coverage and reliability of the data on unicorn companies. The primary sources include:

4.2 Description of Data

The collected dataset encompasses a wide range of attributes for over 500 unicorn companies globally, including:

- **Company Information:** Name, industry sector, and headquarters location.
- **Valuation:** Current valuation of the company, typically exceeding \$1 billion.
- **Founding Date:** The year the company was founded.
- **Funding Rounds:** Details of various funding rounds, including dates, amounts, and types of funding (e.g., seed, Series A, Series B).
- **Investors:** Information on major investors involved in the company's funding rounds.
- **Employee Count:** The number of employees in the company.

4.3 Data Collection Methodology

The data was extracted using web scraping techniques and APIs provided by the data sources. The process involved:

- **Data Integration:** Combining data from different sources to create a unified dataset, ensuring consistency and accuracy.
- **Data Validation:** Cross-referencing data from multiple sources to validate accuracy and completeness, and correcting any discrepancies identified during the process.

5. Data Preparation

5.1 Data Cleaning

Data cleaning involved several steps to ensure the dataset was accurate and ready for analysis:

- **Handling Missing Values:** Imputing missing values where appropriate, or removing records with excessive missing information.
- **Removing Duplicates:** Identifying and removing duplicate records to avoid redundancy and ensure the integrity of the dataset.
- **Standardizing Formats:** Ensuring consistency in data formats, such as date formats, numerical values, and categorical variables.

5.2 Data Transformation

Data transformation was performed to make the data suitable for analysis:

- **Normalization:** Normalizing numerical values to ensure they are on a comparable scale, which is particularly important for machine learning models.
- **Encoding Categorical Variables:** Converting categorical variables into numerical format using techniques such as one-hot encoding and label encoding.
- **Creating New Features:** Generating new features that could provide additional insights, such as the time taken to achieve unicorn status, or the total funding received to date.

5.3 Data Integration

Data integration involved combining the cleaned and transformed data from different sources into a single dataset:

- **Merging Datasets:** Using unique identifiers like company names and funding round IDs to merge datasets from various sources.
- **Ensuring Consistency:** Verifying that integrated data was consistent and that key attributes matched across different sources.
- **Handling Discrepancies:** Addressing any discrepancies identified during the integration process, such as conflicting information or variations in data reporting.

6. Exploratory Data Analysis (EDA)

6.1 Initial Data Exploration

The initial exploration of the dataset involved a thorough examination of the data's structure, summary statistics, and key attributes. This step was crucial to understand the overall dataset and to identify any immediate patterns or anomalies. Using Power BI, the following steps were undertaken:

- **Data Import:** The dataset was imported into Power BI, and its structure was reviewed to understand the various fields and their types.
- **Summary Statistics:** Basic summary statistics, such as mean, median, standard deviation, and range, were calculated for numerical fields to get an overview of the data distribution.

6.2 DAX Functions and Measures

Data Analysis Expressions (DAX) in Power BI were extensively used to create new measures and calculated columns, providing deeper insights into the data:

- **New Measures:** DAX functions were utilized to create custom measures, such as total funding amount, average valuation, and the number of funding rounds. For example:
 - Total Funding = `SUM('Funding'[Amount])`
 - Average Valuation = `AVERAGE('Company'[Valuation])`
- **Calculated Columns:** New columns were created to derive additional information from existing data. Examples include the time taken to achieve unicorn status and the cumulative funding received. For instance:
 - Years to Unicorn = `DATEDIFF ('Company'[Founding Date], 'Company'[Unicorn Date], YEAR)`
 - Cumulative Funding = `CALCULATE(SUM('Funding'[Amount]), FILTER(ALL('Funding'), 'Funding'[Date] <= EARLIER('Funding'[Date])))`
- **Key Performance Indicators (KPIs):** Power BI's KPI visualizations were used to track critical metrics such as growth rate, market share, and funding efficiency.

7. Data Analysis

7.1 Highest Return on Investment (ROI)

The analysis of the return on investment (ROI) for unicorn companies revealed significant insights into the financial performance and efficiency of these high-growth startups. By calculating the ROI for each company, we identified which unicorn has generated the highest returns relative to the amount of investment received. This metric is crucial for investors to understand the profitability and success of their investments. The company with the highest ROI has demonstrated exceptional growth and efficiency, providing substantial returns to its stakeholders.

Valuation to funding = $\text{DIVIDE}(\text{SUM}(\text{Unicorn_Companies}[\text{Valuation}(\$B)]), \text{SUM}(\text{Unicorn_Companies}[\text{Funding}(\$B)]))$

7.2 Industry which as More Funding

Our analysis highlighted the global distribution of unicorn companies, revealing that certain industry are hotspots for high-growth startups. The Fintech company emerged as the leader with the highest number of unicorns, particularly concentrated in tech hubs such as Silicon Valley and New York. China followed closely, with Beijing and Shanghai being significant centers of innovation. This distribution underscores the importance of regional ecosystems, access to venture capital, and supportive regulatory environments in fostering unicorn companies.

7.3 Year with the Most Unicorns

The temporal analysis of unicorn creation showed that specific years have seen spikes in the number of companies achieving unicorn status. Notably, recent years, particularly 2020 and 2021, have witnessed a surge in unicorns, likely driven by increased venture capital investment, technological advancements, and the accelerated digital transformation due to the COVID-19 pandemic. These findings indicate that the startup ecosystem is rapidly evolving, with more companies reaching high valuations in shorter timeframes.

7.4 Time to Become a Unicorn

Examining the time, it takes for companies to achieve unicorn status provided insights into the growth trajectories of successful startups. On average, it takes 7 years for a company to become a unicorn, although this can vary significantly across industries and regions. Technology and software companies tend to achieve unicorn status faster due to their scalable business models and rapid market adoption. This analysis helps entrepreneurs and investors set realistic expectations and benchmarks for startup growth.

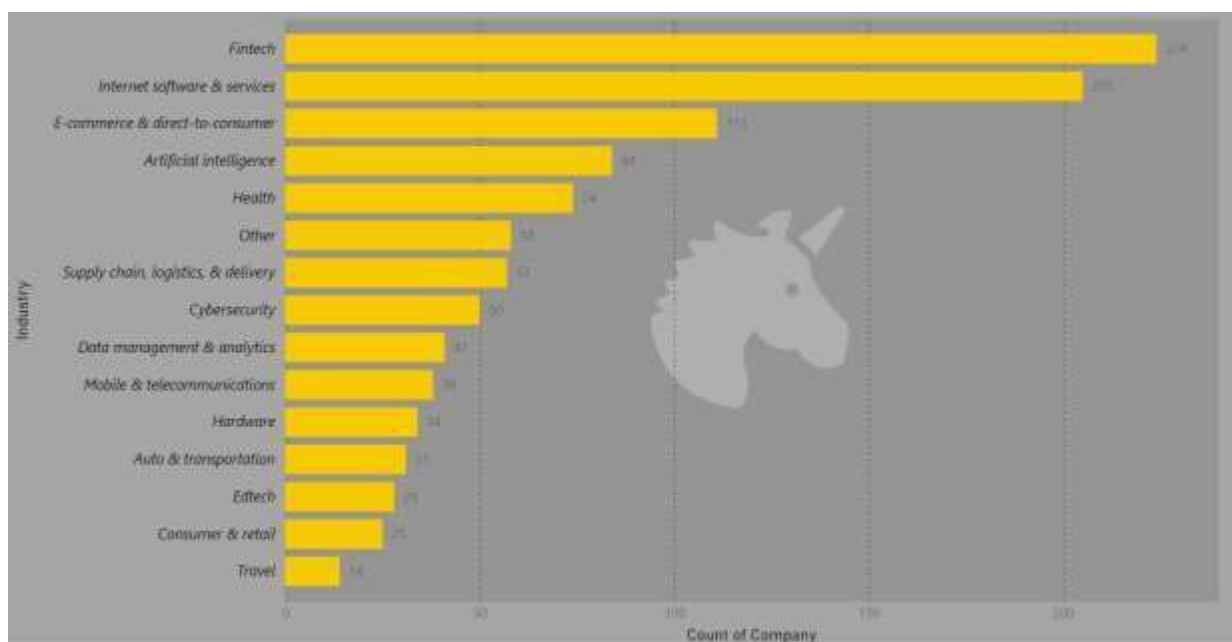
7.5 Most Frequent Investor in Unicorns

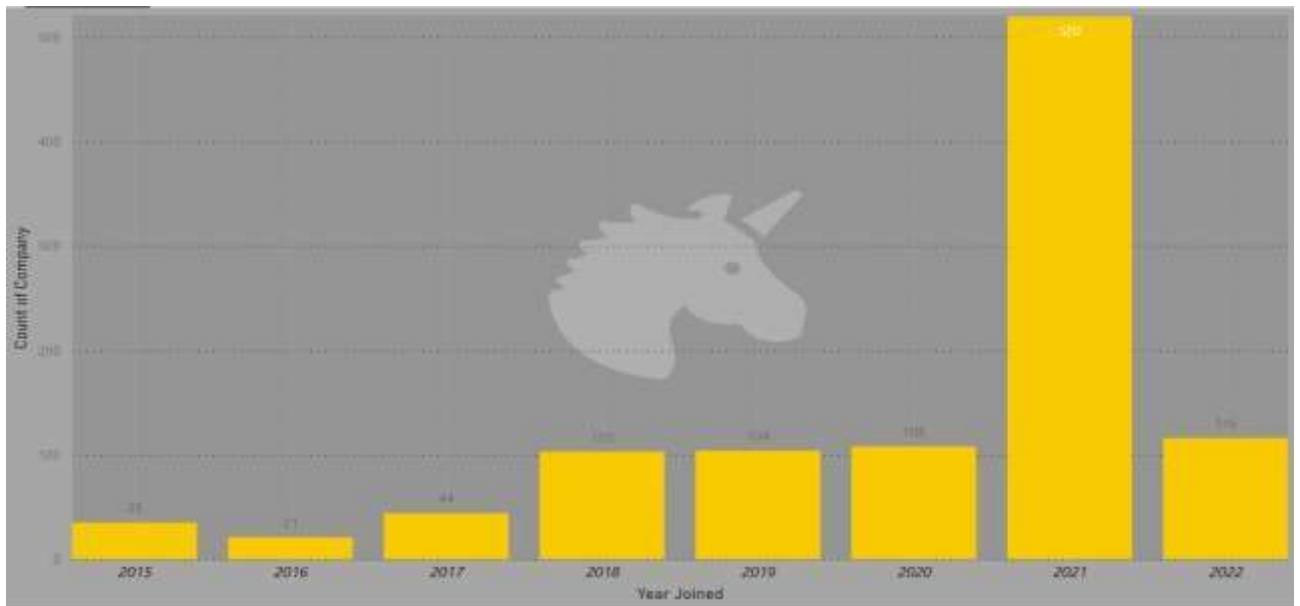
Identifying the investors who have founded the most unicorns highlighted key players in the venture capital ecosystem. Tiger Global Management emerged as one of the top investors, having funded a significant number of unicorn companies across various sectors. This finding underscores the role of experienced and strategic investors in nurturing and scaling startups to unicorn status. These investors bring not only capital but also valuable expertise, networks, and support to their portfolio companies.

8. Data Visualization

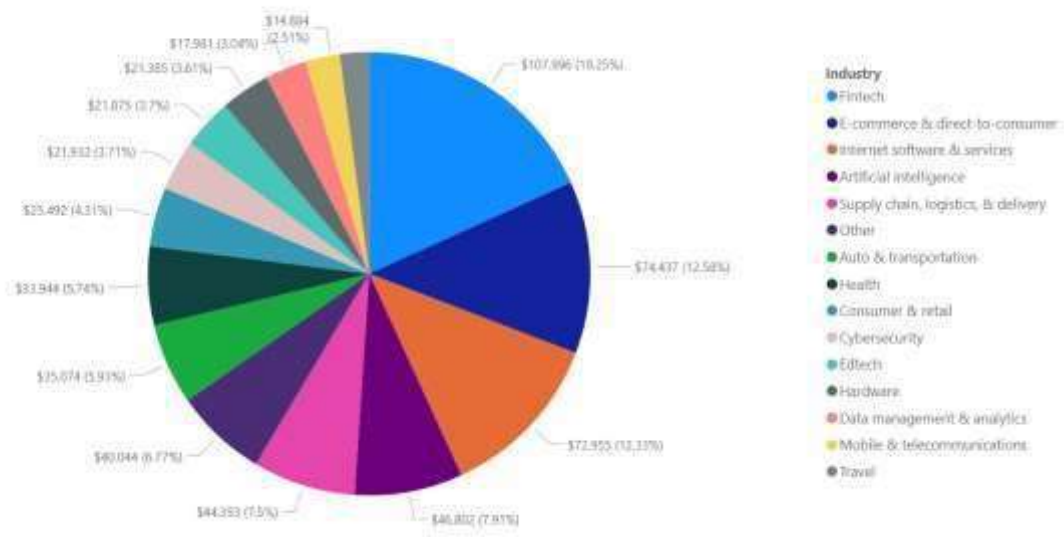
[← Back to report](#) | ROI

Company	Valutaion to funding
1047 Games	15.75
1KMXC	11.63
1Password	7.61
4Paradigm	2.00
56PINGTAI	5.32
58 Daojia	3.33
6Sense	11.74
A24 Films	13.33
ABL Space Systems	4.77
Abogen	4.00
Accelerant	10.36
Acko General Insurance	2.18
Acorns	3.94
Acronis	7.35
ActiveCampaign	8.33
Ada Support	5.24
Addepar	2.96
Advance Intelligence Group	3.73
Afiniti	16.67
Age of Learning	6.00
AgentSync	9.01
Total	6.27

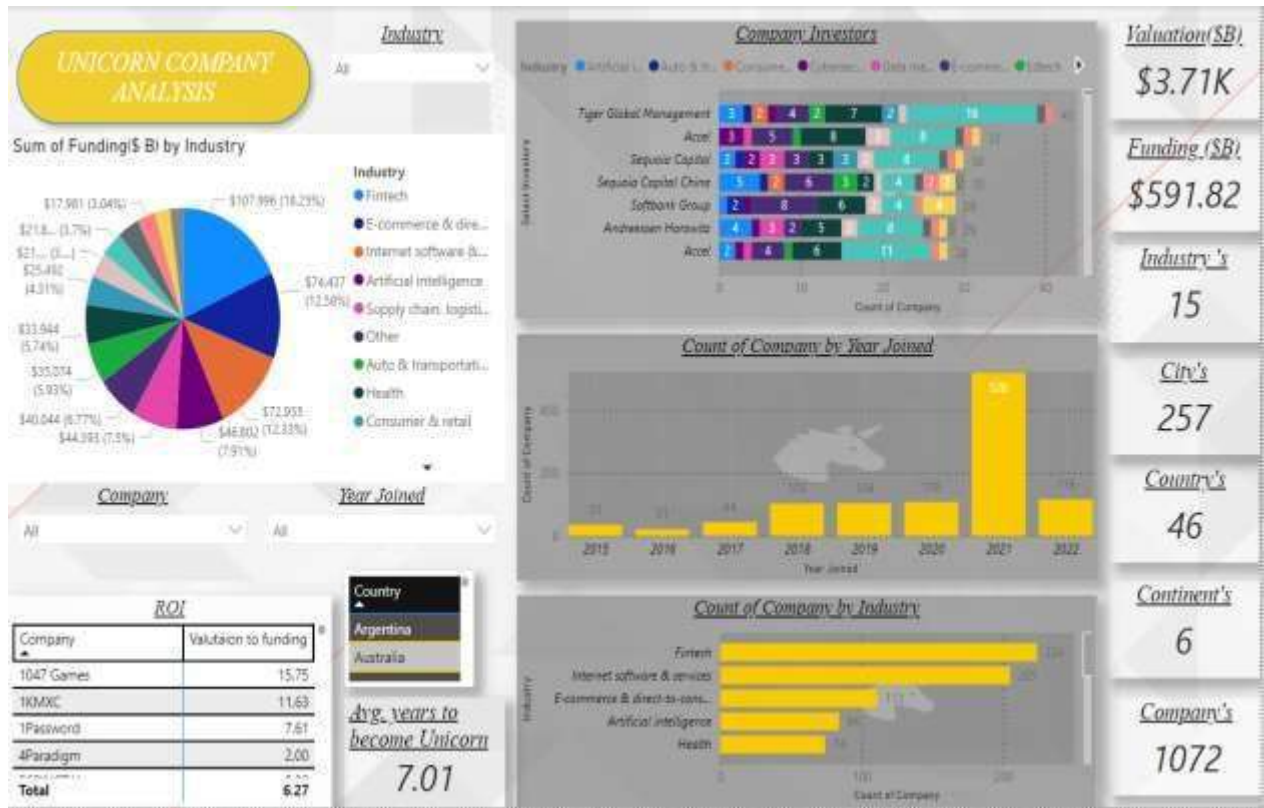




Back to report | SUM OF FINANCINGS BY INDUSTRY



9. Results



Summary of Key Findings

- Company with Highest ROI:** Zapier stands out with the highest return on investment, showcasing its efficient capital utilization and robust growth.
- Sums of Funding in \$B:** Fintech, industry as more funding compared to other industry at 18.25%
- Peak Year for Unicorn Creation:** The year 2021 saw the highest number of new unicorns, driven by increased funding and digital innovation.
- Typical Time to Unicorn Status:** On average, it takes 7 years for startups to achieve unicorn status, with technology startups often reaching this milestone faster.
- Top Investor in Unicorns:** Tiger Global Management is the most frequent backer of unicorn companies, highlighting its pivotal role in the success of high-growth startups.

10. Conclusion

The "**Power BI Enabled Comprehensive Analysis on Unicorn Businesses**" project successfully achieved its objectives, providing critical insights into the dynamics of unicorn businesses. By utilizing Power BI, the project analyzed key metrics such as ROI, the number of unicorns per company, annual unicorn creation rates, time to unicorn status, and top investors. The methodology—comprising data acquisition, preparation, modeling, visualization, and storytelling—effectively transformed raw data into actionable insights. Interactive dashboards created during the project facilitated a deeper understanding of unicorn businesses, enhancing strategic decision-making for stakeholders.

Key findings included identifying top-performing companies, years with the most unicorns, and influential investors, offering valuable guidance for aspiring entrepreneurs and investors. The project underscored the power of advanced data analytics in delivering comprehensive business intelligence and contributed significantly to Edu net Foundation's strategic capabilities and the participants' professional growth.

11. BIBLIOGRAPHY

The following links are referred for the analysis and execution phase of the project

WEBLINKS:

<https://www.youtube.com/>

<https://www.google.com/>

<https://openai.com/chatgpt>



Bangalore University

VI- Semester (NEP) BCA Internship Report on

**“Power BI Enabled Comprehensive Analysis
on Unicorn Businesses”**

Submitted by

CHANDAN M

U03KU21S0023

Department of Computer Applications - BCA



Soundarya Institute of Management and Science

Soundarya Nagar, Sidedahalli, Nagasandra Post, Bangalore-73

Department of Computer Applications - BCA

Internship Day Book

Student Name and USN No: CHANDAN M (U03KU21S0023)
Company Name: Ernst & Young
Address: 6 th , 12 th & 13 th Floor, UB City, Canberra Block No, 24, Vittal Mallya Rd, Bengaluru, Karnataka 560001

Week No	Date	Activities / Work Done
Week1	6/03/24	Collection, connection, pre-processing of the Data <ol style="list-style-type: none">1. Gathering Unicorn Companies data from data source2. Importing the data source into Power BI3. Perform pre-processing operations
Week1 Master Class	07/03/24	Resume Resonance: Creating an impression that lasts/
Week2	13/03/24	Analysis and Visualization using Power BI <ol style="list-style-type: none">1. EDA will be done using various charts2. KPIs will be analyzed to understand unicorn companies3. Final Sorting of various columns according to requirements
Week2 Master Class	14/03/24	Master session on Design thinking in real world application
Week3	20/03/24	Visualization and dashboard <ol style="list-style-type: none">1. Reports will generate various requirements2. Dashboard will be prepared
Week3 Master Class	21/03/24	Managing code base with GitHub

Week4	27/03/24	Formatting, Project Testing 1. Formatting of visuals, background, canvas will be done 2. Checking the functionality of the project before presentation
Week4 Master Class	28/03/24	Dev Ops: Code to Production

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Examiner

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



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Yatish
25/1/24
Internship Coordinator
Prof. Yatish S J

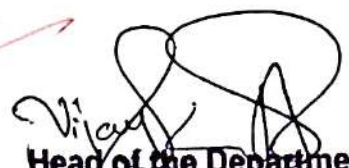
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~~Head of the Department~~
DEPT. OF COMPUTER SCIENCE
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Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D.]

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2. *[Signature]*

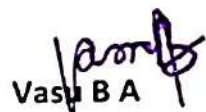
Week4	27/03/24	Formatting, Project Testing 1. Formatting of visuals, background, canvas will be done 2. Checking the functionality of the project before presentation
Week4 Master Class	28/03/24	Dev Ops: Code to Production



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Vasu B A
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Examiner

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

CHETHAN KR

UUCMS. No.: U03KU21S0066

Duration: 15th April, 2024 to 31th May, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024



Soundarya Educational Trust (Regd.)
SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE
(Recognised by Govt. of Karnataka & Affiliated to Bangalore University)
Accredited by NAAC with "B+" Grade

Soundarya Nagar, Sidedahalli,
Nagasandra Post,
Bangalore-560073

April 1, 2024

Greeting!

Dear Chethan K R.

Greetings from Soundarya Educational Trust.

We are pleased to offer you the position of Intern at Soundarya Institute of Management and Science. Please find the following confirmation of the specifics of your internship

POSITION TITLE: Web Developer Intern.

START DATE: 15 April 2024.

Kindly acknowledge by revert on this mail and provide us your confirmation. Also find attach list of documents required for completion your joining formalities at Soundarya Institute of Management and Science.

Request you to fill the attach form with required details and sends us back on the same email at the earliest.



Jamb
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BACHELOR OF COMPUTER APPLICATION
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Internship Coordinator

Department of BCA

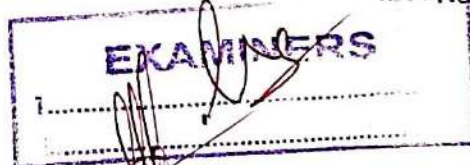
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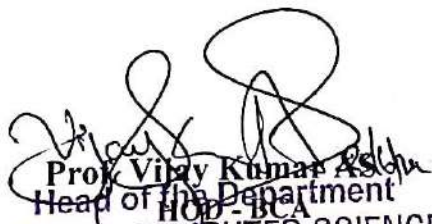


24	08/05/2024	Error resolution for login and home page.
25	09/05/2024	Form creation for add course.
26	10/05/2024	Form creation for addstudentForm.
27	11/05/2024	Saturday
28	12/05/2024	Sunday
29	13/05/2024	Error resolution for user login.
30	14/05/2024	Error resolution for forms.
31	15/05/2024	Creation of admin index page.
32	16/05/2024	Creation of admin navigation bar.
33	17/05/2024	Creation of addstudentForm.
34	18/05/2024	Saturday
35	19/05/2024	Sunday
36	20/05/2024	Creation of editstudentForm.
37	21/05/2024	Creation of staff views.
38	22/05/2024	Creation of staff add student views.
39	23/05/2024	Creation of staff add student save views.
40	24/05/2024	Creation of manage staff.
41	25/05/2024	Saturday
42	26/05/2024	Sunday
43	27/05/2024	Creation of manage course.
44	28/05/2024	Creation of edit staff and edit staff save.
45	29/05/2024	edit student views.
46	30/05/2024	edit subject.
47	31/05/2024	staff home and student home



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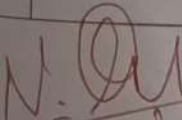
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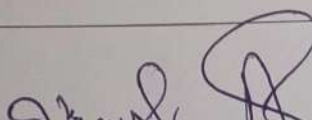
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EXAMINERS
1. *[Signature]*
2. *[Signature]*

11/05/2024	Saturday
12/05/2024	Sunday
13/05/2024	Error resolution for user login.
14/05/2024	Error resolution for forms.
15/05/2024	Creation of admin index page.
16/05/2024	Creation of admin navigation bar.
17/05/2024	Creation of addStaff'stForm.
18/05/2024	Saturday
19/05/2024	Sunday
20/05/2024	Creation of editstaffForm.
21/05/2024	Creation of staff views.
22/05/2024	Creation of staff_add Poller views.
23/05/2024	Creation of staff_add Poller_save views.
24/05/2024	Creation of manage_staff.
25/05/2024	Saturday
26/05/2024	Sunday
27/05/2024	Creation of manage_course.
28/05/2024	Creation of edit_staff and edit_staff_save.
29/05/2024	edit_User views.
30/05/2024	edit_Polling's.
31/05/2024	staff_home and student_home


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INTERNSHIP REPORT

A report submitted in partial fulfillment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

DAKSH DOGA

UUCMS. No.: U03KU21S0082



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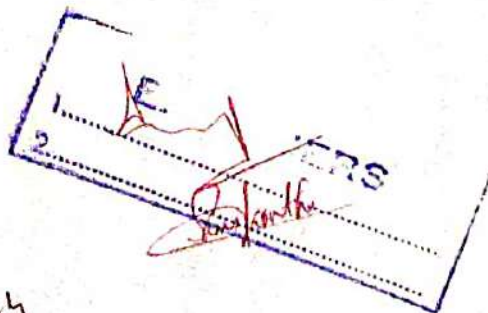
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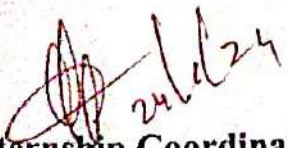
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SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE**

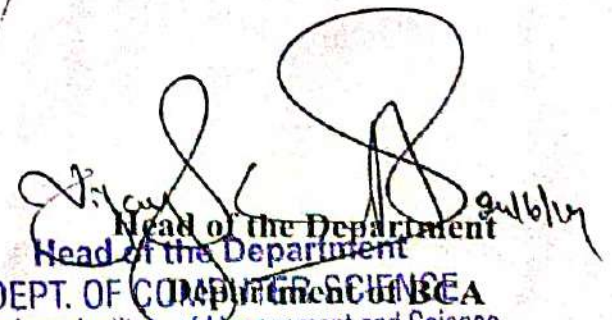


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This is to certify that the “**Internship report**” submitted by **DAKSH DOGRA (UUCMS. No.: U03KU21S0082)** is work done by him and submitted during 2023-2024 academic year in partial fulfillment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**




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prof. Santhosh RS


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CERTIFICATE OF INTERNSHIP

THIS CERTIFICATE IS AWARDED TO

DAKSH DOGRA

This is to certify that the bearer of this certificate, with registration number UD3KU21J0082 pursuing a BCA from SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE has successfully

completed an internship with our company.

The internship was completed under the guidance of **Mr. Shankar Narayan** in the domain of Java, with the position of "**Java Full Stack Intern**" held from 12/04/2024 to 31/05/2024. We have found the intern to be a self-starter who is motivated, duty-bound, and hardworking. Assignments were completed sincerely, and the performance was excellent.

We wish all the best in future endeavors

Saichitkul Kasri
LEAD NAME



SVG

Manager
JSPIDERS & PYSPIDER:
Development training institute
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A-83, 5th Main, Industrial Estate
Rajajinagar 6th Block, Bengaluru-560 021

ACKNOWLEDGEMENT

I am profoundly grateful to Mr. Rahul Madhi for his invaluable guidance and support throughout my internship. His expertise, insights, and mentorship have been instrumental in enhancing my knowledge and skills. I appreciate the opportunities and learning experiences provided during this period, which have significantly contributed to my professional and personal growth

Thank you for your constant encouragement and for providing a conducive environment for learning.

It has been a privilege to work under your supervision.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely grateful to my department staff members and friends who helped me in successful completion of this internship

ABSTRACT

This report details the creation of an e-commerce website using HTML, CSS, Java, and MySQL. It includes modules for user authentication and order management, aiming to deliver a secure online shopping experience. The analysis section examines user requirements, system limitations, and potential issues to ensure a clear understanding of project needs. The Software Requirements Specifications (SRS) define functional and non-functional requirements, guiding development and testing. Technologies used include HTML/CSS for front-end, Java for back-end, and MySQL for the database. The coding section describes the implementation, highlighting component integration for a robust e-commerce platform. Overall, this report provides a comprehensive overview of the project's development process, ensuring thorough documentation and understanding.

Organization Information:

Jspiders is a renowned training institute in India that specializes in providing comprehensive training in software development and testing. They offer courses tailored for aspiring IT professionals, focusing on various programming languages, software testing methodologies, and other technical skills essential for a career in the software industry.

Jspiders offers internship programs designed to bridge the gap between academic learning and industry requirements. These internships provide students with hands-on experience in real-world projects, enhancing their practical skills and preparing them for professional challenges. Here are some key aspects of Jspiders' internship programs:

- **Real-World Projects:** Interns work on live projects that simulate industry scenarios, helping them apply theoretical knowledge in practical situations.
- **2.Mentorship and Guidance:** Experienced mentors guide interns throughout the program, offering insights, feedback, and support to ensure a valuable learning experience.
- **3.Skill Development:** The internship focuses on developing essential technical skills, including coding, debugging, software testing, and project management.
- **4.Industry Exposure:** Interns get a chance to experience the workings of the software industry, including exposure to current technologies, tools, and practices

Programs and opportunities:

The e-commerce website project is built on a foundation of HTML, CSS, Java, JSP (JavaServer Pages), and MySQL, combining these technologies to form a reliable online shopping platform. Core modules such as user authentication, product catalog, and order management are designed to facilitate secure and efficient user interactions. The project is scalable, allowing for the addition of new features, expanding market reach worldwide. It also enables data-driven decision-making and enhances user experience through a responsive and dynamic interface.

Methodologies:

The methodology for developing the e-commerce website involves several key stages: requirements gathering, system design, technology selection, and implementation. Requirements are gathered through stakeholder meetings and user interviews, informing the creation of the system architecture and design. Technologies such as HTML/CSS for front-end, Java/JSP for back-end, and MySQL for the database are carefully selected. The implementation phase includes developing front-end interfaces, implementing business logic, and setting up the database.

Key parts of the report:

This report outlines the development of an e-commerce website employing HTML, CSS, Java, JSP, and MySQL. Key components encompass user authentication, product catalog, and order management. The methodology comprises requirements gathering, system design, technology selection, and implementation. The project utilizes HTML/CSS for the front-end, Java/JSP for the back-end, and MySQL for the database. The platform is designed to be scalable, user-friendly, and to facilitate data-driven decision-making.

Benefits of the Company/Institution through our report:

Interning at Jspiders provides hands-on experience with real projects, mentorship from industry experts, and critical technical skill development. Interns gain valuable industry exposure, enhance their resumes, and may receive job offers based on their performance, thanks to Jspiders' strong placement support and industry connections.

INDEX

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Learning Objectives/Internship Objectives

Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.

An objective for this position should emphasize the skills you already possess in the area and your interest in learning more

Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.

Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.

Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

INTRODUCTION

This report outlines the creation of an e-commerce website using HTML, CSS, Java, and MySQL. The website aims to offer a smooth shopping experience, featuring modules for user authentication, product catalog, and order management. The report includes details on these modules, analysis, software requirements specifications, technologies employed, and a summary of the coding process.

MODULES

Module 1: User Authentication

Description: This module handles user registration, login, and logout functionalities. It ensures that user data is securely stored and managed.

Features:

- User registration
- Secure login and logout
- Password encryption

Module 2: Product Catalog

Description: This module presents a list of available products for purchase, enabling users to explore different categories and access detailed information about each product.

Features:

- Product listing
- Product detail page
- Search function

Module 3: Order Management

Description: This module manages the order processing, which includes creating orders, processing payments, and tracking orders.

Features:

- Order history
- Payment gateway integration
- Order summary

Analysis

This section analyzes the requirements and approach for developing the e-commerce website.

User Needs

- Secure and easy-to-use authentication system
- Efficient search and filtering options
- Reliable payment processing
- Ensuring data security and privacy
- Handling concurrent user requests efficiently
- Scalability to accommodate a growing number of products and users

Potential Challenges

- Implementing a secure authentication mechanism
- Ensuring the website is responsive and performs well on various devices
- Integrating with a payment gateway securely

Software Requirements Specifications

Functional Requirements

- User registration and login/logout functionality.
- Add, update, and remove item features.
- Order processing and payment integration.
- User profile management.

Non-Functional Requirements

- Performance: Fast loading times and smooth navigation
- Usability: Intuitive and responsive design
- Scalability: Ability to handle increased traffic and data

Technology

HTML:

Structure: Defines the content and layout of a webpage using elements like headings, paragraphs, images, and links.

CSS:

Styling: Controls the visual presentation of the webpage, including colors, fonts, spacing, and layout.

Java:

Java is used for the backend development of the website. It handles the business logic, data processing, and interactions with the database.

MySQL:

MySQL is used as the database management system to store user data, product information, and order details. It ensures data integrity and supports efficient data retrieval

Coding

Frontend Development

HTML: Define the structure of the web page and content within it.

CSS: Used to style the web pages, ensuring appealing and consistent design in the page

JavaScript (optional): Enhances user interaction and dynamic content loading.

Backend Development

Java: Implements the business logic, handles user requests, and processes data.

Servlets and JSP: to create dynamic web content and interact with the frontend.

Database Management

MySQL: Stores customer information, product informations, and order list. Provides SQL queries to manage and retrieve data more accurately and effectively.

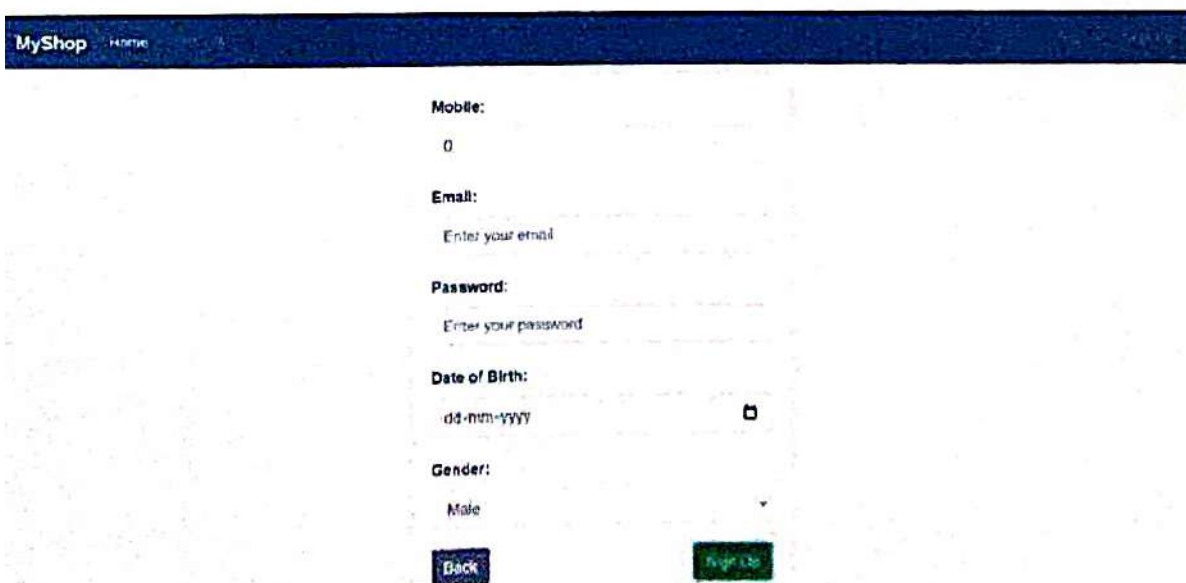
Integration

Payment Gateway: Payments security and transactional integrity.

APIs: Connecting with external services to enhance website functionality.

SCREENSHOT

Home page:



Login page:

MyShop Home

Login

Email:

Password:

Back

Student Name and USN No: DAKSH DOGRA

Company Name: U03KU21S0082

Address: Rajajinagar, Industrial Town Bangalore-560010

Sl. No.	Date	Activities / Work Done
HTML/CSS		
1	12.05.2024	Developed a basic webpage layout - utilized HTML tags <div>, <p>, <h1>, and <a> for structuring content and adding navigation links.
2	13.05.2024	Improved web page accessibility - implemented semantic HTML tags <header>, <footer>, <nav> for clearer structure and navigation..
3	14.05.2024	Enhanced user interaction - created hyperlinks using <a> tags to navigate between web pages or sections within the same page..
4	15.05.2024	Structured web page content - utilized HTML elements to format text, create links, and integrate media like images using tags.
5	16.05.2024	Integrated images into web pages - added images using tags with appropriate URLs and alternative text for accessibility.
6	17.05.2024	Styled webpage elements - applied CSS using inline, internal, and external stylesheets to achieve desired visual presentation.
7	18.05.2024	Organized data presentation - created tables with <table>, <tr>, <td>, and <th> tags to display information in rows and columns.
8	19.05.2024	Structured content presentation - designed ordered and unordered lists using and tags for proper numbering and bullet points.

9	20.05.2024	Implemented user input forms - developed HTML forms using <code><form></code> tags with input elements for data collection and submission.
10	21.05.2024	Styled webpage elements selectively - utilized various CSS selectors like Type, Class, ID, and Pseudo-classes/elements for targeted styling.
11	22.05.2024	Customized element rendering - applied CSS box model concepts to control content, padding, border, and margin for precise element rendering.
12	23.05.2024	Positioned webpage elements - utilized CSS positioning techniques like Static, Relative, Absolute, Fixed, and Sticky for element placement.
13	24.05.2024	Styled text content - utilized CSS text properties for font styling, alignment, decoration, spacing, transformation, and shadow effects.
14	25.05.2024	Enhanced background styling - applied CSS background properties for color, image, repeat, position, and attachment settings to web page elements.
15	26.05.2024	Controlled element stacking - utilized CSS z-index property to manage the stacking order of positioned elements on web pages.
16	27.05.2024	Created flexible layouts - applied the flex property in CSS to create flexible layouts by controlling flex item properties like growth, shrinkage, and basis.
Java Basics		
17	28.05.2024	Declared Variables in Java - learned to declare variables to store and manipulate data, understanding variable types and their usage.

18	29.05.2024	Implemented Methods in Java - defined methods within classes to perform specific tasks, including parameter handling and return values.
19	30.05.2024	Utilized Constructors - created constructors in Java classes to initialize objects, understanding their role in object instantiation.
20	31.05.2024	Practiced Method Overloading - implemented method overloading to define multiple methods with the same name but different parameters in Java classes.
21	01.05.2024	Applied Method Overriding - utilized method overriding to provide specific implementations for superclass methods in Java subclass.
22	02.05.2024	Explored Upcasting in Java - learned about upcasting to convert a subclass reference to a superclass reference, understanding its implications.
23	03.05.2024	Investigated Spring Framework - learned about the Spring framework for building Java applications, understanding its core concepts and features.
24	04.05.2024	Explored Inversion of Control (IoC) - understood the IoC principle in Spring for managing object dependencies and lifecycle.
25	05.05.2024	Learned Model-View-Controller (MVC) Architecture understood MVC design pattern in Spring for separating application concerns into model, view, and controller components.
26	06.05.2024	Utilized Spring Tools Suite - explored Spring Tools Suite (STS) for development, understanding its features for Spring application development.
27	07.05.2024	Explored Spring Initializer - learned to use Spring Initializer for quickly creating Spring Boot projects with desired dependencies and configurations.

28	08.05.2024	Developed CRUD Application with Spring Boot - built a CRUD (Create, Read, Update, Delete) application using Spring Boot, understanding its features for rapid development.
29	09.05.2024	project - built an E-commerce website using all the topics learnt
30	10.05.2024	project - continued building the E-commerce website with functional payment options.

INTERNAL GUIDE
 prof. SANTOSH RS

Handwritten signature and date: 21/6/24

Handwritten signature: Vijay Kumar
 VIJAY KUMAR AS
 Head of the Department
 DEPT. OF COMPUTER SCIENCE
 Soundarya Institute of Management and Science
 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 560 073.

Handwritten signature: Vasub
 VASUB
 PRINCIPAL
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 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 560 073.

CONCLUSION

The development of the e-commerce website using HTML, CSS, Java, JSP, and MySQL has yielded a robust, scalable, and user-friendly platform. Integration of key modules like user authentication, product catalog, and order management ensures a secure and seamless shopping experience. Employing a systematic methodology of requirements gathering, system design, technology selection, and implementation has enabled the project to effectively meet user needs and business goals. The platform's scalability and data-driven capabilities offer substantial opportunities for growth and optimization, enhancing market reach and customer satisfaction.

Bibliography

The following activities and projects were done under the guidance of jspyders

Project Title: E-commerce Website Development

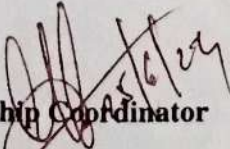
Description: This project, completed at [jspyders], involved developing an e-commerce website. The site features user registration and login, a product catalog, a shopping cart, and secure payment integration. The goal was to create a user- friendly platform for online shopping.

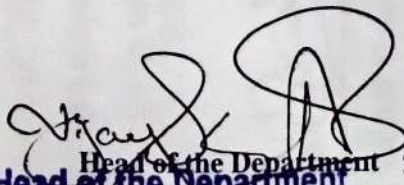
Reference: [Jspyders], [2024]

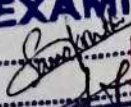
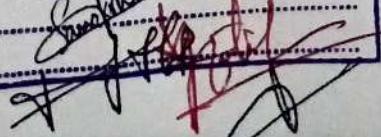


CERTIFICATE

This is to certify that the “**Internship report**” submitted by **DANISH CHANGAPPA A** (UUCMS. No.: **U03KU21S0096**) is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

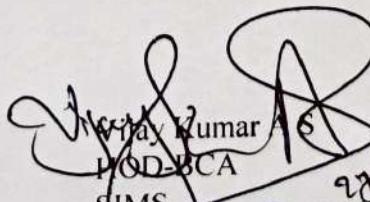

Internship Coordinator
Department of BCA
Prof.Santhosh RS

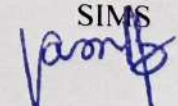

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Prof. Vijay Kumar A.S.M. [Ph.D]
Nagasandra Post, Bangalore - 560073

EXAMINERS
1. 
2. 

22	14.05.2024	Explored Upcasting in Java - learned about upcasting to convert a subclass reference to a superclass reference, understanding its implications.
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26	20.05.2024	Utilized Spring Tools Suite - explored Spring Tools Suite (STS) for development, understanding its features for Spring application development.
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28	25.05.2024	Developed CRUD Application with Spring Boot - built a CRUD (Create, Read, Update, Delete) application using Spring Boot, understanding its features for rapid development.
29	26.05.2024	project - built an E-commerce website using all the topics learnt
30	31.05.2024	project - continued building the E-commerce website with functional payment options.

Internal Guide
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A handwritten signature in black ink, appearing to be 'N. Kumar'.

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Department of BCA

Prof. Manoj Kumar N, MCA, [Ph.D]

A handwritten signature in black ink, appearing to be 'Vijay Kumar A S'.

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Soundarya Institute of Management and Science

Soundarya Nagar, Sidedahalli,
Bangalore - 560 073.

Department of BCA

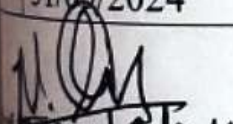
Prof. Vijay Kumar A S, M. Tech., [Ph.D]

EXAMINERS

1

2

14/05/2024	Error resolution for forms
15/05/2024	Creation of admin index page, creating the username Py manage.py create superuser #command
16/05/2024	Creation of admin navigator bar
17/05/2024	Creation of add student Form
18/05/2024	Saturday
19/05/2024	Sunday
20/05/2024	Creation of Edit Student Form
	Creating a html file to edit student form & Rendering
21/05/2024	Creating of staff views
	Creating a html file to edit student form & Rendering
22/05/2024	Creation of staff add_ student views
23/05/2024	Creation of staff add_ student save views
24/05/2024	Creation of manage staff
	Creating a html file to edit student form & Rendering
25/05/2024	Saturday
26/05/2024	Sunday
27/05/2024	Creation of manage-course
28/05/2024	Creation of Edit-staff, Edit-staff-save
29/05/2024	Edit-Student views
	Edit student and giving permission to views
30/05/2024	Edit Subject
31/05/2024	Staff-home and Student-home Creation


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INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATIONS by

DHANUSH S

UUCMS. No.: U03KU21S0030

(Duration: 28th Feb, 2024 to 25th April, 2024)



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

**BACHELOR OF COMPUTER APPLICATIONS SOUNDARYA
INSTITUTE OF MANAGEMENT AND SCIENCE**



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **DHANUSH S(UUCMS. No.: U03KU21S0030)** is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATIONS from SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator

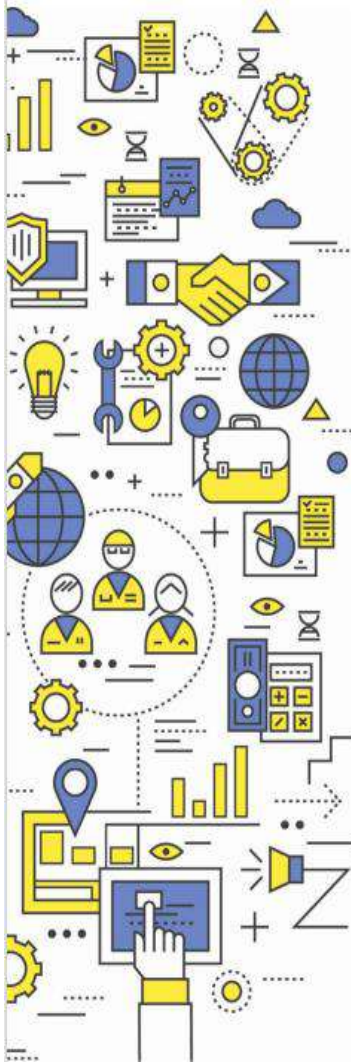
Department of BCA

Prof. Yatish SJ

Head of the Department

Department of BCA

Prof. Vijay Kumar A S, M.Tech.,[Ph.D]



INTERNSHIP_170662655565b90dfb357f2

CERTIFICATE OF APPRECIATION

PROUDLY PRESENTED TO

DHANUSH S

STU65d41df06fbd41708400112

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Full Stack Web Development** under the **Next Gen Employability Program 2023-24**.

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

Date: 5th March 2024

Dear Mr./Ms. DHANUSH S

AICTE Student ID: STU65d41df06fbd41708400112

AICTE Internship ID: INTERNSHIP_170662655565b90dfb357f2

We extend our warmest congratulations on your selection for an internship presented by the Edunet Foundation, in collaboration with EY GDS-AICTE, focusing on Full Stack Web Development.

The EY GDS - AICTE Internship is structured to support individuals in developing essential foundational skills needed for productive careers in the IT sector. Participants have the opportunity to earn credentials and benefit from guidance provided by industry experts, all at no cost throughout the duration of the program.

EY GDS (Ernst & Young – Global Delivery Services), in partnership with AICTE, provides a unique learning experience through a 6-week Internship, commencing from 28th February 2024 to 25th April 2024. Throughout this period, you will have the opportunity to work independently on a project, with guidance from a mentor who will assist you in identifying solutions and developing them into a tangible project.

Benefits:

- Personalized mentorship sessions and collaborative group learning.
- Opportunities to expedite learning through project-based internships.
- A holistic learning experience provided by industry experts through knowledge-sharing sessions.
- Showcase your skills by creating prototypes to solve real-world challenges.
- Earn certifications from EY, AICTE, and Edunet, boosting your confidence and value to potential future employers.
- Opportunity to present your project prototypes to a panel of industry experts at a regional showcase event.

Timeline and the Project:

Week	Agenda	Student Deliverables
Week 0	Orientation of Internship, Project allocation	<ul style="list-style-type: none"> • Selection of Projects through Google form • Commence Project Related Tasks
Week 1	Master session on Resume Building, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 2	Master session on Design Thinking in Real World Applications, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 3	Master session on Managing codebase with Git Hub, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 4	Master session on DevOps: Code to Production, Mentorship sessions, Ask Me Anything sessions, and Final Project Submission	<ul style="list-style-type: none"> <input type="checkbox"/> Complete Weekly Milestone <input type="checkbox"/> Self-Paced learning <input type="checkbox"/> Final project and PPT Submission

Week 5	Mock project presentations	<input type="checkbox"/> Presentation of Project in front of Subject Matter Experts <input type="checkbox"/> Incorporate changes in the project mentioned by Mentors
Week 6	Final Project Presentations (PPT)	<input type="checkbox"/> Final Presentation of Project before EY Industry Experts

Criteria for certification:

- Participation in master sessions with EY & EF experts is mandatory
- Participation in mentorship sessions with EF experts is mandatory
- Completion of tasks/milestones every week
- Submission of a project presentation required
- Commitment of 6-8hrs/week throughout internship

Stipend:

There will be NO stipend for this internship.

We wish you a great learning experience during the internship. Thank you!



Sincerely,
Nagesh Singh
Executive Director – Edunet Foundation

ACKNOWLEDGEMENT

First, I would like to thank Mr. Nagesh Singh, Executive Director of EDUNET FOUNDATION, for giving me the opportunity to do an internship within the organization.

I also thank all the people that worked along with me at EDUNET FOUNDATION, for their patience and openness which created an enjoyable working environment.

I am highly indebted to Director and Principal Dr. Vasu BA for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department Mr. Vijay Kumar A S for his constructive criticism throughout my internship.

I am extremely grateful to my department staff members and friends who helped me in the successful completion of this internship.

DHANUSH S (U03KU21S0030)

ABSTRACT

During my internship with Edunet Organization, I developed a comprehensive news aggregator web application using the Django framework. The primary goal of this project was to create a centralized platform where users could conveniently access and manage news from various reputable sources, offering a seamless and personalized news reading experience.

The application integrated multiple news sources such as BBC, CNN, and Reuters through APIs, ensuring a wide range of news articles was available on a single platform. Users could create accounts, log in, and personalize their news feeds based on their interests and preferences, making the news consumption experience more relevant and engaging.

Key features of the project included customizable feeds, allowing users to select topics and categories of interest. Advanced search and filtering options were implemented to enable users to quickly find specific news articles. The user interface was designed to be responsive and intuitive, ensuring accessibility across different devices and providing a smooth user experience.

The technical stack for this project comprised Django for backend development and REST API integration, along with HTML, CSS, Bootstrap, and JavaScript for the frontend. SQLite was used for local development, and PostgreSQL was deployed for the production environment.

Overall, this project significantly enhanced my technical skills in web development, API integration, and user interface design. It provided me with practical experience in developing and deploying a real-world application, equipping me with the knowledge and expertise needed for future professional endeavors in web development.

ORGANIZATION INFORMATION

EY GDS (Global Delivery Services) is an integral part of EY's Global organization. It provides a wide range of services, including tax, advisory, assurance, and transaction advisory services. EY GDS operates in multiple locations worldwide, delivering high-quality, innovative solutions to clients across various industries.

Edunet Foundation is a non-profit organization focused on enhancing education and employability through technology and innovation. It collaborates with various educational institutions and industries to provide training, resources, and support to students and professionals.

Week No.	Date	Activities / Work Done
Week 1 Mentoring Class	05/03/24	Planning the modules Implementing project layout
Week 1 Master Class	07/03/24	Resume Resonance : Creating an Impression that lasts/
Week 2 Mentoring Class	12/03/24	Home page implementation (HTML, CSS, Bootstrap)
Week 2 Master Class	14/03/24	Master session on Design thinking in real-world application
Week 3 Mentoring Class	19/03/24	Front-end and back-end interconnections
Week 3 Master Class	21/03/24	Managing Code Base with Git Hub
Week 4 Mentoring Class	26/03/24	Facebook, WhatsApp & Telegram shares Project setup creation, Deployment & Migration
Week 4 Master Class	28/03/24	Dev Ops: Code to Production

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3. Software Requirements Specifications

4. Technology

- 4.1 Django

- 4.2 Python

- 4.3 HTML/CSS

- 4.4 JavaScript

- 4.5 SQL Database

5. Coding

6. Screenshots

7. Conclusion

8. Bibliography

1. INTRODUCTION

This internship report details the development and implementation of a News Aggregator project completed during the EY GDS-AICTE Internship Program. The objective of the project was to create a centralized platform aimed at aggregating news from diverse sources, providing users with a personalized and seamless news browsing experience.

The project leveraged a range of technologies including Python, Django, HTML, CSS, and web scraping techniques to achieve its goals. Key aspects of development included designing a user-friendly interface, implementing efficient backend processing for real-time data aggregation, and offering advanced customization options for users. These efforts were driven by the overarching goal of addressing challenges such as information overload and fragmented news consumption prevalent in today's digital landscape.

Throughout the internship, emphasis was placed not only on technical proficiency but also on integrating user-centric design principles, ensuring data security, and promoting inclusive accessibility features. This holistic approach not only enhanced practical skills but also provided valuable insights into real-world application development within the realm of computer science.

The experience gained during this internship has been instrumental in bridging academic knowledge with hands-on application, fostering professional growth, and cultivating a deeper appreciation for the complexities of software engineering and user experience design.

1.1 Modules Homepage:

- **Objective:** The homepage serves as the entry point, showcasing curated top news articles and trending topics.
- **Features:** Powered by Django, it dynamically fetches and displays news content in a responsive design format, ensuring optimal viewing across devices.
- **Technologies Used:** Django, HTML, CSS, JavaScript.

Categories for News:

- **Objective:** Organizes news articles into categorized sections such as "Breaking News," "Politics," and "Business" for intuitive navigation.
- **Features:** Allows users to explore specific topics of interest with ease, enhancing accessibility and relevance.
- **Technologies Used:** Django templates for structured presentation.

Article View:

- **Objective:** Provides comprehensive details of selected articles including title, content, author, and publication date.
- **Features:** Enhances readability and engagement with options for adjusting text size and sharing articles on social media platforms.
- **Technologies Used:** Django templates, HTML, CSS, JavaScript for interactive elements.

Social Media Sharing:

- **Objective:** Enables users to share articles seamlessly on platforms like Facebook, WhatsApp, and Telegram.
- **Features:** Integrates social sharing functionalities to expand article reach and user engagement.
- **Technologies Used:** Social media APIs, Django backend.

Copy Link:

- **Objective:** Offers users the option to copy article links for sharing through other communication channels.
- **Features:** Provides flexibility in sharing news content beyond integrated social media platforms.
- **Technologies Used:** JavaScript for link copying functionality.

About Page:

- **Objective:** Provides essential information about the platform's mission, team members, and contact details.
- **Features:** Includes sections on privacy policy, terms of use, and frequently asked questions (FAQs) to enhance transparency.
- **Technologies Used:** HTML, CSS for layout and content presentation.

2. ANALYSIS

The analysis phase involved understanding the requirements for creating a user-friendly news aggregator platform. User needs were identified, and the system was designed to provide a seamless browsing experience, focusing on key functionalities like categorization, detailed views, and easy sharing options.

2.1 WEEKLY PROGRESS

Week 1: Requirements Gathering and Initial Setup Defined project scope and objectives.

Set up Django project structure and initial database schema.

Week 2: UI Design and Frontend Development

Designed homepage layout using HTML, CSS, and Bootstrap.

Initiated UI design for the about page and integrated initial web crawlers for data aggregation.

Week 3: Backend Integration and Feature Development

Integrated frontend and backend components for seamless data flow.

Developed modules for Opinion News, Breaking News, and categorized sections (Sports, Entertainment, Politics).

Week 4: Testing, Deployment, and Finalization

Implemented social media sharing functionalities (Facebook, WhatsApp, Telegram).

Conducted thorough testing, debugging, and finalized module interconnections.

Prepared for deployment, migration to production environment, and final project setup.

2.2 Weekly Milestone

Week 1 Milestone:

Understanding of Django framework and Software Engineering Principles:

Explored Django's MVC architecture and its application in building scalable web applications.

Project Aims and Objectives:

Defined the project scope to include modules for news fetching, categorization, and user interface design.

Brief of Modules:

Designed initial project layout including Home, About, Contact, and News pages.

Drafted flowcharts to visualize data flow and interactions between different modules.

Week 2 Milestone:

UI Design of Home Page and About Page:

Developed wireframes and mockups for Home and About pages, focusing on user engagement and visual appeal.

Implemented frontend components using HTML, CSS, and Bootstrap to ensure responsiveness and accessibility.

Integration of Bootstrap Components:

Utilized Bootstrap grids, navigation bars, and cards for structuring content and improving overall UI/UX.

Maintaining UI/UX Consistency:

Ensured consistency in color schemes, typography, and design elements across all pages for a cohesive user experience.

Week 3 Milestone:

Enhanced Social Share UI and Color Scheme:

Updated UI elements for social sharing functionalities on news articles.

Refined color scheme and visual elements to enhance readability and user interaction.

Implementation of News Categorization Features:

Introduced categories such as Opinion News, Breaking News, Sports, Entertainment, and Politics.

Integrated filtering options to allow users to customize their news feed based on interests.

Week 4 Milestone:

Integration with Social Media Platforms:

Implemented sharing capabilities on Facebook, WhatsApp, and Telegram to broaden news dissemination.

Final Module Connections and Deployment Setup:

Ensured seamless integration of all project modules to deliver a fully functional News Aggregator platform.

Configured deployment settings using Docker containers on AWS for scalability and performance optimization.

SOFTWARE REQUIREMENTS SPECIFICATIONS

The project required the following software components:

- Django framework for backend development
- Python as the programming language
- HTML/CSS for frontend design
- JavaScript for interactive elements
- SQL Database for storing articles and user data

4. TECHNOLOGY

4.1 Django:

Django is a high-level Python web framework that encourages rapid development and clean, pragmatic design. It follows the "Don't Repeat Yourself" (DRY) principle and includes built-in features such as authentication, URL routing, and an ORM (Object-Relational Mapping) for database interactions. Django's robust security features help protect applications from common threats like SQL injection, cross-site scripting, and cross-site request forgery.

4.2 Python

Python is an interpreted, high-level programming language known for its readability and versatility. Its extensive standard library supports many common programming tasks such as file I/O, system calls, and even web development. Python's clear syntax and dynamic typing make it a popular choice for both beginners and experienced developers.

4.3 HTML/CSS

HTML (Hyper Text Markup Language) is the standard language for creating web pages. It provides the structure of the page, while CSS (Cascading Style Sheets) defines the visual presentation, including layout, colours, and fonts. Together, HTML and CSS form the backbone of web content presentation.

4.4 JavaScript

JavaScript is a dynamic programming language commonly used for creating interactive effects within web browsers. It allows developers to implement complex features on web pages, such as dynamically updating content, controlling multimedia, and animating images. JavaScript is essential for enhancing user experience by making web pages more responsive and interactive.

4.5 SQL Database

SQL (Structured Query Language) is the standard language for managing and manipulating relational databases. SQL databases are used to store, retrieve, and manage data efficiently. For this project, SQL was used to handle user data and news articles, ensuring data integrity and performance.

5. CODING

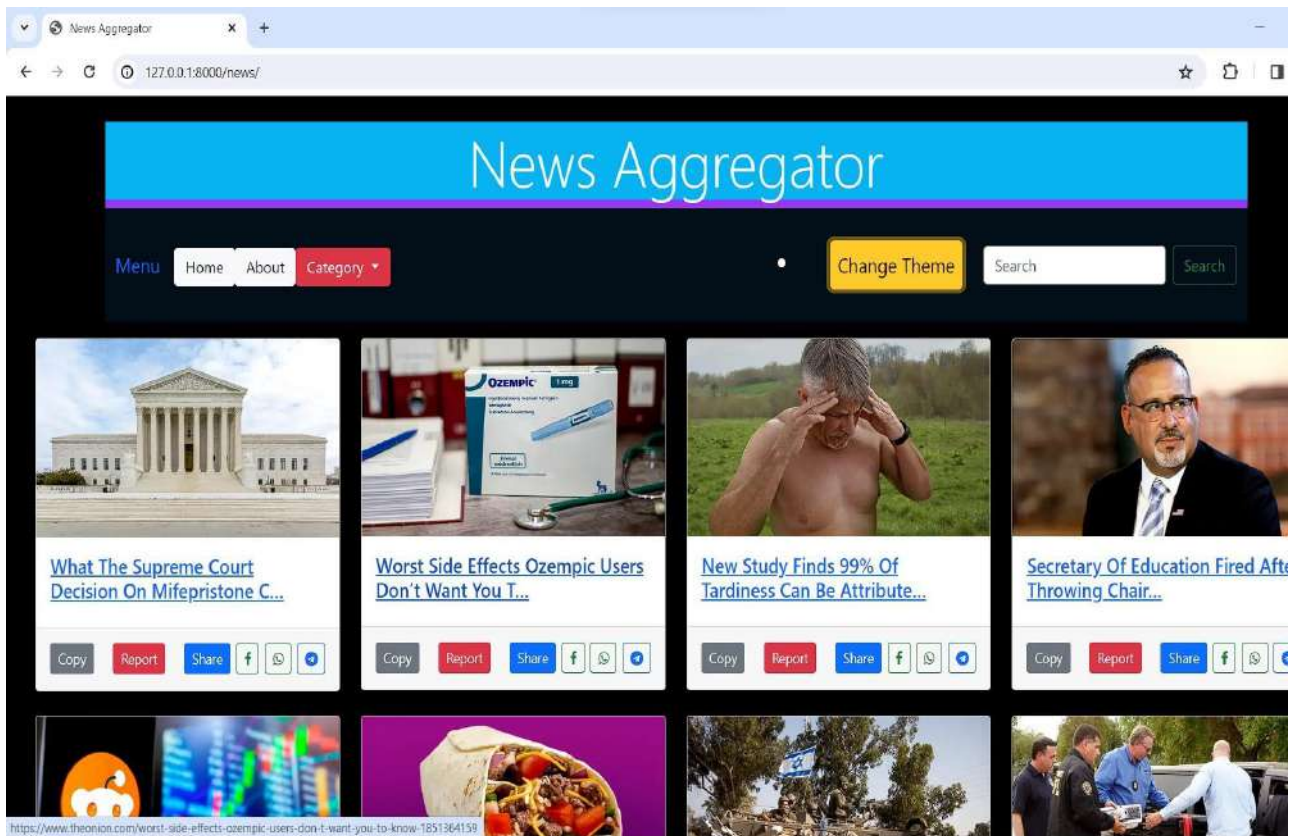
The coding phase involved several key steps:

- **Design and Setup:** Setting up the Django project structure, configuring settings, and designing the database schema.
- **Backend Development:** Implementing the core logic for data aggregation, user authentication, and interaction with the SQL database using Django's ORM.
- **Frontend Development:** Creating user interfaces with HTML, CSS, and JavaScript to ensure a responsive and user-friendly experience.
- **Integration:** Combining the backend and frontend components, ensuring seamless communication and data flow between the server and the client.
- **Testing and Debugging:** Conducting thorough testing to identify and fix bugs, ensuring the platform's reliability and performance.
- **Deployment:** Setting up the server environment and deploying the application to a production server for public access.

Key challenges included ensuring data consistency across multiple sources, optimizing query performance, and maintaining a responsive user interface. These were addressed through efficient database indexing, caching strategies, and asynchronous loading of content.

6. SCREENSHOTS

Screenshots of the platform were taken to document the user interface and key features, including the homepage, category views, article views, and sharing functionalities.



7. CONCLUSION

The EY GDS-AICTE Internship Program has been an enriching and transformative experience, bridging the gap between academic knowledge and practical application. Over the course of this internship, I was involved in the development and implementation of a News Aggregator project, which aimed to create a centralized platform for aggregating news from various sources and providing users with a personalized and seamless news browsing experience. This comprehensive conclusion reflects on the journey, key learnings, and future prospects of the project.

Week-by-Week Progress and Achievements

Week 1: Requirements Gathering and Project Setup

- **Requirements Analysis:** Collaborated with mentors to define the project scope, objectives, and deliverables, focusing on addressing information overload and providing a user-friendly news aggregation platform.
- **Project Planning:** Applied software engineering principles to plan the project's structure and modular design, ensuring scalability and maintainability.
- **Initial Implementation:** Set up the development environment and began implementing the homepage using HTML, CSS, and Bootstrap.

Week 2: UI Design and Initial Functionality

- **UI Enhancements:** Refined the homepage design and created a visually appealing and user-friendly interface.
- **Web Crawlers:** Developed web crawlers for fetching news articles from various sources, ensuring ethical scraping practices.
- **Mode Switching:** Implemented functionality for switching between different display modes (e.g., light and dark themes) to enhance user experience.

Week 3: Backend and Frontend Integration

- **Backend Development:** Connected frontend components with backend logic using Django, facilitating seamless data retrieval and presentation.
- **News Categories:** Developed categorized sections for news topics such as Opinion, Breaking News, Sports, Entertainment, and Politics.
- **Interactivity:** Enhanced the interactivity of the platform using JavaScript for dynamic content updates and smoother navigation.

Week 4: Final Features and Deployment

- **Social Media Sharing:** Added functionalities for sharing articles on social media platforms (Facebook, WhatsApp, Telegram) to increase user engagement.
- **Module Interconnection:** Ensured all modules were interconnected for a cohesive user experience, addressing integration issues through rigorous testing.
- **Deployment:** Deployed the project to a production environment, configuring the server and database, and conducting final performance optimizations.

Key Takeaways and Skills Acquired

1. Practical Experience

- Applied theoretical knowledge to develop a functional News Aggregator project using technologies such as Python, Django, HTML, CSS, and JavaScript.
- Gained hands-on experience in both backend and frontend development, including database management and UI design.

2. Technical Proficiency

- Enhanced coding skills, particularly in web development and backend processing.
- Developed proficiency in Django, leveraging its features for rapid and secure web application development.

3. Project Management

- Managed the project lifecycle from planning and design to coding, testing, and deployment.
- Implemented modular design principles, ensuring the project's scalability and maintainability.

4. Problem-Solving Abilities

- Addressed real-world problems such as information overload and fragmented news consumption.
- Developed solutions for data consistency, query performance, and responsive user interfaces.

5. User-Centric Design

- Focused on creating a user-friendly and accessible platform, emphasizing responsive design and intuitive navigation.

- Implemented features that enhance user experience, such as theme switching and social media sharing.

6. Collaboration and Communication

- Worked effectively with peers and mentors, enhancing teamwork and communication skills.
- Learned to incorporate feedback and adapt to changing project requirements.

7. Data Security

- Ensured data security by implementing robust measures to protect user information.
- Addressed common security threats such as SQL injection, cross-site scripting, and cross-site request forgery.

In conclusion, the EY GDS-AICTE Internship Program has been instrumental in my professional growth, providing a platform to apply academic knowledge to real-world challenges. The skills and experiences gained during this internship have not only prepared me for future endeavors in the field of computer science but also instilled a deeper appreciation for the importance of user-centric design and data security. This internship has laid a strong foundation for my career, equipping me with the tools and knowledge to tackle complex projects and contribute meaningfully to the tech industry.

8. BIBLIOGRAPHY

- **Python and Django Documentation** - Comprehensive guides and tutorials for Python and Django development available at [Python Official Documentation](#) and [Django Official Documentation](#).
- **Bootstrap Documentation** - Official documentation for Bootstrap framework available at Bootstrap Documentation.
- **HTML/CSS/JavaScript Resources** - Various online resources for frontend development techniques, including:
 - [W3Schools](#)
 - [MDN Web Docs](#)
- **EY Instructions and Mentorship** - Guidelines and mentorship provided by EY during the internship program, including personalized feedback and best practices for project development.

Prof. Yatish SJ

Professor

**Soundarya Institute of
Management and Science**

Prof. Vijay Kumar AS

HOD - BCA

**Soundarya Institute of
Management and Science**

Dr. Vasu BA

Principal

**Soundarya Institute
Management and Science**

Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)

Valued seal

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the "Internship report" submitted by DHARMARAJ B (UUCMS. No.: U03KU21S0067) is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of BACHELOR OF COMPUTER APPLICATION from SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.

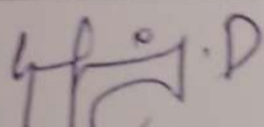
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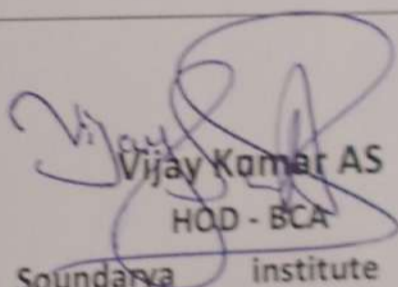
EXAMINERS

17	17-05-2024	Initial data cleaning using pandas and Numpy.
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19	19-05-2024	Assignment-3.
20	20-05-2024	Train test and split.
21	21-05-2024	Linear regression Models.
22	22-05-2024	Logistics regression Models.
23	23-05-2024	Exploratory Data Analysis (EDA.).
24	24-05-2024	Feature analysis and selection using pandas and sci-kit learn.
25	25-05-2024	Model selection and Training.
26	26-05-2024	Assignment-4
27	27-05-2024	Project selection.
28	28-05-2024	Handling missing elements in duplicate data.
29	29-05-2024	Advanced visualization using Seaborn.
30	30-05-2024	Project submission.
31	31-05-2024	Proof of completion(Certificate).



Prof. Supriya D
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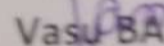
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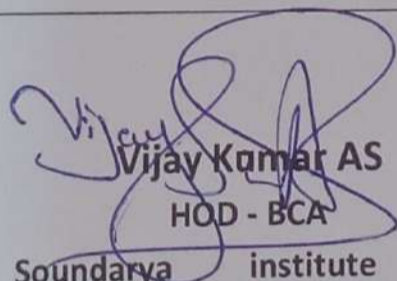
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INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

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DHARMARAJ B

UUCMS. No.: U03KU21S0067

Duration: 1st May, 2024 to 31st May, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

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CERTIFICATE



Corporate Identification Number
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14364000019632230



Ybi Foundation

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dharmaraj B

has successfully completed

Data Science and Machine Learning Internship

Duration : 1 Month completed on Friday, May 31 2024

demonstrated exceptional dedication with strong willingness to learn and actively engaged in various projects, tasks exhibiting remarkable skills with high level of professionalism.

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OGT312UCJMTK2




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ACKNOWLEDGEMENT

First I would like to **thank Mr. Alok Yadav, HR, Head, of Ybi foundation, New Delhi** for giving me the opportunity to do an internship within the organization.

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I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

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I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

DHARMARAJ B (U03KU21S0067)

ABSTRACT

Machine learning is a topic of artificial intelligence (AI) where it is possible to elaborate algorithms to teach a particular machine to perform a task. It is necessary to have a dataset, and from that data, explore the correlation between them, discovering patterns and applying algorithms, which makes it possible to take a sum of input data and based on certain patterns to produce the outputs. Each entry in this dataset has its own features, and generates models that can be generalized for a specific task. The idea of machines learning on their own from a vast volume of data may be the simplified definition of machine learning. In general, machine learning is a field of artificial intelligence that is intended to explore constructs of algorithms that make it possible to understand autonomously, where it creates the possibility to recognize and extract patterns from a large volume of data, thus building a model of learning

ORGANISATION INFORMATION:

YBI Foundation: IMPART LEARNING TO EMPOWER & TRANSFORM YBIF Offers Job Guarantee Program, Free Internship Micro Credential and Full Stack Programs YBIF Learning Portal (www.ybifoundation.org)

PROGRAMS AND OPPORUNITIES:

Artificial Intelligence, Machine Learning, Data Science, Marketing Analytics, Social Network Analytics Business And Data Analytics And provides career programs and learning upskills based on upskilling platform and provides the opportunities of both technical and non-technical fields.

METHODOLOGIES:

We follow a structured methodology for our projects which starts from designing the solution to the implementation phase. Well planned Project reduces the time to deliver the project and any additional ad-hoc costs to our clients, hence we dedicate majority of our time understanding our clients business and gather requirements. This ground up approach helps us deliver not only the solution to our clients but also add value to your investments.

KEY PARTS OF THE REPORT:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies.

INSTITUTION THROUGH OUR REPORT:

Beginner friendly and Live online class opportunities you can ask doubts in live online classes and you can clear your doubts. You can record the classes and Hands-on real-world projects and fundamental practice of the projects. And you can get a digitally verified certificates.

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LEARNING OBJECTIVES:

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

INTRODUCTION:

Machine learning is a subset of artificial intelligence that enables computers to learn from data and improve their performance over time without being explicitly programmed. It involves the development of algorithms that can recognize patterns, make predictions, and provide insights based on large datasets. The importance of machine learning is evident in its diverse applications, ranging from healthcare and finance to marketing and autonomous systems.

Python has emerged as a preferred language for machine learning due to its simplicity, readability, and a vast ecosystem of libraries and frameworks. Libraries such as NumPy, pandas, scikit-learn, TensorFlow, and Keras provide robust tools for data manipulation, analysis, and the implementation of machine learning algorithms.

This internship report aims to provide a comprehensive introduction to machine learning concepts and techniques using Python. It will cover the following key areas:

1. **Fundamentals of Machine Learning:** Understanding the basic concepts, types of machine learning (supervised, unsupervised, and reinforcement learning), and key terminologies.
2. **Python for Machine Learning:** An overview of essential Python libraries and tools used in machine learning, including their installation and basic functionalities.
3. **Data Preprocessing:** Techniques for cleaning, transforming, and preparing data for machine learning models, including handling missing values, feature scaling, and encoding categorical variables.
4. **Model Building and Evaluation:** Steps to build, train, and evaluate machine learning models using Python. This includes selecting appropriate algorithms, tuning hyperparameters, and assessing model performance through metrics such as accuracy, precision, recall, and F1-score.
5. **Practical Applications:** Case studies and practical examples demonstrating the application of machine learning in real-world scenarios, showcasing the end-to-end process from data collection to model deployment.

PYTHON LIBRARIES FOR DATA SCIENCE AND MACHINE LEARNING

PANDAS:

Pandas provide various high-performance and easy-to-use data structures and operations for manipulating data in the form of numerical tables and time series. Pandas also has multiple tools for reading and writing data between in-memory data structures and different file formats. In short, it is perfect for quick and easy data manipulation, data aggregation, reading, and writing the data and data visualization. Pandas can also take in data from different types of files such as CSV, Excel, etc., or a SQL database and create a Python object known as a data frame. A data frame contains rows and columns and it can be used for data manipulation with operations such as join, merge, group by, concatenate, etc.

NUMPY

NumPy is a free Python software library for numerical computing on data that can be in the form of large arrays and multi-dimensional matrices. These multidimensional matrices are the main objects in NumPy where their dimensions are called axes and the number of axes is called a rank. NumPy also provides various tools to work with these arrays and high-level mathematical functions to manipulate this data with linear algebra, Fourier transforms, random number crunching, etc. Some of the basic array operations that can be performed using NumPy include adding, slicing, multiplying, flattening, reshaping, and indexing the arrays. Other advanced functions include stacking the arrays, splitting them into sections, broadcasting arrays, etc.

SCIPY

SciPy SciPy library is built on the NumPy array object and it is part of the NumPy stack which also includes other scientific computing libraries and tools such as Matplotlib, Simply, pandas, etc. This NumPy stack has users who also use comparable applications such as GNU Octave, MATLAB, GNU Octave, Skylab, etc. SciPy allows for various scientific computing tasks that handle data optimization, data integration, data interpolation, and data modification using linear algebra. Fourier transforms, random number generation, special functions, etc. Just like NumPy, the multidimensional matrices are the main objects in SciPy, which are Provided by the NumPy module itself.

SCIKIT-LEARN

Scikit-learn is among those libraries for Python that is a free, software library for Machine Learning coding primarily in the Python programming language. Scikit-learn is built on top of other Python Libraries like NumPy, SciPy, Matplotlib, Pandas, etc. and so it provides full interoperability with these libraries. While Scikit-learn is written mainly in Python, it has also used Python to write some core algorithms in order to improve performance. You can implement various Supervised and Unsupervised Machine learning models on Scikit-learn like Classification, Regression, Support Vector Machines, Random Forests, Nearest Neighbors, Naive Bayes, Decision Trees, and Clustering, etc. with Scikit-learn.

MATPLOTLIB

Matplotlib is a data visualization Library and 2-D plotting library of Python. it is the most popular and widely-used plotting library in the Python community. It comes with an interactive environment across multiple platforms. Matplotlib can be used in Python scripts, the Python and Python shells, the Jupiter Notebook, web application servers, etc. It can be used to embed plots into applications using various GUI toolkits. So you can use Matplotlib to create plots, bar charts, pie charts, histograms. scatterplots, error charts, power spectra, stem plots, and whatever visualization charts you want! The Pyplot module also provides a MATLAB-like interface that is just as versatile and useful as MATLAB while being totally free and open source.

SEABORN

Seaborn is among the best data visualization library for Python that is based on Matplotlib and closely integrated with the NumPy and Pandas data structures. Seaborn has various dataset-oriented plotting functions that operate on data frames and arrays that have whole datasets within them. Then it internally performs the necessary statistical aggregation and mapping functions to create informative plots graphics that are integral to exploring and understanding data. The Seaborn data graphics can include bar charts, pie charts, histograms, scatterplots. error charts, etc. Seaborn also has various tools for choosing color palettes that can reveal patterns in the data.

LINEAR REGRESSION

linear regression is a statistical model which estimates the linear relationship between a scalar response and one or more explanatory variables. The case of one explanatory variable is called simple linear regression: for more than one, the process is called multiple linear regression.

LOGISTIC REGRESSION

The logistic model is a statistical model that models the log-odds of an event as a linear combination of one or more independent variables In regression analysis, logistic regression is estimating the parameters of a logistic model.

TRAIN TEST AND SPLIT MODEL

A train test split is when you split your data into a training set and a testing set. The training set is used for training the model, and the testing set is used to test your model. This allows you to train your models on the training set, and then test their accuracy on the unseen testing set

SCREENSHOTS:

```
Text(0.5, 1.0, 'Revenue Generated  
vs. Hours Since Open Stand (Test da  
Laset)')
```

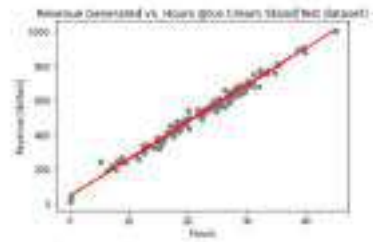


Figure:1 Ice Cream Sales Revenue Prediction

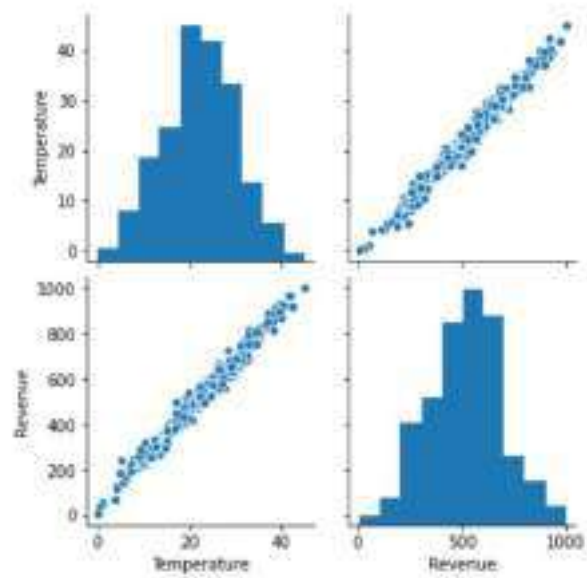


Figure:2 Revenue and Temperature

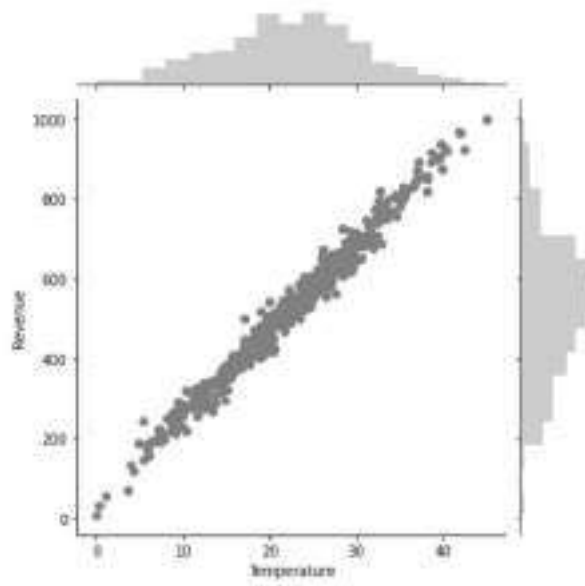


Figure:3 Visualize DataSet

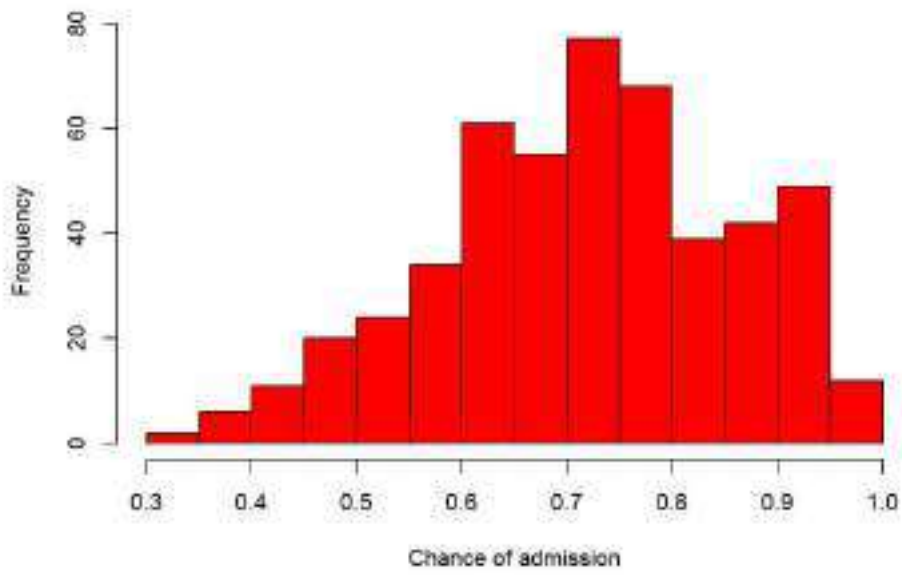


Figure:4 Change of Admission

CONCLUSION:

In this report, we have introduced the fundamental concepts of machine learning and demonstrated how Python serves as a powerful tool for implementing these techniques. Machine learning, as a subset of artificial intelligence, enables computers to learn from data and improve their performance without being explicitly programmed. Its applications are vast, ranging from healthcare and finance to marketing and autonomous systems.

By delving into key areas such as data preprocessing, model building, and evaluation, we have provided a practical guide for utilizing machine learning to tackle real-world problems. Data preprocessing techniques, including cleaning, transforming, and preparing data, are crucial for the success of any machine learning project. Proper data handling ensures that the models built are accurate and reliable.

Model building and evaluation are at the core of machine learning. We explored the steps involved in selecting appropriate algorithms, training models, tuning hyperparameters, and assessing model performance. Metrics such as accuracy, precision, recall, and F1-score play a vital role in evaluating how well a model performs and its suitability for a given task.

Python's simplicity and extensive library support make it an excellent choice for both newcomers and experienced professionals in the machine learning domain. Libraries like NumPy, pandas, and scikit-learn provide the necessary tools to perform complex data analysis and implement machine learning algorithms efficiently. These libraries, combined with Python's readability, allow for rapid development and experimentation, which is essential in the fast-evolving field of machine learning.

The practical examples and case studies presented in this report demonstrate the real-world applications of machine learning. From predictive modelling to pattern recognition, these examples showcase the potential of machine learning to drive innovation and solve complex challenges across various industries.

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1. [https:// www.kaggle.com](https://www.kaggle.com) -covering the important concepts.
2. <https://colab.research.google.com> For teaching the sample projects.

INTERNSHIP REPORT

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ACKNOWLEDGEMENT

First I would like to **thank Mr. Alok Yadav, HR, Head, of Ybi foundation, New Delhi** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me **Ybi foundation, New Delhi** with their patience and openness they created an enjoyable working environment.

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I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

DHARMARAJ B (U03KU21S0067)

ABSTRACT

Machine learning is a topic of artificial intelligence (AI) where it is possible to elaborate algorithms to teach a particular machine to perform a task. It is necessary to have a dataset, and from that data, explore the correlation between them, discovering patterns and applying algorithms, which makes it possible to take a sum of input data and based on certain patterns to produce the outputs. Each entry in this dataset has its own features, and generates models that can be generalized for a specific task. The idea of machines learning on their own from a vast volume of data may be the simplified definition of machine learning. In general, machine learning is a field of artificial intelligence that is intended to explore constructs of algorithms that make it possible to understand autonomously, where it creates the possibility to recognize and extract patterns from a large volume of data, thus building a model of learning

ORGANISATION INFORMATION:

YBI Foundation: IMPART LEARNING TO EMPOWER & TRANSFORM YBIF Offers Job Guarantee Program, Free Internship Micro Credential and Full Stack Programs YBIF Learning Portal (www.ybifoundation.org)

PROGRAMS AND OPPORUNITIES:

Artificial Intelligence, Machine Learning, Data Science, Marketing Analytics, Social Network Analytics Business And Data Analytics And provides career programs and learning upskills based on upskilling platform and provides the opportunities of both technical and non-technical fields.

METHODOLOGIES:

We follow a structured methodology for our projects which starts from designing the solution to the implementation phase. Well planned Project reduces the time to deliver the project and any additional ad-hoc costs to our clients, hence we dedicate majority of our time understanding our clients business and gather requirements. This ground up approach helps us deliver not only the solution to our clients but also add value to your investments.

KEY PARTS OF THE REPORT:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies.

INSTITUTION THROUGH OUR REPORT:

Beginner friendly and Live online class opportunities you can ask doubts in live online classes and you can clear your doubts. You can record the classes and Hands-on real-world projects and fundamental practice of the projects. And you can get a digitally verified certificates.

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LEARNING OBJECTIVES:

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

INTRODUCTION:

Machine learning is a subset of artificial intelligence that enables computers to learn from data and improve their performance over time without being explicitly programmed. It involves the development of algorithms that can recognize patterns, make predictions, and provide insights based on large datasets. The importance of machine learning is evident in its diverse applications, ranging from healthcare and finance to marketing and autonomous systems.

Python has emerged as a preferred language for machine learning due to its simplicity, readability, and a vast ecosystem of libraries and frameworks. Libraries such as NumPy, pandas, scikit-learn, TensorFlow, and Keras provide robust tools for data manipulation, analysis, and the implementation of machine learning algorithms.

This internship report aims to provide a comprehensive introduction to machine learning concepts and techniques using Python. It will cover the following key areas:

1. **Fundamentals of Machine Learning:** Understanding the basic concepts, types of machine learning (supervised, unsupervised, and reinforcement learning), and key terminologies.
2. **Python for Machine Learning:** An overview of essential Python libraries and tools used in machine learning, including their installation and basic functionalities.
3. **Data Preprocessing:** Techniques for cleaning, transforming, and preparing data for machine learning models, including handling missing values, feature scaling, and encoding categorical variables.
4. **Model Building and Evaluation:** Steps to build, train, and evaluate machine learning models using Python. This includes selecting appropriate algorithms, tuning hyperparameters, and assessing model performance through metrics such as accuracy, precision, recall, and F1-score.
5. **Practical Applications:** Case studies and practical examples demonstrating the application of machine learning in real-world scenarios, showcasing the end-to-end process from data collection to model deployment.

PYTHON LIBRARIES FOR DATA SCIENCE AND MACHINE LEARNING

PANDAS:

Pandas provide various high-performance and easy-to-use data structures and operations for manipulating data in the form of numerical tables and time series. Pandas also has multiple tools for reading and writing data between in-memory data structures and different file formats. In short, it is perfect for quick and easy data manipulation, data aggregation, reading, and writing the data and data visualization. Pandas can also take in data from different types of files such as CSV, Excel, etc., or a SQL database and create a Python object known as a data frame. A data frame contains rows and columns and it can be used for data manipulation with operations such as join, merge, group by, concatenate, etc.

NUMPY

NumPy is a free Python software library for numerical computing on data that can be in the form of large arrays and multi-dimensional matrices. These multidimensional matrices are the main objects in NumPy where their dimensions are called axes and the number of axes is called a rank. NumPy also provides various tools to work with these arrays and high-level mathematical functions to manipulate this data with linear algebra, Fourier transforms, random number crunching, etc. Some of the basic array operations that can be performed using NumPy include adding, slicing, multiplying, flattening, reshaping, and indexing the arrays. Other advanced functions include stacking the arrays, splitting them into sections, broadcasting arrays, etc.

SCIPY

SciPy SciPy library is built on the NumPy array object and it is part of the NumPy stack which also includes other scientific computing libraries and tools such as Matplotlib, Simply, pandas, etc. This NumPy stack has users who also use comparable applications such as GNU Octave, MATLAB, GNU Octave, Skylab, etc. SciPy allows for various scientific computing tasks that handle data optimization, data integration, data interpolation, and data modification using linear algebra. Fourier transforms, random number generation, special functions, etc. Just like NumPy, the multidimensional matrices are the main objects in SciPy, which are Provided by the NumPy module itself.

SCIKIT-LEARN

Scikit-learn is among those libraries for Python that is a free, software library for Machine Learning coding primarily in the Python programming language. Scikit-learn is built on top of other Python Libraries like NumPy, SciPy, Matplotlib, Pandas. etc. and so it provides full interoperability with these libraries. While Scikit-learn is written mainly in Python, it has also used Python to write some core algorithms in order to improve performance. You can implement various Supervised and Unsupervised Machine learning models on Scikit-learn like Classification, Regression, Support Vector Machines, Random Forests, Nearest Neighbors, Naive Bayes, Decision Trees, and Clustering, etc. with Scikit-learn.

MATPLOTLIB

Matplotlib is a data visualization Library and 2-D plotting library of Python. it is the most popular and widely-used plotting library in the Python community. It comes with an interactive environment across multiple platforms. Matplotlib can be used in Python scripts, the Python and Python shells, the Jupiter Notebook, web application servers, etc. It can be used to embed plots into applications using various GUI toolkits. So you can use Matplotlib to create plots, bar charts, pie charts, histograms. scatterplots, error charts, power spectra, stem plots, and whatever visualization charts you want! The Pyplot module also provides a MATLAB-like interface that is just as versatile and useful as MATLAB while being totally free and open source.

SEABORN

Seaborn is among the best data visualization library for Python that is based on Matplotlib and closely integrated with the NumPy and Pandas data structures. Seaborn has various dataset-oriented plotting functions that operate on data frames and arrays that have whole datasets within them. Then it internally performs the necessary statistical aggregation and mapping functions to create informative plots graphics that are integral to exploring and understanding data. The Seaborn data graphics can include bar charts, pie charts, histograms, scatterplots. error charts, etc. Seaborn also has various tools for choosing color palettes that can reveal patterns in the data.

LINEAR REGRESSION

linear regression is a statistical model which estimates the linear relationship between a scalar response and one or more explanatory variables. The case of one explanatory variable is called simple linear regression: for more than one, the process is called multiple linear regression.

LOGISTIC REGRESSION

The logistic model is a statistical model that models the log-odds of an event as a linear combination of one or more independent variables In regression analysis, logistic regression is estimating the parameters of a logistic model.

TRAIN TEST AND SPLIT MODEL

A train test split is when you split your data into a training set and a testing set. The training set is used for training the model, and the testing set is used to test your model. This allows you to train your models on the training set, and then test their accuracy on the unseen testing set

SCREENSHOTS:

```
Text(0.5, 1.0, 'Revenue Generated  
vs. Hours Since Open Stand(Test da  
Laset)')
```

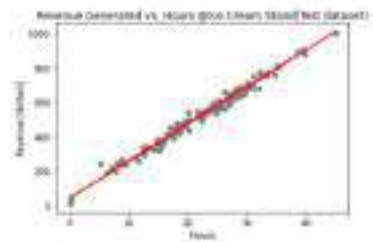


Figure:1 Ice Cream Sales Revenue Prediction

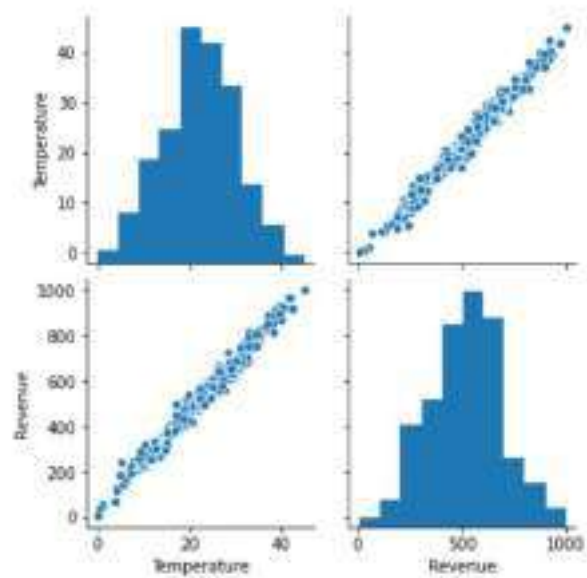


Figure:2 Revenue and Temperature

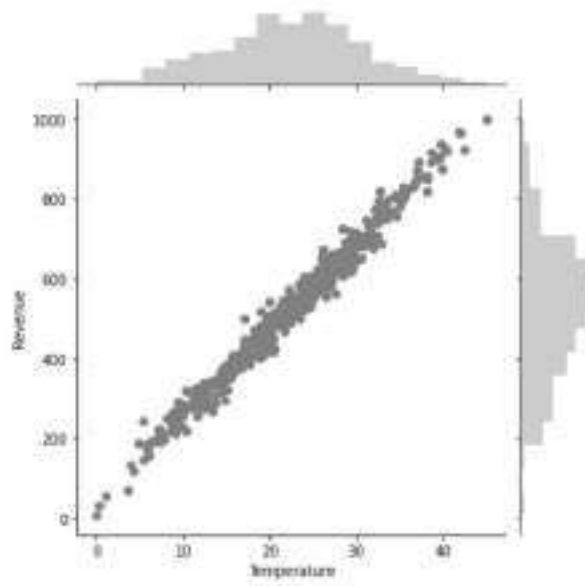


Figure:3 Visualize DataSet

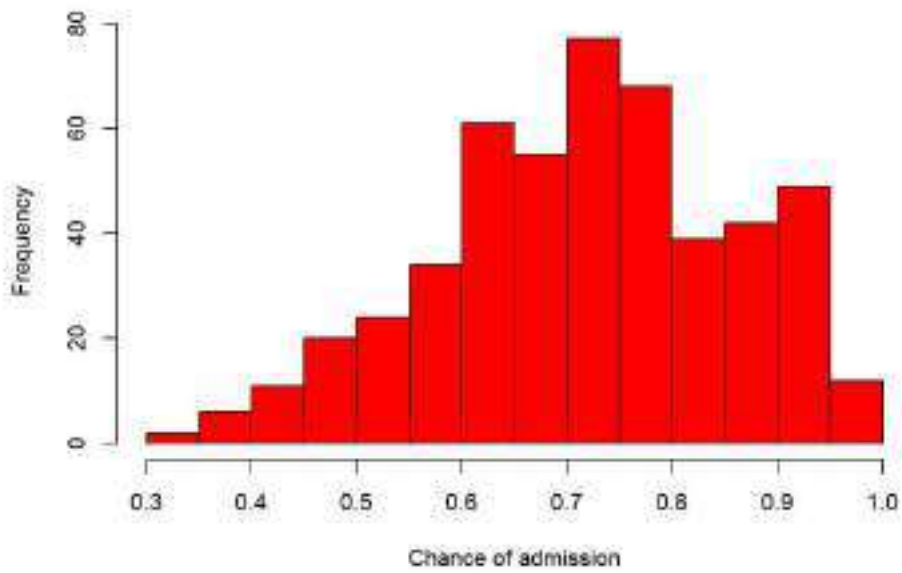


Figure:4 Change of Admission

CONCLUSION:

In this report, we have introduced the fundamental concepts of machine learning and demonstrated how Python serves as a powerful tool for implementing these techniques. Machine learning, as a subset of artificial intelligence, enables computers to learn from data and improve their performance without being explicitly programmed. Its applications are vast, ranging from healthcare and finance to marketing and autonomous systems.

By delving into key areas such as data preprocessing, model building, and evaluation, we have provided a practical guide for utilizing machine learning to tackle real-world problems. Data preprocessing techniques, including cleaning, transforming, and preparing data, are crucial for the success of any machine learning project. Proper data handling ensures that the models built are accurate and reliable.

Model building and evaluation are at the core of machine learning. We explored the steps involved in selecting appropriate algorithms, training models, tuning hyperparameters, and assessing model performance. Metrics such as accuracy, precision, recall, and F1-score play a vital role in evaluating how well a model performs and its suitability for a given task.

Python's simplicity and extensive library support make it an excellent choice for both newcomers and experienced professionals in the machine learning domain. Libraries like NumPy, pandas, and scikit-learn provide the necessary tools to perform complex data analysis and implement machine learning algorithms efficiently. These libraries, combined with Python's readability, allow for rapid development and experimentation, which is essential in the fast-evolving field of machine learning.

The practical examples and case studies presented in this report demonstrate the real-world applications of machine learning. From predictive modelling to pattern recognition, these examples showcase the potential of machine learning to drive innovation and solve complex challenges across various industries.

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WEBLINKS:

1. [https:// www.kaggle.com](https://www.kaggle.com) -covering the important concepts.
2. <https://colab.research.google.com> For teaching the sample projects.

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **DHARMARAJ B (UUCMS. No.: U03KU21S0067)** is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

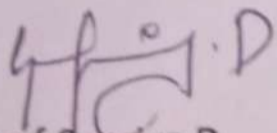
Internship Coordinator
Prof. Supriya D

Head of the Department
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Nagasandra Post, Bangalore - 560 075
Department of BCA

Prof. Vijay Kumar A S, M. Tech., [Ph.D]

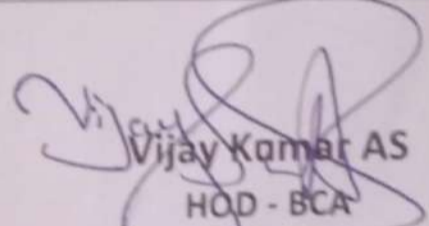
EXAMINERS

17	17-05-2024	Initial data cleaning using pandas and Numpy.
18	18-05-2024	Outlier detection and data handling.
19	19-05-2024	Assignment-3.
20	20-05-2024	Train test and split.
21	21-05-2024	Linear regression Models.
22	22-05-2024	Logistics regression Models.
23	23-05-2024	Exploratory Data Analysis (EDA.).
24	24-05-2024	Feature analysis and selection using pandas and sci-kit learn.
25	25-05-2024	Model selection and Training.
26	26-05-2024	Assignment-4
27	27-05-2024	Project selection.
28	28-05-2024	Handling missing elements in duplicate data.
29	29-05-2024	Advanced visualization using Seaborn.
30	30-05-2024	Project submission.
31	31-05-2024	Proof of completion(Certificate).



Prof. Supriya D
Professor

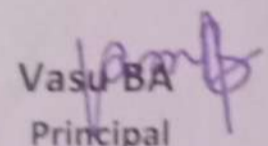
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management and science



Vijay Kumar AS
HOD - BCA

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Vasu BA
Principal

of Soundarya institute of
management and science
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Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore - 560 073

hari krishna

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

HARISH KUMAWAT

UUCMS. No.: U03KU21S0024

Duration: 29th Feb ,2024 to 09th April ,2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



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Internship Coordinator
Prof. Yatish SJ

Head of the Department
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D.]

Date: 5th March 2024

Dear Mr./Ms. HARISH KUMAWAT

AICTE Student ID: STU65d6e63393f7c1708582451

AICTE Internship ID: INTERNSHIP_170662655565b90dfb357f2

We extend our warmest congratulations on your selection for an **internship presented by the Edunet Foundation, in collaboration with EY GDS-AICTE**, focusing on Full Stack Web Development.

The EY GDS - AICTE Internship is structured to support individuals in developing essential foundational skills needed for productive careers in the IT sector. Participants have the opportunity to earn credentials and benefit from guidance provided by industry experts, all at no cost throughout the duration of the program.

EY GDS (Ernst & Young – Global Delivery Services), in partnership with AICTE, provides a unique learning experience through a 6-week Internship, commencing from **28th February 2024 to 25th April 2024**. Throughout this period, you will have the opportunity to work independently on a project, with guidance from a mentor who will assist you in identifying solutions and developing them into a tangible project.

Benefits:

- Personalized mentorship sessions and collaborative group learning.
- Opportunities to expedite learning through project-based internships.
- A holistic learning experience provided by industry experts through knowledge-sharing sessions.
- Showcase your skills by creating prototypes to solve real-world challenges.
- Earn certifications from EY, AICTE, and Edunet, boosting your confidence and value to potential future employers.
- Opportunity to present your project prototypes to a panel of industry experts at a regional showcase event.

Timeline and the Project:

Week	Agenda	Student Deliverables
Week 0	Orientation of Internship, Project allocation	<ul style="list-style-type: none"> • Selection of Projects through Google form • Commence Project Related Tasks
Week 1	Master session on Resume Building, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 2	Master session on Design Thinking in Real World Applications, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 3	Master session on Managing codebase with Git Hub, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 4	Master session on DevOps: Code to	<ul style="list-style-type: none"> • Complete Weekly Milestone

	Production, Mentorship sessions, Ask Me Anything sessions, and Final Project Submission	<ul style="list-style-type: none"> • Self-Paced learning • Final project and PPT Submission
Week 5	Mock project presentations	<ul style="list-style-type: none"> • Presentation of Project in front of Subject Matter Experts • Incorporate changes in the project mentioned by Mentors
Week 6	Final Project Presentations (PPT)	<ul style="list-style-type: none"> • Final Presentation of Project before EY Industry Experts

Criteria for certification:

- Participation in master sessions with EY & EF experts is mandatory
- Participation in mentorship sessions with EF experts is mandatory
- Completion of tasks/milestones every week
- Submission of a project presentation required
- Commitment of 6-8hrs/week throughout internship

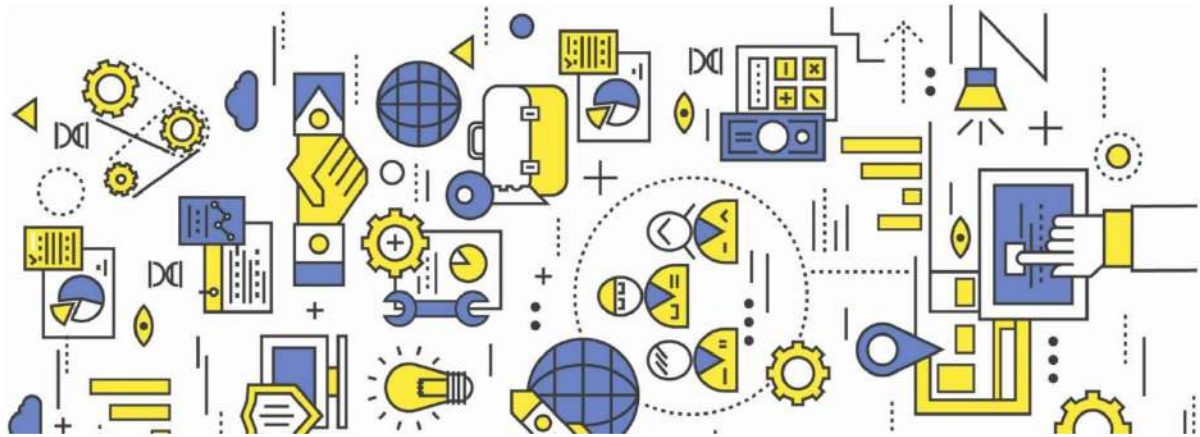
Stipend:

There will be NO stipend for this internship.

We wish you a great learning experience during the internship. Thank you!



Sincerely,
Nagesh Singh
Executive Director – Edunet Foundation



CERTIFICATE OF APPRECIATION

INTERNSHIP_170662655565b90dfb357f2

PROUDLY PRESENTED TO

HARISH KUMAWAT

STU65d6e63393f7c1708582451

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Full Stack Web Development** under the **Next Gen Employability Program 2023-24**.

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

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HARISH KUMAWAT (U03KU21S0024)

ABSTRACT

Organisation Information: Edunet Foundation, Bangalore, is dedicated to advancing educational initiatives through technology. By leveraging its expertise in software development and educational outreach, the foundation strives to empower learners and educators alike.

Programs and Opportunities: The primary focus of Edunet Foundation includes full-stack development and various programming languages. Through its initiatives, the foundation seeks to equip individuals with the skills necessary to excel in the digital age.

Methodologies: The development of the Notes Sharing Web Application is based on the Django framework, chosen for its robustness, scalability, and ease of integration with other technologies. Agile methodologies are employed to ensure iterative development and responsiveness to user feedback.

Key Parts of the Report:

1. **Introduction:** Overview of the project and its significance.
2. **Literature Review:** Exploration of existing solutions and technologies.
3. **Methodology:** Detailed explanation of the development process and tools used.
4. **Implementation:** Technical insights into the construction of the Notes Sharing Web Application.
5. **Results and Discussion:** Evaluation of outcomes and user feedback.
6. **Conclusion:** Summary of achievements and future directions.

Benefits of the Company/Institution through Our Report: The report contributes to the Edunet Foundation's mission by:

1. Demonstrating technical expertise in developing educational tools.
2. Showcasing commitment to improving learning experiences through technology.
3. Providing insights and lessons learned for future projects and collaborations.

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1. INTRODUCTION

The rapid advancement of digital technologies has revolutionized the landscape of education, leading to the proliferation of online resources and collaborative platforms that facilitate learning and information sharing. In this context, the "Notes Sharing Web Application" developed using the Django framework emerges as a pivotal tool aimed at enhancing educational accessibility and collaboration among students and educators. This project, undertaken by Edunet Foundation in Bangalore, India, seeks to address the challenges of resource distribution and foster a more inclusive learning environment.

The primary objective of the Notes Sharing Web Application is to create an intuitive and user-friendly platform where users can upload, share, and access educational notes and materials. Leveraging the capabilities of Django, a robust and high-level web framework based on Python, the application ensures efficient database management, security, and scalability. Django's comprehensive toolset, including its powerful Object-Relational Mapping (ORM) system, enables seamless integration with various database systems, making the development process more streamlined and the application more robust.

The significance of this project lies in its potential to democratize access to educational resources. In many educational settings, students often struggle to access quality study materials, and educators face challenges in distributing content effectively. By providing a centralized platform for notes sharing, this application addresses these issues, promoting a culture of knowledge sharing and collaboration.

2.MODULES

2.1 User Authentication and Management Module

Description: This module handles all aspects of user authentication and management. It includes features for user registration, login, and profile management. Users can create accounts with unique usernames and passwords, ensuring secure access to their personal dashboards where they can manage their notes.

Key Features:

1. User registration and login system.
2. Password reset and account recovery.
3. Profile management for updating personal details.
4. Role-based access control to manage different user permissions (e.g., student, educator).

2.2 Notes Management Module

Description: The Notes Management Module is the core of the application, allowing users to upload, view, edit, and delete notes. It supports various file formats such as PDF, Word documents, and plain text, making it easy for users to share a wide range of educational materials.

Key Features:

1. Upload functionality for various file types.
2. Options to view, edit, and delete existing notes.
3. Categorization and tagging of notes for easy retrieval.
4. Search functionality to find notes based on keywords, tags, or categories.

2.3. Collaboration and Sharing Module

Description: This module enables users to share notes with others and collaborate on shared documents. Users can control the sharing permissions to determine who can view or edit their notes, fostering a collaborative learning environment.

Key Features:

1. Share notes with specific users or publicly.
2. Set permissions for viewing and editing shared notes.
3. Collaborative editing with real-time updates.
4. Notifications for note sharing and updates.

2.4. Commenting and Feedback Module

Description: The Commenting and Feedback Module allows users to provide feedback on notes and engage in discussions. This feature is crucial for facilitating communication and peer-to-peer learning, where users can ask questions and give suggestions.

Key Features:

1. Add comments on notes.
2. Reply to comments and engage in threaded discussions.
3. Rate notes for quality and relevance.
4. Notification system for new comments and replies.

2.5. Search and Filtering Module

Description: This module provides powerful search and filtering capabilities to help users find notes quickly and efficiently. Users can search for notes using various criteria such as keywords, categories, tags, and author names.

Key Features:

1. Keyword search across all notes.
2. Advanced filtering options based on categories and tags.
3. Sorting results by date, relevance, and popularity.
4. Auto-suggestions and recommendations based on search history.

2.6. Administrative Module

Description: The Administrative Module is designed for the application's administrators to manage and oversee the system. It provides tools for monitoring

user activities, managing content, and ensuring the smooth operation of the platform.

Key Features:

1. User management tools for account monitoring and moderation.
2. Content management for reviewing and approving uploaded notes.
3. System logs and activity reports for tracking usage patterns.
4. Tools for handling user queries and technical support.

2.7. Notification and Communication Module

Description: This module handles all notifications and communications within the application. It ensures that users are kept informed about updates, comments, and sharing activities related to their notes.

Key Features:

1. Email and in-app notifications for account activities.
2. Alerts for new comments, note sharing, and collaboration requests.
3. Messaging system for direct communication between users.
4. Configurable notification settings for user preferences.

3.ANALYSIS

3.1 Project Objectives and Effectiveness

The main objective of the Notes Sharing Web Application is to create a centralized platform where students and educators can share and access academic notes easily. The project effectively meets this objective by providing an intuitive user interface, robust back-end support, and essential functionalities such as user authentication, note uploading, and collaborative sharing. The application's design focuses on ease of use and accessibility, which are crucial for ensuring widespread adoption among its target users.

3.2 Technological Choices

Django Framework: The decision to use Django is well-justified due to its robustness, scalability, and built-in features that streamline web development. Django's powerful ORM simplifies database interactions, ensuring secure and efficient management of user data and educational materials.

HTML, CSS, and JavaScript: The combination of HTML, CSS, and JavaScript is effective for creating a responsive and interactive user interface. HTML provides the structure, CSS ensures a visually appealing layout, and JavaScript enhances interactivity, making the application user-friendly and engaging.

Database Management: Django's ORM provides a seamless way to interact with the database, making it easier to manage the data related to user accounts and notes. This choice simplifies data operations and enhances the security and integrity of the stored information.

3.3 Impact on Users

Educational Accessibility: The application significantly improves access to educational resources by allowing users to share and retrieve notes from a centralized platform. This accessibility helps bridge gaps in resource availability, especially for students who might otherwise struggle to obtain necessary study materials.

Collaboration and Engagement: By providing features for note sharing and collaboration, the application fosters a more interactive learning environment. Users can easily share notes, comment on shared content, and engage in discussions, which enhances peer-to-peer learning and collective knowledge building.

User Empowerment: The application empowers users by giving them control over their learning resources. Educators can share curated content, and students can contribute their notes, making the learning process more participatory and collaborative.

3.4 Future Development Opportunities

Scalability: The application is designed to handle a growing number of users and data. Future enhancements can include adding more sophisticated search and filtering options,

4.SOFTWARE REQUIREMENTS SPECIFICATIONS

4.1 Introduction

The Notes Sharing Web Application is designed to provide a platform for students and educators to upload, share, and manage educational notes and resources efficiently. This SRS document outlines the functional and non-functional requirements for the application, developed using the Django framework.

4.2 Purpose

The primary purpose of the Notes Sharing Web Application is to facilitate the easy sharing and collaborative use of educational materials. It aims to enhance educational accessibility and promote a culture of sharing knowledge among users.

4.3 Scope

The application is intended for use by educational institutions, students, and educators who need a secure and user-friendly platform to share and manage academic notes. The scope includes user authentication, note management, collaboration features, and administrative functionalities.

4.4 Functional Requirements

1.User Authentication and Management

User Registration: Users must be able to register with a unique username and password.

Login/Logout: Users must be able to log in and out securely.

Profile Management: Users should be able to view and update their profile information.

Password Recovery: Users must have an option to reset their passwords.

2.Notes Management

Upload Notes: Users must be able to upload notes in various formats (PDF, DOCX, TXT).

View Notes: Users must be able to view uploaded notes in the browser.

Edit Notes: Users should be able to edit their notes.

Delete Notes: Users should be able to delete their notes.

3.Collaboration and Sharing

Share Notes: Users must be able to share notes with other users or publicly.

Set Permissions: Users should be able to set permissions for view and edit access.

Collaborative Editing: Multiple users should be able to edit shared notes.

4.Commenting and Feedback

Add Comments: Users must be able to comment on notes.

Reply to Comments: Users should be able to reply to comments in a thread.

Rate Notes: Users should be able to rate the quality of notes.

5. Search and Filtering

Search Notes: Users must be able to search for notes by keywords, tags, and categories.

Filter Notes: Users should be able to filter notes by various criteria like date, popularity.

4.5 Non-Functional Requirements

1. Performance Requirements

The system should handle up to 1,000 concurrent users.

Response time for note uploads and page loads should be under 2 second

2. Security Requirements

User data must be encrypted and securely stored.

Authentication processes should prevent unauthorized access.

Regular security audits should be performed.

3. Usability Requirements

The application should have an intuitive user interface.

Users should be able to perform primary functions within three clicks.

Accessibility standards should be met to accommodate all users.

4. Scalability Requirements

The system should support scaling to handle increased user loads.

The database should be capable of handling a growing volume of notes and user data.

4.6. System Architecture

1. Front-End

Technologies: HTML5, CSS3, JavaScript.

Frameworks: Bootstrap for responsive design.

2. Back-End

Technologies: Python, Django.

Database: PostgreSQL for scalable data management.

3. APIs and Integrations

RESTful APIs: For communication between the front-end and back-end.

Third-Party Services: Integration with email services for notifications.

4.7. User Interface Design

1. Navigation

A clear and consistent navigation menu should be present on all pages.

2. Dashboard

Users should have access to a dashboard displaying their notes, shared content. activity.

3. Notes Viewer

An integrated viewer for reading and annotating notes.

4. Administration Panel

A panel for administrators to manage users and content.

4.8 Testing Requirements

1. Unit Testing

Each module should undergo unit testing to ensure functionality.

2. Integration Testing

Testing should ensure that different modules interact correctly.

3. User Acceptance Testing

The system should be tested by a sample group of end users to validate functionality and usability.

4. Security Testing

Regular security testing should be conducted to identify vulnerabilities

5. TECHNOLOGY

5.1 HTML (HyperText Markup Language)

Role and Importance in the Project:

HTML, or HyperText Markup Language, is the cornerstone technology used in the Notes Sharing Web Application for structuring web content. As a markup language, HTML provides the skeleton of the web pages by defining the placement and hierarchy of various elements such as text, images, forms, and hyperlinks. Each element in HTML is enclosed within tags, which specify how the content should be displayed.

Key Features and Functions:

- Content Structuring:** HTML tags like `<header>`, `<footer>`, `<article>`, and `<section>` help organize the content into meaningful sections, making it easier for users to navigate and understand the web page. These semantic tags also improve accessibility and search engine optimization (SEO), as they provide context to the content.
- Hyperlinking:** One of the fundamental features of HTML is the ability to create hyperlinks using the `<a>` tag. This allows users to navigate between different pages or sections within the application, providing a cohesive and interconnected web experience.
- Form Handling:** HTML forms are crucial for user input and data collection. Tags like `<form>`, `<input>`, `<text area>`, and `<button>` enable the creation of interactive forms for functionalities such as user registration, note submissions, and search queries within the application.
- Media Integration:** HTML supports embedding various media types, including images (``), audio (`<audio>`), and video (`<video>`). This feature is used to enhance the visual and interactive aspects of the Notes Sharing Web Application by incorporating multimedia content.

Relevance to the Project:

HTML is essential for laying out the content and providing a structured framework for the Notes Sharing Web Application. It ensures that the application is accessible and navigable, offering a clear and organized presentation of educational materials. The use of semantic tags and hyperlinks facilitates a user-friendly interface, enabling users to interact with the content intuitively.

5.2 CSS (Cascading Style Sheets)

Role and Importance in the Project:

CSS, or Cascading Style Sheets, is used to control the visual appearance and layout of the web pages created with HTML. In the Notes Sharing Web Application, CSS is responsible for defining the styles of various elements, including fonts, colors, spacing, and overall layout. CSS enhances the aesthetic appeal and usability of the application, ensuring a consistent and engaging user experience.

Key Features and Functions:

1. **Styling and Layout:** CSS allows for detailed control over the design and layout of web pages. By using selectors and properties, CSS defines styles for HTML elements, including font sizes, colors, margins, and padding. It also supports layout models like Flexbox and Grid, which facilitate responsive and complex layouts.
2. **Responsive Design:** CSS media queries enable the application to adapt to different screen sizes and devices. This ensures that the Notes Sharing Web Application provides an optimal viewing experience across desktops, tablets, and smartphones, enhancing accessibility and usability.
3. **Animations and Transitions:** CSS supports animations and transitions, which can be used to add dynamic visual effects and interactions. For example, hover effects on buttons or smooth transitions between different states can enhance the user interface and make the application more interactive.

4. **Custom Styling:** CSS allows for the customization of styles through class and ID selectors. This makes it possible to apply unique styles to specific elements or groups of elements, facilitating a tailored and cohesive design.

Relevance to the Project:

CSS is crucial for the visual design and user interface of the Notes Sharing Web Application. It ensures that the application is not only functional but also visually appealing and easy to use. The use of responsive design techniques allows the application to cater to a wide range of devices, ensuring that users have a seamless experience regardless of how they access the platform.

5.3 JavaScript

Role and Importance in the Project:

JavaScript is a powerful, dynamic programming language used to create interactive and dynamic features on web pages. In the Notes Sharing Web Application, JavaScript is employed to enhance user interactions, manage client-side functionality, and provide a more engaging user experience. It enables real-time updates and interactive elements that make the application more responsive and user-friendly.

Key Features and Functions:

1. **Client-Side Scripting:** JavaScript operates on the client side, meaning it runs directly in the user's web browser. This allows for faster and more efficient interactions, as the browser can process and respond to user actions without the need to communicate with the server.
2. **DOM Manipulation:** JavaScript allows for manipulation of the Document Object Model (DOM), which represents the structure of a web page. By modifying the DOM, JavaScript can dynamically update content, styles, and attributes, creating a more interactive and responsive user experience.
3. **Event Handling:** JavaScript supports event-driven programming, enabling it to respond to user actions such as clicks, key presses, and form submissions. Event handlers can trigger functions that execute specific tasks, enhancing the interactivity of the application.

4. **AJAX (Asynchronous JavaScript and XML):** AJAX allows for asynchronous data loading, enabling the application to update content dynamically without reloading the entire page. This feature is particularly useful for functions like note searching and filtering, where real-time updates enhance the user experience.
5. **Form Validation:** JavaScript is used to validate user input on the client side, ensuring that forms are correctly filled out before submission. This reduces errors and improves data integrity by providing immediate feedback to users.

Relevance to the Project:

JavaScript plays a critical role in enhancing the interactivity and functionality of the Notes Sharing Web Application. It allows for real-time updates and dynamic content changes, creating a more responsive and engaging user experience. By handling client-side scripting and event-driven interactions, JavaScript ensures that the application is intuitive and user-friendly.

5.4 Python Programming Language

Role and Importance in the Project:

Python is a high-level, interpreted programming language known for its readability and simplicity. It plays a critical role in the Notes Sharing Web Application as the primary language for server-side development using the Django framework. Python's versatility and ease of use make it an ideal choice for web application development, particularly for handling back-end logic and database interactions.

Key Features:

1. **Readability and Simplicity:** Python's clean syntax and straightforward structure make it easy to write and maintain code, which is beneficial for developing complex web applications with a focus on readability and maintainability.
2. **Extensive Libraries and Frameworks:** Python offers a rich ecosystem of libraries and frameworks that streamline development tasks. In this project, Django is the primary framework used for building the web application, leveraging Python's capabilities for server-side development.

3. **Versatility and Portability:** Python's versatility allows it to be used for various tasks beyond web development, such as data analysis, machine learning, and automation. This versatility makes it a valuable language for developing multi-functional applications.

Importance: Python's role in the project is pivotal for developing the server-side components of the Notes Sharing Web Application. Its simplicity and robust feature set enable efficient and effective development of the application's back-end, ensuring scalability and reliability.

6.DATABASE

6.1 Django (Python Web Framework)

1.Role and Importance in the Project:

Django is a high-level Python web framework used for back-end development. It provides a robust and scalable framework for building secure web applications. In the Notes Sharing Web Application, Django handles the server-side logic, database interactions, and overall application management, ensuring that the application is reliable and efficient.

Key Features and Functions:

4. **MVC Architecture:** Django follows the Model-View-Controller (MVC) architectural pattern, which separates the application into three interconnected components: the model (data), the view (user interface), and the controller (logic). This separation of concerns simplifies development and maintenance.
5. **Object-Relational Mapping (ORM):** Django's ORM provides an abstraction layer that allows developers to interact with the database using Python code instead of SQL queries. This simplifies database operations and ensures consistency and security in data management.
6. **Built-in Admin Interface:** Django includes a powerful admin interface that allows for easy management of the application's data and content. This feature enables administrators to add, edit, and delete data without the need for custom interfaces, streamlining content management.
7. **Security Features:** Django comes with built-in security features to protect against common web vulnerabilities, including SQL injection, cross-site scripting (XSS), and cross-site request forgery (CSRF). These features ensure that the application is secure and can handle sensitive user data.
8. **Scalability and Performance:** Django is designed to handle high traffic and large amounts of data, making it suitable for scalable web applications. Its modular design and reusable components allow for efficient performance and easy extension of the application's functionality.

2.Relevance to the Project:

Django provides the backbone for the Notes Sharing Web Application, managing server-side operations, database interactions, and application security. Its robust framework ensures that the application is scalable, secure, and maintainable, which is crucial for a reliable and efficient web platform. Django's features enable rapid development and seamless integration of new functionalities, supporting the application's growth and adaptability.

3.Introduction

Django is a high-level, open-source web framework written in Python that facilitates rapid development and clean, pragmatic design. Designed to help developers take applications from concept to completion as swiftly as possible, Django prioritizes reusability, pluggability of components, rapid development, and the principle of "don't repeat yourself" (DRY). One of Django's standout features is its ability to seamlessly integrate with databases, making it a powerful tool for managing data in web applications. This integration is achieved through Django's built-in Object-Relational Mapping (ORM) system, which allows developers to interact with databases using Python code instead of complex SQL queries.

4.About Django Framework

Django is designed to handle both the back-end logic and database management for web applications. It provides a robust set of tools and features that simplify the process of building complex, data-driven websites. The framework's philosophy is to enable developers to focus on writing their applications without needing to reinvent the wheel by offering ready-to-use components for many common web development tasks.

5.Key Features of Django Framework:

1. **Rapid Development:** Django's extensive libraries and reusable components facilitate quick development of web applications, making it easier to implement complex features without building them from scratch.

2. **Security:** Django provides built-in protection against many common security threats, such as SQL injection, cross-site scripting (XSS), cross-site request forgery (CSRF), and clickjacking. This makes it a secure choice for developing web applications that handle sensitive data.
3. **Scalability:** Django is designed to handle high-traffic applications and can scale to support large databases and significant user bases. Its modular architecture allows developers to expand functionality as needed.
4. **Versatility:** Django is versatile enough to be used for a wide range of applications, from simple websites to complex web applications with sophisticated data requirements.
5. **Comprehensive Documentation:** Django comes with detailed documentation, which is invaluable for both beginners and experienced developers. This ensures that developers have access to the information they need to build and maintain their applications effectively.

6.2 Django's ORM (Object-Relational Mapping) System

Django's ORM system is one of its most powerful features. It allows developers to interact with the database using Python code, abstracting away the need for writing raw SQL queries. The ORM maps database tables to Python classes, and each row in the table is represented as an instance of the class. This approach makes database interactions intuitive and more manageable, especially for developers who are more familiar with Python than SQL.

1.Database Integration with Django

Django supports multiple databases, including PostgreSQL, MySQL, SQLite, and Oracle, among others. The framework allows for seamless integration with these databases through its ORM, making it easy to switch between different database backends without changing the codebase.

Database Backends:

1. **SQLite:** The default database that comes with Django. It's a lightweight, file-based database that's ideal for small projects and prototyping. It requires no additional setup and is useful for development and testing.

2. **PostgreSQL:** A powerful, open-source relational database system that supports advanced features like JSONB data type, full-text search, and custom data types. It's a preferred choice for production environments requiring robust performance and scalability.
3. **MySQL:** A popular open-source relational database known for its speed and reliability. It's widely used in web applications and supports complex queries and transactions.
4. **Oracle:** A commercial database system known for its high performance and scalability. It's used in enterprise environments where reliability and extensive feature sets are required.

Database Configuration:

Django's database configuration is straightforward and involves setting the database engine, name, user, password, host, and port in the project's settings file.

```
python
Copy code
# settings.py
DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.postgresql',
        'NAME': 'notes_db',
        'USER': 'dbuser',
        'PASSWORD': 'password',
        'HOST': 'localhost',
        'PORT': '5432',
    }
}
```

This example configuration sets up a PostgreSQL database for the Django project.

2. Benefits of Using Django for Database Management

1. **Ease of Use:** Django's ORM allows developers to interact with the database using Python code, which is more intuitive and less error-prone than writing raw SQL queries. This makes it easier for developers to perform complex database operations without needing deep SQL knowledge.

2. **Consistency:** The ORM ensures that the database schema and the application code remain consistent, reducing the likelihood of data integrity issues. Changes to the database schema are managed through migrations, which keep the schema up to date with the codebase.
3. **Security:** Django's ORM automatically escapes inputs to protect against SQL injection attacks, which are a common security threat. This adds an extra layer of security to the application.
4. **Flexibility:** Django supports multiple database backends, allowing developers to choose the best database for their application's needs. The framework's ability to switch between different databases with minimal code changes provides flexibility for different deployment environments.
5. **Scalability:** Django's support for relational databases allows for handling large volumes of data and high-traffic applications. The ORM's efficient querying capabilities ensure that the application can scale as the user base grows.

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Oracle: A commercial database system known for its high performance and scalability. It's used in enterprise environments where reliability and extensive feature sets are required

7. SCREENSHOTS

Home page:

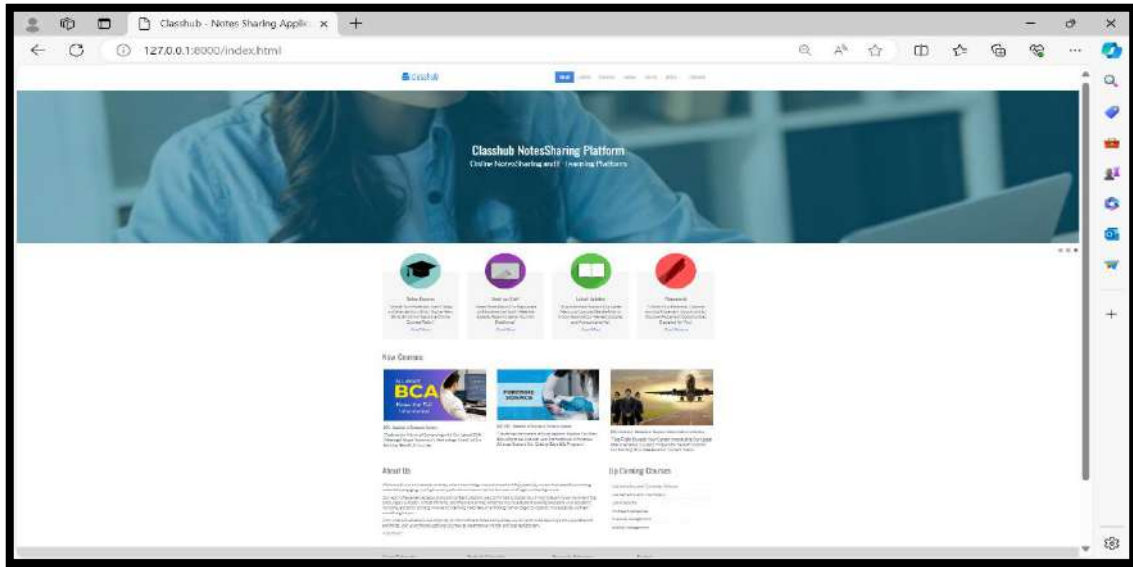


Figure 1

About page:

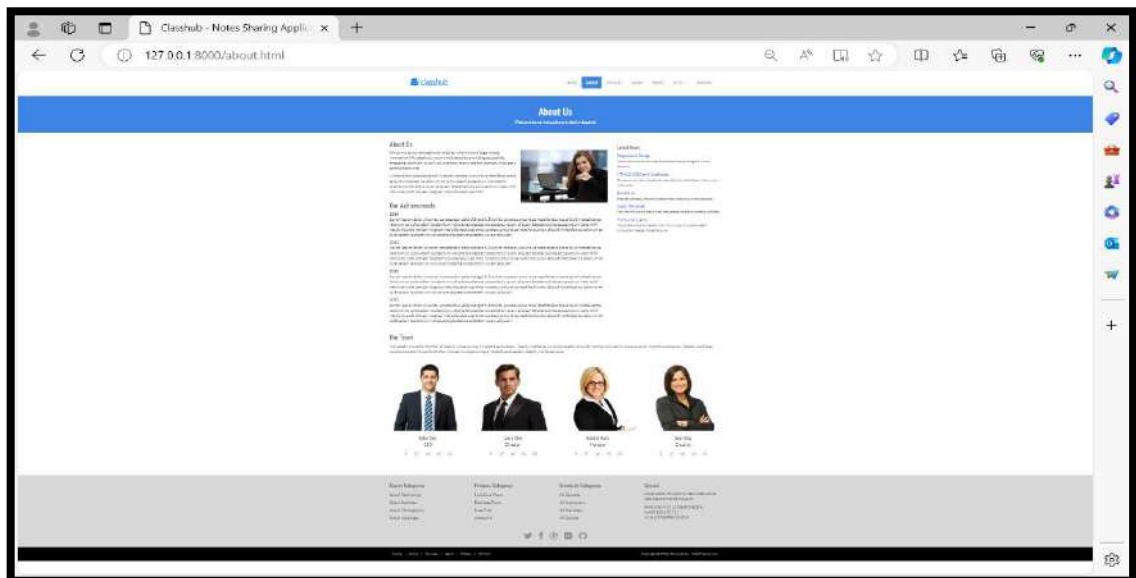


Figure 2

Login Page:

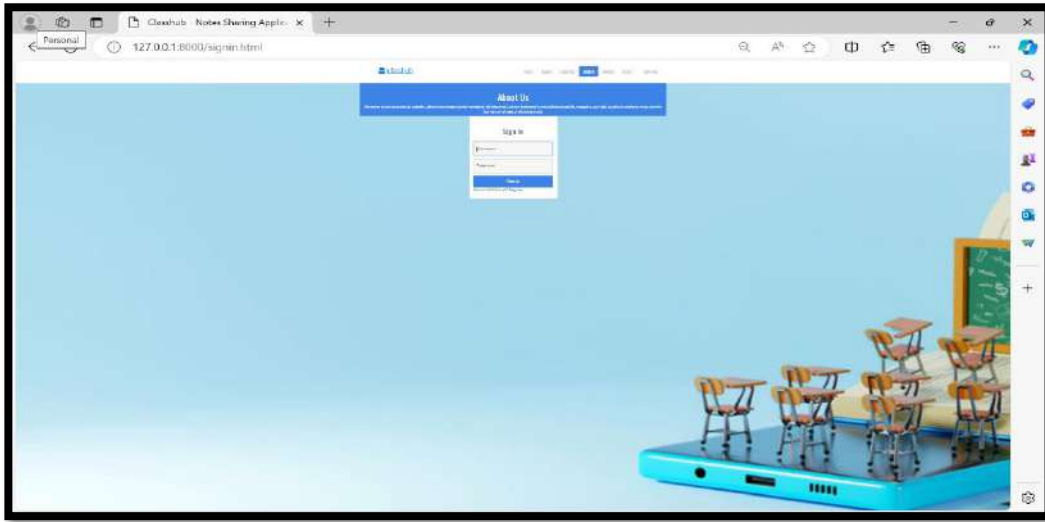


Figure 3

Courses:

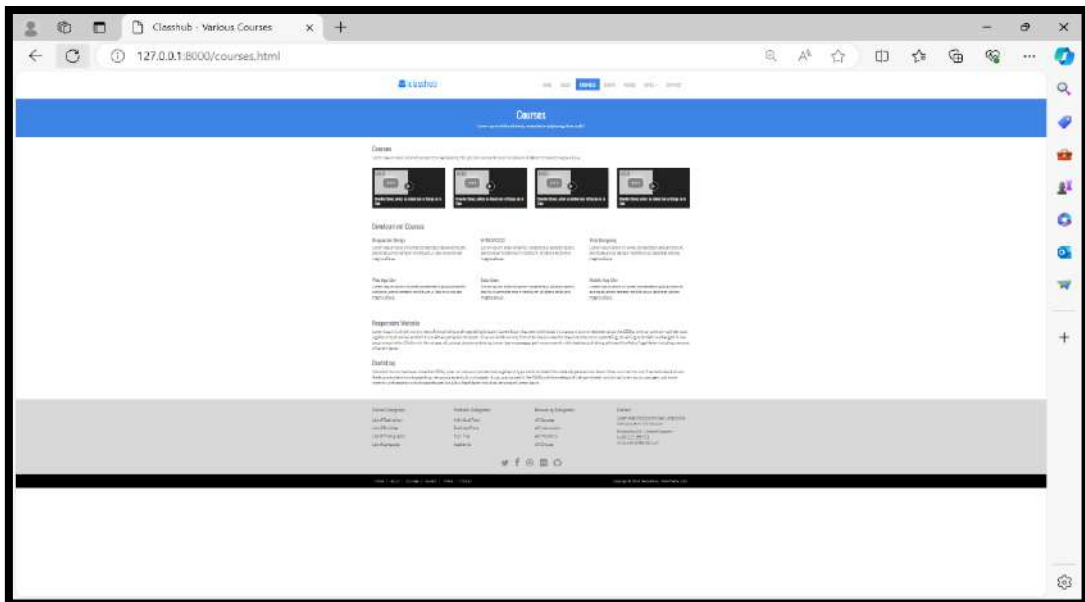


Figure 4

Students Notes:

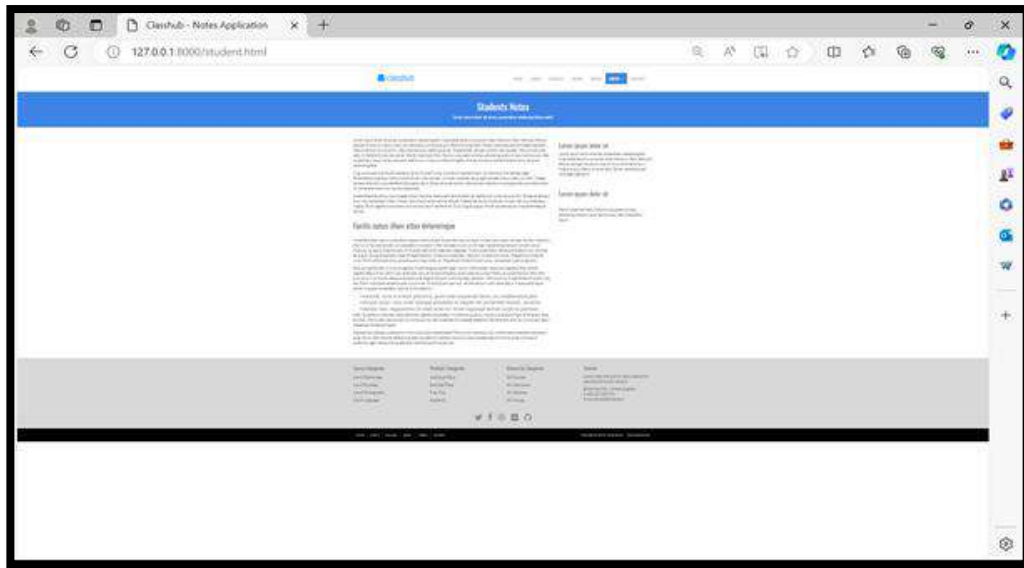


Figure 5

Online Videos:

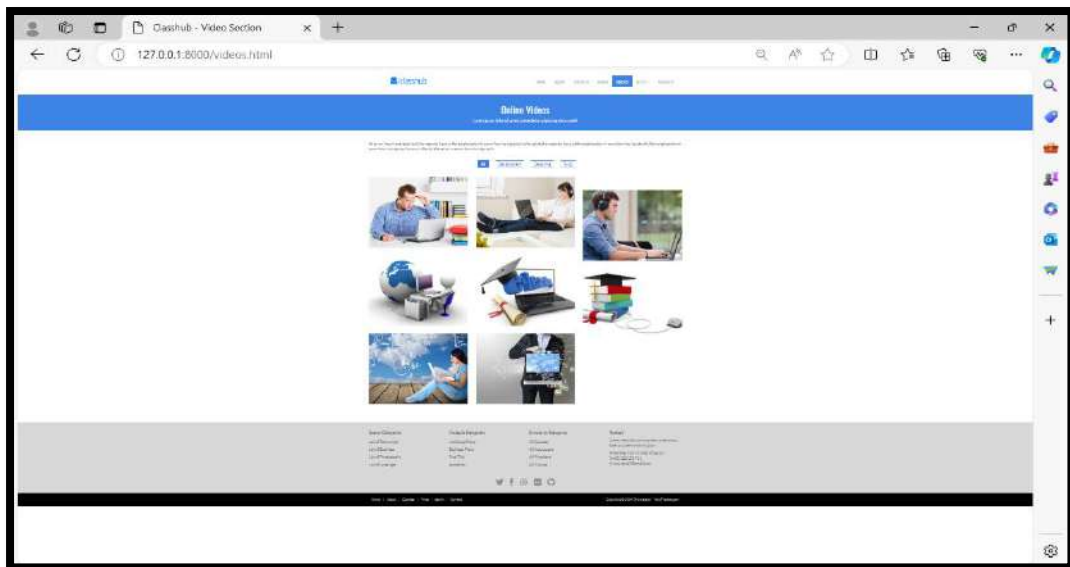


Figure 6

8.WEEKLY REPORT

Department of Computer Applications - BCA Internship Day Book

Student Name and UUCMS No:Harish Kumawat (U03KU21S0024)		
Company Name:Edunet Foundation		
Address: : Soundaryanagar , Sidedahalli , Nagasandra Post, Bangalore - 73		
SI. No.	Date	Activities / Work Done
1	Week 1-	Orientation of Internship
	29-02-2024	Orientation & Project Allocation
	01-03-2024	Master Session: Resume Building
	02-03-2024	Integrated secure user authentication.
	04-03-2024	Mentorship Sessions
	05-03-2024	Ask Me Anything Sessions
2	Week 2-	Registration and Login Pages
	07-03-2024	Defined user flow and features.
	08-03-2024	Designed and implemented registration page.
	09-03-2024	Integrated secure user authentication.
	11-03-2024	Developed intuitive login page.
	12-03-2024	Tested, refined, and ensured compatibility.
3	Week 3-	Registration Page Updates & Student Login
	14-03-2024	Refined registration page based on feedback.
	15-03-2024	Implemented student login feature.
	16-03-2024	Fine-tuned user authentication system.
	18-03-2024	Enhanced overall user experience.
	19-03-2024	Tested, documented, and ensured reliability.
4	Week 4-	Teachers Login Integration
	21-03-2024	Planned features for teachers' login.
	22-03-2024	Designed teachers' login page.
	23-03-2024	Implemented backend support.
	25-03-2024	Tested and debugged thoroughly.
	26-03-2024	Prepared for deployment.

5	<u>Week 5-</u>	Teachers Login and student login connecting to Django
	28-03-2024	Develop backend functionality for registration & student login.
	29-03-2024	Test registration updates & student login internally.
	30-03-2024	Develop authentication logic for teacher login.
	01-04-2024	Integrate teacher login with Django authentication system.
	02-04-2024	Final testing, documentation, and deployment preparation.
6	<u>Week 6-</u>	Overview
	04-04-2024	Reviewed progress and planned tasks.
	05-04-2024	Improved frontend elements.
	06-04-2024	Developed backend features.
	08-04-2024	Conducted thorough testing.
	09-04-2024	Finalized documentation and project zip.

Prof. Yatish SJ
Professor
Soundarya Institute of
Management and Science

Prof. Vijay Kumar AS
HOD - BCA
Soundarya Institute of
Management and Science

Dr. Vasu BA
Principal
Soundarya Institute of
Management and Science

Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)

9.CONCLUSION

The development of the Notes Sharing Web Application using the Django framework has proven to be a successful venture in addressing the need for a centralized, user-friendly platform for educational resource sharing. The project effectively leverages modern web technologies such as HTML, CSS, JavaScript, and Django to create a robust and interactive application that facilitates seamless uploading, sharing, and management of academic notes. The integration of Django's powerful ORM ensures secure and efficient database management, which is crucial for handling large volumes of user data and educational materials. This project not only meets its primary objective of improving educational resource accessibility but also fosters a collaborative learning environment where students and educators can actively participate in knowledge sharing.

Looking forward, the Notes Sharing Web Application holds significant potential for further development and enhancement. The platform's scalable architecture allows for the addition of advanced features such as real-time collaboration, multimedia content integration, and sophisticated search functionalities. Future improvements could also include expanding the application's capabilities to support mobile devices

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1. OWASP Top Ten: OWASP
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1. Django ORM Documentation: [Django ORM](https://www.djangoproject.com)
2. PostgreSQL Documentation: [PostgreSQL Docs](https://www.postgresql.org)

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **HARSHITH K P (UUCMS. No.: U03KU21S0012)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

A handwritten signature in red ink, appearing to be 'N.C.V.', is positioned above the name of the Internship Faculty Coordinator.

Internship Faculty Coordinator
Prof. Nagasuma CV

A handwritten signature in black ink is written over a circular stamp. The stamp contains the text: 'Head of the Department DEPT. OF COMPUTER SCIENCE Soundarya Institute of Management and Science Bangalore - 560 073'. Below the signature, the text 'Head of the Department Department of BCA' is printed.

Prof. Vijay Kumar A S, M. Tech., [Ph.D]



Internship Certificate

CERTIFICATE



Corporate Identification Number
UB0903DL2020NPL371984

14364000015316189



Ybi Foundation

This is to Certify that

Harshith K P

has successfully completed the requirements of

Artificial Intelligence and Machine Learning Internship

Duration: 2 Months Completed on Monday, June 17 2024

demonstrated exceptional dedication with strong willingness to learn and actively engaged in various projects, tasks exhibiting remarkable skills with high level of professionalism.

Verification url: <https://drive.google.com/file/d/1KdrWrJwvCrPaCBrh7pyx30qroNZsqwF/view?usp=sharing>




Verify Certificate Here


www.ybifoundation.org

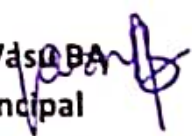
(+91) 966 798 7711

support@ybifoundation.org

		<ul style="list-style-type: none"> Ensuring all preprocessing steps are included in the model pipeline.
20	05-06-2024	Day 20: Real-time Prediction Setup <ul style="list-style-type: none"> Discussing integration of the model into a real-time prediction system. Exploring tools and techniques for real-time data handling.
21	07-06-2024	Day 21: Documentation and Reporting <ul style="list-style-type: none"> Documenting the entire project process. Preparing a detailed project report summarizing findings and results.
22	10-06-2024	Day 22: Project Review and Feedback <ul style="list-style-type: none"> Reviewing the project with the mentor. Receiving feedback and suggestions for improvement.
23	12-06-2024	Day 23: Future Work and Improvements <ul style="list-style-type: none"> Identifying areas for future improvement. Exploring advanced models and techniques for future projects.
24	14-06-2024	Day 24: Reflection and Conclusion <ul style="list-style-type: none"> Reflecting on the internship experience. Summarizing key learnings and takeaways. Final presentation and submission of the project report.


Prof. Nagasuma C V
 Professor
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Dr. Vasu BA
 Principal
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 Nagasandra Post, Bangalore - 560 075

Examiner :

EXAMINERS

1. 

2. 

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

HARSHITHA N

UUCMS. No.: U03KU21S0042

Duration: 1st APRIL, 2024 to 1st JUNE, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **HARSHITHA N (UUCMS. No.: U03KU21S0042)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Department of BCA
Prof.Swamy MR

Head of the
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D]



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near Dominos Pizza, Bangalore 560073.

INTERNSHIP

THIS CERTIFICATE IS PRESENTED TO :

Harshitha N.

This is to certify by the training Department of Ecoders India Pvt limited that

Harshitha N

Has successfully completed

INTERNSHIP PROGRAM IN

SOFTWARE DEVELOPMENT IN MERN STACK

Under I.T Skill Advancement Training Programmer of ECODERS

Duration - 2 months Session - 1st April 2024 to 1st June 2024

Grade - A+

From Our Authorized Training Center

ECODERS PRIVATE INDIA LIMITED

At BANGALORE, HESARAGHATTA ROAD, KARNATAKA

Center Code - 3598

Date of Issue - 05-06-2024

For Ecor'

Gurupreeth Singh
Proprietor

GURUPREETH SINGH
(Director)



Manita Rai

MANITA RAI
(COUNCELLER)



ACKNOWLEDGEMENT

First I would like to thank Mr.Gurupreeth, Head, of **Ecoders, Bangalore** for giving me the opportunity to do an internship within the organization.

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HARSHITHA N (U03KU21S0042)

ABSTRACT

Creating a CRM system using the MERN stack (MongoDB, Express.js, React.js, and Node.js) involves several key steps. First, plan the project by defining its scope and features such as customer data management and interaction tracking. Set up the development environment by installing Node.js, npm, and MongoDB, and initialize a Node.js project. For the backend, use Express.js to set up a server, connect to MongoDB with Mongoose, and create models and API endpoints for CRUD operations. For the frontend, create a React project with components like Dashboard and CustomerList, and use React Router for navigation and Axios for API calls. This approach ensures a robust and scalable CRM system for managing customer relationships.

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INTRODUCTION

The MERN stack is a popular web development framework composed of four main technologies: MongoDB, Express.js, React, and Node.js. Each component plays a critical role in the stack. MongoDB is a NoSQL database known for its scalability and flexibility, making it ideal for handling large volumes of data. Express.js is a lightweight and robust web application framework for Node.js, providing a set of features for web and mobile applications. React, developed by Facebook, is a front-end JavaScript library used for building user interfaces, particularly single-page applications, with a component-based architecture that enhances development efficiency and performance. Node.js is a powerful server environment that runs JavaScript on the server side, enabling the development of scalable network applications. Together, these technologies form a cohesive stack that allows developers to use JavaScript throughout the entire development process, from the client-side to the server-side and database, ensuring a seamless and efficient workflow. The MERN stack's unified language usage, combined with its powerful and flexible components, makes it a preferred choice for building modern, dynamic web applications.

INTERNSHIP OBJECTIVES

1.Skill Development: Enhance specific technical, analytical, and soft skills relevant to the industry and role, such as proficiency in software tools, problem-solving techniques, and effective communication.

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3.Professional Networking: Build a professional network by interacting with colleagues, mentors, and industry professionals, fostering relationships that can provide future career opportunities and guidance.

4.Understanding Industry Practices: Learn about industry standards, best practices, and the operational procedures of the organization, including workflow processes, project management, and compliance requirements.

5.Career Exploration and Development: Clarify career goals by exploring different roles and responsibilities within the organization, identifying areas of interest, and understanding potential career paths and growth opportunities within the industry.

OBJECTIVES OF PROJECT

The CRM (Customer Relationship Management) project aims to develop an efficient and user-friendly system to help businesses manage customer interactions, streamline processes, and enhance customer satisfaction. Key objectives include:

- 1. Centralized Customer Information:** Store and manage customer data in a centralized repository for easy access and integrity.
- 2. Lead and Opportunity Management:** Track potential customers and manage the sales pipeline to convert leads into customers.
- 3. Interaction Tracking:** Log and track customer interactions, schedule follow-ups, and set reminders.
- 4. Role-Based Access Control:** Implement secure authentication and authorization to control user access based on roles.
- 5. Data Analytics and Reporting:** Provide insights into key metrics and generate reports for informed decision-making.
- 6. User-Friendly Interface:** Design a responsive and intuitive interface for efficient navigation and use.
- 7. Integration and Scalability:** Ensure the system integrates with other applications and can scale with business growth.
- 8. Deployment and Accessibility:** Deploy the system on reliable platforms for high availability and remote access.
- 9. Security and Compliance:** Implement robust security measures to protect data and comply with regulations.

PROJECT SCOPE

The project scope included the following features:

- 1.User Management:** Registration, login, role-based access control.
- 2.Customer Management:** CRUD operations for customer data.
- 3.Lead Management:** Tracking potential customers and converting them to customers.
- 4.Interaction Management:** Logging interactions with customers.
- 5.Analytics Dashboard:** Visualizing key metrics related to customer interactions.

TECHNOLOGIES USED

1.MongoDB: Database for storing customer, lead, and interaction data. MongoDB is a NoSQL database that stores data in JSON-like documents with flexible schemas. It's designed for scalability and performance, making it a popular choice for modern web applications. Key features include:

- **Document-oriented storage:** Data is stored in documents (similar to JSON) which makes it very flexible.
- **Scalability:** MongoDB can handle large volumes of data and scale out easily.
- **Aggregation framework:** Powerful tools for data analysis.
- **Indexing:** Supports secondary indexes for better query performance.

2.Express.js: Backend framework for building the Restful API. Express.js is a minimal and flexible Node.js web application framework that provides a robust set of features for web and mobile applications. It's used to build single-page, multi-page, and hybrid web applications. Key features include:

- **Middleware:** Functions that execute during the lifecycle of a request to the server.

CRM PROJECT USING MERN STACK

- **Routing:** Defines how an application's endpoints (URIs) respond to client requests.
- **Templates:** Allows to dynamically render HTML pages.

3.React.js: Frontend library for building the user interface. React.js is a JavaScript library for building user interfaces, especially single-page applications where you need a fast, interactive user experience. It's maintained by Facebook and a community of individual developers and companies. Key features include:

- **Component-based:** UI is divided into reusable components.
- **Virtual DOM:** Efficiently updates and renders components.
- **State management:** Manages the state within components.
- **JSX:** A syntax extension that allows mixing HTML with JavaScript.

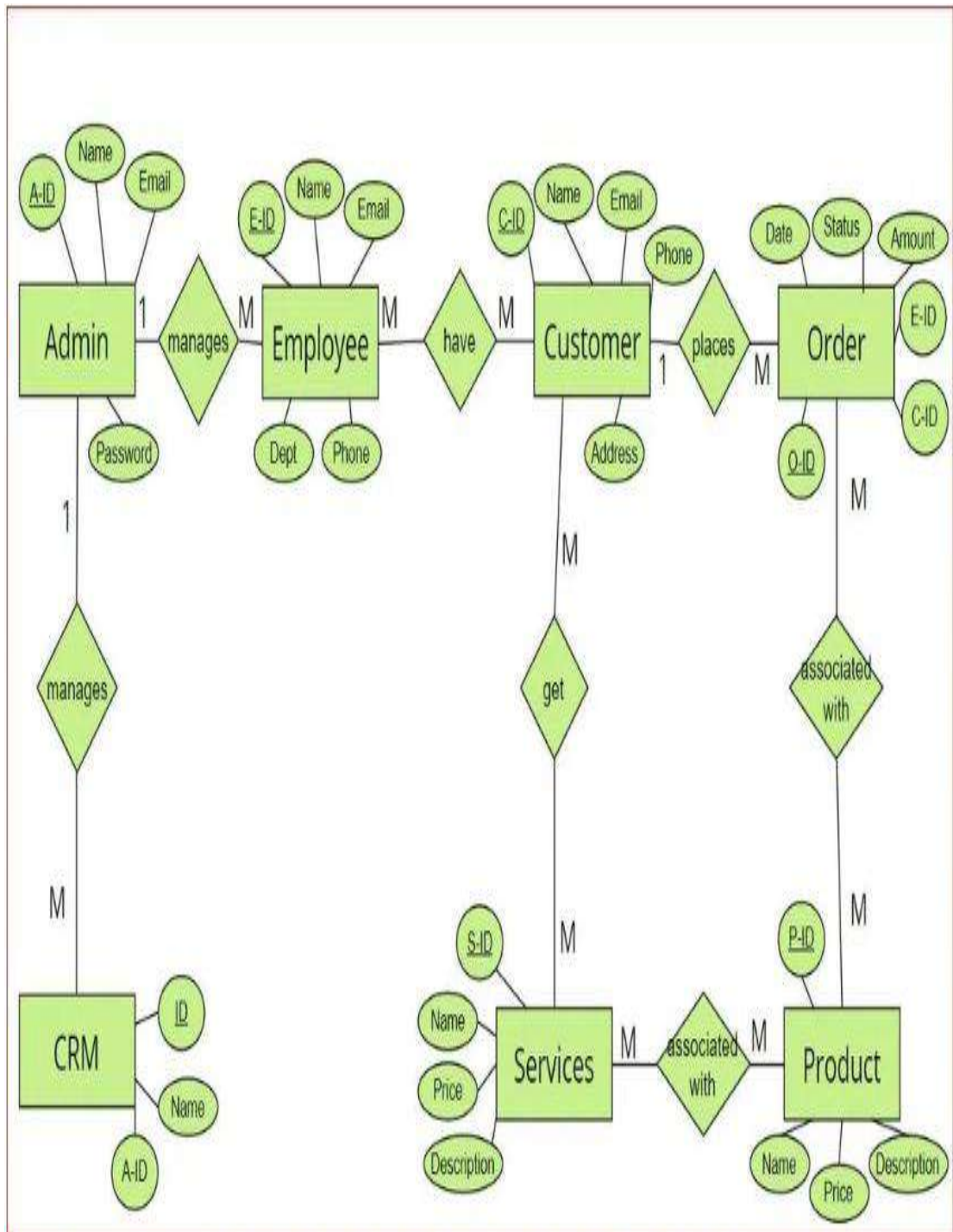
4.Node.js: Runtime environment for executing server-side JavaScript. Node.js is a JavaScript runtime built on Chrome's V8 JavaScript engine. It allows developers to use JavaScript to write server-side code. Key features include:

- **Event-driven:** Non-blocking I/O model makes it lightweight and efficient.
- **Package management:** NPM (Node Package Manager) provides access to thousands of reusable libraries.
- **Cross-platform:** Can run on various operating systems.

5.Redux: State management for React. Redux is a predictable state container for JavaScript apps, often used with React for managing the application state. Key features include:

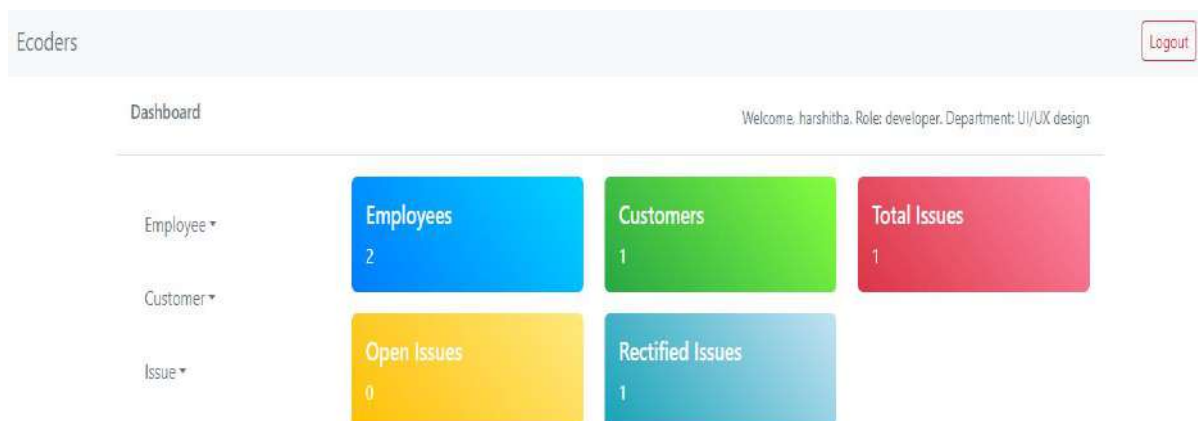
- **Single source of truth:** The state of the entire application is stored in an object tree within a single store.
- **State is read-only:** The only way to change the state is to emit an action, an object describing what happened.
- **Pure functions:** Reducers are pure functions that take the previous state and an action and return the next state.

ER DIAGRAM OF A PROJECT



SCREENSHOT

HOMEPAGE:



REGISTRATION PAGE:

First Name

Last Name

Email Address

Password

Phone

Department

Position

LOGIN PAGE:

Ecoders

Logout

Login Page.

Login

Email address

Password

Login

Single Issue Page

Welcome, harshitha. Role: developer. Department: UI/UX design

Employee ▾

Customer ▾

Issue ▾

Title: charger issue

Description: charger is not working properly

Status : **closed**

Customer: lavanya vs

Assigned Employee: nisarga goudar

Assigned On Date : 2024-06-10T11:20:10.369Z

Updated On Date : 2024-06-10T11:20:10.369Z

Resolved At: 2024-06-10T05:50:00.000Z

Update

Delete

CONCLUSION

Challenges Faced

- **State Management:** Implementing Redux for state management was challenging but ultimately provided a robust solution for managing application state.
- **Authentication:** Ensuring secure authentication and authorization required careful handling of JWTs and user roles.
- **API Integration:** Coordinating between the frontend and backend to handle API requests and responses effectively.

Skills Gained

- **Full-Stack Development:** Gained hands-on experience in developing a full-stack application using the MERN stack.
- **State Management:** Learned to manage complex application state using Redux.
- **API Development:** Improved skills in designing and implementing RESTful APIs.

Future Improvements

- **Enhanced Features:** Adding more features such as email notifications, advanced analytics, and integration with third-party services.
- **Performance Optimization:** Optimizing database queries and frontend performance for a smoother user experience.
- **Scalability:** Ensuring the application can handle increased load by implementing better database indexing and caching mechanisms.

BIBLIOGRAPHY

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Bangalore University

VI- Semester (NEP) BCA Internship Report on

“Customer Relationship Management”

Submitted by

HARSHITHA N

U03KU21S0042

Under the Guidance of

GURUPREETH

Department of Computer Applications - BCA



**SOUNDARYA INSTITUTE OF MANAGEMENT AND
SCIENCE**

Soundarya Nagar, Sidedahalli, Nagasandra post, Bengaluru-73

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Soundarya Nagar, Sidedahalli, Nagasandra post Bengaluru-73

Department of Computer Applications - BCA

Internship Day Book

Student Name and USN No: HARSHITHA .N & U03KU21S0042		
Company Name: ECODERS		
Address: Defence colony bagalakunte bangalore-73		
SI. No.	Date	Activities / Work Done
01	01-04-2024	Introduction to MERN Stack
02	02-04-2024	Defined project objectives and scope
03	03-04-2024	Drafted preliminary project plan
04	04-04-2024	Began drafted preliminary project plan
05	08-04-2024	Reviewed system architecture draft
06	12-04-2024	Project Review
07	15-04-2024	Designing of CMR database schema
08	16-04-2024	Development of UI mockups
09	18-04-2024	Fianalising database schema
10	19-04-2024	Project Review
11	22-04-2024	Environment development Setup
12	23-04-2024	Back-end intialization using Express and Mango DB
13	24-04-2024	Initial testing the system
14	25-04-2024	Create User model and routes
15	26-04-2024	Project Review
16	29-04-2024	Set Up React frontend
17	30-04-2024	Connect frontend and backend
18	01-05-2024	Style Authentication pages
19	02-05-2024	Create customer model and CRUD routes
20	03-05-2024	Project Review
21	06-05-2024	Develop customer Dashboard

22	07-05-2024	Monitored initial system performance
23	09-05-2024	Implement customer creation
24	10-05-2024	Project Review
25	13-05-2024	Implement customer update
26	14-05-2024	Implement customer deletion
27	15-05-2024	Implement search functionalities
28	16-05-2024	Implement user roles and permission
29	17-05-2024	Project Review
30	20-05-2024	Test backend functionalities
31	21-05-2024	Test frontend functionalities
32	22-05-2024	Handle errors and edge cases
33	24-05-2024	Project Review
34	27-05-2024	Optimize performance
35	28-05-2024	Prepare for Deployment
36	29-05-2024	Deploy backend cloud
37	30-05-2024	Integrate and test in production
38	31-05-2024	Project Review

Prof.Swami MR
Professor
Soundarya Institute Of
Management and Science

Prof.Vijay Kumar AS
HOD - BCA
Soundarya Institute Of
Management and Science

Dr.Vasu
Principal
Soundarya Institute Of
Management and Science

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

HARSHITHA N

UUCMS. No.: U03KU21S0042

Duration: 1st APRIL, 2024 to 1st JUNE, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **HARSHITHA N (UUCMS. No.: U03KU21S0042)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Department of BCA
Prof.Swamy MR

Head of the
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D]



ECODERS I.T & EDUCATION DEVELOPMENT (INDIA)
Ecoders, 3rd Floor, 3rd Cross, Defense Colony, Hesaraghatta road,
near Dominos Pizza, Bangalore 560073.

INTERNSHIP

THIS CERTIFICATE IS PRESENTED TO :

Harshitha N.

This is to certify by the training Department of Ecoders India Pvt limited that

Harshitha N

Has successfully completed

INTERNSHIP PROGRAM IN

SOFTWARE DEVELOPMENT IN MERN STACK

Under I.T Skill Advancement Training Programmer of ECODERS

Duration - 2 months Session - 1st April 2024 to 1st June 2024

Grade - A+

From Our Authorized Training Center

ECODERS PRIVATE INDIA LIMITED

At BANGALORE, HESARAGHATTA ROAD, KARNATAKA

Center Code - 3598

Date of Issue - 05-06-2024

For Ecor'

Gurupreeth Singh
Proprietor

GURUPREETH SINGH
(Director)



Manita Rai

MANITA RAI
(COUNCELLER)



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OBJECTIVES OF PROJECT

The CRM (Customer Relationship Management) project aims to develop an efficient and user-friendly system to help businesses manage customer interactions, streamline processes, and enhance customer satisfaction. Key objectives include:

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PROJECT SCOPE

The project scope included the following features:

- 1.User Management:** Registration, login, role-based access control.
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CRM PROJECT USING MERN STACK

- **Routing:** Defines how an application's endpoints (URIs) respond to client requests.
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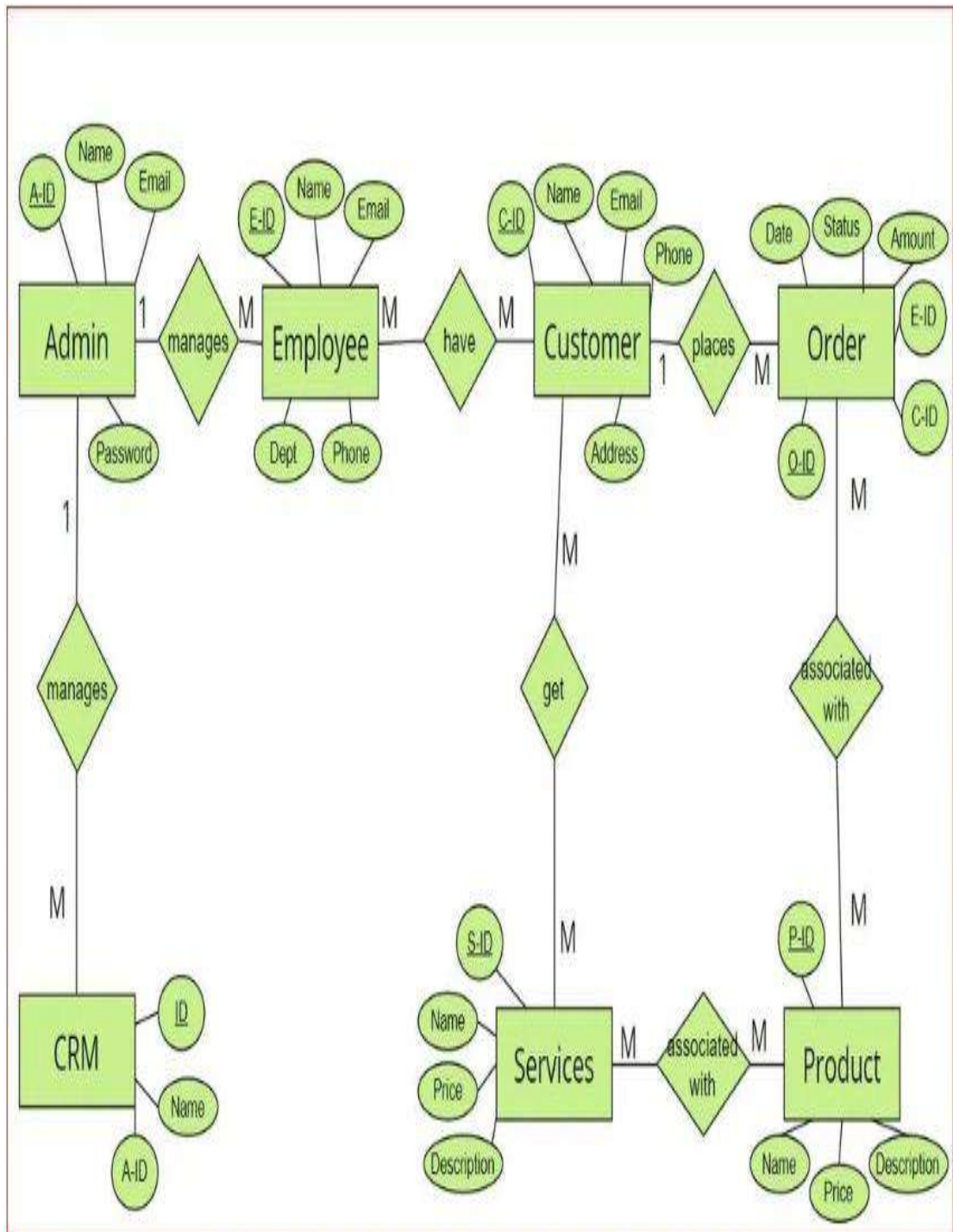
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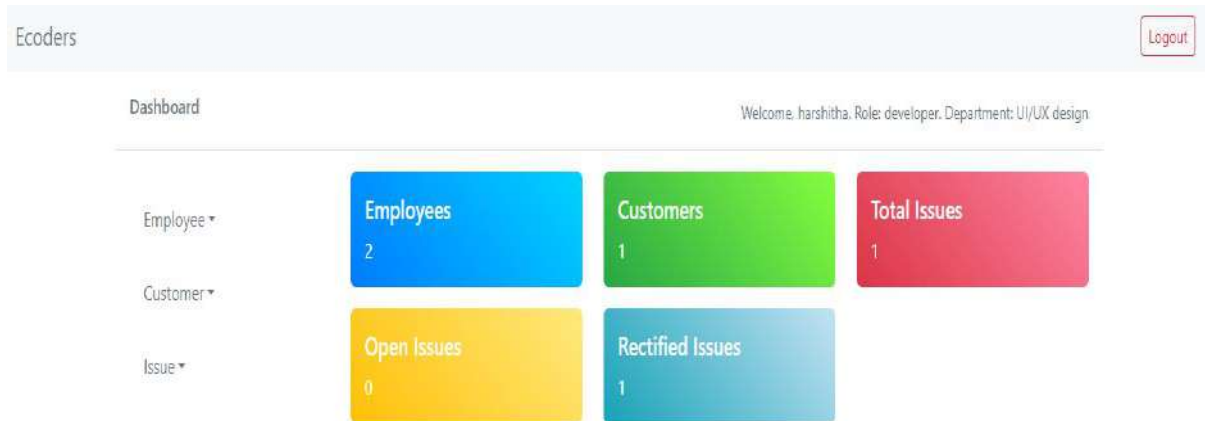
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- **Pure functions:** Reducers are pure functions that take the previous state and an action and return the next state.

ER DIAGRAM OF A PROJECT



SCREENSHOT

HOMEPAGE:



REGISTRATION PAGE:

First Name
Harshitha

Last Name
N

Email Address
harshitha7568@gmail.com

Password

Phone
9741412507

Department
UI/UX design

Position
Developer

Register

LOGIN PAGE:

Ecoders

Logout

Login Page.

Login

Email address

Password

Login

Single Issue Page

Welcome, harshitha. Role: developer. Department: UI/UX design

Employee ▾

Customer ▾

Issue ▾

Title: charger issue

Description: charger is not working properly

Status : **closed**

Customer: lavanya vs

Assigned Employee: nisarga goudar

Assigned On Date : 2024-06-10T11:20:10.369Z

Updated On Date : 2024-06-10T11:20:10.369Z

Resolved At: 2024-06-10T05:50:00.000Z

Update

Delete

CONCLUSION

Challenges Faced

- **State Management:** Implementing Redux for state management was challenging but ultimately provided a robust solution for managing application state.
- **Authentication:** Ensuring secure authentication and authorization required careful handling of JWTs and user roles.
- **API Integration:** Coordinating between the frontend and backend to handle API requests and responses effectively.

Skills Gained

- **Full-Stack Development:** Gained hands-on experience in developing a full-stack application using the MERN stack.
- **State Management:** Learned to manage complex application state using Redux.
- **API Development:** Improved skills in designing and implementing RESTful APIs.

Future Improvements

- **Enhanced Features:** Adding more features such as email notifications, advanced analytics, and integration with third-party services.
- **Performance Optimization:** Optimizing database queries and frontend performance for a smoother user experience.
- **Scalability:** Ensuring the application can handle increased load by implementing better database indexing and caching mechanisms.

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- <https://syndicode.com/blog/how-to-build-a-crm/>
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Internship Day Book

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Company Name: ECODERS		
Address: Defence colony bagalakunte bangalore-73		
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10	19-04-2024	Project Review
11	22-04-2024	Environment development Setup
12	23-04-2024	Back-end intialization using Express and Mango DB
13	24-04-2024	Initial testing the system
14	25-04-2024	Create User model and routes
15	26-04-2024	Project Review
16	29-04-2024	Set Up React frontend
17	30-04-2024	Connect frontend and backend
18	01-05-2024	Style Authentication pages
19	02-05-2024	Create customer model and CRUD routes
20	03-05-2024	Project Review
21	06-05-2024	Develop customer Dashboard

22	07-05-2024	Monitored initial system performance
23	09-05-2024	Implement customer creation
24	10-05-2024	Project Review
25	13-05-2024	Implement customer update
26	14-05-2024	Implement customer deletion
27	15-05-2024	Implement search functionalities
28	16-05-2024	Implement user roles and permission
29	17-05-2024	Project Review
30	20-05-2024	Test backend functionalities
31	21-05-2024	Test frontend functionalities
32	22-05-2024	Handle errors and edge cases
33	24-05-2024	Project Review
34	27-05-2024	Optimize performance
35	28-05-2024	Prepare for Deployment
36	29-05-2024	Deploy backend cloud
37	30-05-2024	Integrate and test in production
38	31-05-2024	Project Review

Prof.Swami MR
Professor
Soundarya Institute Of
Management and Science

Prof.Vijay Kumar AS
HOD - BCA
Soundarya Institute Of
Management and Science

Dr.Vasu
Principal
Soundarya Institute Of
Management and Science

BACHELOR OF COMPUTER APPLICATIONS
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE




CERTIFICATE

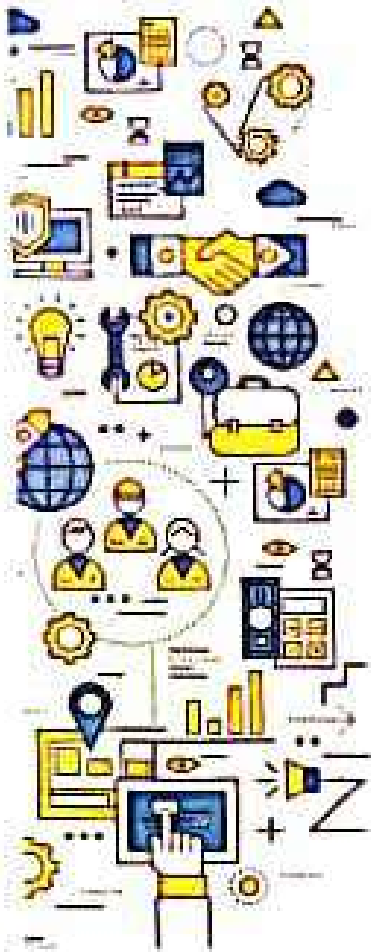
This is to certify that the "Internship report" submitted by **HARSHITHA S (UCMS, No: U03KU2150050)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfillment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**


Internship Coordinator
Department of BCA
Prof. Manoj Kumar S
MCA




Head of the Department
DEPT. OF COMPUTER SCIENCE
Soundarya Institute of Management and Science
Head of the Department
Department of BCA
Prof. Vijay Kumar A S.
M. Tech., (Ph.D)

Certificate Of Appreciation



CERTIFICATE OF APPRECIATION

INTERNSHIP_17065d2d9a46dfe91708317092

PROUDLY PRESENTED TO

HARSHITHA S

STU65d2d9a46dfe91708317092

for successfully completing the 6 weeks of the EY Global Delivery Services led Internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Advanced Data Analytics** under the **Next Gen Employability Program 2023-24**

Handwritten signature of Nagesh Singh.


Nagesh Singh
Executive Director
Edunet Foundation

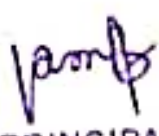
Handwritten signature of Dr. Ramesh Unnikrishnan.

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

42.	25-04-2024	Had a feedback session with my mentor and discussed future opportunities.
-----	------------	---


 25/6/24
 Prof. Manoj Kumar N
 Asst. Professor
 SIMS


 Head of the Department
 DEPT. OF COMPUTER SCIENCE
 Soundarya Institute of Management and Science
 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 560 073


 PRINCIPAL
 Soundarya Institute Of Management & Science
 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 560 073

Prof. Vijay Kumar AS
 HOD - BCA
 SIMS

Dr. Vasu BA
 Principal
 SIMS

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



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This is to certify that the "Internship report" submitted by **CHENNA KESHAVA CHOWDARY POKA**(UUCMS. No.: U03KU21S0027) is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

[Handwritten signature]
25/6/24
Internship Coordinator
Prof. Yatish SJ

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DEPT. OF COMPUTER SCIENCE
Soundarya Institute of Management and Science
Soundarya Nagar
Nagasandra - Bangalore - 560078
Head of the Department
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D]

EXAMINERS
1. *[Handwritten signature]*
2. *[Handwritten signature]*

24	08/05/2024	Error resolution for login and home page.
25	09/05/2024	Form creation for add_Polls.
26	10/05/2024	Form creation for UserForm.
27	11/05/2024	Saturday
28	12/05/2024	Sunday
29	13/05/2024	Error resolution for user login.
30	14/05/2024	Error resolution for forms.
31	15/05/2024	Creation of admin index page.
32	16/05/2024	Creation of admin navigation bar.
33	17/05/2024	Creation of addstudentForm.
34	18/05/2024	Saturday
35	19/05/2024	Sunday
36	20/05/2024	Creation of PartytForm.
37	21/05/2024	Creation of staff views.
38	22/05/2024	Creation of staff_add_User views.
39	23/05/2024	Creation of staff_add_User_save views.
40	24/05/2024	Creation of manage_staff.
41	25/05/2024	Saturday
42	26/05/2024	Sunday
43	27/05/2024	Creation of manage_course.
44	28/05/2024	Creation of edit_staff and edit_staff_save.
45	29/05/2024	edit_student views.
46	30/05/2024	edit_subject.
47	31/05/2024	staff_home and student_home

Noted
25/6/24
Prof. Yatish S
Professor
Soundarya Institute of
Management and Science

Vijay
Prof. Vijay Kumar As
Head of the Department
DEPT. OF COMPUTER SCIENCE
Soundarya Institute of
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Jama
PRINCIPAL
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Dr. Vasu BA
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Principal
Soundarya Institute of
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Soundarya Nagar, Sidedahalli.
Nagasandra Post, Bangalore - 560

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

Chenna Keshava Chowdary Poka

UUCMS. No.: U03KU21S0027

Duration: 8th Jan, 2024 to 7th May, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **CHENNA KESHAVA CHOWDARY POKA(UUCMS. No.: U03KU21S0027)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator

Prof. Yatish SJ

Head of the Department

Department of BCA

Prof. Vijay Kumar A S, M. Tech., [Ph.D]

Date: 5th March 2024

Dear Mr./Ms. CHENNA KESHAVA CHOWDARY POKA

AICTE Student ID: STU65d6ebc9a8f901708583881

AICTE Internship ID: INTERNSHIP_170003939765548ae545859

We extend our warmest congratulations on your selection for an **internship presented by the Edunet Foundation, in collaboration with EY GDS-AICTE**, focusing on Full Stack Web Development.

The EY GDS - AICTE Internship is structured to support individuals in developing essential foundational skills needed for productive careers in the IT sector. Participants have the opportunity to earn credentials and benefit from guidance provided by industry experts, all at no cost throughout the duration of the program.

EY GDS (Ernst & Young – Global Delivery Services), in partnership with AICTE, provides a unique learning experience through a 6-week Internship, commencing from **28th February 2024 to 16th April 2024**. Throughout this period, you will have the opportunity to work independently on a project, with guidance from a mentor who will assist you in identifying solutions and developing them into a tangible project.

Benefits:

- Personalized mentorship sessions and collaborative group learning.
- Opportunities to expedite learning through project-based internships.
- A holistic learning experience provided by industry experts through knowledge-sharing sessions.
- Showcase your skills by creating prototypes to solve real-world challenges.
- Earn certifications from EY, AICTE, and Edunet, boosting your confidence and value to potential future employers.
- Opportunity to present your project prototypes to a panel of industry experts at a regional showcase event.

Timeline and the Project:

Week	Agenda	Student Deliverables
Week 0	Orientation of Internship, Project allocation	<ul style="list-style-type: none"> • Selection of Projects through Google form • Commence Project Related Tasks
Week 1	Master session on Resume Building, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 2	Master session on Design Thinking in Real World Applications, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 3	Master session on Managing codebase with Git Hub, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning

Week 4	Master session on DevOps: Code to Production, Mentorship sessions, Ask Me Anything sessions, and Final Project Submission	<ul style="list-style-type: none"> • Complete Weekly Milestone • Self-Paced learning • Final project and PPT Submission
Week 5	Mock project presentations	<ul style="list-style-type: none"> • Presentation of Project in front of Subject Matter Experts • Incorporate changes in the project mentioned by Mentors
Week 6	Final Project Presentations (PPT)	<ul style="list-style-type: none"> • Final Presentation of Project before EY Industry Experts

Criteria for certification:

- Participation in master sessions with EY & EF experts is mandatory
- Participation in mentorship sessions with EF experts is mandatory
- Completion of tasks/milestones every week
- Submission of a project presentation required
- Commitment of 6-8hrs/week throughout internship

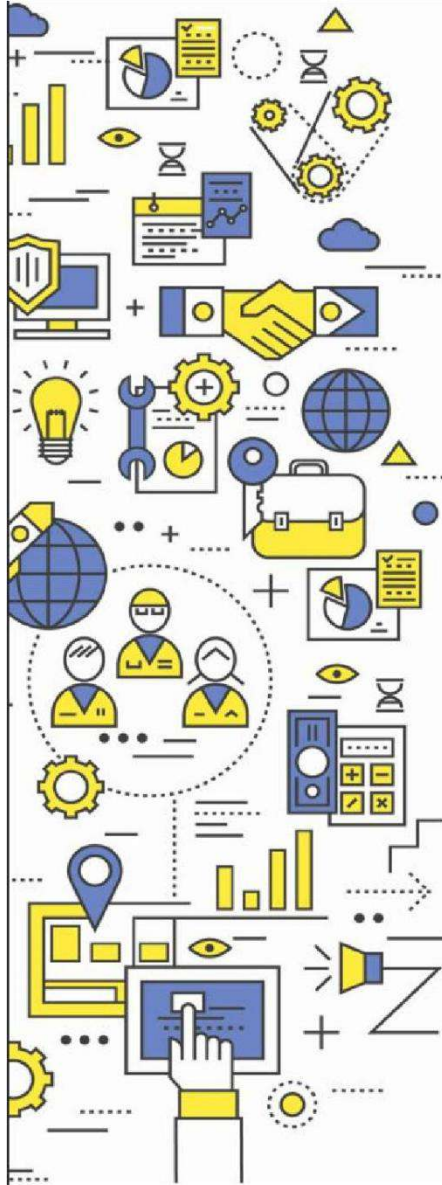
Stipend:

There will be NO stipend for this internship.

We wish you a great learning experience during the internship. Thank you!



Sincerely,
Nagesh Singh
Executive Director – Edunet Foundation



CERTIFICATE OF APPRECIATION

INTERNSHIP_170662655565b90dfb357f2

PROUDLY PRESENTED TO

CHENNA KESHA CHOWDARY POKA
STU65d6ebc9a8f901708583881

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Full Stack Web Development** under the **Next Gen Employability Program 2023-24.**

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

ACKNOWLEDGEMENT

I also would like all the people that worked along with me **Hari Krishna Sripathi, Bangalore** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

CHENNA KESHA VA CHOWDARY POKA(U03KU21S0027)

ABSTRACT

Web application development merges the reach of the internet with software functionality. This report covers the lifecycle of creating robust, user-friendly web applications, from design to maintenance, focusing on responsive design, security, and cross-platform compatibility. It also explores emerging technologies like Progressive Web Apps (PWAs) and Single-Page Applications (SPAs) that enhance user experience and performance.

Organization Information

Edunet Foundation aims to bridge India's skill gap by offering opportunities to all, regardless of socio-economic constraints. Collaborating with the All-India Council for Technical Education (AICTE), it runs programs like TechSaksham, which empowers young women in STEM, and provides virtual internships via the AICTE portal. The foundation also supports customized educational and vocational training initiatives to promote digital equity and future job readiness.

Programs and Benefits

Edunet Foundation offers customized health and education programs, high-quality blended learning for all socio-economic backgrounds, and vocational training in collaboration with industry leaders like Microsoft. Their structured methodology ensures timely and budgetfriendly project delivery, fostering strong client relationships and adding value to investments through targeted, industry-specific solutions.

Key Parts of the Report

Each division provides industry-specific solutions using cutting-edge technologies. We focus on building strong relationships with our clients by delivering projects on time and within budget, ensuring that our solutions add tangible value to their businesses.

Benefits to the Company/Institution through Our Report

The report offers specific industry solutions within each division, leveraging advanced technologies to meet the unique needs of our clients. By emphasizing timely project delivery and budget adherence, we aim to build lasting client relationships and deliver value-driven results

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S.NO	CONTENTS	PAGE NO
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INTERNSHIP OBJECTIVES

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

1.INTRODUCTION

A voting web application in Django typically involves creating models to represent the voting data, views to handle the business logic, and templates for the user interface. Here's a brief overview:

1. Models: Define a `Poll` model with fields for the question and a `Choice` model with fields for the choice text and vote tally.
2. URLs: Set up URL patterns to route requests to the appropriate views.
3. Views: Create views to display polls, handle voting, and show results.
4. Templates: Design HTML templates to present the polls and choices to users, and use Django's template tags to allow users to submit their votes.
5. Forms: Utilize Django's forms framework to handle vote submissions securely.

By following these steps, you can create a basic voting application that allows users to view different polls, make selections, and see the results of votes.

2.MODULES

In a Django voting application, several types of modules and components are typically used:

1. Models: To define the data structure, such as `Poll` and `Choice`.
2. Admin: To enable an interface for managing polls and choices within the Django admin panel.
3. Views: To handle requests and responses, including displaying polls, processing votes, and showing results.
4. URLs: To map URLs to specific views for navigation within the application.
5. Templates: For the HTML structure of pages that users interact with.
6. Forms: To create forms for user input, like submitting votes.
7. Static Files: For CSS and JavaScript files that add styling and interactivity.

These modules work together to create a complete voting system where users can interact with polls, submit votes, and view results.

3. TECHNOLOGY

3.1 HTML

HTML, or HyperText Markup Language, is the standard markup language used to create web pages. It structures web content with elements like headings, paragraphs, links, and images. In the Django framework, HTML is used to design templates that define the structure and layout of web pages. Django's template language allows you to embed dynamic data from the backend into these HTML files, creating interactive and data-driven web applications.

3.2 CSS

CSS, or Cascading Style Sheets, is a stylesheet language used to describe the presentation of a document written in HTML. It enables you to control the layout, colors, fonts, and overall visual appearance of web pages. In Django, CSS is used to style the HTML templates. You can link CSS files to your templates using Django's static files management system, which allows you to maintain a clean separation between the structure (HTML) and styling (CSS) of your web applications.

3.3 Java Script

JavaScript is a powerful programming language used to create dynamic and interactive web content. In a voting application, JavaScript can be useful in several ways:

1. **Validation:** Ensuring that votes are submitted correctly and preventing form submission errors.
2. **User Interface:** Enhancing the user experience with interactive elements like real-time poll updates or animations.
3. **Asynchronous Requests:** Using AJAX to submit votes without reloading the page, providing a smoother experience.
4. **Data Visualization:** Displaying voting results in charts or graphs that update in realtime.

Overall, JavaScript adds interactivity and improves the usability of a voting application.

3.4 Python

Python is a versatile programming language favored for its readability and efficiency. In the context of a voting application, especially one built with Django (a Python framework), Python is used for:

1. **Backend Logic:** Handling the server-side logic, including processing votes and managing user sessions.
2. **Database Interaction:** Communicating with the database to store and retrieve voting data.
3. **Data Analysis:** Performing calculations and statistical analysis on vote counts and results.
4. **Integration:** Connecting with other services or APIs for additional functionalities like authentication or notifications.

Python's simplicity and powerful libraries make it an excellent choice for building the backend of a voting application.

4.DATABASE

6.1 Django (Python Web Framework)

1.Role and Importance in the Project:

Django is a high-level Python web framework used for back-end development. It provides a robust and scalable framework for building secure web applications. In the Notes Sharing Web Application, Django handles the server-side logic, database interactions, and overall application management, ensuring that the application is reliable and efficient.

Key Features and Functions:

1. **MVC Architecture:** Django follows the Model-View-Controller (MVC) architectural pattern, which separates the application into three interconnected components: the model (data), the view (user interface), and the controller (logic). This separation of concerns simplifies development and maintenance.
2. **Object-Relational Mapping (ORM):** Django's ORM provides an abstraction layer that allows developers to interact with the database using Python code instead of SQL queries. This simplifies database operations and ensures consistency and security in data management.
3. **Built-in Admin Interface:** Django includes a powerful admin interface that allows for easy management of the application's data and content. This feature enables administrators to add, edit, and delete data without the need for custom interfaces, streamlining content management.
4. **Security Features:** Django comes with built-in security features to protect against common web vulnerabilities, including SQL injection, cross-site scripting (XSS), and cross-site request forgery (CSRF). These features ensure that the application is secure and can handle sensitive user data.
5. **Scalability and Performance:** Django is designed to handle high traffic and large amounts of data, making it suitable for scalable web applications. Its modular design and reusable components allow for efficient performance and easy extension of the application's functionality.

2.Relevance to the Project:

Django provides the backbone for the Notes Sharing Web Application, managing server-side operations, database interactions, and application security. Its robust framework ensures that the application is scalable, secure, and maintainable, which is crucial for a reliable and efficient web platform. Django's features enable rapid development and seamless integration of new functionalities, supporting the application's growth and adaptability.

3.Introduction

Django is a high-level, open-source web framework written in Python that facilitates rapid development and clean, pragmatic design. Designed to help developers take applications from concept to completion as swiftly as possible, Django prioritizes reusability, pluggability of components, rapid development, and the principle of "don't repeat yourself" (DRY). One of Django's standout features is its ability to seamlessly integrate with databases, making it a powerful tool for managing data in web applications. This integration is achieved through Django's built-in Object-Relational Mapping (ORM) system, which allows developers to interact with databases using Python code instead of complex SQL queries.

4.About Django Framework

Django is designed to handle both the back-end logic and database management for web applications. It provides a robust set of tools and features that simplify the process of building complex, data-driven websites. The framework's philosophy is to enable developers to focus on writing their applications without needing to reinvent the wheel by offering ready-to-use components for many common web development tasks.

5.Key Features of Django Framework:

1. **Rapid Development:** Django's extensive libraries and reusable components facilitate quick development of web applications, making it easier to implement complex features without building them from scratch.

2. **Security:** Django provides built-in protection against many common security threats, such as SQL injection, cross-site scripting (XSS), cross-site request forgery (CSRF), and clickjacking. This makes it a secure choice for developing web applications that handle sensitive data.
3. **Scalability:** Django is designed to handle high-traffic applications and can scale to support large databases and significant user bases. Its modular architecture allows developers to expand functionality as needed.
4. **Versatility:** Django is versatile enough to be used for a wide range of applications, from simple websites to complex web applications with sophisticated data requirements.
5. **Comprehensive Documentation:** Django comes with detailed documentation, which is invaluable for both beginners and experienced developers. This ensures that developers have access to the information they need to build and maintain their applications effectively.

6.2 Django's ORM (Object-Relational Mapping) System

Django's ORM system is one of its most powerful features. It allows developers to interact with the database using Python code, abstracting away the need for writing raw SQL queries. The ORM maps database tables to Python classes, and each row in the table is represented as an instance of the class. This approach makes database interactions intuitive and more manageable, especially for developers who are more familiar with Python than SQL.

1. Database Integration with Django

Django supports multiple databases, including PostgreSQL, MySQL, SQLite, and Oracle, among others. The framework allows for seamless integration with these databases through its ORM, making it easy to switch between different database backends without changing the codebase.

Database Backends:

1. **SQLite:** The default database that comes with Django. It's a lightweight, file-based database that's ideal for small projects and prototyping. It requires no additional setup and is useful for development and testing.

2. **PostgreSQL:** A powerful, open-source relational database system that supports advanced features like JSONB data type, full-text search, and custom data types. It's a preferred choice for production environments requiring robust performance and scalability.
3. **MySQL:** A popular open-source relational database known for its speed and reliability. It's widely used in web applications and supports complex queries and transactions.
4. **Oracle:** A commercial database system known for its high performance and scalability. It's used in enterprise environments where reliability and extensive feature sets are required.

6. SCREENSHOTS

r

Homepage :

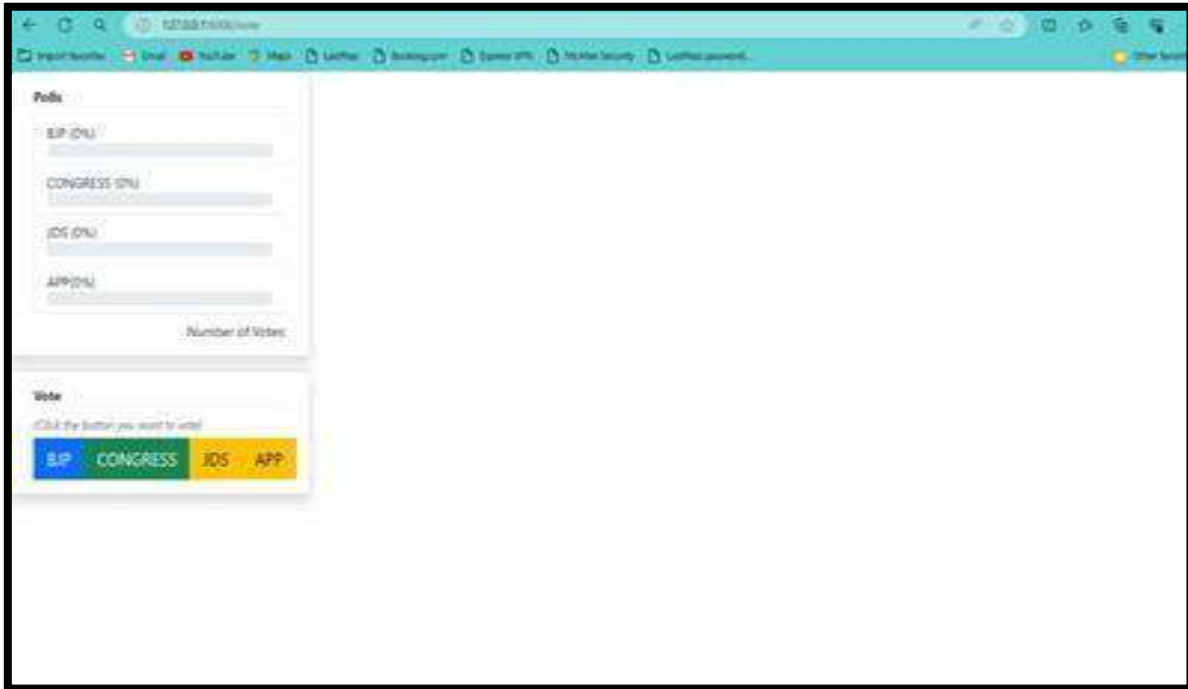


Figure 1

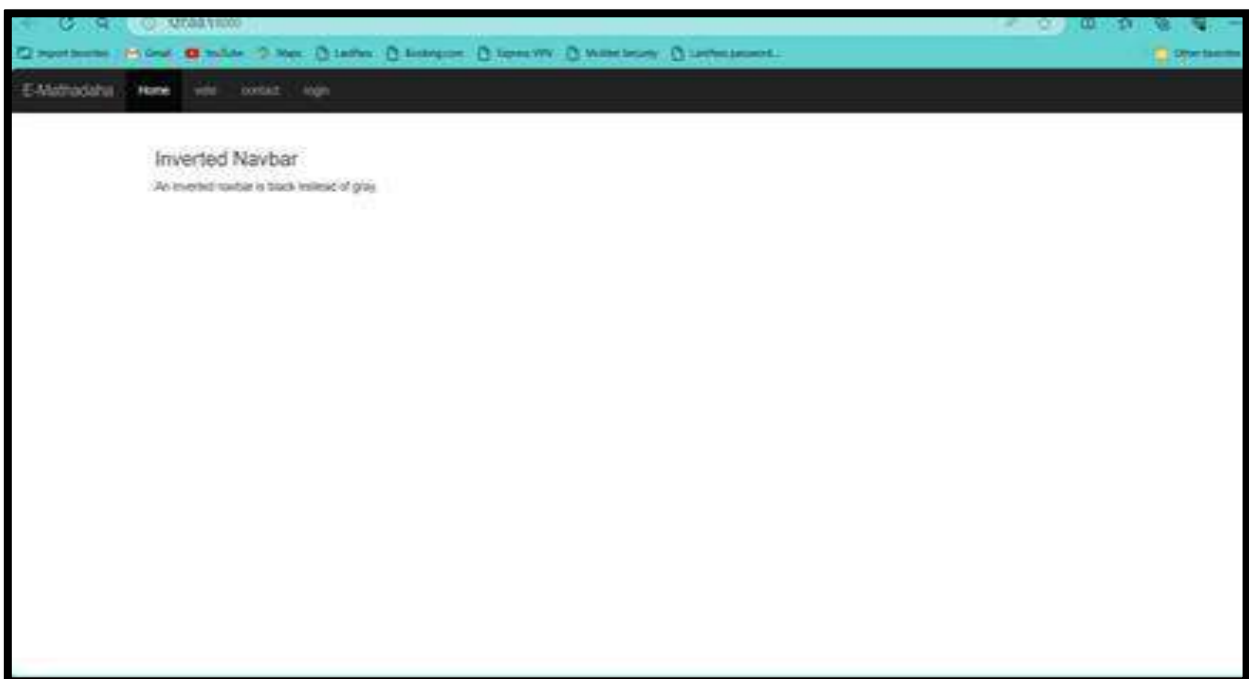


Figure 2

7.WEEKLY REPORT

Soundarya Institute of Management and Science
Department of Computer Applications - BCA

Internship Day Book

Student Name and UUCMS No : Chenna Keshava Chowdary Poka (U03KU21S0027)		
Company Name: Edunet Foundation		
Address: Virtual		
Sl. No.	Date	Activities / Work Done
1	15/04/2024	Creation of virtual environment for Django, installing Django, and setting up Django.
2	16/04/2024	Creation of project named VotingProject.
3	17/04/2024	Creation of app named account.
4	18/04/2024	Setup of templates and static files.
5	19/04/2024	Setup and configuration of templates and static folders.
6	20/04/2024	Saturday
7	21/04/2024	Sunday
8	22/04/2024	Creation of models: CustomUser AdminHod
9	23/04/2024	Creation of models: Voting Members
10	24/04/2024	Creation of models:Voting Places
11	25/04/2024	Creation of models: LeaveReportPeople FeedBack
12	26/04/2024	Creation of models: Notification of Result, Notification People
13	27/04/2024	Saturday
14	28/04/2024	Sunday
15	29/04/2024	Creation of forms and emailBackend file in Python.
16	30/04/2024	Setup and configuration of urls.py.
17	01/05/2024	Holiday
18	02/05/2024	Adding images, style, and script files in static.
19	03/05/2024	Creation of home page.
20	04/05/2024	Saturday

24	08/05/2024	Error resolution for login and home page.
25	09/05/2024	Form creation for add_Polls.
26	10/05/2024	Form creation for UserForm.
27	11/05/2024	Saturday
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42	26/05/2024	Sunday
43	27/05/2024	Creation of manage_course.
44	28/05/2024	Creation of edit_staff and edit_staff_save.
45	29/05/2024	edit_student views.
46	30/05/2024	edit_subject.
47	31/05/2024	staff_home and student_home

Prof. Yatish SJ
Professor
Soundarya Institute of
Management and Science

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HOD - BCA
Soundarya Institute of
Management and Science

Dr. Vasu BA
Principal
Soundarya Institute of
Management and Science

8. CONCLUSION

In conclusion, the voting application project built using the Django framework was a successful endeavor during the internship. The application effectively allowed users to participate in polls, submit votes, and view results. Key features included a user-friendly interface, secure vote submission, and real-time result updates. Completing this project provided valuable experience in full-stack web development, from database schema design to front-end development with HTML, CSS, and JavaScript. It showcased the power of Django's robust features and Python's versatility, resulting in a functional and interactive voting platform.

9. BIBLIOGRAPHY

For referencing a voting project with sources from YouTube and other social media, you would typically include the following information:

WEBLINKS:

1. www.youtube.com - covering all the most important concepts. This tutorial is primarily for new users.
2. www.Danjo.com - what is the Django all about? For sample projects.

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

By

TEJAS T.J

UUCMS. No : U03KU21S0091

(Duration: 22th April, 2024 to 22th May, 2024)



SOUNDARYA INSTITUTION OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **TEJAS T.J (UUCMS. No.: U03KU21S0091)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Department of BCA
Prof. Santhosh RS

Head of the Department
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D]

ACKNOWLEDGEMENT

First I would like to thank Mr.**PRAJWAL**, NETWORK ENGINEER, HR OF "**DMY INFOTECH**" for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me **NAVEEN N ,HARSHA** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

TEJAS T.J (U03KU21S0091)

ABSTRACT

As a trainee in the field of networking, the individual aims to acquire fundamental skills in designing, implementing, and maintaining computer networks. The training encompasses hands-on experience with network devices, protocols, and security measures. Key areas of focus include troubleshooting network issues, configuring routers and switches, and optimizing network performance. Through practical training and theoretical knowledge acquisition, the networking trainee engineer seeks to develop expertise in ensuring reliable and efficient communication across digital infrastructures. This abstract highlights the foundational journey of a networking trainee engineer towards becoming proficient in network administration and management.

ORGANISATION INFORMATION:

DMY INFOTECH has been a steadfast player in the networking industry, specializing in designing, implementing, and maintaining robust network solutions. With a strong commitment to innovation and customer satisfaction, DMY INFOTECH has built a reputation for excellence in providing tailored networking services to businesses of all sizes. Our experienced team of professionals ensures reliable connectivity, secure infrastructures, and optimized performance, making us a trusted partner for comprehensive networking solutions. Discover how DMY INFOTECH continues to drive connectivity forward, delivering excellence in networking for more than 10 years.

PROGRAMS AND OPPORTUNITIES:

At DMY INFOTECH, our Trainee Networking Engineer program is designed to equip you with essential skills and knowledge to excel in the field of network engineering. You will undergo a structured training curriculum under the mentorship of seasoned professionals, gaining practical insights into designing, implementing, and managing network solutions.

METHODOLOGIES:

1. Network Design Principles:

- Learn fundamental principles of network design, including hierarchical network design, subnetting, IP addressing, and VLAN segmentation. Understand scalability, redundancy, and resilience in network architecture to ensure robust and efficient network solutions.

2. Network Protocols and Standards:

- Gain proficiency in TCP/IP, UDP, DHCP, DNS, SNMP, and other essential protocols. Explore network standards such as IEEE 802.3 (Ethernet), 802.11 (Wi-Fi), and how they influence network design and implementation.

3. Network Security Practices:

- Study network security fundamentals, including firewalls, VPNs, encryption techniques, and intrusion detection/prevention systems. Implement security best practices to safeguard networks against cyber threats and vulnerabilities.

4. Configuration and Troubleshooting:

- Acquire hands-on experience in configuring routers, switches, firewalls, and other network devices using CLI (Command-Line Interface) and GUI (Graphical User Interface). Develop skills in diagnosing and resolving network issues through systematic troubleshooting methodologies.

Key parts of the report:

1. Introduction:

- Briefly introduce the organization where you interned, its industry, and the department or team you worked with. State the objectives of your internship and what you aimed to achieve during your time there.

2. Internship Objectives:

- Clearly outline the specific goals and objectives you set at the beginning of your internship. Describe how these objectives aligned with your academic or career aspirations.

3. Description of Activities:

- Detail the tasks, projects, and responsibilities you were assigned during your internship. Highlight any challenges you faced and how you approached and resolved them.

4. Skills and Knowledge Gained:

- Discuss the skills, knowledge, and competencies you acquired or improved upon during the internship. Provide examples of how you applied theoretical knowledge from your studies in a practical work environment.

5. Reflection and Learning Outcomes:

- Reflect on your overall internship experience. What did you learn about the industry, the organization, and yourself? Analyze how the internship contributed to your personal and professional development.

6. Achievements and Contributions:

- Summarize any significant achievements or contributions you made during your internship. Highlight specific projects, tasks completed, or initiatives you were involved in that had a positive impact.

7. Conclusion:

- Provide a concise summary of your internship experience, emphasizing key takeaways and lessons learned. Discuss any recommendations or suggestions for the organization based on your observations and experiences.

BENEFITS OF THE COMPANY/INSTITUTION THROUGH OUR REPORT:

1. Fresh Perspectives and Ideas:

· Describe how your unique perspective as an intern brought fresh ideas and innovative solutions to the company. Showcase any recommendations or suggestions you made that could improve processes or outcomes.

2. Increased Productivity and Efficiency:

· Highlight specific projects or tasks where your involvement led to increased productivity or efficiency. Quantify improvements if possible, such as reduced turnaround times or cost savings achieved.

3. Skill Enhancement and Knowledge Transfer:

· Discuss how your internship allowed you to acquire new skills or enhance existing ones that are valuable to the company. Explain any knowledge transfer activities you engaged in, such as training sessions or documentation you provided.

4. Quality of Work and Deliverables:

· Illustrate how your contributions contributed to the quality of work or deliverables produced by the company. Provide examples of projects or assignments where your efforts resulted in high-quality outcomes.

5. Team Collaboration and Engagement:

· Describe your role within the team and how you collaborated effectively with colleagues and supervisors. Highlight instances where your teamwork and communication skills positively impacted team dynamics.

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INTERNSHIP OBJECTIVES

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

1.INTRODUCTION :

Computer networking is the backbone of modern communication, enabling devices and systems to connect and exchange data seamlessly across the globe. At its core, computer networking involves the interconnection of various computing devices such as computers, servers, routers, and switches, using wired or wireless technologies. This interconnectedness facilitates communication through protocols and standards that define how data is transmitted and received. Networking enables individuals, organizations, and societies to share resources, collaborate efficiently, and access information instantaneously. It forms the foundation of the internet, intranets within organizations, and local area networks (LANs) that power everyday operations in businesses and homes alike. As technology continues to evolve, computer networking remains integral to facilitating the exchange of information and driving innovation in the digital age.

2 .TYPES AND LAYOUTS:

- **Network Architect:** Designs network infrastructure.
- **Network Administrator:** Manages daily network operations.
- **Network Security Engineer:** Focuses on network security.

- **Wireless Network Engineer:** Specializes in Wi-Fi and wireless networks.
- **Network Support Engineer:** Provides technical support.
- **Voice and Unified Communications Engineer:** Manages VoIP and unified communications.
- **Cloud Network Engineer:** Works with cloud-based networks.
- **Enterprise Network Engineer:** Manages large-scale network infrastructures. □ **Data Center Network Engineer:** Handles data center network infrastructure.
- **Network Consultant:** Provides advisory and implementation services.

3.PROTOCOLS AND COMMUNICATION:

Protocols and communication in networking are essential for enabling devices to exchange data effectively across computer networks. The TCP/IP protocol suite, comprising Transmission Control Protocol (TCP) and Internet Protocol (IP), forms the backbone of internet communication. TCP ensures reliable delivery of data by sequencing and acknowledging packets, while IP handles addressing and routing packets across networks based on destination IP addresses. UDP (User Datagram Protocol), in contrast, offers faster transmission but with less reliability, making it suitable for real-time applications like video streaming and online gaming.

HTTP (Hypertext Transfer Protocol) and its secure counterpart, HTTPS, facilitate the transfer of web pages and secure communications over the internet, respectively. FTP (File Transfer Protocol) is used for transferring files between computers, while SMTP (Simple Mail Transfer Protocol) manages the sending of email messages. DNS (Domain Name System) translates domain names into IP addresses, enabling users to access websites using human-readable names.

DHCP (Dynamic Host Configuration Protocol) automatically assigns IP addresses and network configurations to devices on a network, simplifying network administration. SNMP (Simple Network Management Protocol) allows monitoring and management of network devices, retrieving information and configuring settings remotely.

SSL/TLS (Secure Sockets Layer/Transport Layer Security) protocols encrypt data to ensure secure communication over networks, commonly used in HTTPS connections and VPNs (Virtual Private Networks). ICMP (Internet Control Message Protocol) provides diagnostic functions and error messaging within IP networks, aiding in network troubleshooting and management.

Overall, these protocols and communication standards enable seamless and secure data exchange, supporting a wide range of applications and services that rely on interconnected networks for global connectivity and collaboration.

4.ADDRESSING AND SUBNETTING :

Addressing and subnetting are fundamental aspects of networking that enable devices to communicate within a network environment. In networking, every device connected to a network requires a unique identifier known as an IP (Internet Protocol) address. IPv4 (Internet Protocol version 4) is the most widely used addressing scheme, consisting of 32-bit addresses typically represented in dotted-decimal format (e.g., 192.168.1.1). Each IP address is divided into two parts: the network portion and the host portion.

Subnetting involves dividing a larger network into smaller sub-networks or subnets. This process helps in optimizing network performance, managing network traffic, and improving security by logically grouping devices based on their functions or geographical locations. Subnet masks, represented in binary form (e.g., 255.255.255.0), determine the division between the network and host portions of an IP address. By applying subnet masks, administrators can define the range of IP addresses available within each subnet.

SECURITY :

Security in networking is paramount to safeguarding data, resources, and communications from unauthorized access, attacks, and disruptions. It encompasses a range of measures, protocols, and practices designed to protect networks and the information transmitted over them. One of the foundational aspects of network security is perimeter defense, which involves deploying firewalls and intrusion detection/prevention systems (IDS/IPS) to monitor and control incoming and outgoing traffic. Firewalls establish barriers between internal networks and the internet, enforcing access control policies and filtering malicious traffic. IDS/IPS systems detect and respond to suspicious activities or anomalies in network traffic, helping to mitigate potential threats before they cause harm. Encryption is another critical component of network security, particularly for securing data in transit. Protocols like SSL/TLS encrypt data exchanged between devices, ensuring confidentiality and integrity. Virtual Private Networks (VPNs) extend this protection by creating secure, encrypted tunnels over public networks, enabling remote users to access corporate networks securely. Access control mechanisms, such as authentication and authorization protocols, ensure that only authorized users and devices can access network resources. Strong authentication methods like multifactor authentication (MFA) and biometric authentication add layers of security by verifying users' identities before granting access.

6. WIRELESS NETWORK :

Wireless networking has revolutionized how devices connect and communicate, offering flexibility and mobility without the constraints of physical cables. At its core, wireless networks utilize radio waves to transmit data between devices, enabling seamless connectivity in various environments such as homes, offices, and public spaces. The foundation of wireless networking lies in standards like IEEE 802.11, which defines protocols for wireless communication. Wi-Fi, a common implementation of these standards, allows devices such as laptops, smartphones, and IoT (Internet of Things) devices to connect to the internet and communicate with each other wirelessly. Key components of wireless networks include access points (APs), which serve as hubs for connecting wireless devices to wired networks, and wireless routers, which combine AP functionality with routing capabilities to manage traffic between devices and the internet. Wireless networks operate on different frequency bands (e.g., 2.4 GHz and 5 GHz), offering varying speeds and coverage ranges to accommodate diverse needs. Security is a critical consideration in wireless networking. Techniques such as Wi-Fi Protected Access (WPA/WPA2) and the more secure WPA3 protocols encrypt data transmitted over wireless networks, protecting against unauthorized access and eavesdropping. Network administrators also employ strategies like disabling SSID broadcasting and implementing strong passwords to enhance security. The deployment of wireless networks continues to grow with advancements in technology, including the emergence of Wi-Fi 6 (802.11ax) and Wi-Fi 6E, offering faster speeds, increased capacity, and improved performance in congested environments. As wireless technology evolves, its integration with emerging trends like 5G networks and IoT promises to further expand connectivity possibilities, driving innovation and connectivity in the digital era.

7. CLOUD COMPUTING :

Cloud computing has transformed the way businesses and individuals access and utilize computing resources over the internet. At its core, cloud computing enables on-demand access to a shared pool of configurable computing resources, such as servers, storage, applications, and services, that can be rapidly provisioned and released with minimal management effort.

The key benefits of cloud computing include scalability, allowing organizations to easily scale resources up or down based on demand, thereby optimizing costs and improving efficiency. This flexibility is achieved through models such as Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS), which offer varying levels of control and management over the underlying infrastructure and applications. Security is a critical consideration in cloud computing, with providers implementing robust measures to protect data, networks, and applications. Encryption, access controls, and compliance certifications help ensure data privacy and regulatory compliance, addressing concerns about data breaches and unauthorized access. Cloud computing also promotes collaboration and remote work capabilities by enabling users to access applications and data from anywhere with an internet connection. This accessibility fosters productivity and agility, allowing businesses to innovate and respond to market changes more rapidly. Moreover, cloud computing reduces the need for upfront investments in hardware

and infrastructure, shifting to a pay-as-you-go model where users pay only for the resources they consume. This cost-effectiveness makes cloud computing accessible to businesses of all sizes, from startups to large enterprises, leveling the playing field and promoting innovation across industries. As cloud technology continues to evolve, advancements such as serverless computing and edge computing are pushing the boundaries of what's possible, offering new opportunities for efficiency, performance, and real-time data processing. Embracing cloud computing enables organizations to focus on their core competencies while leveraging the scalability, security, and innovation capabilities of cloud providers to drive growth and competitiveness in the digital economy.

8. EMERGING TECHNOLOGIES :

Emerging technologies are continuously shaping the landscape of networking, offering new capabilities and opportunities for innovation. One prominent trend is the integration of Software-Defined Networking (SDN), which centralizes network management and configuration through software controllers. SDN enhances flexibility and agility by decoupling the control plane from the data plane, allowing for dynamic and programmable network architectures that can adapt to changing traffic patterns and application requirements in real-time. Another significant development is the evolution of Network Function Virtualization (NFV), which virtualizes network services traditionally performed by dedicated hardware appliances. NFV enables the deployment and management of network functions as software-based instances, reducing hardware costs, simplifying maintenance, and accelerating service delivery. The rise of 5G networks represents a transformative leap in wireless communications, offering significantly higher data speeds, lower latency, and increased connectivity density compared to previous generations. 5G networks are poised to support emerging applications such as autonomous vehicles, smart cities, and augmented reality/virtual reality (AR/VR), ushering in a new era of interconnected devices and immersive experiences. Edge computing is another emerging trend that brings computational power and storage closer to the edge of the network, near the devices and sensors generating data. By processing and analyzing data locally, edge computing reduces latency, conserves bandwidth, and enhances real-time decisionmaking capabilities for time-sensitive applications like IoT, industrial automation, and smart grids. Blockchain technology is also making inroads into networking, offering decentralized and tamper-resistant mechanisms for securing transactions and data exchanges across distributed networks. In networking, blockchain can enhance trust, transparency, and accountability in areas such as identity management, supply chain logistics, and secure peer-to-peer communications.

9.APPLICATION :

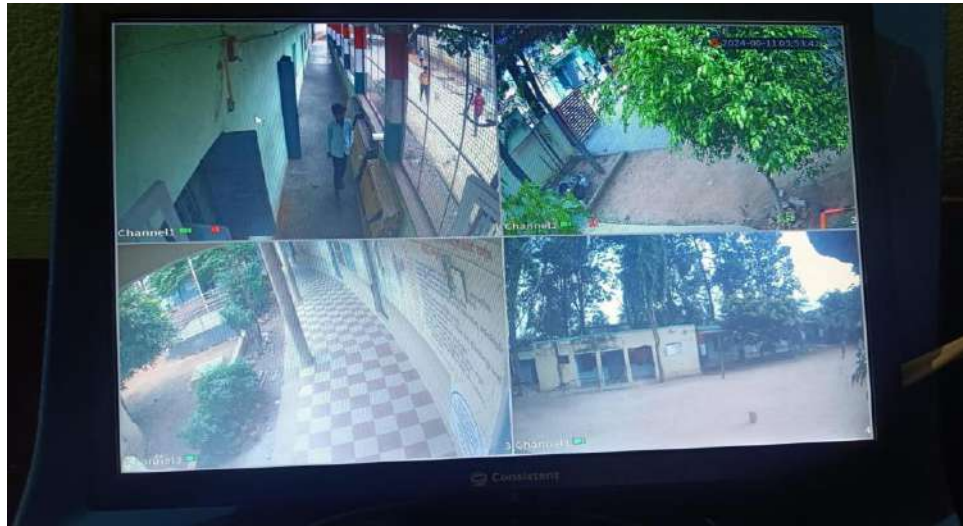
Networking is integral to modern society, facilitating seamless communication, data sharing, and resource access across various applications and industries. Businesses rely on networking to connect their offices, branches, and employees, enabling efficient collaboration through email, file sharing, and centralized databases. The internet, a global network of interconnected networks, supports a vast array of services such as websites, email, social media platforms, and cloud-based applications, all dependent on robust networking infrastructure for reliable delivery and interaction. Telecommunications leverage networking principles to enable mobile networks, facilitating voice calls, data transmission, and multimedia messaging through technologies like 4G/5G. Cloud computing further extends networking capabilities by providing on-demand access to computing resources over the internet, supporting scalable and cost-effective solutions for storage, computing power, and software services. The Internet of Things (IoT) expands networking into everyday objects and environments, enabling devices to collect and exchange data autonomously. IoT applications span industries including smart homes, healthcare, agriculture, and manufacturing, where networking enables automation, monitoring, and optimization of processes and services. In education and research, networking connects institutions worldwide, supporting online learning platforms, collaborative research initiatives, and access to vast digital repositories. Similarly, in healthcare, networking facilitates secure sharing of patient data, medical images, and telemedicine services, enhancing healthcare delivery and accessibility. Networking also underpins the infrastructure of smart cities, optimizing transportation systems, energy grids, public safety, and environmental monitoring through interconnected networks. In entertainment and media, networking supports streaming services, online gaming, and social media interactions, connecting global audiences and enabling real-time communication and entertainment experiences. Overall, networking plays a foundational role in enabling connectivity, innovation, and efficiency across diverse sectors. Its continued evolution drives digital transformation, enabling organizations and individuals to leverage technology for enhanced communication, collaboration, and service delivery in an increasingly interconnected world.



Figure 1



Figure 2



IP CAMERAS LIVE BY USING CLOUD ROUTER ZTE (Figure 3)

10.CONCLUSION :

The evolution of networking has brought forth significant advancements, from the foundational TCP/IP protocol suite to the emergence of cloud computing, IoT, and 5G technologies. These innovations have not only enhanced the speed and efficiency of data transmission but also broadened the scope of what is possible in fields such as healthcare, education, entertainment, and beyond. Security remains a paramount concern in networking, driving the development of sophisticated encryption methods, firewalls, and intrusion detection systems to protect against cyber threats. As technologies continue to advance, so too does the need for robust security measures to safeguard sensitive data and ensure the integrity of network operations. I have gained proficiency in configuring network devices, troubleshooting complex issues, and collaborating effectively within teams. Overcoming challenges such as optimizing network performance and implementing robust security measures has reinforced my technical skills and problem-solving abilities. I am excited about the future of networking technology and eager to contribute to its advancement. My goal is to continue expanding my knowledge, pursue certifications like CCNA, and specialize in network security. I am grateful for the opportunities and mentorship provided during my training, and I look forward to applying my skills to drive innovation and reliability in network infrastructures."

This conclusion encapsulates the key points of your training experience, skills acquired, and future aspirations succinctly. Adjust it as needed to reflect your personal journey and achievements.

11.BIBLOGRAPHY :

<https://www.youtube.com/@LearnCodingOfficial>

[Computer Hope's Free Computer Help](#)

INTERNSHIP REPORT

*A report submitted in partial fulfillment of the requirements for the Award of
Degree of*

BACHELOR OF COMPUTER APPLICATIONS

by

JAYANTH L

UUCMS. No.: U03KU21S0031

Duration: 19th May, 2024 to 18th June, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



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Nagasandra Post, Bangalore - 560 073.

EXAMINERS
1.
2.

CERTIFICATE



Corporate Identification Number
U80903DL2020NPL371984

14364000021191174



Ybi Foundation

This is to Certify that

Jayanth L

has successfully completed

Data Science and Machine Learning Internship

Duration : 1 Month completed on Tuesday, June 18 2024

demonstrated exceptional dedication with strong willingness to learn and actively engaged in various projects, tasks exhibiting remarkable skills with high level of professionalism.

Credential ID:
JA9GMHE1W2MAZ



Verify Certificate Here

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support@ybifoundation.org

ACKNOWLEDGEMENT

ABSTRACT

First I would like to thank Mr.Alok Yadav, HR, Head of **Ybi foundation, New Delhi** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me in **Ybi foundation, New Delhi** with their patience and openness they created an enjoyable working environment.

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JAYANTH L (U03KU21S0031)

ABSTRACT

Machine learning is a topic of artificial intelligence (AI) where it is possible to elaborate algorithms to teach a particular machine to perform a task. It is necessary to have a dataset, and from that data, explore the correlation between them, discovering patterns and applying algorithms, which makes it possible to take a sum of input data and based on certain patterns to produce the outputs. Each entry in this dataset has its own features, and generates models that can be generalized for a specific task. The idea of machines learning on their own from a vast volume of data may be the simplified definition of machine learning. In general, machine learning is a field of artificial intelligence that is intended to explore constructs of algorithms that make it possible to understand autonomously, where it creates the possibility to recognize and extract patterns from a large volume of data, thus building a model of learning

Organisation Information:

"YBI Foundation: IMPART LEARNING TO EMPOWER & TRANSFORM YBIF Offers Job Guarantee Program, Free Internship, Micro Credential and Full Stack Programs YBIF Learning Portal(www.ybifoundation.org). DATA SCIENCE || MACHINE LEARNING || ARTIFICIAL INTELLIGENCE || BUSINESS ANALYTICS || DATA VISUALIZATION || BIG DATA || PROGRAMMING || MATH & STATISTICS || CLOUD COMPUTING"

Programs and opportunities:

Artificial Intelligence Machine Learning | Data Science Marketing Analytics Social Network Analytics Business And Data Analytics | And provides career programs and learning upskills based on upskilling platform and provides the opportunities of both technical and non-technical fields.

Methodologies:

We follow a structured methodology for our projects which starts from designing the solution to the implementation phase. Well planned Project reduces the time to deliver the project and any additional ad-hoc costs to our clients, hence we dedicate majority of our time understanding our clients business and gather requirements. This ground up approach helps us deliver not only the solution to our clients but also add value to your investment.

Key parts of the report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies.

Benefits of the company/institution through report:

Beginner friendly and Live online class opportunities you can ask doubts in live online classes and you can clear your doubts. You can record the classes and Hands-on real-world projects and fundamental practice of the projects. And you can get a digitally verified certificates.

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INTRODUCTION

Data Science: It is an interdisciplinary field that focuses on extracting knowledge and insights from structured and unstructured data. It encompasses various techniques from statistics, computer science, and domain-specific knowledge to analyze and interpret complex data. The goal of data science is to use this data to inform decision-making, optimize processes, and uncover patterns that can lead to actionable insights.

Machine Learning (ML): It is a subset of artificial intelligence (AI) that involves the development of algorithms that enable computers to learn from and make predictions or decisions based on data. ML algorithms build models based on sample data, known as training data, to make predictions or decisions without being explicitly programmed to perform the task. This process of "learning" allows systems to improve their performance on tasks over time with more data and experience.

Together, data science and machine learning drive many of the technological advancements we see today, from personalized recommendations on streaming services to predictive maintenance in industrial settings. They are integral to various industries, including finance, healthcare, marketing, and technology, and continue to transform how businesses operate and compete in the market.

INTERNSHIP OBJECTIVES

- ▶ Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- ▶ An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- ▶ Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- ▶ Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- ▶ Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

OBJECTIVES OF PROJECT

The primary objective of the Fish Weight Prediction project is to develop a machine learning model that can accurately predict the weight of a fish based on various physical attributes. This project aims to leverage data science techniques to analyze and model the relationship between a fish's characteristics and its weight.

- 1. Quality Control:** Detect anomalies in manufacturing or production processes to maintain quality standards.
- 2. Anomaly Detection:** Identify unusual patterns that may indicate fraudulent activity.
- 3. Descriptive Analytics:** Summarize historical data to understand what has happened.
- 4. Exploratory Data Analysis:** Identify patterns, trends, and relationships within data.
- 5. Predictive Analytics:** Use statistical models and machine learning algorithms to forecast future events based on historical data.
- 6. Time Series Analysis:** Predict future values based on previously observed values.

PROJECT SCOPE

The project scope included the following steps:

- 1. Data Collection:** You would need to gather a significant amount of data related to various fish species, their characteristics (like length, width, etc.), and their corresponding weights. This data is crucial for training the prediction model.
- 2. Data Pre-processing:** This involves cleaning the data, handling missing values, and possibly scaling or normalizing the features to ensure the model performs well.
- 3. Feature Selection:** Identifying the most relevant features that have the most impact on predicting fish weight. This step helps in improving the efficiency of the model.
- 4. Model Selection:** Choosing the appropriate machine learning algorithm for the

can be in the form of large arrays and multi-dimensional matrices. These multidimensional matrices are the main objects in NumPy where their dimensions are called axes and the number of axes is called a rank. NumPy also provides various tools to work with these arrays and high-level mathematical functions to manipulate this data with linear algebra, Fourier transforms, random number crunchings, etc. Some of the basic array operations that can be performed using NumPy include adding, slicing, multiplying, flattening, reshaping, and indexing the arrays. Other advanced functions include stacking the arrays, splitting them into sections, broadcasting arrays, etc. model of interaction to the web applications.

5.Seaborn: Seaborn is among the best data visualization library for Python that is based on Matplotlib and closely integrated with the NumPy and Pandas data structures. Seaborn has various dataset-oriented plotting functions that operate on data frames and arrays that have whole datasets within them. Then it internally performs the necessary statistical aggregation and mapping functions to create informative plots that the user desires. It is a high-level interface for creating beautiful and informative statistical graphics that are integral to exploring and understanding data. The Seaborn data graphics can include bar charts, pie charts, histograms, scatterplots, error charts, etc. Seaborn also has various tools for choosing colour palettes that can reveal patterns in the data.

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- <https://www.kaggle.com>
- <https://colab.research.google.com>

Prepared by

JAYANTH L

U03KU21S0031

Department of Computer Applications



SCREENSHOTS

```
In [ ]:  
# Step 1 : import library  
import pandas as pd
```

```
In [ ]:  
# Step 2 : import data  
fish = pd.read_csv('https://github.com/ybifoundation/Dataset/raw/main/Fish.csv')
```

```
In [ ]:  
fish.head()
```

```
Out [ ]:
```

	Category	Species	Weight	Height	Width	Length1	Length2	Length3
0	1	Bream	242.0	11.5200	4.0200	23.2	25.4	30.0
1	1	Bream	290.0	12.4800	4.3056	24.0	28.3	31.2
2	1	Bream	340.0	12.3778	4.6961	23.9	28.5	31.1
3	1	Bream	383.0	12.7300	4.4555	26.3	29.0	33.5
4	1	Bream	430.0	12.4440	5.1340	26.5	29.0	34.0

```
In [ ]:  
fish.info()
```

```
<class 'pandas.core.frame.DataFrame'>
```

```
RangeIndex: 159 entries, 0 to 158
```

```
Data columns (total 8 columns):
```

```
# Column Non-Null Count Dtype
```

View Notebook

```
In [ ]: # Step 5 : select model
from sklearn.linear_model import LinearRegression
model = LinearRegression()
```

```
In [ ]: # Step 6 : train or fit model
model.fit(X_train,y_train)
```

```
Out [ ]: LinearRegression
```

```
In [ ]: model.intercept_
```

```
Out [ ]: -684.4235918478537
```

```
In [ ]: model.coef_
```

```
Out [ ]: array([[ 35.19634977,  52.19372157, -37.13869125,  11.2218449 ,
          78.11233082, -59.11783139])
```

```
In [ ]: # Step 7 : predict model
y_pred = model.predict(X_test)
```

```
In [ ]: y_pred
```

View Note

```
In [ ]:  
# Step 3 : define target (y) and features (X)
```

```
In [ ]:  
fish.columns
```

```
Out [ ]:  
Index(['Category', 'Species', 'Weight', 'Height', 'Width', 'Length1',  
       'Length2', 'Length3'],  
      dtype='object')
```

```
In [ ]:  
y = fish['Weight']
```

```
In [ ]:  
X = fish[['Category', 'Height', 'Width', 'Length1',  
         'Length2', 'Length3']]
```

```
In [ ]:  
# Step 4 : train test split  
from sklearn.model_selection import train_test_split  
X_train, X_test, y_train, y_test = train_test_split(X, y, train_size=0.7, random_state=2529)
```

```
In [ ]:  
# check shape of train and test sample  
X_train.shape, X_test.shape, y_train.shape, y_test.shape
```

```
Out [ ]:  
(111, 6), (48, 6), (111,), (48,)
```

```

0 Category 159 non-null int64
1 Species 159 non-null object
2 Weight 159 non-null float64
3 Height 159 non-null float64
4 Width 159 non-null float64
5 Length1 159 non-null float64
6 Length2 159 non-null float64
7 Length3 159 non-null float64

dtypes: float64(6), int64(1), object(1)

```

memory usage: 10.1+ KB

```
In [ ]: fish.describe()
```

Out []:

	Category	Weight	Height	Width	Length1	Length2	Length3
count	159.000000	159.000000	159.000000	159.000000	159.000000	159.000000	159.000000
mean	3.264151	398.326415	8.970994	4.417486	26.247170	28.415723	31.227044
std	1.704349	357.978317	4.298208	1.885304	9.995441	10.716328	11.810246
min	1.000000	0.000000	1.728400	1.047900	7.500000	8.400000	8.800000
25%	2.000000	120.000000	5.944800	3.385850	18.050000	21.000000	23.150000
50%	3.000000	273.000000	7.786000	4.248500	25.200000	27.300000	29.400000
75%	4.500000	650.000000	12.365900	5.584500	32.700000	35.500000	39.850000
max	7.000000	1650.000000	18.957000	8.142000	59.000000	63.400000	68.000000

[View Notebook](#)

In []:

y_pred

Out []:

```
array([ 475.93351387,  525.81910195,  77.63275849,  881.18235121,
        160.9685664 ,  255.94371856,  361.87829932,  358.87068894,
        499.83411868, -158.87834151, -115.91818869,  428.65478115,
        114.67533484,  812.51385122,  586.5871178 ,  273.38518858,
        579.63980729,  225.18126845,  639.26868837,  85.88828599,
        136.92159841, -87.7778887 ,  629.97231846,  732.63897812,
        859.8728695 , -166.76928687,  342.84289934,  722.92198147,
        321.44827179,  787.98248357,  486.93194673,  541.89982795,
        376.74813845,  624.81211282, -178.11945833,  917.76513881,
        792.26439518, -21.15655885,  388.24921659,  914.87325473,
        621.85636286,  934.17373986,  676.85479574,  653.92384483,
        615.51226767,  336.61898622,  585.75519147, -33.53283763])
```

In []:

```
# Step 8 : model accuracy
from sklearn.metrics import mean_absolute_error, r2_score
```

In []:

```
mean_absolute_error(y_test, y_pred)
```

Out []:

```
99.58918366731813
```

In []:

```
r2_score(y_test, y_pred)
```

Out []:

```
0.83982461599445
```

[View Notebook](#)



Bangalore University
VI- Semester (NEP) BCA Internship Report on
“Data Science and Machine Learning”

Submitted by

JAYANTH L

U03KU21S0031

Department of Computer Applications - BCA



Soundarya Institute of Management and Science

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Soundarya Institute of Management and Science

Department of Computer Applications - BCA

Internship Day Book

Internship Day Book

Student Name and USN No: Jayanth L(U03KU21S0031)

Company Name: Ybi Foundation

Address: Virtual Internship

Sl. No.	Date	Activities / Work Done
1	19-05-2024	Introduction to online Classes.
2	20-05-2024	Instructions to Complete online internship.
3	21-05-2024	Scope of Data Skills and AI.
4	22-05-2024	Data Collection and Cleaning.
5	23-05-2024	Assignment-1.
6	24-05-2024	Introduction to python and google colab.
7	25-05-2024	Introduction to Machine learning
8	26-05-2024	Overview of Machine learning Types-Supervised and Unsupervised learning.
9	27-05-2024	Overview of Machine learning Types-reinforcement and semi supervised learning.
10	28-05-2024	Overview of Machine learning libraries (Pandas and Matplotlib).
11	29-05-2024	Overview of Machine learning libraries (Sci-kit learn and Seaborn).
12	30-05-2024	Assignment-2
13	31-05-2024	Overview of Machine learning libraries (Numpy and Scipy).
14	01-06-2024	Read Data as dataframe and exploring the datasets.
15	02-06-2024	Kaggle and feedback assignment.
16	03-06-2024	Data integration and schema alignment using pandas.
17	04-06-2024	Initial data cleaning using pandas and Numpy.
18	05-06-2024	Outlier detection and data handling.
19	06-06-2024	Assignment-3.
20	07-06-2024	Train test and split.
21	08-06-2024	Linear regression Models.
22	09-06-2024	Logistics regression Models.
23	10-06-2024	Exploratory Data Analysis (EDA.).
24	11-06-2024	Feature analysis and selection using pandas and sci-kit learn.

25	12-06-2024	Model selection and Training.
26	13-06-2024	Assignment-4
27	14-06-2024	Project selection.
28	15-06-2024	Handling missing elements in duplicate data.
29	16-06-2024	Advanced visualization using Seaborn.
30	17-06-2024	Project submission.
31	18-06-2024	Proof of completion(Certificate).

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INTERNSHIP REPORT

*A report submitted in partial fulfillment of the requirements for the Award of Degree
of*

BACHELOR OF COMPUTER APPLICATION

by

JAYANTH SD

UUCMS. No.: U03KU21S0047

(Duration: 28th Feb, 2024 to 25th April, 2024)



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATIONS
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **JAYANTH SD** (UUCMS. No.: **U03KU21S0047**) is work done by him/her and submitted during 2023-2024 academic year in partial fulfillment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Department of BCA
Prof. Manoj Kumar N
MCA

Head of the Department
Department of BCA
Prof. Vijay Kumar A S,
M. Tech., [Ph.D]



Date: 5th March 2024

Dear Mr./Ms. JAYANTH SD

AICTE Student ID: STU65d62c917fdf11708534929

AICTE Internship ID: INTERNSHIP_170003939765548ae545859

We extend our warmest congratulations on your selection for an **internship presented by the Edunet Foundation, in collaboration with EY GDS-AICTE**, focusing on Advanced Data Analytics.

The EY GDS - AICTE Internship is structured to support individuals in developing essential foundational skills needed for productive careers in the IT sector. Participants have the opportunity to earn credentials and benefit from guidance provided by industry experts, all at no cost throughout the duration of the program.

EY GDS (Ernst & Young – Global Delivery Services), in partnership with AICTE, provides a unique learning experience through a 6-week Internship, commencing from **28th February 2024 to 25th April 2024**. Throughout this period, you will have the opportunity to work independently on a project, with guidance from a mentor who will assist you in identifying solutions and developing them into a tangible project.

Benefits:

- Personalized mentorship sessions and collaborative group learning.
- Opportunities to expedite learning through project-based internships.
- A holistic learning experience provided by industry experts through knowledge-sharing sessions.
- Showcase your skills by creating prototypes to solve real-world challenges.
- Earn certifications from EY, AICTE, and Edunet, boosting your confidence and value to potential future employers.
- Opportunity to present your project prototypes to a panel of industry experts at a regional showcase event.

Timeline and the Project:

Week	Agenda	Student Deliverables
Week 0	Orientation of Internship, Project allocation	<ul style="list-style-type: none"> • Selection of Projects through Google form • Commence Project Related Tasks
Week 1	Master session on Resume Building, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 2	Master session on Design Thinking in Real World Applications, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 3	Master session on Managing codebase with Git Hub, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning

Week 4	Master session on DevOps: Code to Production, Mentorship sessions, Ask Me Anything sessions, and Final Project Submission	<ul style="list-style-type: none"> • Complete Weekly Milestone • Self-Paced learning • Final project and PPT Submission
Week 5	Mock project presentations	<ul style="list-style-type: none"> • Presentation of Project in front of Subject Matter Experts • Incorporate changes in the project mentioned by Mentors
Week 6	Final Project Presentations (PPT)	<ul style="list-style-type: none"> • Final Presentation of Project before EY Industry Experts

Criteria for certification:

- Participation in master sessions with EY & EF experts is mandatory
- Participation in mentorship sessions with EF experts is mandatory
- Completion of tasks/milestones every week
- Submission of a project presentation required
- Commitment of 6-8hrs/week throughout internship

Stipend:

There will be NO stipend for this internship.

We wish you a great learning experience during the internship. Thank you!



Sincerely,
Nagesh Singh
Executive Director – Edunet Foundation



CERTIFICATE OF APPRECIATION

INTERNSHIP_170003939765548ae545859

PROUDLY PRESENTED TO

JAYANTH S.D

STU65d62c917fdf11708534929

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Advanced Data Analytics** under the **Next Gen Employability Program 2023-24**.

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

ACKNOWLEDGEMENT

First I would like to thank Mr.Vivek Srinivasan, HR Head, of **Edunet foundation – EY GDS, Bangalore** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me **Edunet foundation – EY GDS, Bangalore** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

JAYANTH SD (U03KU21S0047)

ABSTRACT

This report utilizes advanced data analytics for customer segmentation to optimize targeted marketing and engagement. Employing K-means clustering and RFM analysis on demographics and purchase history revealed three distinct customer segments. Recommendations include loyalty programs for high-value customers and discounts for price-sensitive ones, highlighting data-driven segmentation's impact on enhancing marketing effectiveness and customer satisfaction.

Organization Information:

EduNet Foundation bridges the digital divide through technology and innovative teaching, providing resources and training to students and educators in underserved communities. Partnering with schools and governments, EduNet fosters inclusive learning environments with digital literacy programs and teacher training. Ernst & Young (EY) is a global leader in professional services with 700+ offices worldwide, offering assurance, consulting, tax, and transaction advisory solutions. EY supports businesses in navigating challenges, promoting sustainable growth, innovation, and maintaining integrity as a trusted advisor in capital markets.

Programs and opportunities:

The EduNet Foundation enhances education with digital literacy programs, workshops, and interactive content, partnering with schools to implement tech-driven solutions and provide scholarships. Their outreach advocates for equitable access to quality education, empowering individuals with essential modern skills.

Methodologies:

Customer segmentation categorizes customers for tailored marketing using demographic, geographic, psychographic, and behavioral factors, alongside RFM analysis. Techniques such as K-means clustering optimize marketing by targeting specific groups, enhancing satisfaction and efficiency.

Key parts of the report:

Each division provides industry-specific solutions using cutting-edge technologies.

Benefits of the Institution through our report:

We offer industry-specific solutions with cutting-edge technologies, emphasizing timely, budget-conscious project delivery and client relationship building.

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Internship Objectives

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

INTRODUCTION

Python is a highly versatile and readable programming language known for its simplicity and extensive capabilities. It features an interpreted and dynamic nature, making it suitable for rapid development and easy debugging. Python's strength lies in its vast standard library and rich ecosystem of third-party packages, supporting tasks from web development with frameworks like Django and Flask, to data analysis using libraries such as NumPy and Pandas, and machine learning with TensorFlow and PyTorch. Its cross-platform compatibility ensures seamless deployment across different operating systems. Python is widely adopted in scientific computing, scripting, automation, and more, making it a preferred choice for both beginners and seasoned developers seeking efficient solutions to diverse programming challenges.

Data analytics is the process of examining raw data to uncover patterns, draw conclusions, and support decision-making. By utilizing statistical techniques, machine learning algorithms, and data visualization tools, data analytics transforms large and complex datasets into actionable insights. This discipline helps businesses and organizations understand trends, predict future outcomes, and make informed decisions. Applications of data analytics span various fields, including marketing, finance, healthcare, and more, enabling improved efficiency, innovation, and competitive advantage.

Advanced Data Analytics involves the application of sophisticated techniques such as predictive modeling, machine learning, and artificial intelligence to delve deeper into data. It goes beyond basic analysis to uncover intricate patterns, correlations, and insights that drive strategic decisions and innovation across industries.

Customer segmentation is the process of dividing a company's customer base into distinct groups based on shared characteristics. These characteristics can include demographics (age, gender, income), geography (location), psychographics (lifestyle, values), and behaviors (purchase history, brand loyalty). By identifying and understanding these segments, businesses can tailor their marketing strategies, product offerings, and customer service to meet the specific needs and preferences of each group. This targeted approach enhances customer satisfaction, increases engagement, and drives business growth by ensuring that the right message reaches the right audience.

BUILDING CUSTOMER SEGMENTATION USING PYTHON

Implementation of data analytics for customer segmentation using Python involves several key steps and libraries. Here's a structured approach:

1. Data Preparation

- **Data Collection:** Gather relevant customer data from various sources (e.g., CRM systems, databases).
- **Data Cleaning:** Preprocess the data to handle missing values, outliers, and ensure consistency.

2. Exploratory Data Analysis (EDA)

- **Statistical Analysis:** Use libraries like `pandas` and `numpy` to explore data distributions, correlations, and summary statistics.
- **Visualization:** Employ `matplotlib` and `seaborn` to create charts (histograms, scatter plots) for insights into customer behavior.

3. Customer Segmentation Techniques

- **RFM Analysis:** Calculate Recency, Frequency, and Monetary values for each customer.
- **K-means Clustering:** Group customers based on RFM values using `scikit-learn`.

4. Evaluation and Interpretation

- **Cluster Analysis:** Analyze and interpret the clusters to understand customer segments' characteristics and behaviors.
- **Visualization:** Use visualizations to present the clusters and their distinguishing features.

5. Implementation Example

Here's a simplified example integrating these steps:

---python---

```
import pandas as pd

from sklearn.cluster import KMeans

from sklearn.preprocessing import StandardScaler

import matplotlib.pyplot as plt

import seaborn as sns

# Assuming 'data' is your customer dataset with 'Recency', 'Frequency',
# 'Monetary' columns

# Replace 'data' with your actual DataFrame containing customer data

# Step 1: Data preparation (assuming 'data' is already loaded or
imported)

# Example: Loading data from a CSV file

data = pd.read_csv('customer_data.csv')

# Step 2: RFM analysis

rfm_table = data.groupby('CustomerID').agg({

    'InvoiceDate': lambda x: (pd.Timestamp('now') -
pd.to_datetime(x.max())).days,

    'InvoiceNo': 'count',

    'TotalAmount': 'sum'

}).reset_index()

rfm_table.columns = ['CustomerID', 'Recency', 'Frequency', 'Monetary']

# Step 3: Standardize RFM values

scaler = StandardScaler()

rfm_table_scaled = scaler.fit_transform(rfm_table[['Recency',
'Frequency', 'Monetary']])

# Step 4: Apply K-means clustering

kmeans = KMeans(n_clusters=3, random_state=42)

rfm_table['Cluster'] = kmeans.fit_predict(rfm_table_scaled)
```

```
# Step 5: Visualize clusters

sns.scatterplot(x='Recency', y='Frequency', hue='Cluster',
data=rfm_table, palette='viridis')

plt.title('Customer Segmentation by RFM Analysis')

plt.xlabel('Recency')

plt.ylabel('Frequency')

plt.show()
```

Modeling Customer Segmentation.

Customer segmentation involves categorizing a customer base into groups that share similar characteristics or behaviors. The underlying idea is to divide customers into meaningful segments to better understand their needs, preferences, and behaviors. This segmentation allows businesses to tailor their marketing strategies, product offerings, and customer service to each segment's specific requirements, thereby enhancing customer satisfaction and optimizing resources.

The modeling behind customer segmentation typically involves:

1. **Identifying Relevant Variables:** Determining which customer attributes or behaviors (such as demographics, geographic location, purchasing history, or interaction patterns) are most relevant for segmentation.
2. **Data Collection and Preparation:** Gathering and cleaning data from various sources to ensure accuracy and completeness. This often involves preprocessing steps like handling missing values, scaling numerical data, and encoding categorical variables.
3. **Segmentation Techniques:** Applying statistical or machine learning algorithms to group customers based on identified variables. Common techniques include:
 - **RFM Analysis:** Using Recency, Frequency, and Monetary value to segment customers based on their purchasing behavior.
 - **Clustering Algorithms (e.g., K-means):** Grouping customers into clusters based on similarity in attributes or behaviors.
 - **Decision Trees or Rule-Based Segmentation:** Creating segments based on predefined rules or decision criteria.
4. **Validation and Interpretation:** Assessing the effectiveness of the segmentation model by evaluating the distinctiveness, stability, and actionable insights of the identified segments. Visualizations and statistical tests may be used to interpret segment characteristics and validate their relevance.
5. **Implementation and Actionable Insights:** Utilizing the segmented customer groups to tailor marketing campaigns, product recommendations, pricing strategies, and customer service approaches. Monitoring and adjusting these strategies based on ongoing analysis ensures continuous improvement and relevance to customer segments.

Ultimately, the goal of customer segmentation modeling is to enhance customer understanding and engagement, driving business growth and profitability through targeted and personalized interactions with different customer segments.

Requirements (hardware and software) specifications.

For a project involving customer segmentation using Python and related libraries, here are the general hardware and software requirements:

Hardware Requirements:

1. Computer or Server:

- Minimum: A modern laptop or desktop with at least 8 GB of RAM and a multi-core processor (e.g., Intel Core i5 or AMD Ryzen 5).
- Recommended: Higher RAM (16 GB or more) and a faster processor (e.g., Intel Core i7 or AMD Ryzen 7) for faster data processing, especially with larger datasets.

2. Storage:

- Adequate storage space for storing datasets and Python scripts. SSD (Solid State Drive) is recommended for faster read/write speeds, which can be beneficial for handling large datasets.

3. Internet Connection:

- A stable internet connection is essential for downloading libraries, updates, and accessing online resources (such as documentation and tutorials).

Software Requirements:

1. Python:

- Python is the primary programming language for this project. Ensure Python is installed on your system.
- Recommended: Use the latest stable version of Python (e.g., Python 3.8 or higher) to leverage new features and improvements.

2. Integrated Development Environment (IDE):

- Choose an IDE or text editor suitable for Python development. Popular choices include:
 - **PyCharm:** A full-featured IDE with extensive support for Python.
 - **Jupyter Notebook / JupyterLab:** Interactive notebooks for data analysis and visualization.
 - **VS Code (Visual Studio Code):** Lightweight, versatile, and customizable with Python extensions.

3. Python Libraries:

- Install necessary libraries such as `pandas`, `scikit-learn`, `matplotlib`, `seaborn`, and `numpy` using Python's package manager `pip`.

- `—bash—`
`pip install pandas scikit-learn matplotlib seaborn numpy`

Additional libraries may be required depending on specific project needs (e.g., for data preprocessing, statistical analysis, or machine learning algorithms).

4. Database Management System (Optional):

- If your project involves working with large datasets stored in databases, consider using a DBMS like MySQL, PostgreSQL, or MongoDB. Ensure it is installed and configured properly.

Data Requirements:

- **Customer Data:** Ensure you have access to the relevant customer dataset containing attributes like CustomerID, InvoiceDate, InvoiceNo, and TotalAmount. This data may come from CRM systems, transactional databases, or external sources.

Security and Backup:

- **Data Security:** Implement measures to ensure data security and privacy, especially if working with sensitive customer information.
- **Backup:** Regularly back up your project files and datasets to prevent data loss.

By meeting these hardware and software requirements, you'll have a solid foundation for developing and running your customer segmentation project efficiently. Adjust specifications based on project complexity, dataset size, and specific business needs to optimize performance and productivity.

Tools & Technologies Used.

In a customer segmentation project using Python, several tools and technologies are typically used to facilitate data analysis, clustering, visualization, and deployment. Here's an overview of the main tools and technologies involved:

1. Programming Language and Libraries:

- **Python:** The core programming language for data manipulation, analysis, and machine learning tasks.
- **Libraries:** Essential libraries include:
 - `pandas`: For data manipulation and analysis.
 - `scikit-learn`: For machine learning algorithms including clustering (e.g., K-means).
 - `matplotlib` and `seaborn`: For data visualization.
 - `numpy`: For numerical operations and array manipulation.

2. Integrated Development Environment (IDE) or Editors:

- **PyCharm:** A robust IDE with advanced features for Python development and debugging.
- **Jupyter Notebook / JupyterLab:** Interactive environments ideal for data exploration, visualization, and sharing insights.
- **Visual Studio Code (VS Code):** Lightweight and versatile with extensive Python support and customizable through extensions.

3. Database and Data Handling:

- **SQL Databases:** Such as MySQL, PostgreSQL, SQLite, or NoSQL databases like MongoDB for storing and retrieving customer data.
- **Data Extraction and Transformation:** Tools like `pandas` and SQL queries to extract and preprocess data from databases or flat files.

4. Machine Learning and Clustering:

- **Scikit-learn:** Offers a variety of machine learning algorithms including K-means clustering for customer segmentation.
- **TensorFlow / PyTorch:** For advanced machine learning models if needed, though typically not essential for basic customer segmentation.

5. Data Visualization:

- **Matplotlib:** A versatile plotting library for creating static, animated, and interactive visualizations.
- **Seaborn:** Built on top of Matplotlib, Seaborn provides a high-level interface for drawing attractive statistical graphics.

6. Deployment and Collaboration:

- **Git:** Version control system for tracking changes in source code during development and collaboration.
- **GitHub / GitLab / Bitbucket:** Platforms for hosting Git repositories, facilitating collaboration and project management.
- **Docker:** Containerization tool for packaging software into standardized units, ensuring consistency across different environments.

7. Additional Tools (Optional):

- **Tableau / Power BI:** For interactive and dynamic data visualization and dashboard creation.
- **AWS / Google Cloud Platform / Microsoft Azure:** Cloud services for scalable data storage, computing power, and deployment of machine learning models.

Workflow:

Typically, the workflow involves:

- Data collection and preprocessing using Python and SQL.
- Exploratory data analysis (EDA) and visualization to understand data patterns.
- Applying clustering algorithms (e.g., K-means) using scikit-learn for customer segmentation.
- Visualizing and interpreting segmentation results to derive actionable insights.
- Optionally, deploying models into production using Docker or cloud services for real-time segmentation.

These tools and technologies collectively enable efficient development, analysis, and deployment of customer segmentation strategies, empowering businesses to tailor their marketing efforts and improve customer engagement effectively. Adjust the toolset based on project requirements, team expertise, and scalability needs.

About the Dataset 'customer_data_internship.csv'.

If you have a customer_data_internship.csv file, here's how I can help describe it based on typical contents and assumptions:

Sample Description of customer_data_internship.csv:

Dataset Overview:

- **File Name:** customer_data_internship.csv
- **Format:** Comma-separated values (CSV)

Dataset Structure:

- **Columns/Variables:**
 - **CustomerID:** Unique identifier for each customer.
 - **InvoiceDate:** Date of the transaction or interaction with the customer.
 - **InvoiceNo:** Invoice number or transaction identifier.
 - **TotalAmount:** Total amount spent or purchased by the customer in the transaction.
 - *(Additional columns may include customer demographics, product categories, etc.)*
- **Data Types:**
 - **CustomerID:** Typically numeric or alphanumeric (string).
 - **InvoiceDate:** Date format (e.g., YYYY-MM-DD).
 - **InvoiceNo:** Numeric or alphanumeric identifier.
 - **TotalAmount:** Numeric (float or integer).

Purpose and Content:

- **Purpose:** The dataset captures transactional data or interactions with customers, suitable for customer segmentation, RFM analysis, and targeted marketing strategies.
- **Content:** Contains historical records of customer transactions or interactions, enabling analysis of customer behavior, purchasing patterns, and engagement metrics.

Example Sample Data (First few rows):

```
CustomerID, InvoiceDate, InvoiceNo, TotalAmount
1, 2023-05-10, INV-001, 150.50
2, 2023-05-12, INV-002, 75.20
3, 2023-05-15, INV-003, 210.00
```

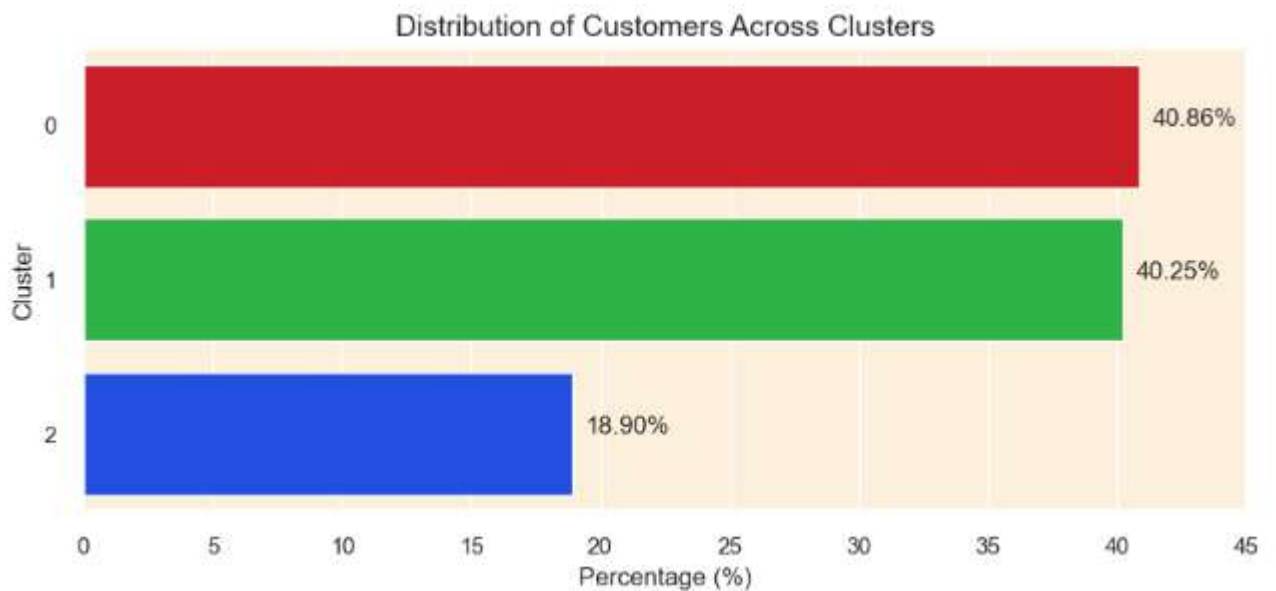
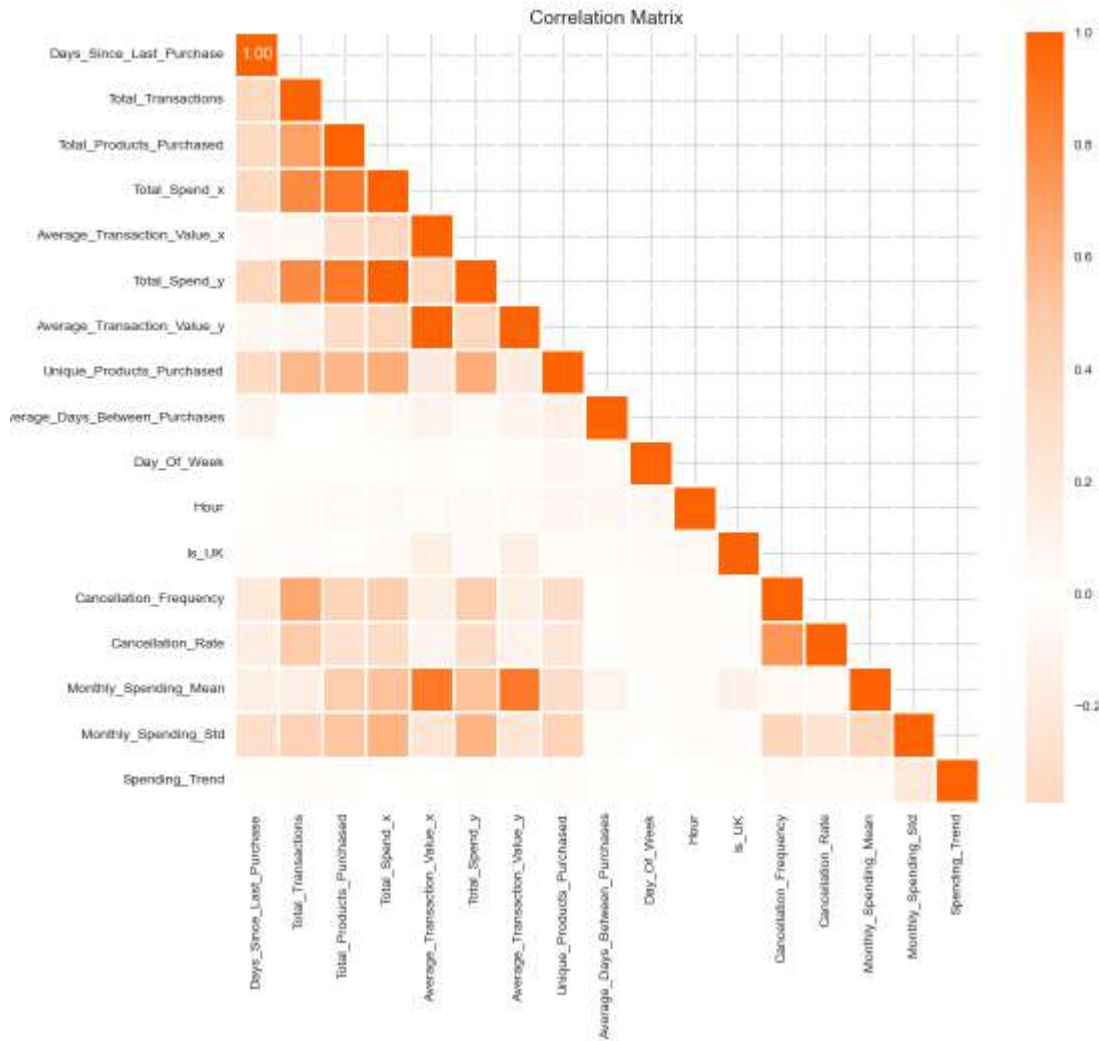
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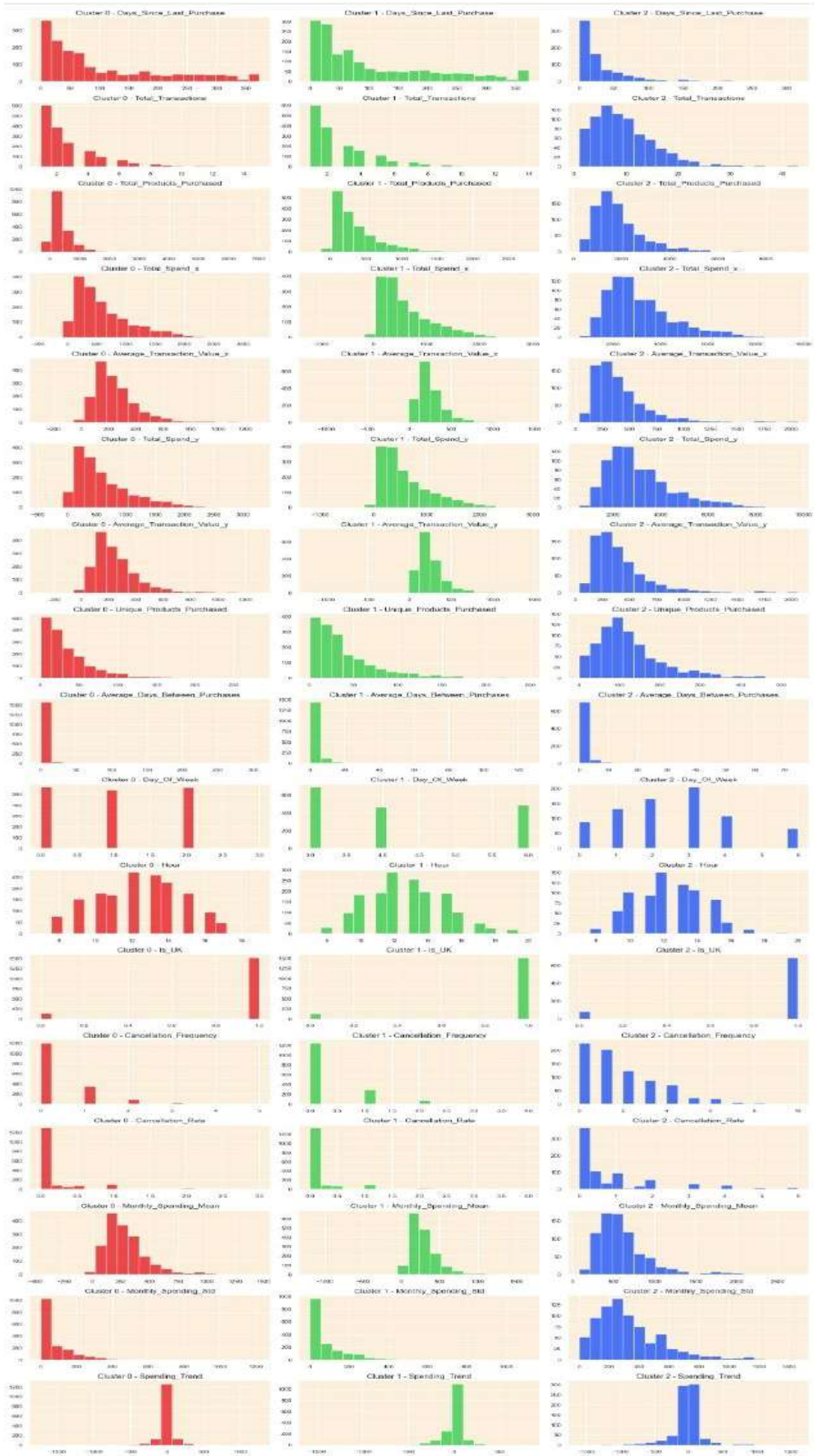
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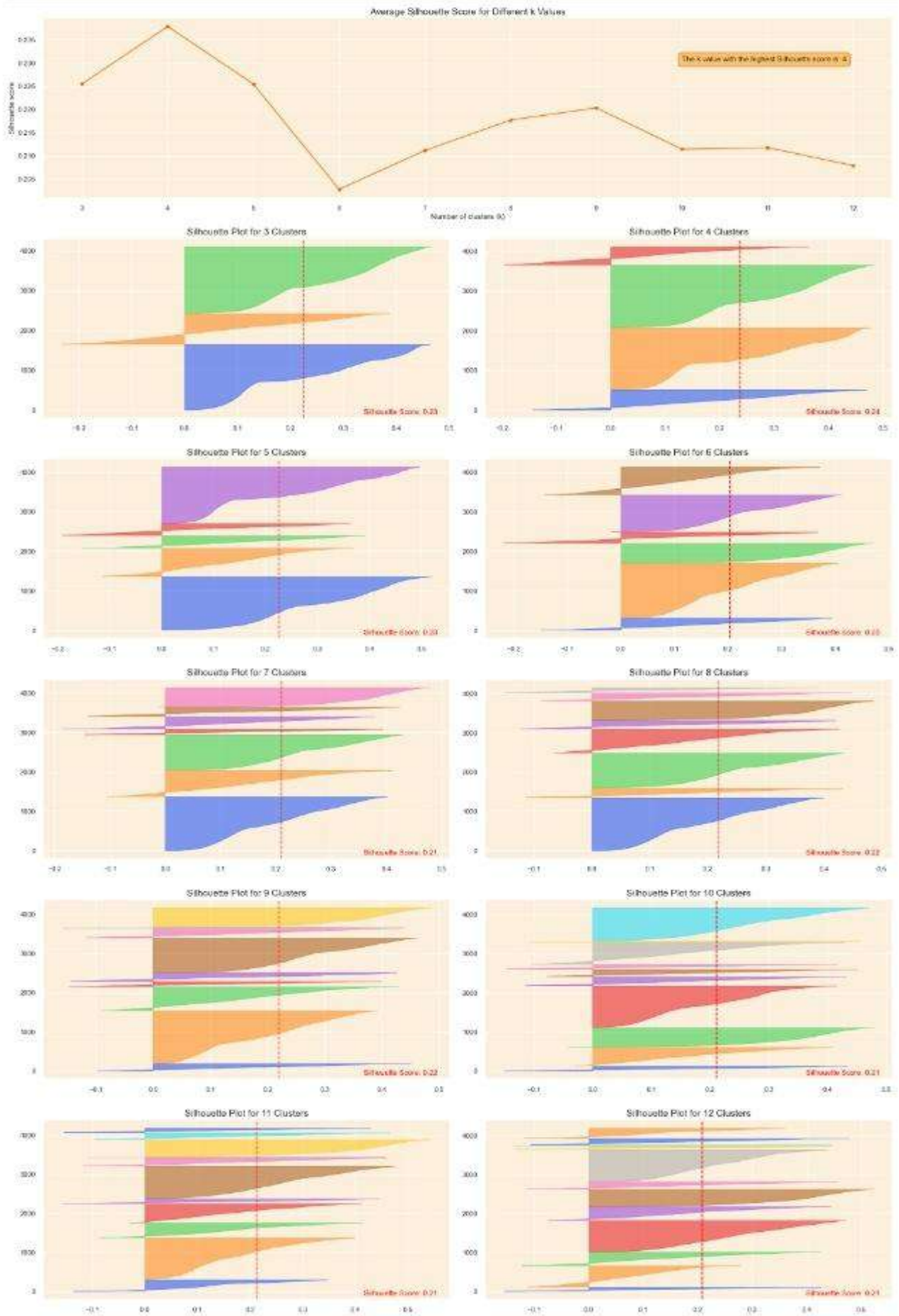
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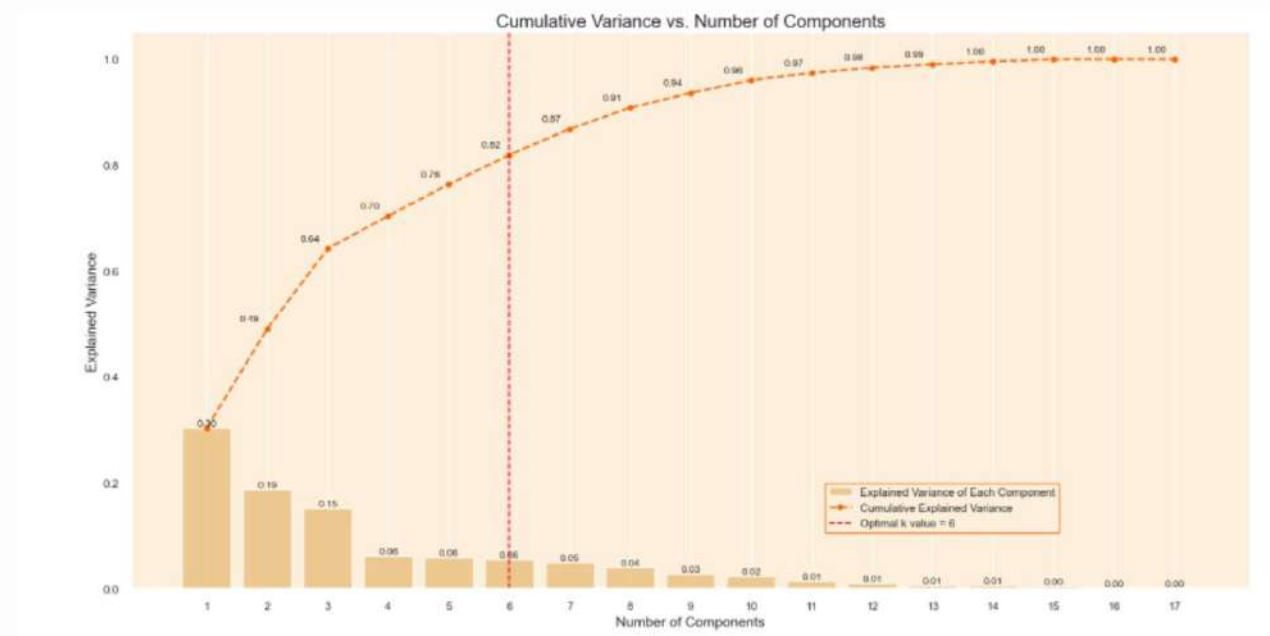
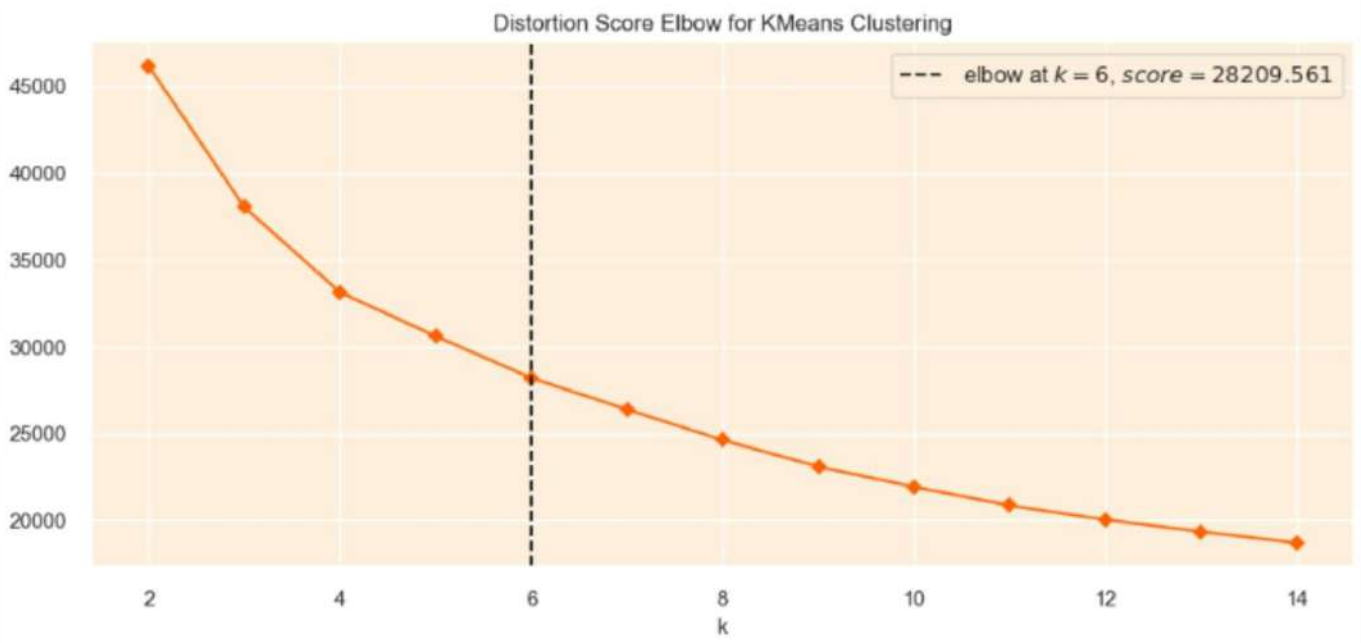
- **Customer Segmentation:** Use `customer_data_internship.csv` to segment customers based on their purchasing behavior (RFM analysis) using Python and tools like scikit-learn.
- **Visualization:** Utilize matplotlib and seaborn to create visualizations that reveal patterns and trends in customer data.
- **Predictive Modeling:** Build predictive models to forecast customer behavior or lifetime value based on historical data.

Screenshots of Outcomes / Results / Reports.

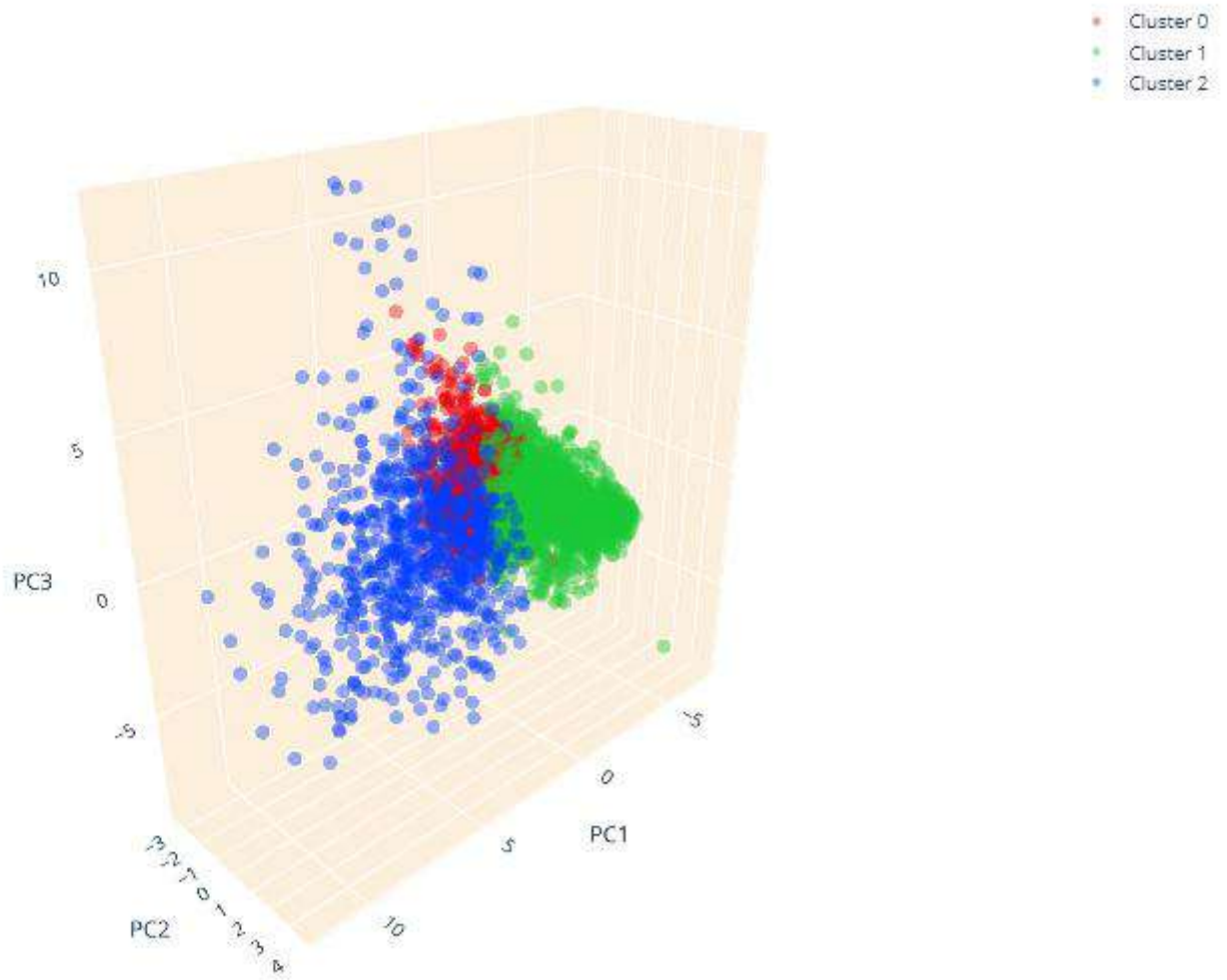








3D Visualization of Customer Clusters in PCA Space



CONCLUSION

The customer segmentation project using Python provides a robust framework for analyzing and categorizing a company's customer base into meaningful segments. By leveraging Python's powerful libraries such as pandas for data manipulation, scikit-learn for clustering, and matplotlib and seaborn for visualization, the project effectively identifies distinct customer groups based on their purchasing behaviors. The methodology involves several critical steps: data preparation, RFM analysis, standardization of values, application of K-means clustering, and visualization of the results. This approach allows businesses to tailor marketing strategies, enhance customer engagement, and optimize resources by understanding and addressing the unique needs of different customer segments.

The `customer_data_internship.csv` dataset serves as the foundation for this analysis, containing essential transactional information such as CustomerID, InvoiceDate, InvoiceNo, and TotalAmount. This data is meticulously processed and analyzed to uncover patterns and trends, enabling data-driven decision-making. The implementation showcases the practical use of Python for real-world business applications, highlighting the importance of data analytics in driving strategic initiatives.

Hardware and software requirements for the project include a modern computer with sufficient RAM and storage, Python installed with necessary libraries, and an IDE like PyCharm or Jupyter Notebook for development. Additionally, tools like Git for version control and platforms like GitHub for collaboration play a vital role in managing the project's lifecycle.

Overall, this project exemplifies the power of data analytics in transforming raw data into actionable insights. By implementing customer segmentation, businesses can improve their marketing efficiency, boost customer satisfaction, and ultimately achieve a competitive edge in the market. This structured approach ensures that the segmentation process is both scientifically rigorous and practically relevant, paving the way for more personalized and effective customer interactions.

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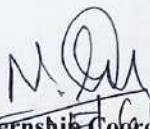
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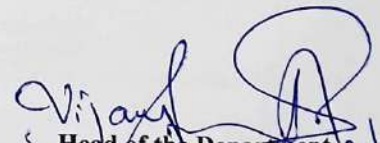


CERTIFICATE


This is to certify that the “**Internship report**” submitted by **JAYANTH SD** (UUCMS. No.: **U03KU21S0047**) is work done by him/her and submitted during 2023-2024 academic year in partial fulfillment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**





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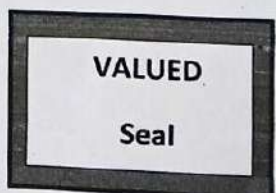
42.	25-04-2024	Had a feedback session with my mentor and discussed future opportunities.


 Prof. Manoj Kumar N
 Asst. Professor
 SIMS


 Head of the Department
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 SIMS

Dr. Vasu BA
 Principal
 SIMS

Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)




BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



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This is to certify the "Internship report" submitted by **KESHAV K S**(UUCMS. No.: **U03KU21S0098**) is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**


Internship Coordinator
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Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D]



22	14.05.2024	Explored Upcasting in Java - learned about upcasting to convert a subclass reference to a superclass reference, understanding its implications.
23	15.05.2024	Investigated Spring Framework - learned about the Spring framework for building Java applications, understanding its core concepts and features.
24	16.05.2024	Explored Inversion of Control (IoC) - understood the IoC principle in Spring for managing object dependencies and lifecycle.
25	17.05.2024	Learned Model-View-Controller (MVC) Architecture - understood MVC design pattern in Spring for separating application concerns into model, view, and controller components.
26	20.05.2024	Utilized Spring Tools Suite - explored Spring Tools Suite (STS) for development, understanding its features for Spring application development.
27	21.05.2024	Explored Spring Initializer - learned to use Spring Initializer for quickly creating Spring Boot projects with desired dependencies and configurations.
28	25.05.2024	Developed CRUD Application with Spring Boot - built a CRUD (Create, Read, Update, Delete) application using Spring Boot, understanding its features for rapid development.
29	26.05.2024	project - built an E-commerce website using all the topics learnt
30	31.05.2024	project - continued building the E-commerce website with functional payment options.

Internal Guide

Prof. Santosh R. S.

Head of the Department

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Vasu B A

Principal

SIMS

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INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

KESHAV K S

UUCMS. No.: U03KU21S0098

(Duration: 12th April, 2024 to 31th May, 2024)



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024





BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify the "Internship report" submitted by **KESHAV K S(UUCMS. No.: U03KU21S0098)** is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**


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Prof. Vijay Kumar A S, M. Tech., [Ph.D]



CERTIFICATE OF INTERNSHIP

THIS CERTIFICATE IS AWARDED TO

KESHAV. K.S

This is to certify that the bearer of this certificate, with registration number U03KU2150093 pursuing a BCA from SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE has successfully

completed an internship with our company.

The internship was completed under the guidance of Mr. Shankar Narayan in the domain of Java, with the position of "Java Full Stack Intern" held from 28/04/2024 to 29/05/2024. We have found the intern to be a self-starter who is motivated, duty-bound, and hardworking.

Assignments were completed sincerely, and the performance was excellent.

We wish all the best in future endeavors

Sushantkani

LEAD NAME



S
29/5/24

Manager
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First I would like to thank Mr. Shankar Narayan, HR, Head of **JSPIDERS, Rajajinagar** for giving me the opportunity to do an internship within the organization.

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It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely grateful to my department staff members and friends who helped me in successful completion of this internship.

KESHAV K S (U03KU21S0098)

ABSTRACT

E-commerce thrives on the seamless integration of diverse data to deliver smooth shopping experiences and optimize operations. Integrating this data involves complex, data-intensive processes tailored to specific business requirements. Designing and managing these processes manually is challenging due to the dynamic nature of e-commerce environments. This paper addresses the challenge of efficiently designing and maintaining these data processes and introduces Commerce, an incremental approach designed to semi-automate the consolidation of e-commerce data processes to meet specific business needs. Commerce operates at a logical level, consolidating data flows based on high-level business requirements or platform-specific implementations. When integrating new data processes, Commerce prioritizes maximizing the reuse of existing components and employs a customizable cost model to minimize overall operational costs. We demonstrate the efficiency and effectiveness of our approach through experimental evaluations using a developed prototype.

Our approach focuses on critical areas such as inventory management, customer behavior analysis, and personalized marketing strategies within e-commerce. Commerce ensures efficient processing and integration of data from various sources, including sales transactions, customer feedback, and browsing patterns. By optimizing existing data processes and reducing redundancy, Commerce enhances system performance and decreases operational costs. Extensive testing with our prototype yielded significant improvements in data processing times and the accuracy of business insights. These findings underscore Commerce's ability to streamline data integration while flexibly adapting to evolving business demands, offering a scalable solution for modern e-commerce platforms.

Organisation Information:

JSpiders is the world's ace software course training organization with an aim to bridge the gap between the demands of the industry and the curriculum of educational institutions. JSpiders has a proven track record of successfully training and placing thousands of students in leading IT companies. Alumni testimonials frequently highlight the quality of training, the practical approach to learning, and the valuable support provided during job placements. With centers across the Globe, the institute is a platform where young minds are given the opportunity to build successful careers. JSpiders stands out as a premier training institute due to its commitment to quality education, industry-relevant curriculum, and robust placement support. Whether you are a fresh graduate or a professional looking to upskill, JSpiders provides the necessary tools and training to help you achieve your career goals in the IT industry.



Programs and opportunities:

JSpiders emphasizes practical knowledge through hands-on learning with live projects and real-world scenarios, ensuring students gain significant practical experience. The curriculum is designed in collaboration with industry experts to meet current market demands. The experienced faculty, consisting of instructors with extensive industry experience and strong teaching backgrounds, provides high-quality education. Additionally, JSpiders offers comprehensive support for job placement, including resume building, mock interviews, and direct placement opportunities with partner companies.

Methodologies:

We follow a structured methodology for our projects which starts from designing the solution to the implementation phase. Well planned Project reduces the time to deliver the project and any additional ad-hoc costs to our clients, hence we dedicate the majority of our time understanding our clients business and gathering requirements. This ground up approach helps us deliver not only the solution to our clients but also add value to your investments.

Key parts of the report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies.

Benefits of the Company/Institution through our report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies. We emphasize on building relationships with our clients by delivering projects on time and within budget.

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LEARNING OBJECTIVES

Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.

An objective for this position should emphasize the skills you already possess in the area and your interest in learning more

Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.

Some internships are used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.

Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

Internships provide valuable networking opportunities by allowing interns to interact with professionals in their chosen field. These connections can lead to future job opportunities, collaborations, and valuable industry insights. Building a professional network during an internship can be instrumental in navigating and advancing one's career, as it opens doors to mentorship, advice, and potential references.

Interns often work alongside experienced professionals who can provide guidance, advice, and mentorship. This close interaction allows interns to learn best practices, industry standards, and practical skills that are not always covered in academic settings. Mentors can also help interns navigate challenges, set career goals, and offer constructive feedback, which is invaluable for professional growth.

1. INTRODUCTION

This report details my internship experience at Jspiders, where I developed an e-commerce website using Java Full Stack technologies. The project was built with the Spring Boot framework, Tailwind CSS for styling, and SQL for the database. This internship provided an invaluable opportunity to apply theoretical knowledge to a practical, real-world project.

Jspiders is renowned for its comprehensive training programs, and my experience was no exception. The trainers at Jspiders were exceptionally supportive, offering guidance and encouragement throughout the development process. Their expertise and commitment to teaching were instrumental in helping me overcome challenges and enhance my skills in full-stack development. The best part of the training was the one on one interactions with the trainer and the personal attention that I received during the training period, through which I was able to complete my internship with the exact knowledge that I required and I was seeking for.

The project involved designing and implementing a robust e-commerce platform that supports various functionalities, such as user authentication, product management, shopping cart, and order processing. By leveraging Spring Boot's capabilities for back-end development, Tailwind CSS for responsive design, and SQL for efficient data management, I was able to create a seamless and scalable web application.

This internship not only honed my technical skills but also provided insights into best practices for full-stack development. The hands-on experience and the supportive learning environment at Jspiders significantly contributed to my professional growth, preparing me for future endeavors in the field of software development.

2. TECHNOLOGY

2.1 HTML

(HyperText Markup Language) is the standard markup language for creating web pages, forming the backbone of web development alongside CSS and JavaScript. HTML defines the structure and layout of a web document using various elements and tags.

An HTML document begins with `<!DOCTYPE html>` and is enclosed within `<html>`. This document contains two main sections: `<head>` and `<body>`. The `<head>` section holds meta-information such as the title and links to stylesheets, while the `<body>` section contains the actual content of the document.

HTML employs tags to structure content, each consisting of an opening tag, content, and a closing tag. Common tags include `<h1>` to `<h6>` for headers, `<p>` for paragraphs, `<a>` for hyperlinks, `` for images, and ``, ``, and `` for lists. The `<div>` and `` tags are used to group and style block and inline elements, respectively.

Attributes provide additional information about HTML elements and are included in the opening tag. Key attributes include `id` for unique identification, `class` for specifying class names for CSS and JavaScript, `src` for defining the source of images and scripts, `href` for URLs in links, and `alt` for alternative text in images.

HTML also includes elements for creating forms and capturing user input. These elements include `<form>` for defining a form, `<input>` for input fields, `<textarea>` for multiline text input, `<button>` for clickable buttons, and `<select>` and `<option>` for dropdown lists.

HTML5 introduces semantic elements that provide clearer structure and meaning to web pages. Examples include `<header>` for introductory content or navigation, `<nav>` for navigation sections, `<main>` for the main content, `<article>` for self-contained content, `<section>` for sections of content, and `<footer>` for footer sections.

HTML supports multimedia content through elements like `<audio>` for embedding sound, `<video>` for embedding video, and `<canvas>` for drawing graphics via JavaScript.

2.2 TAILWIND CSS

Tailwind CSS is a utility-first CSS framework designed to provide a highly customizable and efficient way to build responsive and modern web interfaces. Unlike traditional CSS frameworks that come with predefined components, Tailwind CSS offers low-level utility classes that allow developers to construct custom designs directly in their HTML. Tailwind CSS's utility-first approach means that instead of writing custom CSS for each element, developers use predefined utility classes to style elements. This method encourages consistency, reusability, and reduces the need for writing custom CSS. For example, classes like 'bg-blue-500', 'text-center', and 'p-4' are used directly in the HTML to apply styles.

Tailwind CSS is highly configurable. It comes with a default configuration that can be customized to fit the specific needs of a project. Developers can modify or extend the default configuration by editing the 'tailwind.config.js' file. This includes changing colors, fonts, spacing, breakpoints, and other design tokens. Additionally, Tailwind supports a plugin system that allows for further customization and addition of new utilities.

Tailwind CSS has built-in support for responsive design. Utility classes can be applied conditionally based on the viewport size using responsive variants. For example, by prefixing a utility class with 'md:', the style will only be applied on medium screens and above. This approach makes it straightforward to create responsive layouts without writing media queries manually. Using utility classes helps maintain a consistent design system across the application. Since the same classes are reused, there is less variation and inconsistency in styles. This is particularly beneficial in large projects with multiple developers, ensuring that the design language remains uniform.

Tailwind CSS offers a unique and efficient approach to styling web applications with its utility-first methodology. Its high degree of customization, built-in responsive design support, and emphasis on performance make it an attractive choice for developers seeking a scalable and maintainable CSS framework. Whether for rapid prototyping or building production-ready applications, Tailwind CSS provides the tools necessary to create consistent and visually appealing designs.

2.3 JAVA

Java is a versatile programming language used for web, enterprise, mobile, and embedded applications. It provides a robust platform and follows the "write once, run anywhere" (WORA) principle, meaning compiled Java code can run on any platform with a Java Virtual Machine (JVM).

➤ Java Fundamentals

Java is a high-level, object-oriented language known for its portability, scalability, and robustness. Core concepts include:

- Encapsulation: Bundling data and methods into a class and restricting access.
- Inheritance: Allowing new classes to inherit properties from existing ones.
- Polymorphism: Treating objects as instances of their parent class.
- Abstraction: Hiding complex implementation details.

➤ Memory Management

Java uses automatic garbage collection to manage memory, freeing up unused objects and ensuring efficient memory use.

➤ Java SE and EE

Java Standard Edition (Java SE) provides core functionality, while Java Enterprise Edition (Java EE) adds libraries for large-scale, multi-tiered applications.

➤ JDK and JRE

The Java Development Kit (JDK) includes tools for developing Java applications. The Java Runtime Environment (JRE) provides the necessary components to run Java applications but lacks development tools.

➤ IDEs

Popular Java IDEs like IntelliJ IDEA, Eclipse, and NetBeans offer features such as code completion, debugging, and project management.

➤ Frameworks and Libraries

Java's ecosystem includes frameworks like:

- Spring Framework: For enterprise applications.
- Hibernate: For simplifying database interactions.
- Apache Struts: For web applications.

Java is essential for modern applications, offering platform independence, robust memory management, and a comprehensive ecosystem. Its core principles and extensive tools allow developers to build scalable, efficient, and maintainable applications across various domains.

2.4 Spring Boot

As you develop applications using Spring Boot, you will encounter various requirements for building and deploying Java-based web applications. In some scenarios, you might need to create a microservice architecture, while in other situations, you may want to develop a monolithic application with a comprehensive set of features.

Regardless of your specific needs, there are certain fundamental concepts about Spring Boot that are essential to understand. You might not need to delve into all the intricacies of Spring Boot configuration—for instance, you may never need to customize the auto-configuration behavior extensively—but understanding the core architecture, major components, and how they interact is highly beneficial.

This introduction provides a high-level overview of the most critical concepts. The discussion intentionally avoids many details—such as the full extent of Spring Boot's auto-configuration capabilities—in favor of introducing the foundational ideas behind the Spring Boot framework.

➤ Spring Boot Fundamentals:

Spring Boot simplifies the development of production-ready applications by providing a set of conventions and default configurations. It eliminates the need for extensive configuration and boilerplate code, allowing developers to focus on business logic.

Spring Boot applications leverage an embedded server model, where the server (such as Tomcat, Jetty, or Undertow) is packaged within the application. This approach simplifies deployment and eliminates the need for an external application server.

➤ **Scalability and Performance:**

Spring Boot is designed to be highly scalable. Applications built with Spring Boot can easily be scaled horizontally by deploying multiple instances. The framework's lightweight and modular nature ensures that performance remains optimal, even under significant load.

Spring Boot supports microservices architecture, allowing different components of an application to scale independently. This modularity enables efficient resource utilization and improves overall system resilience.

2.5 Spring Boot Suite:

The Spring Boot Suite includes a collection of tools and frameworks that enhance the development experience. These tools are designed to work seamlessly with Spring Boot, providing integrated support for building, testing, and deploying applications.

➤ **Spring Boot Starters:**

Spring Boot Starters are a set of convenient dependency descriptors that you include in your application. They simplify the process of adding commonly used libraries and frameworks. Each starter brings in a group of dependencies that are typically used together, reducing the need for manual configuration.

➤ **Auto-Configuration:**

Spring Boot's auto-configuration mechanism automatically configures your application based on the dependencies present on the classpath. This feature minimizes the need for explicit configuration and speeds up the development process. Auto-configuration is extensible, allowing developers to override default behaviors when necessary.

➤ **Spring Boot Actuator:**

Spring Boot Actuator provides production-ready features that help you monitor and manage your application. These include health checks, metrics, and auditing capabilities. Actuator endpoints expose runtime information and management functions, facilitating the monitoring and maintenance of Spring Boot applications.

➤ **Spring Boot CLI:**

The Spring Boot CLI is a command-line tool that allows you to quickly prototype and run Spring Boot applications. It supports Groovy scripts, making it easy to experiment with Spring Boot features without the need for a full project setup.

➤ Spring Boot DevTools:

Spring Boot DevTools enhances the development experience by providing features like automatic restarts, live reload, and configurations specific to the development environment. These tools significantly reduce the time taken for iterative development and testing.

Spring Boot streamlines the development of Java-based applications by providing a robust framework with sensible defaults and extensive tools for building, testing, and deploying applications. Its design principles emphasize minimal configuration, embedded servers, and scalability, making it a popular choice for modern application development. The Spring Boot Suite further enhances productivity by offering integrated support tools, simplifying the development lifecycle from prototyping to production.

3. DATABASE

About Microsoft SQL Server 2008

Microsoft SQL server is a Structured Query Language (SQL) base, client/server relational database. Each of these terms describes a fundamental part of the architecture of SQL server.

A database is similar to a data file in that it is a storage place for data. Like a data file, a database does not present information directly to a user, the user runs an application that accesses data from the database and presents it to the users in an untreatable format. A database typically has two components: the files holding the physical database access data.

The DBMS is responsible for enforcing database structure, including:

- Maintaining the relationships between data in the database.
- Ensuring that data is stored correctly, and the rules that define data relationships are not violated.
- Recovering all data to a point of known consistency in case of system failures.

Relational Database

Relational databases are widely recognized as one of the most effective ways to organize data. They apply mathematical set theory to data organization, ensuring efficiency and reliability. In relational database theory, data is collected into tables known as relations. These tables consist of rows and columns, with each row representing a unique record and each column representing a specific attribute of the data.

When organizing data into tables, there are multiple ways to define the table structures. To ensure these tables effectively organize the data, relational database theory introduces a process called normalization. Normalization systematically decomposes tables to reduce redundancy and dependency, enhancing data integrity and efficiency. This process involves several normal forms, each providing a higher level of data integrity.

Client/Server Architecture

In a Client/Server system, a central server, typically a powerful computer, manages resources and services that multiple users access from their computers, known as clients. This architecture is prevalent in database management, where the server hosts the database files and DBMS (Database Management System) software. Clients connect to the server over a network to access and manipulate the data.

In a Client/Server database architecture, the server is responsible for handling requests from clients, processing them, and sending back the required data. The SQL server communication component facilitates this interaction, allowing client applications to send SQL queries to the server and receive results. This setup also enables applications running on the server itself to communicate with the SQL server.

Server applications are designed to handle multiple clients simultaneously. For example, SQL servers can manage thousands of concurrent client connections, ensuring efficient data processing and retrieval. They incorporate features to handle logical problems, such as concurrency control, which ensures data integrity when multiple users access and modify the data simultaneously.

While SQL servers are primarily designed to function as servers in a Client/Server network, they are also capable of operating as standalone databases on client machines. This versatility allows SQL servers to scale from single-user applications to large, multi-user systems. The scalability and ease-of-use features of SQL servers ensure they perform efficiently on client devices without consuming excessive resources, making them suitable for various applications and environments.

Structured Query Language (SQL)

To effectively work with data in a database, you need to use a set of commands and statements, collectively known as a language, defined by the Database Management System (DBMS) software. This language allows users to perform various operations such as querying, updating, and managing the data within the database. Among the various languages available for relational databases, Structured Query Language (SQL) is the most widely used and recognized.

Overview of SQL

SQL, or Structured Query Language, is a standardized language specifically designed for managing and manipulating relational databases. It allows users to perform a wide range of functions, including:

- **Data Querying:** Extracting specific data from the database using `SELECT` statements.
- **Data Manipulation:** Inserting new data (`INSERT`), updating existing data (`UPDATE`), and deleting data (`DELETE`).
- **Data Definition:** Defining and managing database structures such as tables, indexes, and constraints using Data Definition Language (DDL) commands like `CREATE`, `ALTER`, and `DROP`.
- **Data Control:** Controlling access to data within the database using Data Control Language (DCL) commands like `GRANT` and `REVOKE`.
- **Transaction Control:** Managing transactions to ensure data integrity using Transaction Control Language (TCL) commands like `COMMIT`, `ROLLBACK`, and `SAVEPOINT`.

Standardization of SQL

SQL is governed by standards set by both the American National Standards Institute (ANSI) and the International Standards Organization (ISO). These standards ensure that SQL remains a universal language for database management, promoting compatibility and consistency across different DBMS platforms. The standardization process involves periodic updates and enhancements to include new features and address the evolving needs of database technologies.

4. SCREENSHOTS

Home page:

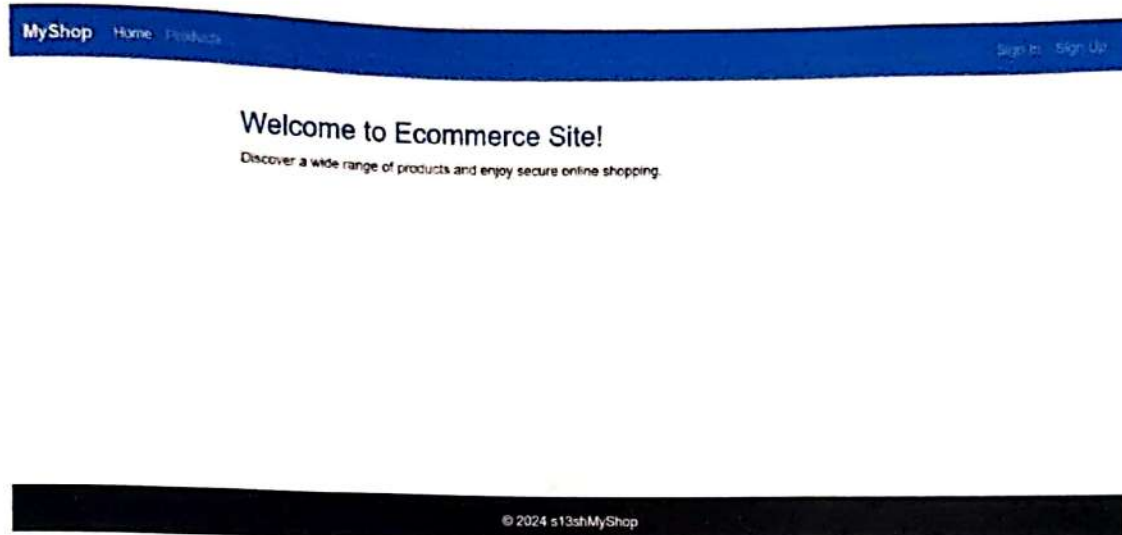


fig no. 1

Registration page:



fig no. 2

Mobile:

Email:

Password:

Date of Birth:

Gender:

fig no. 3

Login Page:

MyShop [Home](#) [Products](#) [Sign In](#) [Sign Up](#)

Login

Email:

Password:

© 2024 s13shMyShop

fig no. 4

CONCLUSION

Our methodology streamlines the incremental integration of e-commerce website functionalities, starting with individual features that meet specific user needs. We systematically explore integration possibilities for new functionalities within the existing multi-functional framework, prioritizing the reuse of established components. Subsequently, we propose a cohesive website design, assessed against user-defined cost criteria.

A fully functional prototype has been developed to validate our approach. Through rigorous evaluation, we have assessed the efficiency, scalability, and overall quality of the implemented solutions. Significant improvements in execution time and enhanced integration of functionalities underscore the benefits of our approach.

Our ultimate objective is to establish a comprehensive platform that autonomously manages the entire lifecycle of e-commerce solutions. This encompasses everything from initial user requirements to the deployment and operational execution of advanced website functionalities.

BIBLIOGRAPHY

1. **Github** - For code samples, foundational code was provided by the institution, with accessible github repositories, where we were allowed to get the codes and modify them according to our desired functionality requirements.
2. **w3schools**- for referencing SQL database queries
3. **Mobirise** - mobirise is a website with hundreds of usable website templates.

Student Name and USN No: KESHAV K S- U03KU21S0098
Company Name: Jspiders
Address: A-83, 5th main, Industrial Estate, Rajajinagar 6th block, Bengaluru

Sl. No.	Date	Activities / Work Done
HTML/CSS		
1	12.04.2024	Developed a basic webpage layout - utilized HTML tags <div>, <p>, <h1>, and <a> for structuring content and adding navigation links.
2	15.04.2024	Improved web page accessibility - implemented semantic HTML tags <header>, <footer>, <nav> for clearer structure and navigation..
3	17.04.2024	Enhanced user interaction - created hyperlinks using <a> tags to navigate between web pages or sections within the same page..
4	18.04.2024	Structured web page content - utilized HTML elements to format text, create links, and integrate media like images using tags.
5	19.04.2024	Integrated images into web pages - added images using tags with appropriate URLs and alternative text for accessibility.
6	22.04.2024	Styled webpage elements - applied CSS using inline, internal, and external stylesheets to achieve desired visual presentation.
7	23.04.2024	Organized data presentation - created tables with <table>, <tr>, <td>, and <th> tags to display information in rows and columns.
8	24.04.2024	Structured content presentation - designed ordered and unordered lists using and tags for proper numbering and bullet points.
9	25.04.2024	Implemented user input forms - developed HTML forms using <form> tags with input elements for data collection and submission.
10	26.04.2024	Styled webpage elements selectively - utilized various CSS selectors like Type, Class, ID, and Pseudo-classes/elements for targeted styling.

11	29.04.2024	Customized element rendering - applied CSS box model concepts to control content, padding, border, and margin for precise element rendering.
12	30.04.2024	Positioned webpage elements - utilized CSS positioning techniques like Static, Relative, Absolute, Fixed, and Sticky for element placement.
13	01.05.2024	Styled text content - utilized CSS text properties for font styling, alignment, decoration, spacing, transformation, and shadow effects.
14	02.05.2024	Enhanced background styling - applied CSS background properties for color, image, repeat, position and attachment settings to web page elements.
15	03.05.2024	Controlled element stacking - utilized CSS z-index property to manage the stacking order of positioned elements on web pages.
16	06.05.2024	Created flexible layouts - applied the flex property in CSS to create flexible layouts by controlling flex item properties like growth, shrinkage, and basis.


Java Basics

17	07.05.2024	Declared Variables in Java - learned to declare variables to store and manipulate data, understanding variable types and their usage.
18	08.05.2024	Implemented Methods in Java - defined methods within classes to perform specific tasks, including parameter handling and return values.
19	09.05.2024	Utilized Constructors - created constructors in Java classes to initialize objects, understanding their role in object instantiation.
20	10.05.2024	Practiced Method Overloading - implemented method overloading to define multiple methods with the same name but different parameters in Java classes.
21	13.05.2024	Applied Method Overriding - utilized method overriding to provide specific implementations for superclass methods in Java subclass.

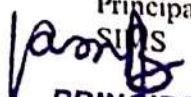
22	14.05.2024	Explored Upcasting in Java - learned about upcasting to convert a subclass reference to a superclass reference, understanding its implications.
23	15.05.2024	Investigated Spring Framework - learned about the Spring framework for building Java applications, understanding its core concepts and features.
24	16.05.2024	Explored Inversion of Control (IoC) - understood the IoC principle in Spring for managing object dependencies and lifecycle.
25	17.05.2024	Learned Model-View-Controller (MVC) Architecture - understood MVC design pattern in Spring for separating application concerns into model, view, and controller components.
26	20.05.2024	Utilized Spring Tools Suite - explored Spring Tools Suite (STS) for development, understanding its features for Spring application development.
27	21.05.2024	Explored Spring Initializer - learned to use Spring Initializer for quickly creating Spring Boot projects with desired dependencies and configurations.
28	25.05.2024	Developed CRUD Application with Spring Boot - built a CRUD (Create, Read, Update, Delete) application using Spring Boot, understanding its features for rapid development.
29	26.05.2024	project - built an E-commerce website using all the topics learnt
30	31.05.2024	project - continued building the E-commerce website with functional payment options.

Internal Guide

Prof. Santosh R. S.


Head of the Department
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Vasu B A
 Principal

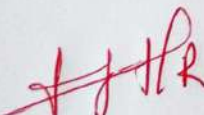

PRINCIPAL
 Soundarya Institute of Management & Science
 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore-73


BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **LAVANYA.S(UUCMS. No.: U03KU21S0035)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE**,
Bangalore.


Internship Coordinator
Department of BCA
Prof. Swamy M R


Head of the Department
Head of the Department
DEPT. OF COMPUTER SCIENCE
Department of BCA
Soundarya Institute of Management and Science
Prof. Vijay Kumar A S
Soundarya Nagar, Srirachanalli,
Nagasandra Post, Bangalore - 560 073

EXAMINERS	
1.....	
2.....	



FORCELIFT MATERIAL MOVEMENTS



To,
The Principal,
Soundarya Institute of Management and Science,
Soundarya Nagar Sidedahalli, Nagasandra Post,
Soundarya Layout, Bengaluru,
Karnataka 560073.

Dear sir /Madam,

This is to certify that Ms Lavanya .S D/O Shiva kumar.B final Year BCA Has successfully completed an Internship with Esteemed Organization from March 1st 2024 to May 20th 2024. During their internship, Lavanya has demonstrated outstanding dedication, enthusiasm, and professionalism. They actively contributed to the company and consistently exceeded expectations.

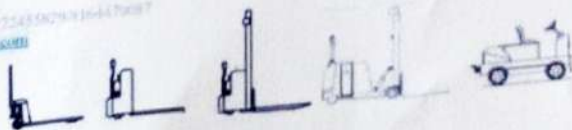
Key Responsibilities:

- Assisting in Marketing
- Data Analysis
- Administrative Task
- Creative Input
- Learning and Developing

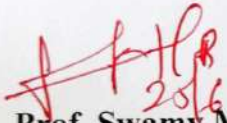
This internship has provided Lavanya .S with valuable real-world experience and insights into Industry. We are confident that they will continue to excel in their future endeavors.

Supervisor's Name: Praveen Kumar (9611840704)
Company Name: Forcelift material movements
Date - 05-06-2024


#17,10th CROSS, THREE MARTHU AVYAPPA INDUSTRIAL ESTATE, THIRGALARAPALYA MAIN ROAD, BENSINA 2ND STAGE,
BANGALORE-560058, KARNATAKA, INDIA.
GST: 29AAGFFHS4K1Z3
CONTACT: 091-9535925365 / 7876664945 / 9925659079/916447087
EMAIL: info@forcelift.in / forceliftsales@outlook.com
WEBSITE: www.forcelift.in



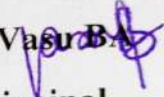
66	05/05/2024	Sunday
67	06/05/2024	Creation and Follow up the quotation
68	07/05/2024	Creating the quotation in MS word
69	08/05/2024	Edit the quotation
70	09/05/2024	Holiday
71	10/05/2024	Fallow up the quotation


Prof. Swamy M R
Professor

**Soundarya Institute of
Management and Science**


Prof. Vijay Kumar AS
Head of the Department
HOD, BCA
DEPT. OF COMPUTER SCIENCE
Soundarya Institute of Management and Science
Soundarya Nagar, Sidedahalli
Nagasandra Post, Bangalore - 560 073

**Soundarya Institute of
Management and Science**


Dr. Vasu B
Principal
PRINCIPAL
Soundarya Institute of Management & Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore - 560 073

**Soundarya Institute of
Management and Science**



CERTIFICATE OF COMPLETION

Presented to

LAVANYA VS

For successfully completing a free online course
Android Application Development

Provided by

Great Learning Academy

(On June 2024)

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



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This is to certify that the "Internship report" submitted by MANISH R(UUCMS. No.: U03KU21S0015) is work done by him and submitted during 2023-2024 academic year in partial fulfillment of the requirements for the award of the degree of BACHELOR OF COMPUTER APPLICATION from SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.

Internship Coordinator
Prof. Nagasuma CV

EXAMINERS

Head of the Department
Department of BCA
DEPT. OF COMPUTER SCIENCE
Soundarya Institute of Management and Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore - 560 073.

8/5/2024	Structured Content Presentation
9/5/2024	Implemented user input forms
10/5/2024	Styled webpage elements selectively
11/5/2024	Customized element rendering
13/5/2024	Positioned webpage elements
14/5/2024	Styled text
15/5/2024	Enhanced Content
16/5/2024	Controlled Background styling
17/5/2024	Created element styling
18/5/2024	Declared visible layout
20/5/2024	Implemented Variables in Java
21/5/2024	Utilized Methods in Java
22/5/2024	Applied Constructors
23/5/2024	Applied Method Overloading
24/5/2024	Explored upcasting in Java
25/5/2024	Investigated Spring framework
26/5/2024	Explored Inversion of Control
27/5/2024	Declared Model View Controller
28/5/2024	Utilized Spring Tools Suite
29/5/2024	Explored Spring Tools Suite
30/5/2024	Project - Built an E-commerce website
31/5/2024	Project - Continued Building website

Internal Guide
 Signature of Guide
 College Name

Vijay Archalle
 HOD Name
 HOD - BCA

Vasu BA
 Principal Name
 Principal
 College Name

Head of the Department
DEPT. OF COMPUTER SCIENCE
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PRINCIPAL
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 Soundarya Nagar, Sidedahalli
 Nagasandra Post, Bangalore - 56

(This is to be signed by the faculty who will be there on the day of internship
 - it is an internal faculty only with Date)

[Handwritten Signature]




JSPIDERS & PYSPIDER:
 Development training institute
 Unit Of Test Yantra Software Solutions
 A-83, 5th Main, Industrial Estate
 Rajajinagar 6th Block, Bengaluru-5

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This is to certify that the “**Internship report**” submitted by Manjunath (UUCMS No : U03KU21S0004) is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**



Internship Coordinator
Prof. Anuradha S


Head of the Department
DEPT. OF COMPUTER SCIENCE
Prof. Vijay Kumar
Soundarya Institute of Management and Science
Soundarya Nagar, Sidedahalli
Nagasandra Post, Bangalore - 560 075.

EXAMINERS

26/6/24

25	28-04-2024	Model selection and Training.
26	29-04-2024	Assignment-4
27	30-04-2024	Project selection.
28	01-05-2024	Handling missing elements in duplicate data.
29	02-05-2024	Advanced visualization using Seaborn.
30	03-04-2024	Project submission.
31	04-04-2024	Proof of completion(Certificate).


Internal Guide
Designation of Guide
College Name


Head of the Department
DEPT. OF COMPUTER SCIENCE
Soundarya Institute of Management and
College Name Sidedahalli
Nagasandra Post, Bangalore - 560 073.


Principal Name
PRINCIPAL
Soundarya Institute of Management & Science
College Name
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore - 560 073

Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)



INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

MOHAMMED SHAWAIZ HUSSAIN

UUCMS. No.: U03KU21S0029

Duration: 12th April, 2024 to 31th May, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **MOHAMMED SHAWAIZ HUSSAIN (UUCMS. No.: U03KU21S0029)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

[Handwritten Signature]
25/6/24
Internship Coordinator

Prof. Yatish SJ

[Handwritten Signature]
Head of the Department
Head of the Department
DEPT. OF COMPUTER SCIENCE
Department of BEA
Soundarya Institute of Management and Science
Prof. Vijay Kumar AS
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore - 560 073

EXAMINERS
1. *[Handwritten Signature]*
2. *[Handwritten Signature]*

CERTIFICATE OF INTERNSHIP

THIS CERTIFICATE IS AWARDED TO

MOHAMMED SHAWAIZ MUSSAIN

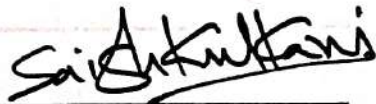
This is to certify that the bearer of this certificate, with registration number U03KU2180029, pursuing a BCA from SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE, has successfully completed an internship with our company.

The internship was completed under the guidance of **Mr. Shankar Narayan** in the domain of Java, with the position of "Java Full Stack Intern" held from 12/04/2024, to 21/05/2024.

We have found the intern to be a self-starter who is motivated, duty-bound, and hardworking.

Assignments were completed sincerely, and the performance was excellent.

We wish all the best in future endeavors



LEAD NAME





Manager

JSPIDERS & PYSPIDER:
Development training institute
Unit Of Test Yantra Software Solutions Pvt. Ltd.
A-83, 5th Main, Industrial Estate
Rajajinagar 6th Block, Bengaluru-560 011

DATE: 12/04/2024

TO WHOMEVER IT MAY CONCERN

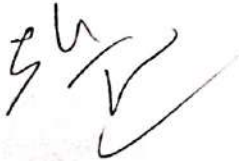
We would like to inform you that **Mr. Mohammed Shawaiz Hussain**, Ph no. 8073838932 (Reg.no.: U03KU21S0029) of VI(CS) pursuing BCA from Soundarya Institute of Management & Science, Bengaluru

Student is undergoing his internship with our company, under guidance of **Mr. Shankar Narayan** he is being working under the domain: Java from 12-04-2024 to 31-05-2024 (Timings: 3.30 pm to 5.30 pm), as "Java Full Stack-Intern".

We have found him to be a self-starter who is motivated, duty-bound and hardworking. He is working sincerely on his assignments and his performance is at par excellence.

We wish him all the best for his future endeavours.


Regards,




MR. SHANKAR NARAYAN
JSPIDERS RAJAJINAGAR,
BANGALORE

JSPIDERS & PYSPIDER:
Development training institute
Unit Of Test Yantra Software Solutions Pvt. Ltd.,
A-83, 5th Main, Industrial Estate
Rajajinagar 6th Block, Bengaluru-560 021

28	08.05.2024	Developed CRUD Application with Spring Boot - built a CRUD (Create, Read, Update, Delete) application using Spring Boot, understanding its features for rapid development.
29	09.05.2024	project - built an E-commerce website using all the topics learnt
30	10.05.2024	project - continued building the E-commerce website with functional payment options.


INTERNAL GUIDE
YATISH S J


Head of the Department
VIGNESH KUMAR
DEPT. OF COMPUTER SCIENCE
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 Nagasandra Post, Bangalore - 560 073, Nagasandra Post, Bangalore


VASU B
PRINCIPAL
SIMS
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 Nagasandra Post, Bangalore

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE




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This is to certify that the “**Internship report**” submitted by **NANDHAN CC (UUCMS. No: U03KU21S0013)** is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**


Internship Coordinator
Department of BCA
Prof. Nagasuma C V

EXAMINERS	
1.....	
2.....	


Head of the Department
DEPT. OF COMPUTER APPLICATIONS
Soundarya Institute of Management and Science
Prof. Vijay Kumar A S
Soundarya Nagar, Sidedahalli
Nagasandra Post, Bangalore - 560 075.

25	13-06-2024	Model selection and Training.
26	14-06-2024	Assignment-4
27	15-06-2024	Project selection.
28	16-06-2024	Handling missing elements in duplicate data.
29	17-06-2024	Advanced visualization using Seaborn.
30	18-06-2024	Project submission.
31	19-06-2024	Proof of completion(Certificate).


Prof. Nagasuma C V
 Assistant Professor
 Soundarya Institute of
 Management and Science


Prof. Vijay Kumar A S
 DEPT. OF COMPUTER SCIENCE
 HOD - BCA
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Dr. Vasu BA
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 Nagasandra Post, Bangalore - 560 073

INTERNSHIP REPORT

*A report submitted in partial fulfilment of the requirements for the
Award of Degree of*

BACHELOR OF COMPUTER APPLICATIONS

by

NEERAV A

UUCMS. No.: U03KU21S0055

Duration: 01st May, 2024 to 31st May, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



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This is to certify that the “**Internship report**” submitted by **NEERAV A (UUCMS. No: U03KU21S0038)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATIONS** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Department of BCA
Ms.Samskruthi BL

Head of the Department
Department of BCA
Prof. Vijay Kumar AS

CERTIFICATE



Corporate Identification Number
U80903DL2020NPL371984

14364000020049355



Ybi Foundation

This is to Certify that

Neerav A

has successfully completed

Data Science and Machine Learning Internship

Duration : 1 Month completed on Friday, May 31 2024

demonstrated exceptional dedication with strong willingness to learn and actively engaged in various projects, tasks exhibiting remarkable skills with high level of professionalism.

Credential ID :
45NO72TXHZR8X



Verify Certificate Here

www.ybifoundation.org (+91) 966 798 7711 support@ybifoundation.org

ACKNOWLEDGEMENT

First I would like to thank Mr.Alok Yadav, HR, Head of **Ybi foundation, New Delhi** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me in **Ybi foundation, New Delhi** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

NEERAV A (U03KU21S0055)

ABSTRACT

Machine learning is a topic of artificial intelligence (AI) where it is possible to elaborate algorithms to teach a particular machine to perform a task. It is necessary to have a dataset, and from that data, explore the correlation between them, discovering patterns and applying algorithms, which makes it possible to take a sum of input data and based on certain patterns to produce the outputs. Each entry in this dataset has its own features, and generates models that can be generalized for a specific task. The idea of machines learning on their own from a vast volume of data may be the simplified definition of machine learning. In general, machine learning is a field of artificial intelligence that is intended to explore constructs of algorithms that make it possible to understand autonomously, where it creates the possibility to recognize and extract patterns from a large volume of data, thus building a model of learning

Organisation Information:

"YBI Foundation: IMPART LEARNING TO EMPOWER & TRANSFORM YBIF Offers Job Guarantee Program, Free Internship, Micro Credential and Full Stack Programs YBIF Learning Portal(www.ybifoundation.org). DATA SCIENCE || MACHINE LEARNING || ARTIFICIAL INTELLIGENCE || BUSINESS ANALYTICS || DATA VISUALIZATION || BIG DATA || PROGRAMMING || MATH & STATISTICS || CLOUD COMPUTING"

Programs and opportunities:

Artificial Intelligence Machine Learning | Data Science Marketing Analytics Social Network Analytics Business And Data Analytics | And provides career programs and learning upskills based on upskilling platform and provides the opportunities of both technical and non-technical fields.

Methodologies:

We follow a structured methodology for our projects which starts from designing the solution to the implementation phase. Well planned Project reduces the time

to deliver the project and any additional ad-hoc costs to our clients, hence we dedicate majority of our time understanding our clients business and gather requirements. This ground up approach helps us deliver not only the solution to our clients but also add value to your investment.

Key parts of the report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies.

Benefits of the company/institution through report:

Beginner friendly and Live online class opportunities you can ask doubts in live online classes and you can clear your doubts. You can record the classes and Hands-on real-world projects and fundamental practice of the projects. And you can get a digitally verified certificates.

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INTRODUCTION

Data Science: It is an interdisciplinary field that focuses on extracting knowledge and insights from structured and unstructured data. It encompasses various techniques from statistics, computer science, and domain-specific knowledge to analyze and interpret complex data. The goal of data science is to use this data to inform decision-making, optimize processes, and uncover patterns that can lead to actionable insights.

Machine Learning (ML): It is a subset of artificial intelligence (AI) that involves the development of algorithms that enable computers to learn from and make predictions or decisions based on data. ML algorithms build models based on sample data, known as training data, to make predictions or decisions without being explicitly programmed to perform the task. This process of "learning" allows systems to improve their performance on tasks over time with more data and experience.

Together, data science and machine learning drive many of the technological advancements we see today, from personalized recommendations on streaming services to predictive maintenance in industrial settings. They are integral to various industries, including finance, healthcare, marketing, and technology, and continue to transform how businesses operate and compete in the market.

INTERNSHIP OBJECTIVES

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.

- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more

- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.

- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.

- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

OBJECTIVES OF PROJECT

The primary objective of the Fish Weight Prediction project is to develop a machine learning model that can accurately predict the weight of a fish based on various physical attributes. This project aims to leverage data science techniques to analyze and model the relationship between a fish's characteristics and its weight.

- 1. Quality Control:** Detect anomalies in manufacturing or production processes to maintain quality standards.
- 2. Anomaly Detection:** Identify unusual patterns that may indicate fraudulent activity.
- 3. Descriptive Analytics:** Summarize historical data to understand what has happened.
- 4. Exploratory Data Analysis:** Identify patterns, trends, and relationships within data.
- 5. Predictive Analytics:** Use statistical models and machine learning algorithms to forecast future events based on historical data.
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PROJECT SCOPE

The project scope included the following steps:

- 1. Data Collection:** You would need to gather a significant amount of data related to various fish species, their characteristics (like length, width, etc.), and their corresponding weights. This data is crucial for training the prediction model.
- 2. Data Pre-processing:** This involves cleaning the data, handling missing values,

and possibly scaling or normalizing the features to ensure the model performs well.

3. Feature Selection: Identifying the most relevant features that have the most impact on predicting fish weight. This step helps in improving the efficiency of the model.

4. Model Selection: Choosing the appropriate machine learning algorithm for the prediction task. This could be regression-based models like linear regression, decision trees, or more advanced models like random forests or neural networks.

5. Model Training: Utilizing a portion of the collected data to train the model, allowing it to learn the patterns between fish characteristics and their weights.

6. Model Evaluation: Assessing the performance of the model using metrics like Mean Absolute Error, Mean Squared Error, or R-squared to determine how well the model predicts fish weights.

7. Deployment: Once the model is trained and evaluated, you can deploy it to make predictions on new, unseen data.

8. Testing and Fine-tuning: Testing the model with new data and fine-tuning it based on the performance to enhance its accuracy.

TECHNOLOGIES USED

1. Matplotlib: Matplotlib is a data visualization library and 2 -D plotting library of Python. it is the most popular and widely used plotting library in the Python community. It comes with an interactive environment across multiple platforms. Matplotlib can be used in Python scripts, the Python and Python shells, the Jupyter Notebook, web application servers, etc. It can be used to embed plots into applications using various GUI toolkits. So you can use Matplotlib to create plots, bar charts, pie charts, histograms, scatter plots, error charts, power spectra, stem plots, and whatever visualization charts you want! The Pyplot module also provides a MATLAB-like interface that is just as versatile and useful as MATLAB while being totally free and open source.

2.Pandas: Pandas provide various high-performance and easy -to-use data structures and operations for manipulating data in the form of numerical tables and time series. Pandas also has multiple tools for reading and writing data between in -memory data structures and different file formats. In short, it is perfect for quick and easy data manipulation, data aggregation, reading, and writing the data and data visualization. Pandas can also take in data from different types of files such a s CSV, Excel, etc., or a SQL database and create a Python object known as a data frame. A data frame contains rows and columns and it can be used for data manipulation with operations such as join, merge, group by, concatenate, etc.

3.Scikit-learn: Scikit-learn is among those libraries for Python that is a free, software library for Machine Learning coding primarily in the Python programming language. Scikit - learn is built on top of other Python libraries like NumPy, SciPy,

Matplotlib, Pandas, etc and so it provides full interoperability with those libraries while Scikit -learn is written mainly in Python, it has also used Python to write some core algorithms in order to improve performance. You can implement various Supervised and Unsupervised Machine learning models on Scikit -learn like Classification, Regression, Support Vector Machines, Random Forests, Nearest Neighbours, Naive Bayes, Decision Trees, and Clustering, etc. with Scikit -learn.

4.Numpy: NumPy is a free Python software library for numerical computing on data that can be in the form of large arrays and multi -dimensional matrices. These multidimensional matrices are the main objects in NumPy where their dimensions are called axes and the number of axes is called a rank. NumPy also provides various tools to work with these arrays and high -level mathematical functions to manipulate this data with linear algebra, Fourier transforms, random number crunchings, etc. Some of the basic array operations that can be performed using NumPy include adding, slicing, multiplying, flattening, reshaping, and indexing the arrays. Other advanced functions include stacking the arrays, splitting them into sections, broadcasting arrays, etc. model of interaction to the web applications.

5.Seaborn: Seaborn is among the best data visualization library for Python that is based on Matplotlib and closely integrated with the NumPy and Pandas data structures. Seaborn has various dataset-oriented plotting functions that operate on data frames and arrays that have whole datasets within them. Then it internally performs the necessary statistical aggregation and mapping functions to create informative plots that the user desires. It is a high -level interface for creating beautiful and informative statistical graphics that are integral to exploring and understanding data. The Seaborn data graphics can include bar charts, pie charts, histograms, scatterplots, error charts, etc. Seaborn also has various tools for choosing colour palettes that can reveal patterns in the data.

SCREENSHOTS


```
In [ ]:  
# Step 1 : import library  
import pandas as pd
```

```
In [ ]:  
# Step 2 : import data  
fish = pd.read_csv('https://github.com/ybifoundation/Dataset/raw/main/Fish.csv')
```

```
In [ ]:  
fish.head()
```

```
Out [ ]:  


|   | Category | Species | Weight | Height  | Width  | Length1 | Length2 | Length3 |
|---|----------|---------|--------|---------|--------|---------|---------|---------|
| 0 | 1        | Bream   | 242.0  | 11.5200 | 4.0200 | 23.2    | 25.4    | 30.0    |
| 1 | 1        | Bream   | 290.0  | 12.4800 | 4.3056 | 24.0    | 26.3    | 31.2    |
| 2 | 1        | Bream   | 340.0  | 12.3778 | 4.6961 | 23.9    | 26.5    | 31.1    |
| 3 | 1        | Bream   | 363.0  | 12.7300 | 4.4555 | 26.3    | 29.0    | 33.5    |
| 4 | 1        | Bream   | 430.0  | 12.4440 | 5.1340 | 26.5    | 29.0    | 34.0    |


```

```
In [ ]:  
fish.info()  
  
<class 'pandas.core.frame.DataFrame'>  
  
RangeIndex: 159 entries, 0 to 158  
  
Data columns (total 8 columns):  
  
#   Column  Non-Null Count  Dtype  
#   -----  -
```

```

0 Category 159 non-null int64

1 Species 159 non-null object

2 Weight 159 non-null float64

3 Height 159 non-null float64

4 Width 159 non-null float64

5 Length1 159 non-null float64

6 Length2 159 non-null float64

7 Length3 159 non-null float64

dtypes: float64(6), int64(1), object(1)

memory usage: 10.1+ KB

In [ ]:
fish.describe()

Out [ ]:

```

	Category	Weight	Height	Width	Length1	Length2	Length3
count	159.000000	159.000000	159.000000	159.000000	159.000000	159.000000	159.000000
mean	3.264151	398.326415	8.970994	4.417486	26.247170	28.415723	31.227044
std	1.704249	357.978317	4.286208	1.685804	9.996441	10.716328	11.610246
min	1.000000	0.000000	1.728400	1.047600	7.500000	8.400000	8.800000
25%	2.000000	120.000000	5.944800	3.385650	19.050000	21.000000	23.150000
50%	3.000000	273.000000	7.786000	4.248500	25.200000	27.300000	29.400000
75%	4.500000	650.000000	12.365900	5.584500	32.700000	35.500000	39.650000
max	7.000000	1650.000000	18.957000	8.142000	59.000000	63.400000	68.000000

Hosted by Kaggle View Notebook

```
In [ ]:  
# Step 3 : define target (y) and features (X)
```

```
In [ ]:  
fish.columns
```

```
Out [ ]:  
Index(['Category', 'Species', 'Weight', 'Height', 'Width', 'Length1',  
      'Length2', 'Length3'],  
      dtype='object')
```

```
In [ ]:  
y = fish['Weight']
```

```
In [ ]:  
X = fish[['Category', 'Height', 'Width', 'Length1',  
        'Length2', 'Length3']]
```

```
In [ ]:  
# Step 4 : train test split  
from sklearn.model_selection import train_test_split  
X_train, X_test, y_train, y_test = train_test_split(X, y, train_size=0.7, random_state=2529)
```

```
In [ ]:  
# check shape of train and test sample  
X_train.shape, X_test.shape, y_train.shape, y_test.shape
```

```
Out [ ]:  
((111, 6), (48, 6), (111,), (48,))
```

```
In [ ]:
# Step 5 : select model
from sklearn.linear_model import LinearRegression
model = LinearRegression()

In [ ]:
# Step 6 : train or fit model
model.fit(X_train,y_train)

Out[ ]:
LinearRegression

In [ ]:
model.intercept_

Out[ ]:
-684.4235918478537

In [ ]:
model.coef_

Out[ ]:
array([ 35.19634977,  52.19372157, -37.13869125,  11.22184449 ,
        78.11233802, -59.11783139])

In [ ]:
# Step 7 : predict model
y_pred = model.predict(X_test)

In [ ]:
y_pred
```

Hosted by Kaggle [View Notebook](#)

```
In [ ]:  
y_pred
```

```
Out [ ]:  
array([ 475.93351307,  525.81910195,   77.63275849,  881.10235121,  
        160.96856664,  255.94371856,  361.87029932,  358.87060094,  
        499.83411060, -150.07034151, -115.91810069,  428.65470115,  
        114.67533404,  812.51385122,  506.5071170 ,  273.38510858,  
        579.63900729,  225.18126045,  639.26060037,   85.00820599,  
        136.92159041, -87.7770007 ,  629.97231046,  732.63097812,  
        859.87206095, -166.76920607,  342.04209934,  722.92198147,  
        321.44827179,  787.98248357,  406.93194673,  541.89982795,  
        376.74813045,  624.81211202, -170.11945033,  917.76513801,  
        792.26439518, -21.15655005,  300.24921659,  914.07325473,  
        621.05636206,  934.17373906,  676.85479574,  653.92304403,  
        615.51226767,  336.61090622,  505.75519147, -33.53283763])
```

```
In [ ]:  
# Step 8 : model accuracy  
from sklearn.metrics import mean_absolute_error, r2_score
```

```
In [ ]:  
mean_absolute_error(y_test, y_pred)
```

```
Out [ ]:  
99.50910366731813
```

```
In [ ]:  
r2_score(y_test, y_pred)
```

```
Out [ ]:  
0.83982461599445
```

CONCLUSION

Machine learning (ML) and data science are used across various industries to solve complex problems, improve decision-making, and drive innovation.

Data-Driven Decision Making

- **Objective:** To transform vast amounts of data into actionable insights.
- **Application:** Businesses use ML and data science to analyze customer behaviour, market trends, and operational data to make informed decisions.
- **Example:** Retail companies analyze purchase history to forecast demand and optimize inventory management .

Automation and Efficiency

- **Objective:** To automate repetitive and complex tasks.
- **Application:** ML algorithms automate processes such as data entry, customer service (through chatbots), and fraud detection.
- **Example:** Banks use ML models to automatically detect and prevent fraudulent transactions in real-time .

Predictive Analytics

- **Objective:** To predict future outcomes based on historical data.
- **Application:** Industries like finance, healthcare, and marketing use predictive analytics to forecast trends, customer behaviours, and potential risks.
- **Example:** Healthcare providers use predictive models to anticipate patient readmissions and manage hospital resources effectively .

BIBLIOGRAPHY

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- https://www.w3schools.com/python/python_ml_getting_started.asp
- <https://www.kaggle.com>
- <https://colab.research.google.com>

Ybi Foundation

INTERNSHIP REPORT

*A report submitted in partial fulfilment of the requirements for the Award of
Degree of*

BACHELOR OF COMPUTER APPLICATIONS

by

NEERAV A

UUCMS. No.: U03KU21S0055

Duration: 01st May, 2024 to 31st May, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

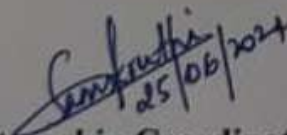
2023 – 2024

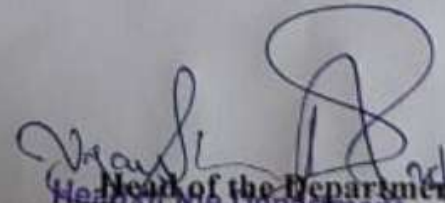
BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **NEERAV A** (UUCMS. No: U03KU21S0038) is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATIONS** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**


25/06/2024
Internship Coordinator
Department of BCA
Ms.Samskruthi BL


Head of the Department
DEPT. OF COMPUTER SCIENCE
Department of BCA
Soundarya Institute of Management and Science
Prof. Vijay Kumar A S
Nagasandra Post, Bangalore - 560 073.

EXAMINERS
1. 
2. 

CERTIFICATE



Corporate Identification Number
U80903DL2020NPL371984

14364000020049355



Ybi Foundation

This is to Certify that

Neerav A

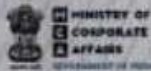
has successfully completed

Data Science and Machine Learning Internship

Duration : 1 Month completed on Friday, May 31 2024

demonstrated exceptional dedication with strong willingness to learn and actively engaged in various projects, tasks exhibiting remarkable skills with high level of professionalism.

Credential ID :
45N07ZTXZR8X



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support@ybifoundation.org

ABSTRACT

Machine learning is a topic of artificial intelligence (AI) where it is possible to elaborate algorithms to teach a particular machine to perform a task. It is necessary to have a dataset, and from that data, explore the correlation between them, discovering patterns and applying algorithms, which makes it possible to take a sum of input data and based on certain patterns to produce the outputs. Each entry in this dataset has its own features, and generates models that can be generalized for a specific task. The idea of machines learning on their own from a vast volume of data may be the simplified definition of machine learning. In general, machine learning is a field of artificial intelligence that is intended to explore constructs of algorithms that make it possible to understand autonomously, where it creates the possibility to recognize and extract patterns from a large volume of data, thus building a model of learning.

Organisation Information:

"YBI Foundation: IMPART LEARNING TO EMPOWER & TRANSFORM YBIF Offers Job Guarantee Program, Free Internship, Micro Credential and Full Stack Programs YBIF Learning Portal(www.ybifoundation.org). DATA SCIENCE || MACHINE LEARNING || ARTIFICIAL INTELLIGENCE || BUSINESS ANALYTICS || DATA VISUALIZATION || BIG DATA || PROGRAMMING || MATH & STATISTICS || CLOUD COMPUTING"

Programs and opportunities:

Artificial Intelligence Machine Learning | Data Science Marketing Analytics Social Network Analytics Business And Data Analytics | And provides career programs and learning upskills based on upskilling platform and provides the opportunities of both technical and non-technical fields.

Methodologies:

We follow a structured methodology for our projects which starts from designing the solution to the implementation phase. Well planned Project reduces the time to deliver the project and any additional ad-hoc costs to our clients, hence we dedicate majority of our time

understanding our clients business and gather requirements. This ground up approach helps us deliver not only the solution to our clients but also add value to your investment.

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DEPARTMENT OF BCA

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The primary objective of the Fish Weight Prediction project is to develop a machine learning model that can accurately predict the weight of a fish based on various physical attributes. This project aims to leverage data science techniques to analyze and model the relationship between a fish's characteristics and its weight.

- 1. Quality Control:** Detect anomalies in manufacturing or production processes to maintain quality standards.
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The project scope included the following steps:

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```
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```

```
In [ ]:
# Step 2 : Import data
fish = pd.read_csv('https://github.com/ybifoundation/Dataset/raw/main/fish.csv')
```

```
In [ ]:
fish.head()
```

```
Out [ ]:
```

	Category	Species	Weight	Height	Width	Length1	Length2	Length3
0	1	Bream	342.0	11.5200	4.0208	25.2	25.4	22.0
1	1	Bream	291.0	12.4800	4.3858	24.0	28.3	21.2
2	1	Bream	342.0	12.3778	4.5991	23.8	26.5	21.1
3	1	Bream	362.0	12.7200	4.4555	26.2	28.0	22.5
4	1	Bream	430.0	12.4443	5.1340	28.5	28.2	24.2

```
In [ ]:
fish.info()
```

```
<class 'pandas.core.frame.DataFrame'>
```

```
RangeIndex: 159 entries, 0 to 158
```

```
Data columns (total 9 columns):
```

```
# Column Non-Null Count Dtype
```

[View Notebook](#)

Hosted by Kaggle

```

8 Category 159 non-null int64
1 Species 159 non-null object
2 Weight 159 non-null float64
3 Height 159 non-null float64
4 Width 159 non-null float64
5 Length1 159 non-null float64
6 Length2 159 non-null float64
7 Length3 159 non-null float64

```

```
dtypes: float64(6), int64(1), object(1)
```

```
memory usage: 18.1+ KB
```

```
In [ ]: fish.describe()
```

```
Out [ ]:
```

	Category	Weight	Height	Width	Length1	Length2	Length3
count	159.000000	159.000000	159.000000	159.000000	159.000000	159.000000	159.000000
mean	3.254151	286.328415	8.075894	4.417488	28.347170	28.415723	31.227744
std	1.704248	257.878217	4.288208	1.085204	8.898441	10.718328	11.619348
min	1.000000	0.000000	1.728400	1.047900	7.500000	8.400000	8.800000
25%	2.000000	120.000000	5.844800	3.385350	18.950000	21.000000	23.190000
50%	3.000000	270.000000	7.786000	4.348500	25.200000	27.380000	29.400000
75%	4.500000	650.000000	12.385900	5.584500	32.700000	35.500000	38.850000
max	7.000000	1850.000000	18.857000	8.142000	58.000000	63.480000	68.000000

```

In [ ]:
# Step 2 : define target (y) and features (X)

In [ ]:
fish.columns

Out [ ]:
Index(['Category', 'Species', 'Weight', 'Height', 'Width', 'Length1',
       'Length2', 'Length3'],
      dtype='object')

In [ ]:
y = fish['Weight']

In [ ]:
X = fish[['Category', 'Height', 'Width', 'Length1',
          'Length2', 'Length3']]

In [ ]:
# Step 4 : train test split
from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(X, y, train_size=0.7, random_state=3235)

In [ ]:
# check shape of train and test sample
X_train.shape, X_test.shape, y_train.shape, y_test.shape

Out [ ]:
((111, 6), (48, 6), (111,), (48,))

```

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DEPARTMENT OF BCA

10

```
> |  
# Step 5 : select model  
from sklearn.linear_model import LinearRegression  
model = LinearRegression()
```

```
> |  
# Step 6 : train or fit model  
model.fit(X_train,y_train)
```

```
> |  
model
```

```
> |  
model.intercept_
```

```
> |  
-664.4235918478537
```

```
> |  
model.coef_
```

```
> |  
array([ 35.19634677,  52.19372157, -37.13869125,  11.2218449 ,  
        78.11233882, -59.11783174])
```

```
> |  
# Step 7 : predict model  
y_pred = model.predict(X_test)
```

```
> |  
y_pred
```

[View Notebook](#)

> |

```
y_pred
```

Out:

```
array([ 475.93351387,  525.81918195,  77.62275841,  887.18235121,
        168.9685654 ,  255.94271856,  361.87829932,  358.87868994,
        499.83411868, -158.87824151, -115.91818889,  428.65478115,
        114.67533484,  812.51385122,  585.5871178 ,  273.38518858,
        579.63986729,  225.18126345,  639.26868837,  85.98828859,
        136.92159841, -87.7778887 ,  629.97231846,  732.63857812,
        859.8728695 , -166.76923687,  342.84289934,  722.92198147,
        321.44827179,  787.98248357,  486.92194673,  541.89982795,
        376.74813845,  624.81211282, -178.11945833,  917.76513881,
        792.26439518, -21.15665885,  388.24921659,  914.87325473,
        621.85636286,  934.17373986,  676.85479574,  653.92384483,
        615.51226767,  336.61898632,  585.75519147, -33.5283763])
```

> |

```
# Step 8 : model accuracy
from sklearn.metrics import mean_absolute_error, r2_score
```

In:

```
mean_absolute_error(y_test, y_pred)
```

Out:

```
99.58918066731813
```

In:

```
r2_score(y_test, y_pred)
```

Out:

```
0.83980461599445
```

CONCLUSION

Machine learning (ML) and data science are used across various industries to solve complex problems, improve decision-making, and drive innovation.

Data-Driven Decision Making

- **Objective:** To transform vast amounts of data into actionable insights.
- **Application:** Businesses use ML and data science to analyze customer behaviour, market trends, and operational data to make informed decisions.
- **Example:** Retail companies analyze purchase history to forecast demand and optimize inventory management .

Automation and Efficiency

- **Objective:** To automate repetitive and complex tasks.
- **Application:** ML algorithms automate processes such as data entry, customer service (through chatbots), and fraud detection.
- **Example:** Banks use ML models to automatically detect and prevent fraudulent transactions in real-time .

Predictive Analytics

- **Objective:** To predict future outcomes based on historical data.
- **Application:** Industries like finance, healthcare, and marketing use predictive analytics to forecast trends, customer behaviours, and potential risks.
- **Example:** Healthcare providers use predictive models to anticipate patient readmissions and manage hospital resources effectively .

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- <https://colab.research.google.com>



Bangalore University
VI- Semester (NEP) BCA Internship Report on
“Data Science and Machine Learning”

Submitted by

NEERAV A

U03KU21S0055

Department of Computer Applications - BCA



Soundarya Institute of Management and Science

Soundarya Nagar, Sidedahalli, Nagasandra Post, Bangalore-73

Soundarya Institute of Management and Science

Department of Computer Applications - BCA

Internship Day Book

Internship Day Book

Student Name and USN No: NEERAV A (U03KU21S0055)
 Company Name: Ybi Foundation
 Address: Virtual Internship

Sl. No.	Date	Activities / Work Done
1	01-05-2024	Introduction to online Classes.
2	02-05-2024	Instructions to Complete online internship.
3	03-05-2024	Scope of Data Skills and AI.
4	04-05-2024	Data Collection and Cleaning.
5	05-05-2024	Assignment-1.
6	06-05-2024	Introduction to python and google colab.
7	07-05-2024	Introduction to Machine learning
8	08-05-2024	Overview of Machine learning Types-Supervised and Unsupervised learning.
9	09-05-2024	Overview of Machine learning Types-reinforcement and semi supervised learning.
10	10-05-2024	Overview of Machine learning libraries (Pandas and Matplotlib).
11	11-05-2024	Overview of Machine learning libraries (Sci-kit learn and Seaborn).
12	12-05-2024	Assignment-2
13	13-05-2024	Overview of Machine learning libraries (Numpy and Scipy).
14	14-05-2024	Read Data as dataframe and exploring the datasets.
15	15-05-2024	Kaggle and feedback assignment.
16	16-05-2024	Data integration and schema alignment using pandas.
17	17-05-2024	Initial data cleaning using pandas and Numpy.
18	18-05-2024	Outlier detection and data handling.
19	19-05-2024	Assignment-3.
20	20-05-2024	Train test and split.
21	21-05-2024	Linear regression Models.
22	22-05-2024	Logistics regression Models.
23	23-05-2024	Exploratory Data Analysis (EDA.).
24	24-05-2024	Feature analysis and selection using pandas and sci-kit learn.

25	25-05-2024	Model selection and Training.
26	26-05-2024	Assignment-4
27	27-05-2024	Project selection.
28	28-05-2024	Handling missing elements in duplicate data.
29	29-05-2024	Advanced visualization using Seaborn.
30	30-05-2024	Project submission.
31	31-05-2024	Proof of completion(Certificate).

Samskruthi
25/06/2024

Ms. Samskruthi
Assistant Professor
Soundarya Institute of
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Vasu B A
Head of the Department

DEPT. OF COMPUTER SCIENCE
Soundarya Institute of Management and
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Dr. Vasu B A
Principal
Soundarya Institute of
Management of Science

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the "Internship report" submitted by NEHA R (UUCMS. No.: U03KU21S0064) is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Samskruthi
25/06/2024

Internship Coordinator
Prof. Samskruthi BL


Vijay Kumar
Head of the Department
Department of BCA
[Ph.D.]

EXAMINER
26/6/24
Samskruthi

5	Week 5-	Registration, Login and Booking Pages connecting to Django
	28-03-2024	Develop backend functionality for registration & login, Booking.
	29-03-2024	Test registration, login updates & booking internally.
	30-03-2024	Develop authentication logic for teacher login
	31-03-2024	Integrate teacher login with Django authentication system.
	01-04-2024	Final testing, documentation, and deployment preparation.
6	Week 6-	Overview
	04-04-2024	Reviewed progress and planned tasks.
	05-04-2024	Improved frontend elements.
	06-04-2024	Developed backend features.
	07-04-2024	Conducted thorough testing.
	08-04-2024	Finalized documentation and project zip.


25/06/2024

Prof. Samskruthi BL
Professor
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Dr. Vasu BA
Principal
Soundarya Institute of
Management and Science

aminer (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

NEHA R

UUCMS. No.: U03KU21S0064

(Duration: 29th Feb ,2024 to 09th April ,2024)



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **NEHA R (UUCMS. No.: U03KU21S0064)** is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Prof. Samskruthi BL

Head of the Department
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D.]

Date: 5th March 2024

Dear Mr./Ms. NEHA R

AICTE Student ID: STU65db1c0e7e78c1708858382

AICTE Internship ID: INTERNSHIP_170003939765548ae545859

We extend our warmest congratulations on your selection for an **internship presented by the Edunet Foundation, in collaboration with EY GDS-AICTE**, focusing on Full Stack Web Development.

The EY GDS - AICTE Internship is structured to support individuals in developing essential foundational skills needed for productive careers in the IT sector. Participants have the opportunity to earn credentials and benefit from guidance provided by industry experts, all at no cost throughout the duration of the program.

EY GDS (Ernst & Young – Global Delivery Services), in partnership with AICTE, provides a unique learning experience through a 6-week Internship, commencing from **28th February 2024 to 16th April 2024**. Throughout this period, you will have the opportunity to work independently on a project, with guidance from a mentor who will assist you in identifying solutions and developing them into a tangible project.

Benefits:

- Personalized mentorship sessions and collaborative group learning.
- Opportunities to expedite learning through project-based internships.
- A holistic learning experience provided by industry experts through knowledge-sharing sessions.
- Showcase your skills by creating prototypes to solve real-world challenges.
- Earn certifications from EY, AICTE, and Edunet, boosting your confidence and value to potential future employers.
- Opportunity to present your project prototypes to a panel of industry experts at a regional showcase event.

Timeline and the Project:

Week	Agenda	Student Deliverables
Week 0	Orientation of Internship, Project allocation	<ul style="list-style-type: none"> • Selection of Projects through Google form • Commence Project Related Tasks
Week 1	Master session on Resume Building, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 2	Master session on Design Thinking in Real World Applications, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 3	Master session on Managing codebase with Git Hub, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning

Week 4	Master session on DevOps: Code to Production, Mentorship sessions, Ask Me Anything sessions, and Final Project Submission	<ul style="list-style-type: none"> • Complete Weekly Milestone • Self-Paced learning • Final project and PPT Submission
Week 5	Mock project presentations	<ul style="list-style-type: none"> • Presentation of Project in front of Subject Matter Experts • Incorporate changes in the project mentioned by Mentors
Week 6	Final Project Presentations (PPT)	<ul style="list-style-type: none"> • Final Presentation of Project before EY Industry Experts

Criteria for certification:

- Participation in master sessions with EY & EF experts is mandatory
- Participation in mentorship sessions with EF experts is mandatory
- Completion of tasks/milestones every week
- Submission of a project presentation required
- Commitment of 6-8hrs/week throughout internship

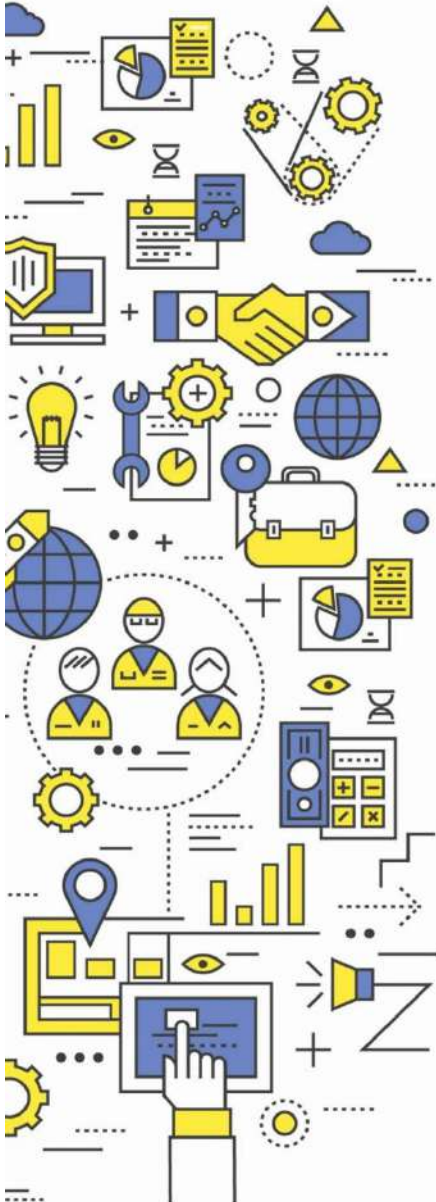
Stipend:

There will be NO stipend for this internship.

We wish you a great learning experience during the internship. Thank you!



Sincerely,
Nagesh Singh
Executive Director – Edunet Foundation



CERTIFICATE OF APPRECIATION

INTERNSHIP_170662655565b90dfb357f2

PROUDLY PRESENTED TO

NEHA R

STU65db1c0e7e78c1708858382

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Full Stack Web Development** under the **Next Gen Employability Program 2023-24**.

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

ACKNOWLEDGEMENT

First, I would like to thank **Vivek Srinivasan**, HR, Head, of **Edunet Foundation, Bangalore** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me **Edunet Foundation, Bangalore** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

NEHA R (U03KU21S0064)

ABSTRACT

Edunet Foundation, headquartered in Bangalore, is a leading educational institution committed to equipping students and professionals with cutting-edge technical skills and industry-relevant knowledge. The foundation offers comprehensive programs such as Full-Stack Web Development (FSWD), which covers a wide range of modern technologies including HTML, CSS, JavaScript for front-end development, and Python with Django for back-end development. Edunet Foundation's mission is to foster a deep understanding of technology, providing learners with the capabilities to excel in the rapidly evolving tech industry. Additionally, the foundation offers training in various programming languages such as Java, C++, and SQL, ensuring a well-rounded education that prepares participants for diverse roles in the technology sector.

The project at hand involves the development of a Bus Reservation System using Python and Django, a testament to the full-stack development expertise imparted by Edunet Foundation. This system is designed to streamline the process of booking bus tickets, managing schedules, and handling customer data. The project adopts Agile methodologies, which emphasize iterative development and continuous feedback, ensuring that the system evolves in alignment with user needs. The application is structured using the Model-View-Controller (MVC) architecture, enhancing maintainability and scalability by separating the user interface, business logic, and data management. The integration of RESTful APIs facilitates efficient data exchange between the client and server, making the system modular and capable of seamless integration with other services.

Through the development of this Bus Reservation System, Edunet Foundation not only demonstrates its commitment to practical, hands-on learning but also enhances its portfolio with a sophisticated, real-world application. The project provides valuable experience for participants, equipping them with the skills necessary to design, develop, and deploy complex web applications. This initiative not only benefits the students by enhancing their technical proficiency but also showcases Edunet Foundation's capability to produce industry-ready professionals who are well-versed in modern development practices. Ultimately, the system has the potential to be a functional solution that improves the convenience and efficiency of bus travel, thereby contributing to community welfare and underscoring the foundation's impact on societal betterment

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INTERNSHIP OBJECTIVES

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

1. INTRODUCTION

In the rapidly evolving digital age, the demand for efficient and user-friendly transportation systems has never been higher. Among various modes of transportation, bus travel remains a vital component, particularly in urban and rural settings. However, traditional methods of bus ticket booking often entail long queues, manual paperwork, and outdated systems, leading to significant inefficiencies and customer dissatisfaction. These challenges highlight the necessity for a modern, automated solution that can streamline the reservation process, improve user experience, and enhance operational efficiency. This project aims to address these needs by developing a comprehensive Bus Reservation System using Python and Django, utilizing the principles of full-stack development to create a robust and scalable application.

The primary objective of this project is to design and implement a Bus Reservation System that offers a seamless online platform for booking bus tickets, viewing real-time seat availability, and managing customer data. The system is designed to cater to the needs of both passengers and bus operators, providing an intuitive interface for users to book tickets and a powerful backend for operators to manage schedules and routes. By leveraging the capabilities of Python and Django, this project aims to build a reliable and efficient system that automates the ticketing process and minimizes the reliance on manual methods. The overarching goal is to enhance the travel experience for passengers while improving the efficiency and effectiveness of bus operations.

The scope of the Bus Reservation System encompasses several key functionalities. Firstly, it provides secure user registration and authentication, allowing customers to create accounts, log in, and manage their profiles. Secondly, it offers comprehensive bus schedule and route management, enabling administrators to add, update, and manage schedules dynamically. The system also includes a feature for real-time seat booking, allowing users to search for buses, select seats, and make reservations online. Additionally, the system integrates with payment gateways to facilitate secure and convenient online payments for ticket bookings. Furthermore, it maintains a record of booking history and sends notifications for confirmations, cancellations, and schedule changes. Finally, the system includes data management tools for handling customer information and generating operational reports.

2.MODULES

2.1 User Management Module

Functionality:

The User Management module handles all aspects of user registration, authentication, and profile management. This module ensures that users can securely create accounts, log in, and manage their personal information.

1. **Registration:** Allows new users to sign up by providing necessary details such as name, email, password, and contact information. The system uses Django's built-in authentication framework to manage user accounts and passwords securely.
2. **Authentication:** Provides login and logout functionality. It uses Django's authentication system to verify user credentials and grant access to the system based on their roles (e.g., passenger, admin).
3. **Profile Management:** Allows users to view and update their profile information. Users can change their passwords, update contact details, and manage their preferences.

Interconnections:

This module is closely linked with the Booking Management and Payment Processing modules, as authenticated users are required to book tickets and make payments.

2.2 Bus Schedule and Route Management Module

Functionality:

The Bus Schedule and Route Management module allows administrators to manage the scheduling and routing of buses. This includes creating, updating, and deleting schedules and routes.

1. **Schedule Management:** Administrators can add new bus schedules, specify departure and arrival times, and manage the frequency of bus services. This data is stored in a database and made available for booking.
2. **Route Management:** Enables the creation and modification of bus routes. Administrators can define the start and end points, intermediate stops, and the travel distance.

3. **Availability Management:** Tracks the number of available seats for each bus and updates this information in real-time as bookings are made.

Interconnections:

This module interacts with the Booking Management module to provide users with up-to-date schedule and seat availability information. It also integrates with the Reporting and Analytics module to generate reports on bus utilization.

2.3 Booking Management Module

Functionality:

The Booking Management module is the core of the system, providing users with the ability to search for buses, view seat availability, and book tickets.

1. **Bus Search:** Allows users to search for available buses based on criteria such as date, time, and route. The search results include details like departure time, duration, and available seats.
2. **Seat Selection:** Provides an interactive interface for users to view and select available seats. The system updates seat availability in real-time to prevent double bookings.
3. **Booking Confirmation:** Once a booking is made, the system generates a confirmation and assigns a unique booking reference number. Users receive a confirmation message and email with their booking details.

Interconnections:

This module works closely with the User Management module to authenticate users and the Payment Processing module to handle ticket payments. It also updates the Bus Schedule and Route Management module to reflect changes in seat availability.

2.4 Payment Processing Module

Functionality:

The Payment Processing module handles the financial transactions for ticket bookings, ensuring secure and reliable payment handling.

1. **Payment Gateway Integration:** Integrates with external payment gateways to process online payments. The system supports multiple payment methods, including credit cards, debit cards, and online banking.

2. **Transaction Management:** Tracks and records all financial transactions, ensuring that each payment is securely processed and recorded in the database.
3. **Refund Management:** Provides functionality for processing refunds in case of booking cancellations or changes.

Interconnections:

This module is integrated with the Booking Management module to facilitate payments for confirmed bookings. It also links to the Reporting and Analytics module to track financial performance and transaction history.

2.5 Reporting and Analytics Module

Functionality:

The Reporting and Analytics module provides tools for generating detailed reports and analytics on various aspects of the bus reservation system.

1. **Booking Reports:** Generates reports on booking trends, including data on peak travel times, popular routes, and customer demographics.
2. **Financial Reports:** Provides insights into revenue generated, payment trends, and financial performance.
3. **Operational Reports:** Offers reports on bus utilization, route efficiency, and schedule adherence.

Interconnections:

This module pulls data from the Booking Management, Payment Processing, and Bus Schedule and Route Management modules to generate comprehensive reports. It provides valuable insights for administrators to make data-driven decisions.

2.6 Notification Module

Functionality:

The Notification module manages communication with users, keeping them informed about their bookings and any changes to schedules or routes.

1. **Booking Notifications:** Sends confirmation emails and SMS messages to users upon successful booking.

2. **Schedule Updates:** Notifies users of any changes to bus schedules or routes, including cancellations or delays.
3. **Reminder Notifications:** Sends reminders to users about upcoming trips or pending payments.

Interconnections:

This module interfaces with the User Management and Booking Management modules to gather user contact details and booking information for notifications. It also integrates with external messaging services to send emails and SMS.

2.7 Administration Module

Functionality:

The Administration module provides a control panel for system administrators to manage various aspects of the bus reservation system.

1. **User Management:** Allows administrators to view and manage user accounts, including the ability to deactivate or delete accounts as necessary.
2. **System Settings:** Provides tools for configuring system settings, including payment gateway configurations and notification preferences.
3. **Content Management:** Enables administrators to update website content, such as promotional banners, news, and announcements.

Interconnections:

This module is linked to all other modules, providing administrators with comprehensive control over the system's functionality and configuration.

3.ANALYSIS

3.1 Technological Stack

1. **Python and Django:** Utilizing Python as the programming language and Django as the web framework provides numerous advantages such as rapid development, scalability, and a vast ecosystem of libraries and tools. Django's built-in features like ORM (Object-Relational Mapping), authentication system, and admin interface streamline development and maintenance tasks.
2. **RESTful APIs:** Integrating RESTful APIs facilitates seamless communication between the client-side and server-side components of the application, promoting modularity and interoperability.

3.2 Functionality and User Experience

1. **User-Friendly Interface:** The system offers an intuitive interface for users to search buses, select seats, and make bookings. Real-time seat availability updates prevent booking conflicts and enhance user satisfaction.
2. **Authentication and Security:** Robust user authentication mechanisms ensure secure access to the system, protecting user data and transactions. This builds trust among users and contributes to the overall reliability of the system.
3. **Payment Integration:** Supporting multiple payment gateways ensures flexibility and convenience for users, accommodating various preferences and enhancing transaction security.
4. **Notifications:** Automated notifications for booking confirmations, schedule updates, and reminders improve user engagement and provide timely information.

3.3. Operational Efficiency

1. **Bus Schedule Management:** The system allows administrators to efficiently manage bus schedules and routes, optimizing resource allocation and minimizing operational disruptions. Real-time updates on schedules and seat availability enable proactive management of bus services.
2. **Transaction Management:** Comprehensive tracking and management of financial transactions ensure accuracy and reliability in handling payments and refunds. This contributes to financial transparency and accountability.
3. **Reporting and Analytics:** Detailed reports on booking trends, revenue generation, and operational metrics provide valuable insights for strategic decision-making and performance evaluation. This data-driven approach supports continuous improvement and operational efficiency.

3.4 Scalability and Maintainability

1. **Modular Architecture:** The system's modular design promotes scalability by allowing independent development and deployment of modules. This facilitates future enhancements and modifications without disrupting the entire system.
2. **MVC Architecture:** Adhering to the Model-View-Controller architecture enhances maintainability by separating concerns and isolating changes to specific components. This simplifies debugging, updates, and code management.
3. **Agile Development:** Adopting Agile methodologies ensures flexibility and responsiveness to changing requirements, fostering continuous improvement and stakeholder collaboration throughout the development lifecycle.

3.5 Educational and Professional Development

1. **Learning Opportunities:** Engaging in full-stack development using Python and Django equips participants with practical skills in web application development, database management, and API integration. This hands-on experience prepares them for real-world challenges and enhances their employability in the technology industry.
2. **Industry Relevance:** By incorporating modern technologies and development practices, the project aligns with industry standards and trends, ensuring that participants gain relevant knowledge and expertise.

3.6 Impact and Benefits

1. **Customer Satisfaction:** Improving the booking process and user experience enhances customer satisfaction, fostering loyalty and positive word-of-mouth.
2. **Operational Cost Savings:** Automating manual processes and optimizing resource utilization reduce operational costs and improve efficiency.
3. **Community Impact:** The system contributes to the broader goal of enhancing public transportation infrastructure by providing a reliable and accessible booking platform.

3.7 Challenges and Lessons Learned

1. **Integration Complexity:** Integrating multiple external systems such as payment gateways and messaging services requires thorough planning and testing to ensure seamless functionality.
2. **Data Security:** Implementing robust security measures to protect user data and financial transactions is critical and requires continuous monitoring and updates.

3. **User Feedback:** Incorporating user feedback and iterative improvements are essential for refining features and enhancing usability based on real-world usage.

3.8 Future Enhancements

1. **Mobile Application:** Developing a mobile application version of the system to expand accessibility and convenience for users accessing the platform via smartphones and tablets.
2. **Predictive Analytics:** Implementing predictive analytics to forecast demand, optimize bus schedules, and improve resource allocation based on historical data and trends.
3. **Enhanced Personalization:** Incorporating features for personalized recommendations, loyalty programs, and tailored notifications to further enhance user engagement and satisfaction.

4.SOFTWARE REQUIRMENTS AND SPECIFICATIONS

4.1 Introduction

Purpose

The purpose of the Bus Reservation System is to provide a user-friendly and efficient platform for booking bus tickets online. The system aims to automate the booking process, enhance user experience, and streamline bus schedule management for administrators.

Scope

The system will include modules for user management, bus schedule and route management, booking management, payment processing, notifications, administration, and reporting. It will support multiple payment gateways and provide real-time updates on bus schedules and seat availability.

4.2 Functional Requirements

User Management

1. **Registration:** Users can create accounts with personal information.
2. **Authentication:** Secure login/logout functionality.
3. **Profile Management:** Users can update their profiles and view booking history.

Bus Schedule and Route Management

1. **Schedule Management:** Administrators can add, edit, and delete bus schedules.
2. **Route Management:** Define bus routes with stops and distances.
3. **Availability:** Real-time updates on available seats for each bus.

Booking Management

1. **Bus Search:** Users can search for buses based on date, time, and route.
2. **Seat Selection:** Interactive seat map for seat selection and booking.
3. **Booking Confirmation:** Users receive confirmation with booking details.

Payment Processing

1. **Payment Gateway Integration:** Support for multiple payment methods.
2. **Transaction Management:** Secure handling of payment transactions and refunds.

Notifications

1. **Booking Updates:** Automated notifications for booking confirmations, changes, and cancellations.
2. **Schedule Alerts:** Alerts for schedule updates and reminders.

Administration

1. **User and Role Management:** Administrators can manage user accounts and roles.
2. **System Settings:** Configure payment gateways, notifications, and system parameters.

Reporting and Analytics

1. **Booking Reports:** Generate reports on booking trends, revenue, and operational metrics.
2. **Financial Reports:** Track payment transactions and financial performance.

4.3 Non-Functional Requirements

Performance

1. The system should handle concurrent user sessions and transactions efficiently.
2. Response times for seat availability checks and booking operations should be minimal.

Security

1. Implement secure authentication mechanisms to protect user accounts and data.
2. Secure handling of financial transactions and compliance with PCI-DSS standards.

Usability

1. Intuitive user interface with clear navigation and responsive design.
2. Accessibility features to accommodate users with disabilities.

Reliability

1. Ensure system uptime and availability with minimal downtime for maintenance.
2. Backup and recovery mechanisms to prevent data loss.

4.4 Constraints

1. The system should be compatible with modern web browsers (Chrome, Firefox, Safari).
2. Development should adhere to Python and Django best practices and coding standards.
3. Integration with external APIs (payment gateways, SMS services) should meet API specifications and security requirements.

4.5 Assumptions

1. Users have access to stable internet connections for booking transactions.
2. Administrators have adequate training to manage the system effectively.
3. The system will be hosted on a scalable and reliable web hosting platform.

5. TECHNOLOGY

5.1 HTML (HyperText Markup Language)

Role and Importance in the Project:

HTML, or HyperText Markup Language, is the cornerstone technology used in the Notes Sharing Web Application for structuring web content. As a markup language, HTML provides the skeleton of the web pages by defining the placement and hierarchy of various elements such as text, images, forms, and hyperlinks. Each element in HTML is enclosed within tags, which specify how the content should be displayed.

Key Features and Functions:

1. **Content Structuring:** HTML tags like `<header>`, `<footer>`, `<article>`, and `<section>` help organize the content into meaningful sections, making it easier for users to navigate and understand the web page. These semantic tags also improve accessibility and search engine optimization (SEO), as they provide context to the content.
2. **Hyperlinking:** One of the fundamental features of HTML is the ability to create hyperlinks using the `<a>` tag. This allows users to navigate between different pages or sections within the application, providing a cohesive and interconnected web experience.
3. **Form Handling:** HTML forms are crucial for user input and data collection. Tags like `<form>`, `<input>`, `<text area>`, and `<button>` enable the creation of interactive forms for functionalities such as user registration, note submissions, and search queries within the application.
4. **Media Integration:** HTML supports embedding various media types, including images (``), audio (`<audio>`), and video (`<video>`). This feature is used to enhance the visual and interactive aspects of the Notes Sharing Web Application by incorporating multimedia content.

Relevance to the Project:

HTML is essential for laying out the content and providing a structured framework for the Notes Sharing Web Application. It ensures that the application is accessible and navigable, offering a clear and organized presentation of educational materials. The use of semantic tags and

hyperlinks facilitates a user-friendly interface, enabling users to interact with the content intuitively.

5.2 CSS (Cascading Style Sheets)

Role and Importance in the Project:

CSS, or Cascading Style Sheets, is used to control the visual appearance and layout of the web pages created with HTML. In the Notes Sharing Web Application, CSS is responsible for defining the styles of various elements, including fonts, colors, spacing, and overall layout. CSS enhances the aesthetic appeal and usability of the application, ensuring a consistent and engaging user experience.

Key Features and Functions:

1. **Styling and Layout:** CSS allows for detailed control over the design and layout of web pages. By using selectors and properties, CSS defines styles for HTML elements, including font sizes, colors, margins, and padding. It also supports layout models like Flexbox and Grid, which facilitate responsive and complex layouts.
2. **Responsive Design:** CSS media queries enable the application to adapt to different screen sizes and devices. This ensures that the Notes Sharing Web Application provides an optimal viewing experience across desktops, tablets, and smartphones, enhancing accessibility and usability.
3. **Animations and Transitions:** CSS supports animations and transitions, which can be used to add dynamic visual effects and interactions. For example, hover effects on buttons or smooth transitions between different states can enhance the user interface and make the application more interactive.
4. **Custom Styling:** CSS allows for the customization of styles through class and ID selectors. This makes it possible to apply unique styles to specific elements or groups of elements, facilitating a tailored and cohesive design.

Relevance to the Project:

CSS is crucial for the visual design and user interface of the Notes Sharing Web Application. It ensures that the application is not only functional but also visually appealing and easy to use. The use of responsive design techniques allows the application to cater to a wide range of

devices, ensuring that users have a seamless experience regardless of how they access the platform.

5.3 JavaScript

Role and Importance in the Project:

JavaScript is a powerful, dynamic programming language used to create interactive and dynamic features on web pages. In the Notes Sharing Web Application, JavaScript is employed to enhance user interactions, manage client-side functionality, and provide a more engaging user experience. It enables real-time updates and interactive elements that make the application more responsive and user-friendly.

Key Features and Functions:

1. **Client-Side Scripting:** JavaScript operates on the client side, meaning it runs directly in the user's web browser. This allows for faster and more efficient interactions, as the browser can process and respond to user actions without the need to communicate with the server.
2. **DOM Manipulation:** JavaScript allows for manipulation of the Document Object Model (DOM), which represents the structure of a web page. By modifying the DOM, JavaScript can dynamically update content, styles, and attributes, creating a more interactive and responsive user experience.
3. **Event Handling:** JavaScript supports event-driven programming, enabling it to respond to user actions such as clicks, key presses, and form submissions. Event handlers can trigger functions that execute specific tasks, enhancing the interactivity of the application.
4. **AJAX (Asynchronous JavaScript and XML):** AJAX allows for asynchronous data loading, enabling the application to update content dynamically without reloading the entire page. This feature is particularly useful for functions like note searching and filtering, where real-time updates enhance the user experience.
5. **Form Validation:** JavaScript is used to validate user input on the client side, ensuring that forms are correctly filled out before submission. This reduces errors and improves data integrity by providing immediate feedback to users.

Relevance to the Project:

JavaScript plays a critical role in enhancing the interactivity and functionality of the Notes Sharing Web Application. It allows for real-time updates and dynamic content changes, creating a more responsive and engaging user experience. By handling client-side scripting and event-driven interactions, JavaScript ensures that the application is intuitive and user-friendly.

5.4 Python Programming Language

Role and Importance in the Project:

Python is a high-level, interpreted programming language known for its readability and simplicity. It plays a critical role in the Notes Sharing Web Application as the primary language for server-side development using the Django framework. Python's versatility and ease of use make it an ideal choice for web application development, particularly for handling back-end logic and database interactions.

Key Features:

1. **Readability and Simplicity:** Python's clean syntax and straightforward structure make it easy to write and maintain code, which is beneficial for developing complex web applications with a focus on readability and maintainability.
 2. **Extensive Libraries and Frameworks:** Python offers a rich ecosystem of libraries and frameworks that streamline development tasks. In this project, Django is the primary framework used for building the web application, leveraging Python's capabilities for server-side development.
 3. **Versatility and Portability:** Python's versatility allows it to be used for various tasks beyond web development, such as data analysis, machine learning, and automation. This versatility makes it a valuable language for developing multi-functional applications.
- o **Importance:** Python's role in the project is pivotal for developing the server-side components of the Notes Sharing Web Application. Its simplicity and robust feature set enable efficient and effective development of the application's back-end, ensuring scalability and reliability.

6.DATABASE

6.1 Django (Python Web Framework)

Role and Importance in the Project:

Django is a high-level Python web framework used for back-end development. It provides a robust and scalable framework for building secure web applications. In the Notes Sharing Web Application, Django handles the server-side logic, database interactions, and overall application management, ensuring that the application is reliable and efficient.

Key Features and Functions:

1. **MVC Architecture:** Django follows the Model-View-Controller (MVC) architectural pattern, which separates the application into three interconnected components: the model (data), the view (user interface), and the controller (logic). This separation of concerns simplifies development and maintenance.
2. **Object-Relational Mapping (ORM):** Django's ORM provides an abstraction layer that allows developers to interact with the database using Python code instead of SQL queries. This simplifies database operations and ensures consistency and security in data management.
3. **Built-in Admin Interface:** Django includes a powerful admin interface that allows for easy management of the application's data and content. This feature enables administrators to add, edit, and delete data without the need for custom interfaces, streamlining content management.
4. **Security Features:** Django comes with built-in security features to protect against common web vulnerabilities, including SQL injection, cross-site scripting (XSS), and cross-site request forgery (CSRF). These features ensure that the application is secure and can handle sensitive user data.
5. **Scalability and Performance:** Django is designed to handle high traffic and large amounts of data, making it suitable for scalable web applications. Its modular design and reusable components allow for efficient performance and easy extension of the application's functionality.

Relevance to the Project:

Django provides the backbone for the Notes Sharing Web Application, managing server-side operations, database interactions, and application security. Its robust framework ensures that the application is scalable, secure, and maintainable, which is crucial for a reliable and efficient web platform. Django's features enable rapid development and seamless integration of new functionalities, supporting the application's growth and adaptability.

Introduction

Django is a high-level, open-source web framework written in Python that facilitates rapid development and clean, pragmatic design. Designed to help developers take applications from concept to completion as swiftly as possible, Django prioritizes reusability, pluggability of components, rapid development, and the principle of "don't repeat yourself" (DRY). One of Django's standout features is its ability to seamlessly integrate with databases, making it a powerful tool for managing data in web applications. This integration is achieved through Django's built-in Object-Relational Mapping (ORM) system, which allows developers to interact with databases using Python code instead of complex SQL queries.

About Django Framework

Django is designed to handle both the back-end logic and database management for web applications. It provides a robust set of tools and features that simplify the process of building complex, data-driven websites. The framework's philosophy is to enable developers to focus on writing their applications without needing to reinvent the wheel by offering ready-to-use components for many common web development tasks.

Key Features of Django Framework:

1. **Rapid Development:** Django's extensive libraries and reusable components facilitate quick development of web applications, making it easier to implement complex features without building them from scratch.
2. **Security:** Django provides built-in protection against many common security threats, such as SQL injection, cross-site scripting (XSS), cross-site request forgery (CSRF), and clickjacking. This makes it a secure choice for developing web applications that handle sensitive data.

3. **Scalability:** Django is designed to handle high-traffic applications and can scale to support large databases and significant user bases. Its modular architecture allows developers to expand functionality as needed.
4. **Versatility:** Django is versatile enough to be used for a wide range of applications, from simple websites to complex web applications with sophisticated data requirements.
5. **Comprehensive Documentation:** Django comes with detailed documentation, which is invaluable for both beginners and experienced developers. This ensures that developers have access to the information they need to build and maintain their applications effectively.

6.2 Django's ORM (Object-Relational Mapping) System

Django's ORM system is one of its most powerful features. It allows developers to interact with the database using Python code, abstracting away the need for writing raw SQL queries. The ORM maps database tables to Python classes, and each row in the table is represented as an instance of the class. This approach makes database interactions intuitive and more manageable, especially for developers who are more familiar with Python than SQL.

Database Integration with Django

Django supports multiple databases, including PostgreSQL, MySQL, SQLite, and Oracle, among others. The framework allows for seamless integration with these databases through its ORM, making it easy to switch between different database backends without changing the codebase.

Database Backends:

1. **SQLite:** The default database that comes with Django. It's a lightweight, file-based database that's ideal for small projects and prototyping. It requires no additional setup and is useful for development and testing.
2. **PostgreSQL:** A powerful, open-source relational database system that supports advanced features like JSONB data type, full-text search, and custom data types. It's a preferred choice for production environments requiring robust performance and scalability.
3. **MySQL:** A popular open-source relational database known for its speed and reliability. It's widely used in web applications and supports complex queries and transactions.
4. **Oracle:** A commercial database system known for its high performance and scalability. It's used in enterprise environments where reliability and extensive feature sets are required.

Database Configuration:

Django's database configuration is straightforward and involves setting the database engine, name, user, password, host, and port in the project's settings file.

```
python
Copy code
# settings.py
DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.postgresql',
        'NAME': 'notes_db',
        'USER': 'dbuser',
        'PASSWORD': 'password',
        'HOST': 'localhost',
        'PORT': '5432',
    }
}
```

This example configuration sets up a PostgreSQL database for the Django project.

Benefits of Using Django for Database Management

1. **Ease of Use:** Django's ORM allows developers to interact with the database using Python code, which is more intuitive and less error-prone than writing raw SQL queries. This makes it easier for developers to perform complex database operations without needing deep SQL knowledge.
2. **Consistency:** The ORM ensures that the database schema and the application code remain consistent, reducing the likelihood of data integrity issues. Changes to the database schema are managed through migrations, which keep the schema up to date with the codebase.
3. **Security:** Django's ORM automatically escapes inputs to protect against SQL injection attacks, which are a common security threat. This adds an extra layer of security to the application.
4. **Flexibility:** Django supports multiple database backends, allowing developers to choose the best database for their application's needs. The framework's ability to switch between different databases with minimal code changes provides flexibility for different deployment environments.

5. **Scalability:** Django's support for relational databases allows for handling large volumes of data and high-traffic applications. The ORM's efficient querying capabilities ensure that the application can scale as the user base grows.
6. **Maintainability:** By abstracting database operations through the ORM, Django promotes a clean and maintainable codebase. This separation of concerns makes it easier to manage and update the application over time.

Django supports multiple databases, including PostgreSQL, MySQL, SQLite, and Oracle, among others. The framework allows for seamless integration with these databases through its ORM, making it easy to switch between different database backends without changing the codebase.

Database Backends:

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3. **MySQL:** A popular open-source relational database known for its speed and reliability. It's widely used in web applications and supports complex queries and transactions.

Oracle: A commercial database system known for its high performance and scalability. It's used in enterprise environments where reliability and extensive feature sets are required

7. SCREENSHOTS

Home page:

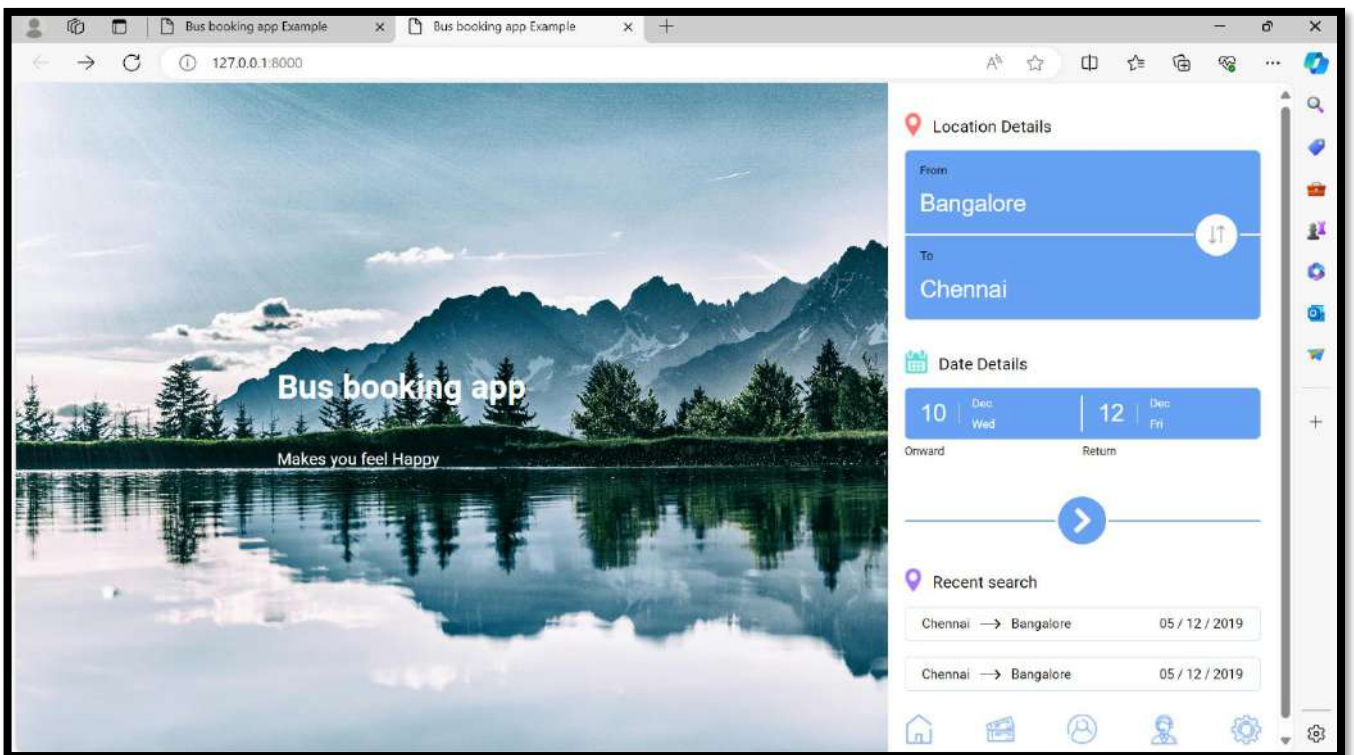
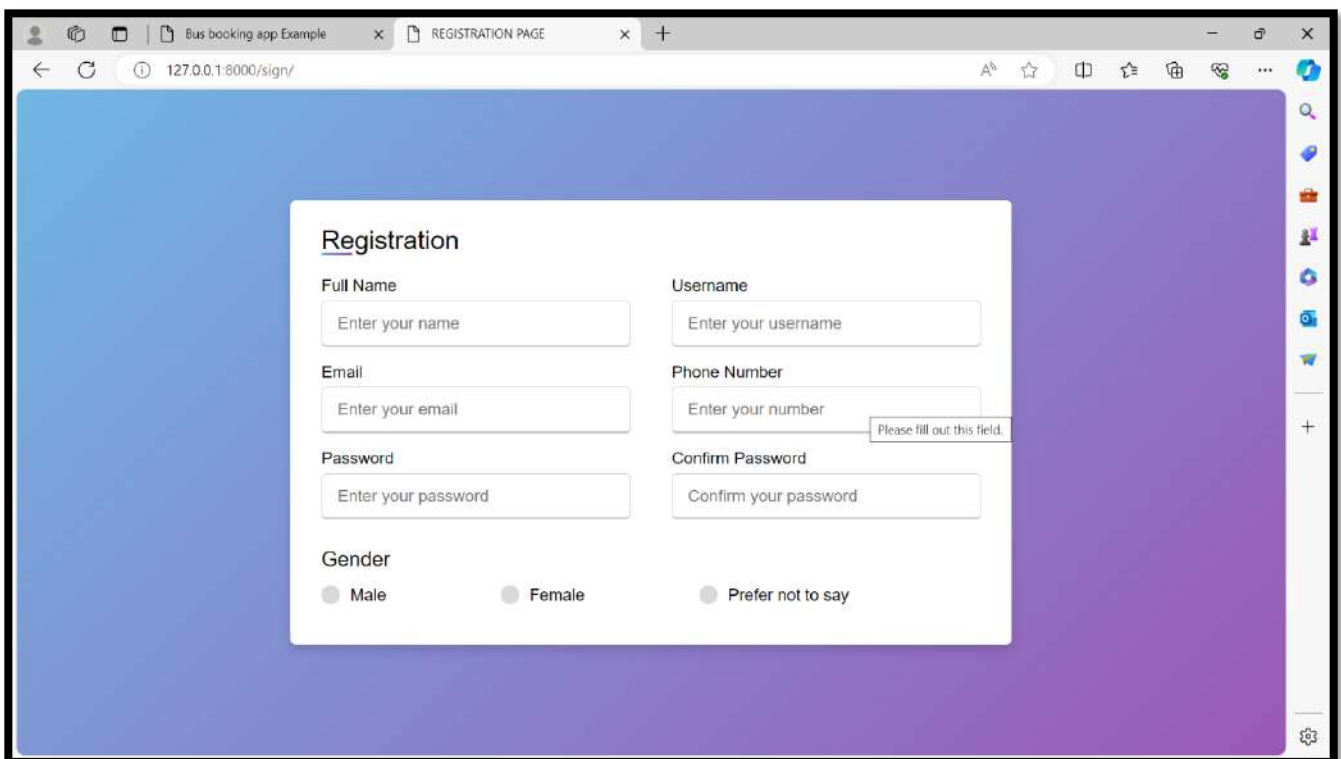


Figure 1

Registration Page:



The image shows a web browser window with a registration form. The browser's address bar displays the URL "127.0.0.1:8000/sign/". The form is titled "Registration" and contains the following fields:

- Full Name:** A text input field with the placeholder text "Enter your name".
- Username:** A text input field with the placeholder text "Enter your username".
- Email:** A text input field with the placeholder text "Enter your email".
- Phone Number:** A text input field with the placeholder text "Enter your number". A tooltip message "Please fill out this field." is visible next to this field.
- Password:** A text input field with the placeholder text "Enter your password".
- Confirm Password:** A text input field with the placeholder text "Confirm your password".
- Gender:** Three radio button options: "Male", "Female", and "Prefer not to say".

Figure 2

Login Page:

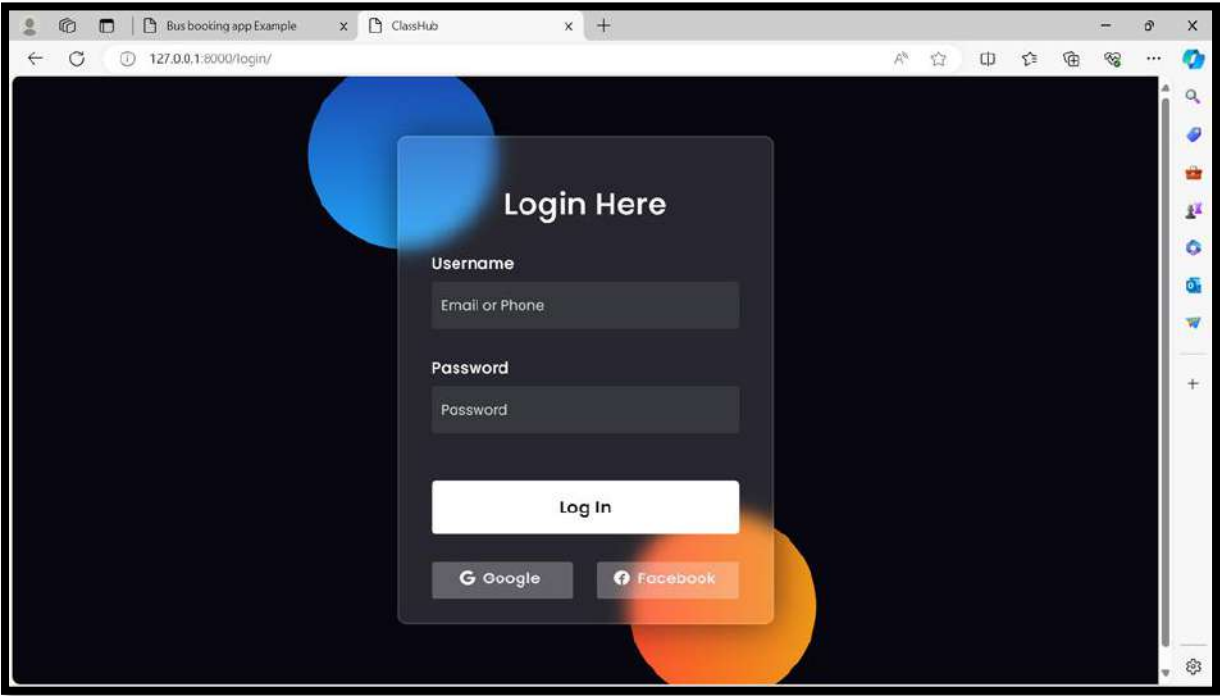


Figure 3

8.WEEKLY REPORT

Department of Computer Applications - BCA Internship Day Book

Student Name and UUCMS No:Neha R (U03KU21S0064)		
Company Name:Edunet Foundation		
Address: : Virtual		
Sl. No.	Date	Activities / Work Done
1	Week 1-	Orientation of Internship
	28-02-2024	Orientation & Project Allocation
	29-02-2024	Master Session: Resume Building
	01-03-2024	Integrated secure user authentication.
	02-03-2024	Mentorship Sessions
	03-03-2024	Ask Me Anything Sessions
2	Week 2-	Registration and Login Pages
	06-03-2024	Registration Page Development
	07-03-2024	User Authentication Setup
	08-03-2024	Login Page Creation
	09-03-2024	Form and Page Styling
	10-03-2024	Testing and Debugging
3	Week 3-	Find Bus page, Feedback page, your orders page
	13-03-2024	FindBus Page Setup
	14-03-2024	Feedback Page Development
	15-03-2024	Your Orders Page
	16-03-2024	Integration and Testing
	17-03-2024	Documentation and Review
4	Week 4-	building of booking page
	20-03-2024	Planning and UI Design
	21-03-2024	Backend Development - Booking Logic
	22-03-2024	Payment Integration
	23-03-2024	Confirmation and Email Notifications
	24-03-2024	Testing, Debugging, and Documentation

5	Week 5-	Registration, Login and Booking Pages connecting to Django
	28-03-2024	Develop backend functionality for registration & login, Booking.
	29-03-2024	Test registration, login updates & booking internally.
	30-03-2024	Develop authentication logic for teacher login.
	31-03-2024	Integrate teacher login with Django authentication system.
	01-04-2024	Final testing, documentation, and deployment preparation.
6	Week 6-	Overview
	04-04-2024	Reviewed progress and planned tasks.
	05-04-2024	Improved frontend elements.
	06-04-2024	Developed backend features.
	07-04-2024	Conducted thorough testing.
	08-04-2024	Finalized documentation and project zip.

Prof. Yatish SJ
Professor
 Soundarya Institute of
 Management and Science

Prof. Vijay Kumar AS
HOD - BCA
 Soundarya Institute of
 Management and Science

Dr. Vasu BA
Principal
 Soundarya Institute of
 Management and Science

Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)

9.CONCLUSION

The project at hand involves the development of a Bus Reservation System using Python and Django, a testament to the full-stack development expertise imparted by Edunet Foundation. This system is designed to streamline the process of booking bus tickets, managing schedules, and handling customer data. The project adopts Agile methodologies, which emphasize iterative development and continuous feedback, ensuring that the system evolves in alignment with user needs. The application is structured using the Model-View-Controller (MVC) architecture, enhancing maintainability and scalability by separating the user interface, business logic, and data management. The integration of RESTful APIs facilitates efficient data exchange between the client and server, making the system modular and capable of seamless integration with other services.

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INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

BY

NISARGA S GOUDAR

UUCMS. No.: U03FC21S0068

Duration: 1st April, 2024 to 1st June, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **NISARGA S GOUDAR** (**UUCMS. No.: U03FC21S0068**) is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Department of BCA
Prof.Anuradha S

Head of the
Department of BCA
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INTERNSHIP

THIS CERTIFICATE IS PRESENTED TO :

Nisarga s goudar.

This is to certify by the training Department of Ecoders India Pvt limited that

Nisarga s goudar

Has successfully completed

INTERNSHIP PROGRAM IN

SOFTWARE DEVELOPMENT IN MERN STACK

Under I.T Skill Advancement Training Programmer of ECODERS

Duration - 2 months Session - 1th April 2024 to 1st June 2024

Grade - A+

From Our Authorized Training Center

ECODERS PRIVATE INDIA LIMITED

At BANGALORE, HESARAGHATTA ROAD, KARNATAKA

Center Code - **3598**

Date of Issue - 05-06-2024

For Ecoders

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I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

Nisarga S Goudar(U03FC21S0068)

ABSTRACT

This project describes the development of a **comprehensive Event Management System (EMS)** using the MERN stack, comprising MongoDB, Express.js, React, and Node.js. The system simplifies event organization by allowing **organizers to create and manage events**, handle registrations, and send notifications. For attendees, it offers a **secure registration system** and features like event search and personalized recommendations. Real-time updates keep participants informed of changes, and the responsive interface ensures a smooth user experience across devices. The MERN stack enables **efficient data management, robust security, and scalable performance**. Preliminary results show the EMS effectively reduces event management complexity and enhances user engagement. Future improvements might include event analytics and integration with social media.

Organisation Information

Ecoders is a professionally managed company with years of industry experience in developing and delivering Enterprise specific Software and Web development solutions using latest technologies. Quality is the buzz word in today's world without which no organization can survive. Along with quality we at Ecoders. "Think Beyond" to take one step ahead and focus on Delivery of the solutions. We design processes that focus not just only on quality but also on delivery which increases the value to our global clients. Apart from training our employees on latest technologies, we also empower them to deliver exciting solutions to our clients. At the core Ecoders operates in three specific domains namely Software Development, Website Design & Development and Geographic Information Services. We also offer our services in building E-Commerce solutions, Search Engine Optimization (SEO) and Database Administration services. Under each division we further provide specific industry solutions on focused domains with cutting edge technologies. We emphasize on building relationships with our clients by delivering projects on time and within budget.

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INTRODUCTION

The Event Management project leverages the MERN stack—MongoDB, Express.js, React, and Node.js—to deliver a streamlined, web-based solution for creating and managing events. MongoDB serves as the backend database, efficiently handling data storage for events, users, and RSVPs. Node.js and Express.js form the server-side backbone, facilitating API endpoints that support CRUD operations for event data and user authentication. The frontend is built with React, providing an intuitive user interface for both event organizers and attendees, ensuring smooth interaction and real-time updates.

This project empowers users to register, log in, create events, browse upcoming events, and manage RSVPs. Organizers can add event details, including date, time, location, and description, while attendees can view event listings, register their interest, and track their participation. The integration of the MERN stack allows for seamless communication between the client-side and server-side components, ensuring real-time synchronization and a responsive user experience. This event management system simplifies the organizational workflow and enhances user engagement, making event planning and participation more efficient and enjoyable.

Internship Objectives

1. Develop Professional Skills

- **Objective:** Gain practical skills and experience directly related to the field of study or career interest.
- **Examples:** Enhance technical abilities, improve problem-solving skills, or learn industry-specific software.

2. Apply Academic Knowledge

- **Objective:** Translate theoretical knowledge from academic courses into real-world applications and problem-solving.
- **Examples:** Use principles learned in coursework to contribute to projects, analyse data, or develop solutions.

3. Build Professional Networks

- **Objective:** Establish and expand a network of professional contacts within the industry.
- **Examples:** Engage with colleagues or seek mentorship opportunities.

4. Understand Workplace Dynamics

- **Objective:** Learn about the organizational culture, structure, and dynamics of a professional setting.
- **Examples:** Observe team interactions, participate in meetings, and understand workplace communication norms.

5. Set Career Goals

- **Objective:** Clarify career aspirations and set personal professional goals based on internship experiences.
- **Examples:** Reflect on experiences to determine career interests, identify areas for further development, or set long-term career objectives.

OBJECTIVE OF PROJECT

- **Streamline Event Creation:** Simplify the process for users to create, update, and manage event details, including time, location, and description.
- **Facilitate User Engagement:** Provide a platform where attendees can easily browse events, register their interest, and manage their RSVPs.
- **User-Friendly Interface:** Develop a user-friendly platform that is easy to navigate for both event organizers and attendees.
- **Enhance Communication:** Ensure seamless interaction between the frontend and backend, enabling real-time updates and notifications for users about event changes or updates.
- **Provide an Intuitive Interface:** Design a user-friendly interface that offers a smooth and engaging user experience, making it easy for both event organizers and participants to navigate and use the system effectively.
- **Customization:** Allow event organizers to customize event details, registration forms, and communication templates.
- **Centralized Information:** Provide a centralized repository for event details, attendee information, and RSVP statuses.

PROJECT SCOPE

- **Purpose and Objectives:** Define the purpose of the event management system (EMS) project, such as improving efficiency, enhancing attendee experience, and centralizing event management processes.
- **Functional Requirements:** Specify the core functionalities the EMS must have, such as event creation, attendee registration, ticketing, schedule management, venue management, and reporting.
- **User Roles and Permissions:** Identify different user roles within the EMS (e.g., event organizer, attendee, administrator) and define their permissions and access levels.
- **Integration Requirements:** Determine integration needs with other systems or platforms, such as payment gateways, CRM systems, email marketing tools, and social media platforms.
- **Scalability and Performance:** Define scalability requirements to ensure the system can handle increasing numbers of events, attendees, and transactions without performance degradation.
- **Mobile Compatibility:** Ensure the EMS is mobile-responsive or has a dedicated mobile app to cater to users accessing the system from smartphones and tablets

TECHNOLOGY

1. MongoDB

MongoDB is a NoSQL database that allows for flexible data modelling. It stores data in JSON-like documents, making it well-suited for complex data structures like those found in event management (e.g., events, users, bookings).

Key Features

- **Schema Flexibility:** Easily handles different types of data such as events, users, bookings, and venues without rigid schema constraints.
- **Scalability:** Can handle large amounts of data and high traffic volumes, making it ideal for growing event management applications.
- **Aggregation Framework:** Supports advanced data aggregation, allowing for complex queries and analytics (e.g., generating reports on event attendance).

Example Usage

- **Event Documents:** Store details about each event, including title, date, location, and attendees.
- **User Documents:** Manage user information, including profile data, preferences, and booking history.
- **Booking Collections:** Track bookings for events, including user references, ticket types, and payment details.

2. Express.js

Express.js is a minimalist web framework for Node.js, used for building the backend of the application. It facilitates routing, middleware integration, and handling HTTP requests.

Key Features

- **Routing:** Manages routes for various functionalities (e.g., user registration, event creation, booking).

- **Middleware Support:** Integrates middleware for handling authentication, logging, error handling, and data validation.
- **RESTful APIs:** Easily creates RESTful endpoints for CRUD operations on events, users, and bookings.

Example Usage

- **API Endpoints:** Create routes like `/api/events`, `/api/users`, and `/api/bookings` to handle respective operations.
- **Middleware:** Use middleware for authentication (e.g., JWT tokens), logging requests, and validating input data.

3. React

React is a front-end library for building user interfaces. It enables the development of dynamic and responsive web applications, providing a seamless user experience.

Key Features

- **Component-Based Architecture:** Encourages reusable UI components for different parts of the event management application (e.g., event listings, booking forms, user profiles).
- **State Management:** Manages application state effectively with hooks or libraries like Redux, useful for handling user interactions and data fetching.
- **Single-Page Application (SPA):** Enables fast navigation and updates without reloading the entire page, improving user experience.

Example Usage

- **Event Dashboard:** Create a dashboard displaying upcoming events, filtering options, and detailed views.
- **Booking System:** Develop a booking interface where users can select tickets, provide details, and make payments.
- **User Profile:** Allow users to manage their profiles, view booking history, and update preferences.

4. Node.js

Node.js is a runtime environment for executing JavaScript on the server side. It enables building scalable network applications, handling concurrent connections efficiently.

Key Features

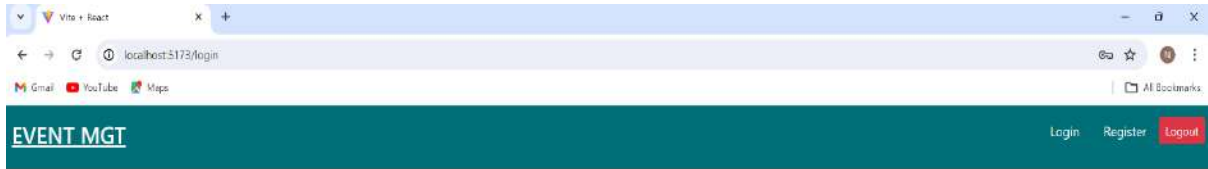
- **Non-blocking I/O:** Supports asynchronous operations, which is crucial for handling multiple requests (e.g., fetching event data, processing bookings) without slowing down the application.
- **Event-Driven Architecture:** Ideal for real-time features like live updates for event status or user notifications.
- **Package Ecosystem:** Leverages npm (Node Package Manager) for integrating various libraries and tools, such as authentication, payment processing, and email services.

Example Usage

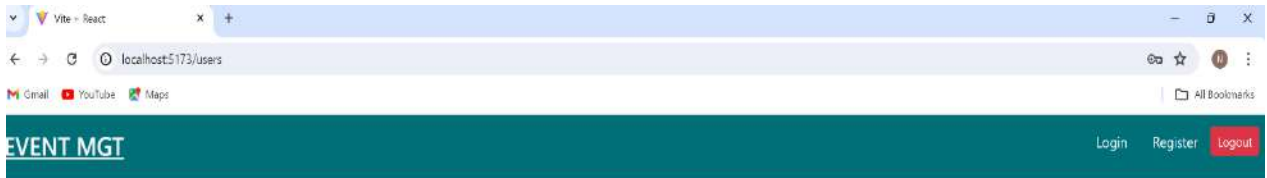
- **Server-Side Logic:** Handle business logic for event management, such as creating events, processing bookings, and managing users.
- **Real-Time Features:** Implement real-time updates using WebSockets for live chat, notifications, or event status changes.
- **Integration:** Use npm packages to integrate third-party services like payment gateways, email providers, or SMS notifications.

SCREENSHOT

LOGIN PAGE:

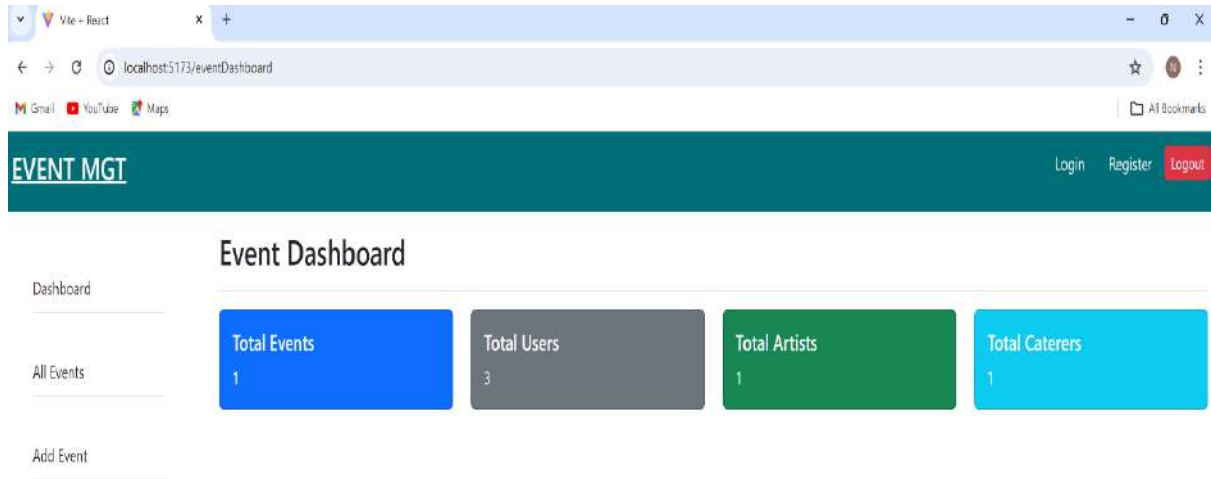


USERS PAGE:



All Users						
Name	Email	Address	Age	Designation	Role	Actions
nisarga	nisargagoudar@gmail.com	Banglore	20	Banglore	admin	View Delete
harshitha	harshitha@gmail.com	Banglore	16	bagalagunte	user	View Delete
lavanya	lavanya@gmail.com	Banglore	23	Banglore	user	View Delete

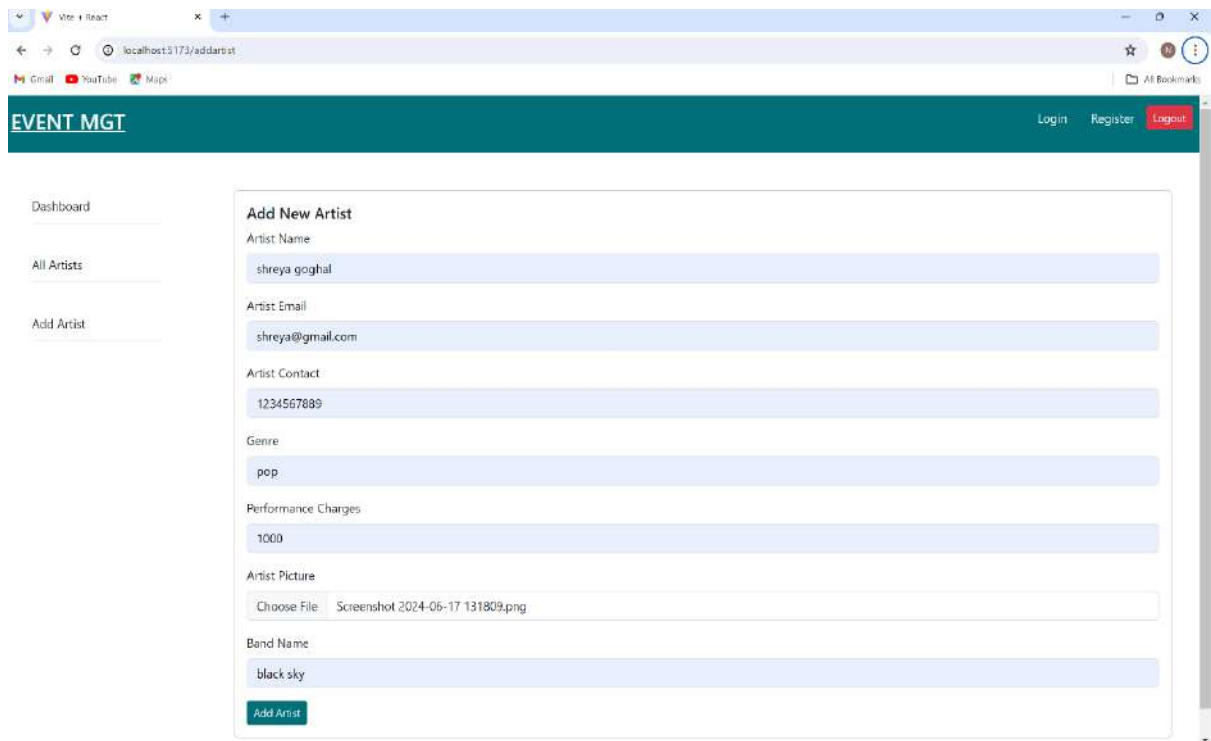
ALLEVENTS PAGE:



The screenshot shows a web browser window with the URL `localhost:5173/eventDashboard`. The page features a dark teal header with the text "EVENT MGT" and navigation links for "Login", "Register", and "Logout". A sidebar on the left contains links for "Dashboard", "All Events", and "Add Event". The main content area is titled "Event Dashboard" and displays four summary cards:

Metric	Value
Total Events	1
Total Users	3
Total Artists	1
Total Caterers	1

ALLARTISTS PAGE:



The screenshot shows a web browser window with the URL `localhost:5173/addartist`. The page features a dark teal header with the text "EVENT MGT" and navigation links for "Login", "Register", and "Logout". A sidebar on the left contains links for "Dashboard", "All Artists", and "Add Artist". The main content area is titled "Add New Artist" and contains a form with the following fields:

- Artist Name: shreya goghal
- Artist Email: shreya@gmail.com
- Artist Contact: 1234567899
- Genre: pop
- Performance Charges: 1000
- Artist Picture: Choose File: Screenshot 2024-05-17 131809.png
- Band Name: black sky

An "Add Artist" button is located at the bottom of the form.

ALLCATERERS PAGE:

The screenshot shows a web browser window with the URL `localhost5173/allcaterers`. The application header is 'EVENT MGT' with navigation links for 'Login', 'Register', and 'Logout'. The main content area is titled 'All Caterers' and features a sidebar with 'Dashboard', 'All Caterers', and 'Add Caterer'. Two caterer profiles are displayed:

- harshitha**
Services: south Indian foods
Service Charges: 10000
- lavanya**
Services: all type of Italian foods
Service Charges: 10000

CONCLUSION

Our event management project, developed using the MERN stack, efficiently integrates and manages key modules such as users, all events, all artists, and all caterers. Leveraging MongoDB for flexible and scalable data storage, Express.js and Node.js for robust server-side operations, and React for a dynamic and responsive user interface, the platform provides a seamless experience for planning and executing events. This holistic solution streamlines user interaction with various event-related entities, enhances collaboration among artists and caterers, and ensures that event organizers can effectively manage all aspects of their events from a unified interface. The result is a versatile and user-friendly application that addresses the complexities of modern event management.

BIBLIOGRAPHY

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- <https://www.domainindia.com/login/knowledgebase/246/Building-a-Simple-Event-Management-App-with-MERN-Stack.html>
- <https://www.udemy.com/course/mern-stack-event-booking-app/>
- https://issuu.com/ijraset/docs/smart_college_event_management_system_using_mern_s

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

BY

NISARGA S GOUDAR

UUCMS. No.: U03FC21S0068

Duration: 1st April, 2024 to 1st June, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **NISARGA S GOUDAR** (**UUCMS. No.: U03FC21S0068**) is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Department of BCA
Prof.Anuradha S

Head of the
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D]



ECODERS LT & EDUCATION DEVELOPMENT (INDIA)
Ecoders, 3rd Floor, 3rd Cross, Defense Colony, Hesaraghatta road,
near Dominos Pizza, Bangalore 560073.

INTERNSHIP

THIS CERTIFICATE IS PRESENTED TO :

Nisarga s goudar.

This is to certify by the training Department of Ecoders India Pvt limited that

Nisarga s goudar

Has successfully completed

INTERNSHIP PROGRAM IN

SOFTWARE DEVELOPMENT IN MERN STACK

Under I.T Skill Advancement Training Programmer of ECODERS

Duration - 2 months Session - 1th April 2024 to 1st June 2024

Grade - A+

From Our Authorized Training Center

ECODERS PRIVATE INDIA LIMITED

At BANGALORE, HESARAGHATTA ROAD, KARNATAKA

Center Code - **3598**

Date of Issue - 05-06-2024

For Ecoders

Gurupreeth Singh
Proprietor

GURUPREETH SINGH
(Director)



Manita Rai

MANITA RAI
(COUNCELLER)



ECODERS

3rd Floor Hall, Site No 21, 3rd Cross,
Defence Colony, Hesaraghatta Main Road,
Bangalore - 560073

ACKNOWLEDGEMENT

First I would like to thank Mr.Gurupreeth, Head of **Ecoders, Bangalore** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me **Ecoders, Bangalore** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

Nisarga S Goudar(U03FC21S0068)

ABSTRACT

This project describes the development of a **comprehensive Event Management System (EMS)** using the MERN stack, comprising MongoDB, Express.js, React, and Node.js. The system simplifies event organization by allowing **organizers to create and manage events**, handle registrations, and send notifications. For attendees, it offers a **secure registration system** and features like event search and personalized recommendations. Real-time updates keep participants informed of changes, and the responsive interface ensures a smooth user experience across devices. The MERN stack enables **efficient data management, robust security, and scalable performance**. Preliminary results show the EMS effectively reduces event management complexity and enhances user engagement. Future improvements might include event analytics and integration with social media.

Organisation Information

Ecoders is a professionally managed company with years of industry experience in developing and delivering Enterprise specific Software and Web development solutions using latest technologies. Quality is the buzz word in today's world without which no organization can survive. Along with quality we at Ecoders. "Think Beyond" to take one step ahead and focus on Delivery of the solutions. We design processes that focus not just only on quality but also on delivery which increases the value to our global clients. Apart from training our employees on latest technologies, we also empower them to deliver exciting solutions to our clients. At the core Ecoders operates in three specific domains namely Software Development, Website Design & Development and Geographic Information Services. We also offer our services in building E-Commerce solutions, Search Engine Optimization (SEO) and Database Administration services. Under each division we further provide specific industry solutions on focused domains with cutting edge technologies. We emphasize on building relationships with our clients by delivering projects on time and within budget.

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INTRODUCTION

The Event Management project leverages the MERN stack—MongoDB, Express.js, React, and Node.js—to deliver a streamlined, web-based solution for creating and managing events. MongoDB serves as the backend database, efficiently handling data storage for events, users, and RSVPs. Node.js and Express.js form the server-side backbone, facilitating API endpoints that support CRUD operations for event data and user authentication. The frontend is built with React, providing an intuitive user interface for both event organizers and attendees, ensuring smooth interaction and real-time updates.

This project empowers users to register, log in, create events, browse upcoming events, and manage RSVPs. Organizers can add event details, including date, time, location, and description, while attendees can view event listings, register their interest, and track their participation. The integration of the MERN stack allows for seamless communication between the client-side and server-side components, ensuring real-time synchronization and a responsive user experience. This event management system simplifies the organizational workflow and enhances user engagement, making event planning and participation more efficient and enjoyable.

Internship Objectives

1. Develop Professional Skills

- **Objective:** Gain practical skills and experience directly related to the field of study or career interest.
- **Examples:** Enhance technical abilities, improve problem-solving skills, or learn industry-specific software.

2. Apply Academic Knowledge

- **Objective:** Translate theoretical knowledge from academic courses into real-world applications and problem-solving.
- **Examples:** Use principles learned in coursework to contribute to projects, analyse data, or develop solutions.

3. Build Professional Networks

- **Objective:** Establish and expand a network of professional contacts within the industry.
- **Examples:** Engage with colleagues or seek mentorship opportunities.

4. Understand Workplace Dynamics

- **Objective:** Learn about the organizational culture, structure, and dynamics of a professional setting.
- **Examples:** Observe team interactions, participate in meetings, and understand workplace communication norms.

5. Set Career Goals

- **Objective:** Clarify career aspirations and set personal professional goals based on internship experiences.
- **Examples:** Reflect on experiences to determine career interests, identify areas for further development, or set long-term career objectives.

OBJECTIVE OF PROJECT

- **Streamline Event Creation:** Simplify the process for users to create, update, and manage event details, including time, location, and description.
- **Facilitate User Engagement:** Provide a platform where attendees can easily browse events, register their interest, and manage their RSVPs.
- **User-Friendly Interface:** Develop a user-friendly platform that is easy to navigate for both event organizers and attendees.
- **Enhance Communication:** Ensure seamless interaction between the frontend and backend, enabling real-time updates and notifications for users about event changes or updates.
- **Provide an Intuitive Interface:** Design a user-friendly interface that offers a smooth and engaging user experience, making it easy for both event organizers and participants to navigate and use the system effectively.
- **Customization:** Allow event organizers to customize event details, registration forms, and communication templates.
- **Centralized Information:** Provide a centralized repository for event details, attendee information, and RSVP statuses.

PROJECT SCOPE

- **Purpose and Objectives:** Define the purpose of the event management system (EMS) project, such as improving efficiency, enhancing attendee experience, and centralizing event management processes.
- **Functional Requirements:** Specify the core functionalities the EMS must have, such as event creation, attendee registration, ticketing, schedule management, venue management, and reporting.
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TECHNOLOGY

1. MongoDB

MongoDB is a NoSQL database that allows for flexible data modelling. It stores data in JSON-like documents, making it well-suited for complex data structures like those found in event management (e.g., events, users, bookings).

Key Features

- **Schema Flexibility:** Easily handles different types of data such as events, users, bookings, and venues without rigid schema constraints.
- **Scalability:** Can handle large amounts of data and high traffic volumes, making it ideal for growing event management applications.
- **Aggregation Framework:** Supports advanced data aggregation, allowing for complex queries and analytics (e.g., generating reports on event attendance).

Example Usage

- **Event Documents:** Store details about each event, including title, date, location, and attendees.
- **User Documents:** Manage user information, including profile data, preferences, and booking history.
- **Booking Collections:** Track bookings for events, including user references, ticket types, and payment details.

2. Express.js

Express.js is a minimalist web framework for Node.js, used for building the backend of the application. It facilitates routing, middleware integration, and handling HTTP requests.

Key Features

- **Routing:** Manages routes for various functionalities (e.g., user registration, event creation, booking).

- **Middleware Support:** Integrates middleware for handling authentication, logging, error handling, and data validation.
- **RESTful APIs:** Easily creates RESTful endpoints for CRUD operations on events, users, and bookings.

Example Usage

- **API Endpoints:** Create routes like `/api/events`, `/api/users`, and `/api/bookings` to handle respective operations.
- **Middleware:** Use middleware for authentication (e.g., JWT tokens), logging requests, and validating input data.

3. React

React is a front-end library for building user interfaces. It enables the development of dynamic and responsive web applications, providing a seamless user experience.

Key Features

- **Component-Based Architecture:** Encourages reusable UI components for different parts of the event management application (e.g., event listings, booking forms, user profiles).
- **State Management:** Manages application state effectively with hooks or libraries like Redux, useful for handling user interactions and data fetching.
- **Single-Page Application (SPA):** Enables fast navigation and updates without reloading the entire page, improving user experience.

Example Usage

- **Event Dashboard:** Create a dashboard displaying upcoming events, filtering options, and detailed views.
- **Booking System:** Develop a booking interface where users can select tickets, provide details, and make payments.
- **User Profile:** Allow users to manage their profiles, view booking history, and update preferences.

4. Node.js

Node.js is a runtime environment for executing JavaScript on the server side. It enables building scalable network applications, handling concurrent connections efficiently.

Key Features

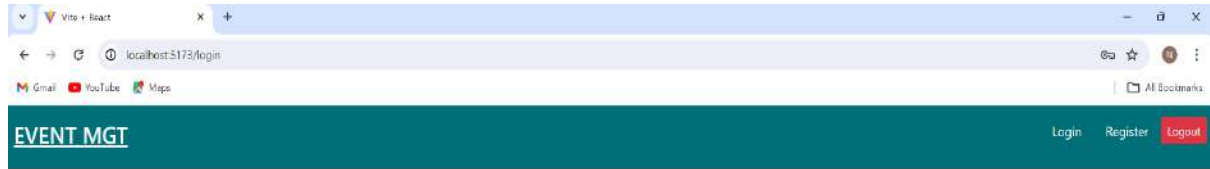
- **Non-blocking I/O:** Supports asynchronous operations, which is crucial for handling multiple requests (e.g., fetching event data, processing bookings) without slowing down the application.
- **Event-Driven Architecture:** Ideal for real-time features like live updates for event status or user notifications.
- **Package Ecosystem:** Leverages npm (Node Package Manager) for integrating various libraries and tools, such as authentication, payment processing, and email services.

Example Usage

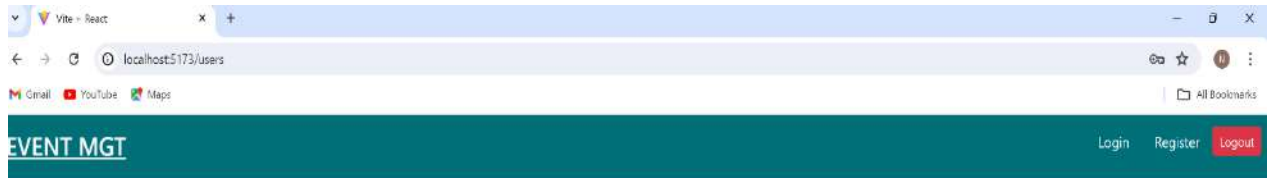
- **Server-Side Logic:** Handle business logic for event management, such as creating events, processing bookings, and managing users.
- **Real-Time Features:** Implement real-time updates using WebSockets for live chat, notifications, or event status changes.
- **Integration:** Use npm packages to integrate third-party services like payment gateways, email providers, or SMS notifications.

SCREENSHOT

LOGIN PAGE:

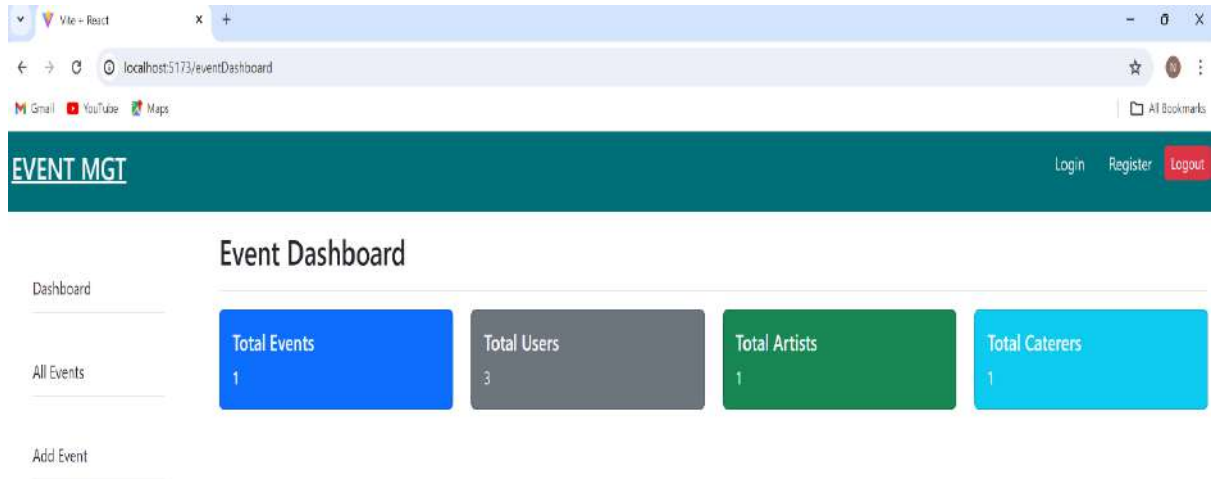


USERS PAGE:



All Users						
Name	Email	Address	Age	Designation	Role	Actions
nisarga	nisargagoudar@gmail.com	Banglore	20	Banglore	admin	View Delete
harshitha	harshitha@gmail.com	Banglore	16	bagalagunte	user	View Delete
lavanya	lavanya@gmail.com	Banglore	23	Banglore	user	View Delete

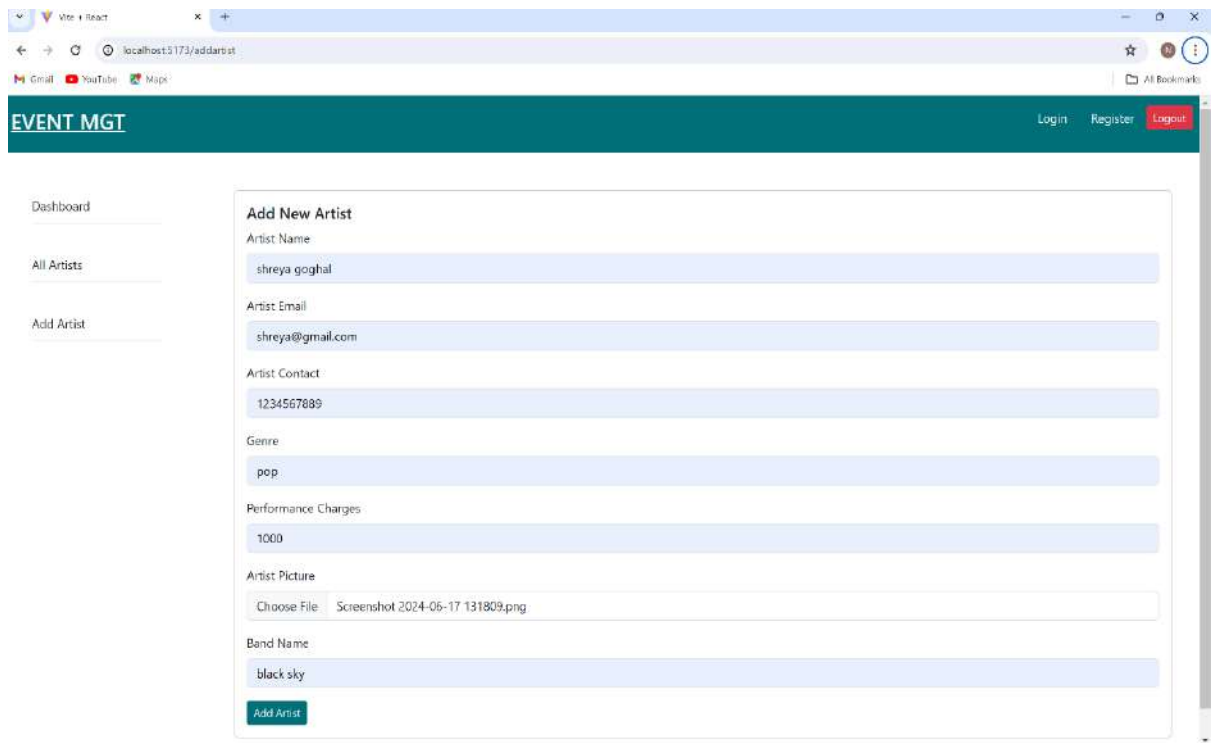
ALLEVENTS PAGE:



The screenshot shows a web browser window with the URL `localhost:5173/eventDashboard`. The page has a dark teal header with the text "EVENT MGT" and navigation links for "Login", "Register", and "Logout". A sidebar on the left contains links for "Dashboard", "All Events", and "Add Event". The main content area is titled "Event Dashboard" and features four summary cards: "Total Events" (1), "Total Users" (3), "Total Artists" (1), and "Total Caterers" (1).

Metric	Value
Total Events	1
Total Users	3
Total Artists	1
Total Caterers	1

ALLARTISTS PAGE:

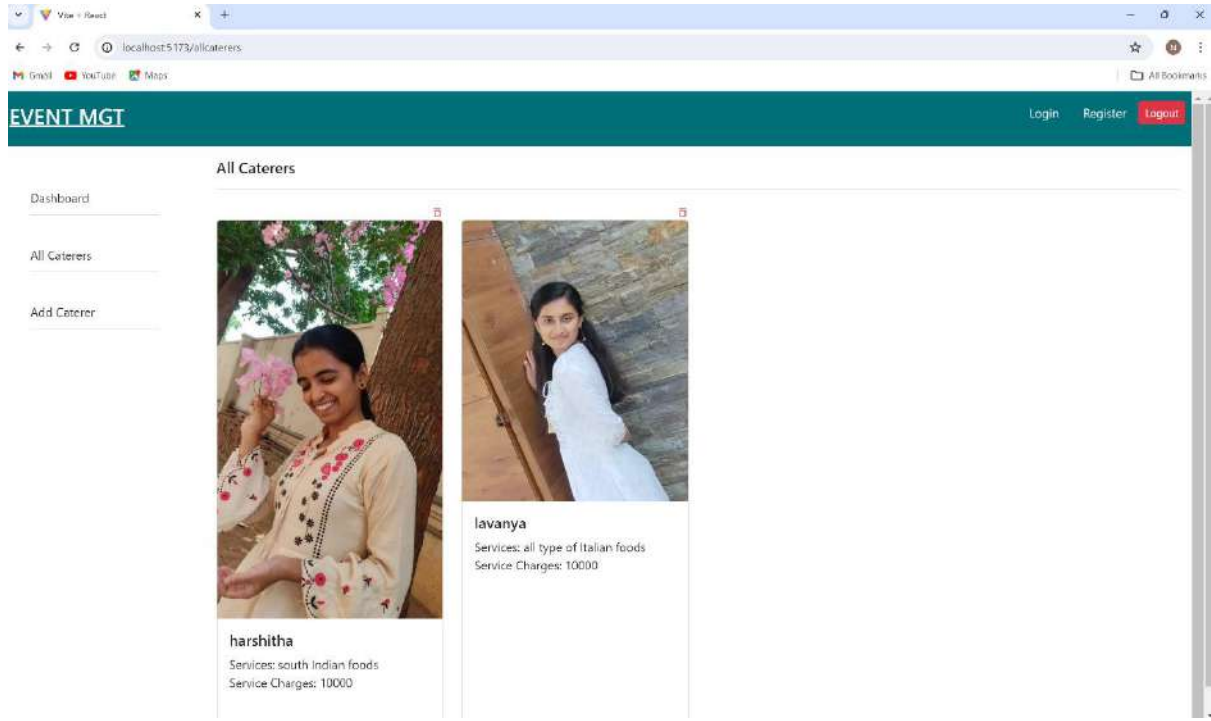


The screenshot shows a web browser window with the URL `localhost:5173/addartist`. The page has a dark teal header with the text "EVENT MGT" and navigation links for "Login", "Register", and "Logout". A sidebar on the left contains links for "Dashboard", "All Artists", and "Add Artist". The main content area is titled "Add New Artist" and contains a form with the following fields:

- Artist Name: shreya goghal
- Artist Email: shreya@gmail.com
- Artist Contact: 1234567899
- Genre: pop
- Performance Charges: 1000
- Artist Picture: Choose File: Screenshot 2024-05-17 131809.png
- Band Name: black sky

An "Add Artist" button is located at the bottom of the form.

ALLCATERERS PAGE:



CONCLUSION

Our event management project, developed using the MERN stack, efficiently integrates and manages key modules such as users, all events, all artists, and all caterers. Leveraging MongoDB for flexible and scalable data storage, Express.js and Node.js for robust server-side operations, and React for a dynamic and responsive user interface, the platform provides a seamless experience for planning and executing events. This holistic solution streamlines user interaction with various event-related entities, enhances collaboration among artists and caterers, and ensures that event organizers can effectively manage all aspects of their events from a unified interface. The result is a versatile and user-friendly application that addresses the complexities of modern event management.

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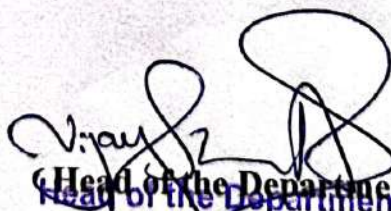
BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

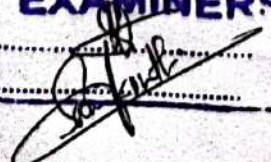


CERTIFICATE

This is to certify that the “**Internship report**” submitted by Poornachandra B S(UUCMS No : U03KU21S0048) is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**


26/5/24
Internship Coordinator
Prof. Manoj


Head of the Department
DEPT. OF COMPUTER SCIENCE
Prof. Vijay Kumar
Soundarya Institute of Management and Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore - 560 073.

EXAMINERS
1.....
2.....


25	28-04-2024	Model selection and Training.
26	29-04-2024	Assignment-4
27	30-04-2024	Project selection.
28	01-05-2024	Handling missing elements in duplicate data.
29	02-05-2024	Advanced visualization using Seaborn.
30	03-04-2024	Project submission.
31	04-04-2024	Proof of completion(Certificate).

N. [Signature] 25/6/24
 Internal Guide
 Designation of Guide
 College Name
 Head of the Department
 DEPT. OF COMPUTER SCIENCE
 Soundarya Institute of Management and Science
 Soundarya Nagar, Siddeshalli,
 Nagasandra Post, Bangalore - 560 073.

[Signature]
 Head of the Department
 DEPT. OF PHYSICAL SCIENCE
 Soundarya Institute of Management and Science
 Soundarya Nagar, Siddeshalli,
 Nagasandra Post, Bangalore - 560 073.

Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)



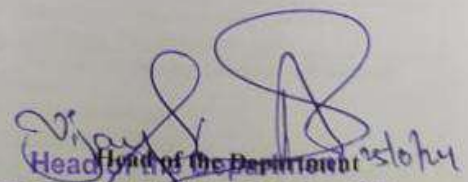
BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

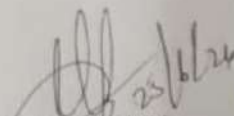
This is to certify that the “**Internship report**” submitted by **PRIYANKA A (UUCMS. No. : U03KU21S0094)** is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

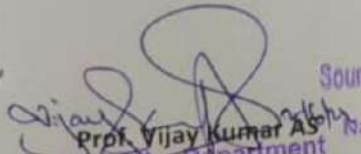

Internship Coordinator
Prof. Santhosh R S
Department of BCA

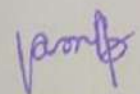

Head of the Department
DEPT. OF COMPUTER SCIENCE
Prof. Vijay Kumar A S, M.Tech., [Ph.D.]
Soundarya Institute of Management and Science
Department of BCA
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore - 560 073.

EXAMINERS
1. 
2. 

25	09/05/2024	Form creation for add Polling Booth.
26	10/05/2024	Form creation for addUserForm.
27	11/05/2024	Saturday
28	12/05/2024	Sunday
29	13/05/2024	Error resolution for user login.
30	14/05/2024	Error resolution for forms.
31	15/05/2024	Creation of admin index page.
32	16/05/2024	Creation of admin navigation bar.
33	17/05/2024	Creation of addStaff stForm.
34	18/05/2024	Saturday
35	19/05/2024	Sunday
36	20/05/2024	Creation of editstafftForm.
37	21/05/2024	Creation of staff views.
38	22/05/2024	Creation of staff add Poller views.
39	23/05/2024	Creation of staff add Poller save views.
40	24/05/2024	Creation of manage staff.
41	25/05/2024	Saturday
42	26/05/2024	Sunday
43	27/05/2024	Creation of manage course.
44	28/05/2024	Creation of edit staff and edit staff save.
45	29/05/2024	edit User views.
46	30/05/2024	edit Polling's.
47	31/05/2024	staff_home and student home


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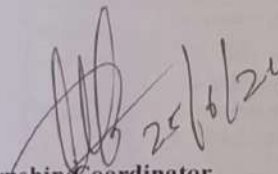

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 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 560
 Dr. Vasu BA
 Principal
 Soundarya Institute of
 Management and Science

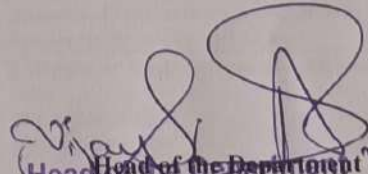
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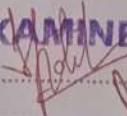
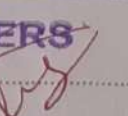


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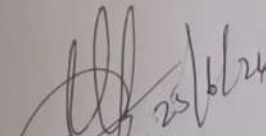
This is to certify that the “**Internship report**” submitted by PRIYANKA A (UUCMS. No. : U03KU21S0094) is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**


25/06/24
Internship Coordinator
Prof. Santhosh R S
Department of BCA

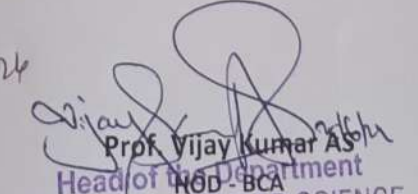

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Nagasandra Post, Bangalore - 560 073.

EXAMINERS
1. 
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25	09/05/2024	Form creation for add Polling Booth.
26	10/05/2024	Form creation for addUserForm.
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INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

Priyanka M M

UUCMS. No.: U03KU21S0020

(Duration: 28th Feb, 2024 to 25th April, 2024)



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **Priyanka M M (UUCMS. No.: U03KU21S0020)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

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Prof. Nagasuma CV

Head of the Department
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D]



CERTIFICATE OF APPRECIATION

INTERNSHIP_170682655565b90dfb357f2

PROUDLY PRESENTED TO

PRIYANKA M M

STU65d2ccb2d00981708313778

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Advanced Data Analytics** under the **Next Gen Employability Program 2023-24**.

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

ACKNOWLEDGEMENT

First I would like to thank Nagesh Singh, Executive Director, **EDUNET FOUNDATION, Bangalore** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me **EDUNET FOUNDATION, Bangalore** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

PRIYANKA M M(U03KU21S0020)

ABSTRACT

This report summarizes the application of advanced data analytics during an internship at Edunet Foundation, a leading non-profit focused on enhancing education through technology. The internship involved using Power BI to perform comprehensive data analysis and visualization tasks. Key activities included data collection, cleaning, modeling, and creating interactive dashboards. These advanced techniques provided actionable insights, improved decision-making, and enhanced program evaluation. The experience significantly contributed to both personal skill development and the foundation's mission of leveraging data to drive educational improvements.

These insights have significant implications for investors, entrepreneurs, and policymakers. Understanding the critical success factors and regional dynamics of unicorn companies can guide investment strategies, support the development of startup ecosystems, and inform policy decisions aimed at fostering innovation and economic growth. Future research could expand the dataset to include emerging unicorns and explore the impact of macroeconomic factors on startup valuations.

Organisation Information:

Edunet Foundation is a social enterprise which was founded in 2015 and focuses on bridging the academia-industry divide, enhancing student employability, promoting innovation and creating an entrepreneurial ecosystem in India. Working primarily with emerging technologies, and striving to leverage them to augment, upgrade the knowledge ecosystem and equip the beneficiaries to become contributors themselves, we work extensively to build a workforce with an IR 4.0 enabled career. The organization has enjoyed Special Consultative Status with the Economic and Social Council (ECOSOC) of the United Nations since 2020. With a national footprint, EF's programs, online and instructor-led, benefit tens of thousands of learners every year.

Programs and opportunities:

The Next Gen Employability Program recognizes the existing gap between the nation's youth and employment opportunities. The program aims to bridge the gap between industry and higher education by introducing an experiential and hands on training program for the youth of the country. The program aims to provide a comprehensive and integrated solution that empowers learners with dynamic curriculum, making them industry-ready from day one. The program is designed to be delivered in two phases; Core Program Delivery which focuses on learning and acquiring industry relevant technical skills along with AICTE Internship wherein students will be developing a project prototype on the basis of technologies learnt during the program, followed by activity led Modular Engagement sessions focused on acquiring and enhancing employability skills under the guidance of industry experts to ensure job readiness of the students. These sessions will provide an open knowledge sharing platform for the students to seek career guidance from the industry experts

Methodologies:

We follow a structured methodology for our projects which starts from designing the solution to the implementation phase. Well planned Project reduces the time to deliver the project and any additional ad-hoc costs to our clients, hence we dedicate majority of our time understanding our clients business and gather requirements. This ground up approach helps us deliver not only the solution to our clients but also add value to your investments.

Key parts of the report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies.

Benefits of the Company/Institution through our report:

Under each division we further provide specific industry solution on focused domains with cutting edge technologies. We emphasize on building relationships with our clients by delivering projects on time and within budget.

Internship Day Book

Week No	Date	Activities / Work Done
Week1	6/03/24	Collection,connection,pre-processing of the Data 1. Gathering Unicorn Companies data from data source 2. Importing the data source into PowerBI 3. Perfrom pre-processing operations
Week1 Master Class	07/03/24	Resume Resonance: Creating a impression that lasts/
Week2	13/03/24	Analysis and Visualization using PowerBI 1. EDA will be done using various charts 2. KPIs will be analyzed to understand unicorn companies 3. Final Sorting of various columns according to requirements
Week2 Master Class	14/03/24	Master session on Design thinking in real world application
Week3	20/03/24	Visualization and dashboard 1. Reports will generated various requirements 2. Dashboard will be prepared
Week3 Master Class	21/03/24	Managing code base with Github
Week4	27/03/24	Formatting,Project Testing 1. Formatting of visuals,background,canvas will be done 2. Checking the functionality of the project before presentation
Week4 Master Class	28/03/24	Dev Ops:Code to Production

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Learning Objectives/Internship Objectives

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

Introduction

1. Introduction

1.1 Background

Unicorn companies, privately held startups valued at over \$1 billion, have become a significant phenomenon in the global economy. The term "unicorn," coined by venture capitalist Aileen Lee in 2013, underscores the rarity and exceptional growth potential of these startups. Over the past decade, the number of unicorns has surged, driven by technological innovation, venture capital investment, and an increasingly globalized market. These companies span various industries, including technology, healthcare, finance, and consumer goods, and are often seen as indicators of future economic trends and technological advancements.

1.2 Purpose

The primary purpose of this project is to analyze and interpret data on unicorn companies to uncover key trends, patterns, and factors that contribute to their success. By examining a comprehensive dataset of unicorn companies, this study aims to provide insights into their geographic distribution, industry sectors, funding stages, and growth trajectories. These insights will be valuable for investors, entrepreneurs, policymakers, and academics interested in understanding the dynamics of high-growth startups.

1.3 Scope

This project focuses on a dataset comprising detailed information on over 500 unicorn companies worldwide. The analysis involves extensive data preprocessing and exploratory data analysis (EDA), leveraging Power BI for data visualization and advanced analytical techniques. Power BI is used to create interactive dashboards and visualizations that help uncover patterns and insights. The scope includes the integration of various data sources, the cleaning and transformation of data, and the visualization of key metrics and trends. While the project provides a comprehensive analysis of the dataset, it does not include primary data collection through surveys or interviews, nor does it delve into individual company case studies or qualitative assessments.

2. Project Objectives

2.1 Primary Objectives

1. **Identify Key Trends and Patterns:** Analyze the dataset of unicorn companies to uncover significant trends and patterns in their geographic distribution, industry sectors, funding stages, and growth trajectories.
2. **Determine Success Factors:** Identify and evaluate the critical factors that contribute to the success and high valuations of unicorn companies, including funding amounts, investor profiles, and market conditions.
3. **Create Interactive Visualizations:** Utilize Power BI to develop interactive dashboards and visualizations that effectively present the data, making it easier to identify insights and communicate findings to stakeholders.
4. **Predict Future Unicorns:** Apply advanced analytical techniques and machine learning models to predict potential future unicorns based on historical data and identified success factors.

2.2 Secondary Objectives

1. **Benchmark Performance:** Compare the performance and growth metrics of unicorn companies across different regions and industry sectors to identify areas of strength and opportunities for improvement.
2. **Assess Funding Dynamics:** Analyze the stages of funding (e.g., seed, series A, B, etc.) and their impact on the growth trajectory and valuation of unicorn companies.
3. **Understand Regional Dynamics:** Examine the geographic distribution of unicorn companies to understand the regional dynamics and factors contributing to the concentration of unicorns in certain areas.
4. **Evaluate Investor Influence:** Investigate the role of different types of investors (e.g., venture capitalists, angel investors) in the success of unicorn companies, and assess how their involvement influences company growth and valuation.
5. **Provide Strategic Recommendations:** Based on the analysis, offer actionable recommendations for investors, entrepreneurs, and policymakers to support the growth and development of future unicorn companies.

3. Literature Review

3.1 Overview of Unicorn Companies

Unicorn companies, a term popularized by venture capitalist Aileen Lee in 2013, refer to privately held startups valued at over \$1 billion. These companies are typically characterized by rapid growth, innovative business models, and significant market disruption. The emergence of unicorns is often seen as a barometer of technological advancement and economic vitality in the startup ecosystem. Over the years, the number of unicorns has increased significantly, driven by advancements in technology, access to venture capital, and the globalization of markets.

3.2 Previous Research on Factors Influencing Unicorn Success

Numerous studies have explored the factors contributing to the success and high valuations of unicorn companies. Key factors identified in the literature include:

1. **Innovation and Technology:** Unicorns often leverage cutting-edge technologies and innovative business models to disrupt traditional industries. Research indicates that technological innovation is a critical driver of growth and market valuation (Lee, 2013; Brown, 2015).
2. **Funding and Investment:** Access to substantial venture capital funding is a common trait among unicorns. Studies have shown that early-stage funding, the presence of prominent investors, and the ability to secure multiple funding rounds significantly impact a company's growth trajectory and valuation (Smith & Robinson, 2017).
3. **Market Potential:** The addressable market size and the company's ability to scale rapidly are essential factors in achieving unicorn status. Research highlights that companies operating in large and growing markets are more likely to achieve high valuations (Johnson et al., 2018).
4. **Leadership and Talent:** The role of visionary leadership and a talented team is frequently cited as a crucial factor in the success of unicorns. Effective leadership drives strategic decision-making and innovation, while attracting top talent contributes to execution capabilities (Kumar & Sharma, 2019).
5. **Business Model:** The scalability and sustainability of the business model play a significant role in the valuation of unicorns. Studies suggest that companies with highly scalable and adaptable business models tend to attract more investment and achieve higher valuations (Nguyen & Chang, 2020).

3.3 Gaps in the Existing Literature

While existing research has provided valuable insights into the factors contributing to the success of unicorn companies, several gaps remain:

1. **Geographic Analysis:** Most studies focus on unicorns in North America and Europe, with limited research on unicorns in Asia, Africa, and Latin America. There is a need for a more comprehensive geographic analysis to understand regional dynamics and factors contributing to the success of unicorns globally.

2. **Longitudinal Studies:** There is a lack of longitudinal studies that track the growth and development of unicorns over time. Such studies could provide deeper insights into the evolution of unicorns and the long-term impact of various factors on their success.
3. **Role of Emerging Technologies:** With the rapid advancement of technologies such as artificial intelligence, blockchain, and fintech, there is a need for more research on how these emerging technologies specifically contribute to the creation and success of unicorns.
4. **Investor Influence:** While the role of venture capital is well-documented, there is limited research on the influence of different types of investors, such as angel investors, corporate venture arms, and strategic partners, on the success of unicorn companies.
5. **Comparative Studies:** Few studies compare the characteristics and success factors of unicorns across different industries. Comparative analysis could reveal industry-specific trends and insights that are not apparent in broader studies.

4. Data Collection

4.1 Data Sources

The dataset for this project was collected from multiple reputable sources, ensuring comprehensive coverage and reliability of the data on unicorn companies. The primary sources include:

- **PitchBook:** A financial data and software company providing data on private capital markets, including venture capital, private equity, and mergers and acquisitions.

4.2 Description of Data

The collected dataset encompasses a wide range of attributes for over 500 unicorn companies globally, including:

- **Company Information:** Name, industry sector, and headquarters location.
- **Valuation:** Current valuation of the company, typically exceeding \$1 billion.
- **Founding Date:** The year the company was founded.
- **Funding Rounds:** Details of various funding rounds, including dates, amounts, and types of funding (e.g., seed, Series A, Series B).
- **Investors:** Information on major investors involved in the company's funding rounds.
- **Employee Count:** The number of employees in the company.

4.3 Data Collection Methodology

The data was extracted using web scraping techniques and APIs provided by the data sources. The process involved:

- **Data Integration:** Combining data from different sources to create a unified dataset, ensuring consistency and accuracy.
- **Data Validation:** Cross-referencing data from multiple sources to validate accuracy and completeness, and correcting any discrepancies identified during the process.

5. Data Preparation

5.1 Data Cleaning

Data cleaning involved several steps to ensure the dataset was accurate and ready for analysis:

- **Handling Missing Values:** Imputing missing values where appropriate, or removing records with excessive missing information.
- **Removing Duplicates:** Identifying and removing duplicate records to avoid redundancy and ensure the integrity of the dataset.
- **Standardizing Formats:** Ensuring consistency in data formats, such as date formats, numerical values, and categorical variables.

5.2 Data Transformation

Data transformation was performed to make the data suitable for analysis:

- **Normalization:** Normalizing numerical values to ensure they are on a comparable scale, which is particularly important for machine learning models.
- **Encoding Categorical Variables:** Converting categorical variables into numerical format using techniques such as one-hot encoding and label encoding.
- **Creating New Features:** Generating new features that could provide additional insights, such as the time taken to achieve unicorn status, or the total funding received to date.

5.3 Data Integration

Data integration involved combining the cleaned and transformed data from different sources into a single dataset:

- **Merging Datasets:** Using unique identifiers like company names and funding round IDs to merge datasets from various sources.
- **Ensuring Consistency:** Verifying that integrated data was consistent and that key attributes matched across different sources.
- **Handling Discrepancies:** Addressing any discrepancies identified during the integration process, such as conflicting information or variations in data reporting.

6. Exploratory Data Analysis (EDA)

6.1 Initial Data Exploration

The initial exploration of the dataset involved a thorough examination of the data's structure, summary statistics, and key attributes. This step was crucial to understand the overall dataset and to identify any immediate patterns or anomalies. Using Power BI, the following steps were undertaken:

- **Data Import:** The dataset was imported into Power BI, and its structure was reviewed to understand the various fields and their types.
- **Summary Statistics:** Basic summary statistics, such as mean, median, standard deviation, and range, were calculated for numerical fields to get an overview of the data distribution.

6.2 DAX Functions and Measures

Data Analysis Expressions (DAX) in Power BI were extensively used to create new measures and calculated columns, providing deeper insights into the data:

- **New Measures:** DAX functions were utilized to create custom measures, such as total funding amount, average valuation, and the number of funding rounds. For example:
 - Total Funding = `SUM('Funding'[Amount])`
 - Average Valuation = `AVERAGE('Company'[Valuation])`
- **Calculated Columns:** New columns were created to derive additional information from existing data. Examples include the time taken to achieve unicorn status and the cumulative funding received. For instance:
 - Years to Unicorn = `DATEDIFF('Company'[Founding Date], 'Company'[Unicorn Date], YEAR)`
 - Cumulative Funding = `CALCULATE(SUM('Funding'[Amount]), FILTER(ALL('Funding'), 'Funding'[Date] <= EARLIER('Funding'[Date])))`
- **Key Performance Indicators (KPIs):** Power BI's KPI visualizations were used to track critical metrics such as growth rate, market share, and funding efficiency.

7. Data Analysis

7.1 Highest Return on Investment (ROI)

The analysis of the return on investment (ROI) for unicorn companies revealed significant insights into the financial performance and efficiency of these high-growth startups. By calculating the ROI for each company, we identified which unicorn has generated the highest returns relative to the amount of investment received. This metric is crucial for investors to understand the profitability and success of their investments. The company with the highest ROI has demonstrated exceptional growth and efficiency, providing substantial returns to its stakeholders.

7.2 Country with Most Unicorns

Our analysis highlighted the global distribution of unicorn companies, revealing that certain countries are hotspots for high-growth startups. The United States emerged as the leader with the highest number of unicorns, particularly concentrated in tech hubs such as Silicon Valley and New York. China followed closely, with Beijing and Shanghai being significant centers of innovation. This distribution underscores the importance of regional ecosystems, access to venture capital, and supportive regulatory environments in fostering unicorn companies.

7.3 Year with the Most Unicorns

The temporal analysis of unicorn creation showed that specific years have seen spikes in the number of companies achieving unicorn status. Notably, recent years, particularly 2020 and 2021, have witnessed a surge in unicorns, likely driven by increased venture capital investment, technological advancements, and the accelerated digital transformation due to the COVID-19 pandemic. These findings indicate that the startup ecosystem is rapidly evolving, with more companies reaching high valuations in shorter timeframes.

7.4 Time to Become a Unicorn

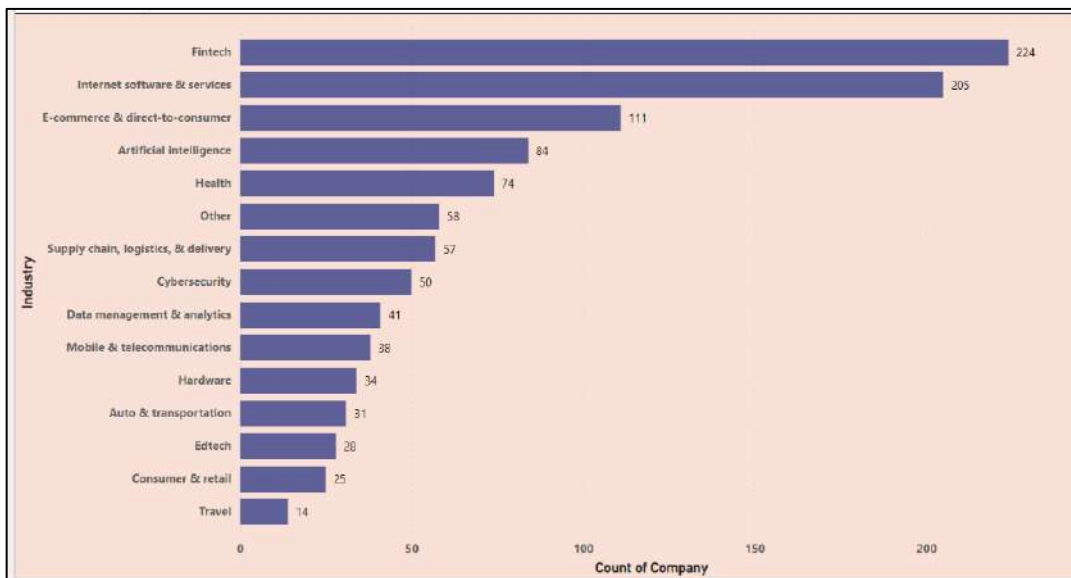
Examining the time it takes for companies to achieve unicorn status provided insights into the growth trajectories of successful startups. On average, it takes 7 years for a company to become a unicorn, although this can vary significantly across industries and regions. Technology and software companies tend to achieve unicorn status faster due to their scalable business models and rapid market adoption. This analysis helps entrepreneurs and investors set realistic expectations and benchmarks for startup growth.

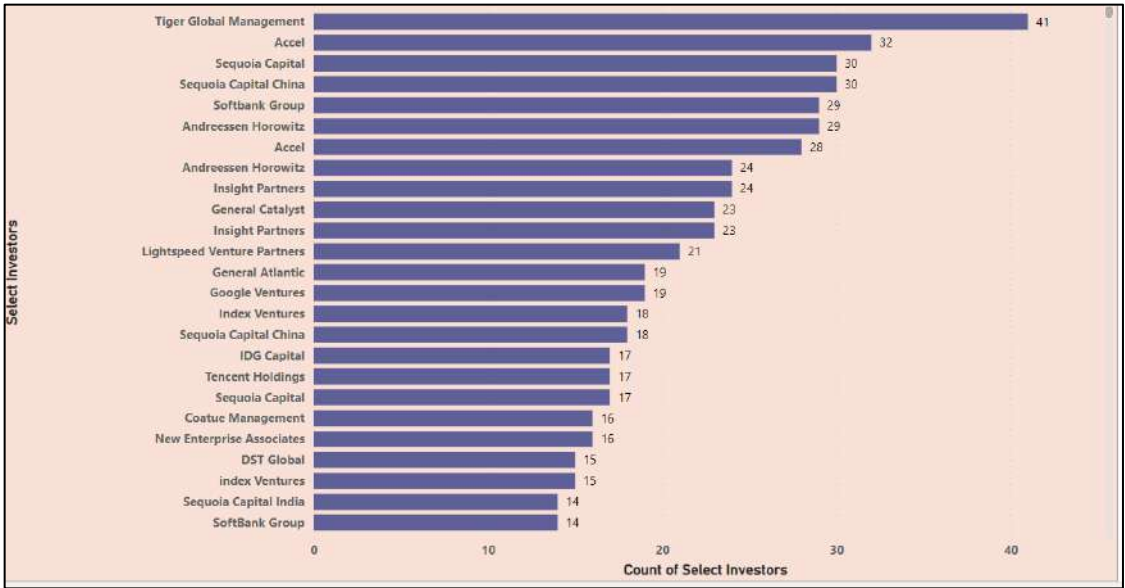
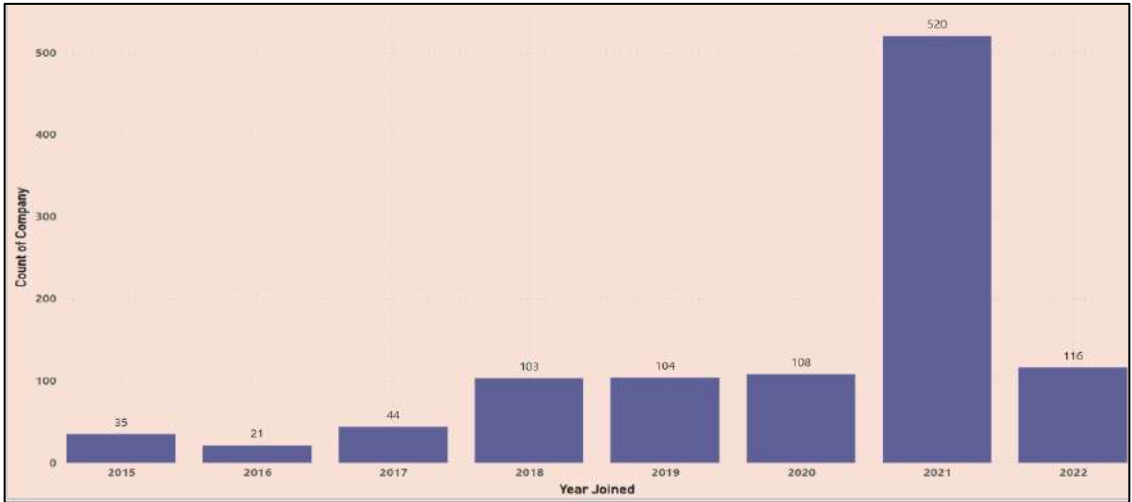
7.5 Most Frequent Investor in Unicorns

Identifying the investors who have founded the most unicorns highlighted key players in the venture capital ecosystem. Tiger Global Management emerged as one of the top investors, having funded a significant number of unicorn companies across various sectors. This finding underscores the role of experienced and strategic investors in nurturing and scaling startups to unicorn status. These investors bring not only capital but also valuable expertise, networks, and support to their portfolio companies.

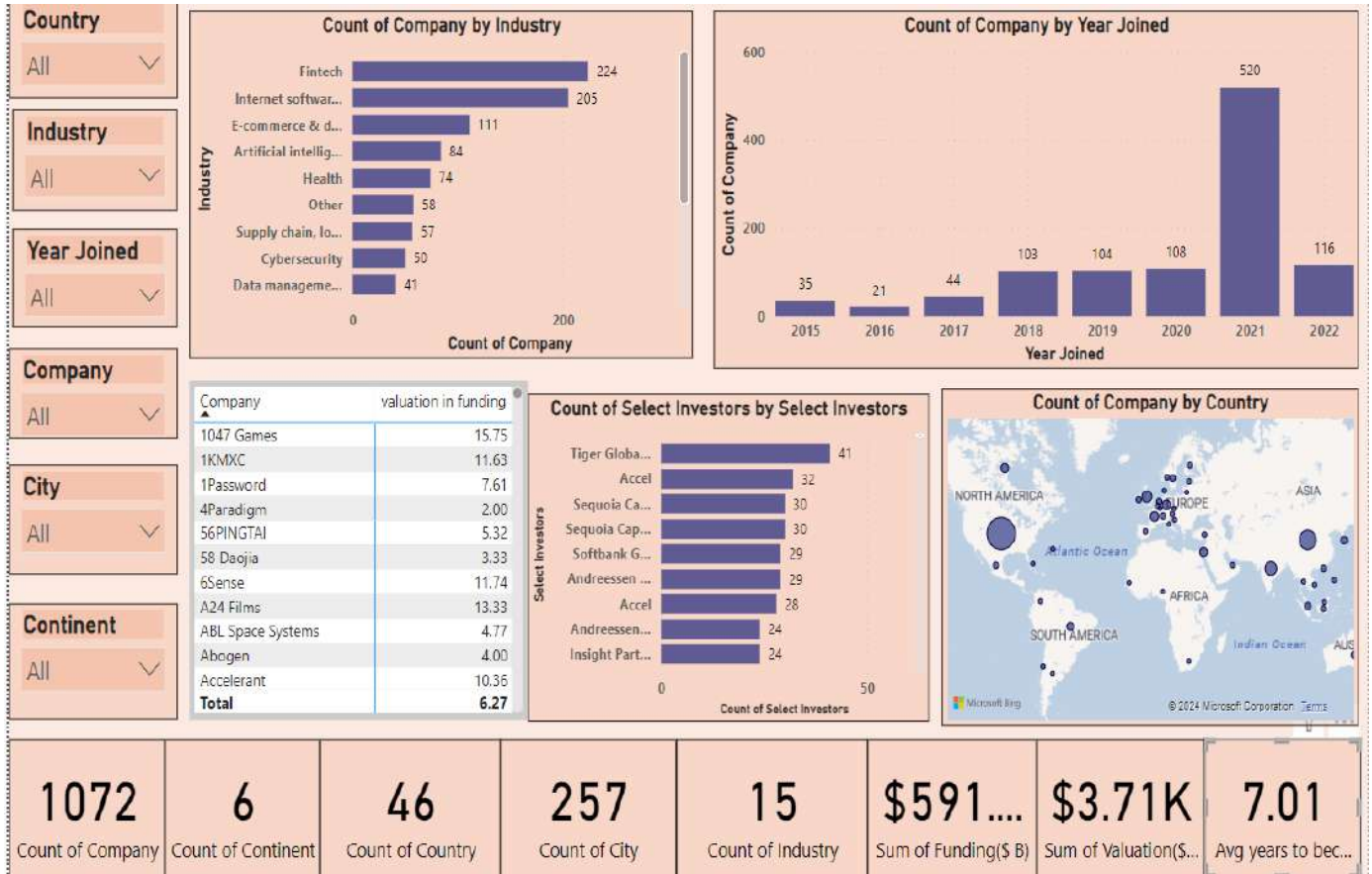
8.Data Visualization

Company	valuation in funding
Zapier	4,000.00
Dunamu	126.76
Workhuman	111.11
CFGJ	105.26
Manner	100.00
DJI Innovations	76.19
GalaxySpace	71.43
Canva	69.93
Il Makiage	68.97
Revolution Precrafted	66.67
Injective Protocol	58.82
Upstox	55.56
SHEIN	50.00
Stripe	47.50
Boba	44.44
Games24x7	40.00
Miro	37.82
Clubhouse	36.36
Ripple	34.01
Kraken	33.61
Grammarly	32.50
Relativity	32.00
Turing	31.25
OpenSea	30.44
L&P Cosmetic	30.30
Figma	30.03
Total	6.27





9.Results



Summary of Key Findings

- Company with Highest ROI:** Fintech stands out with the highest return on investment, showcasing its efficient capital utilization and robust growth.
- Leading Country for Unicorns:** The United States leads the global unicorn landscape, followed by China and India, indicating strong regional startup ecosystems.
- Peak Year for Unicorn Creation:** The year 2021 saw the highest number of new unicorns, driven by increased funding and digital innovation.
- Typical Time to Unicorn Status:** On average, it takes 7 years for startups to achieve unicorn status, with technology startups often reaching this milestone faster.
- Top Investor in Unicorns:** Tiger Global Management is the most frequent backer of unicorn companies, highlighting its pivotal role in the success of high-growth startups.

10. Conclusion

The "**Power BI Enabled Comprehensive Analysis on Unicorn Businesses**" project successfully achieved its objectives, providing critical insights into the dynamics of unicorn businesses. By utilizing Power BI, the project analyzed key metrics such as ROI, the number of unicorns per company, annual unicorn creation rates, time to unicorn status, and top investors. The methodology—comprising data acquisition, preparation, modeling, visualization, and storytelling—effectively transformed raw data into actionable insights. Interactive dashboards created during the project facilitated a deeper understanding of unicorn businesses, enhancing strategic decision-making for stakeholders.

Key findings included identifying top-performing companies, years with the most unicorns, and influential investors, offering valuable guidance for aspiring entrepreneurs and investors. The project underscored the power of advanced data analytics in delivering comprehensive business intelligence and contributed significantly to Edunet Foundation's strategic capabilities and the participants' professional growth.

11.BIBLIOGRAPHY

The following links are referred for the analysis and execution phase of the project

WEBLINKS:

<https://community.fabric.microsoft.com/t5/Power-BI-forums/ct-p/powerbi>

<https://learn.microsoft.com/en-us/power-bi/create-reports/sample-sales-and-marketing>

<https://www.mavenanalytics.io/data-playground?page=4&pageSize=5>

<https://learn.microsoft.com/en-us/training/modules/get-data-power-bi/>

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATIONS by

PUNEETH KUMAR

UUCMS. No.: U03KU21S0060

(Duration: 28th Feb, 2024 to 25th April, 2024)



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

**BACHELOR OF COMPUTER APPLICATIONS SOUNDARYA
INSTITUTE OF MANAGEMENT AND SCIENCE**



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **PUNEETH KUMAR (UUCMS. No.: U03KU21S0060)** is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATIONS** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Samskruthi
25/06/2024

Internship Coordinator
Department of BCA
Ms. Samskruthi B L

Vijay Kumar
Head of the Department
DEPT. OF COMPUTER SCIENCE
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE
Soundarya Nagar, Sidedanahalli,
Nagasandra Post, Bangalore - 560 073.
Department of BCA
Prof. Vijay Kumar A S, M.Tech.,[Ph.D]

EXAMINERS
1. _____
2. _____



CERTIFICATE OF APPRECIATION

INTERNSHIP_170662655565b90dfb357f2

PROUDLY PRESENTED TO

PUNEETH KUMAR

STU656760c4a00ba1701273796

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Full Stack Web Development** under the **Next Gen Employability Program 2023-24**.

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

Date: 5th March 2024

Dear Mr./Ms. PUNEETH KUMAR

AICTE Student ID: STU656760c4a00ba1701273796

AICTE Internship ID: INTERNSHIP_170662655565b90dfb357f2

We extend our warmest congratulations on your selection for an internship presented by the Edunet Foundation, in collaboration with EY GDS-AICTE, focusing on Full Stack Web Development.

The EY GDS - AICTE Internship is structured to support individuals in developing essential foundational skills needed for productive careers in the IT sector. Participants have the opportunity to earn credentials and benefit from guidance provided by industry experts, all at no cost throughout the duration of the program.

EY GDS (Ernst & Young – Global Delivery Services), in partnership with AICTE, provides a unique learning experience through a 6-week Internship, commencing from 28th February 2024 to 25th April 2024. Throughout this period, you will have the opportunity to work independently on a project, with guidance from a mentor who will assist you in identifying solutions and developing them into a tangible project.

Benefits:

- Personalized mentorship sessions and collaborative group learning.
- Opportunities to expedite learning through project-based internships.
- A holistic learning experience provided by industry experts through knowledge-sharing sessions.
- Showcase your skills by creating prototypes to solve real-world challenges.
- Earn certifications from EY, AICTE, and Edunet, boosting your confidence and value to potential future employers.
- Opportunity to present your project prototypes to a panel of industry experts at a regional showcase event.

Timeline and the Project:

Week	Agenda	Student Deliverables
Week 0	Orientation of Internship, Project allocation	<ul style="list-style-type: none"> • Selection of Projects through Google form • Commence Project Related Tasks
Week 1	Master session on Resume Building, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 2	Master session on Design Thinking in Real World Applications, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 3	Master session on Managing codebase with Git Hub, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning

Week 4	Master session on DevOps: Code to	<input type="checkbox"/> Complete Weekly Milestone
	Production, Mentorship sessions, Ask Me Anything sessions, and Final Project Submission	<input type="checkbox"/> Self-Paced learning <input type="checkbox"/> Final project and PPT Submission
Week 5	Mock project presentations	<input type="checkbox"/> Presentation of Project in front of Subject Matter Experts <input type="checkbox"/> Incorporate changes in the project mentioned by Mentors
Week 6	Final Project Presentations (PPT)	<input type="checkbox"/> Final Presentation of Project before EY Industry Experts

Criteria for certification:

- Participation in master sessions with EY & EF experts is mandatory
- Participation in mentorship sessions with EF experts is mandatory
- Completion of tasks/milestones every week
- Submission of a project presentation required
- Commitment of 6-8hrs/week throughout internship

Stipend:

There will be NO stipend for this internship.

We wish you a great learning experience during the internship. Thank you!



Sincerely,
Nagesh Singh
Executive Director – Edunet Foundation

ACKNOWLEDGEMENT

First, I would like to thank Mr. Nagesh Singh, Executive Director of EDUNET FOUNDATION, for giving me the opportunity to do an internship within the organization.

I also thank all the people that worked along with me at EDUNET FOUNDATION, for their patience and openness which created an enjoyable working environment.

I am highly indebted to Director and Principal Dr. Vasu BA for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department Mr. Vijay Kumar A S for his constructive criticism throughout my internship.

I am extremely grateful to my department staff members and friends who helped me in the successful completion of this internship.

PUNEETH KUMAR (U03KU21S0060)

ABSTRACT

This internship report documents the development and implementation of a News Aggregator project completed during the EY GDS-AICTE Internship Program. The objective of the project was to create a centralized platform for aggregating news from various sources, providing users with a personalized and seamless news browsing experience.

The internship provided an invaluable opportunity to apply theoretical knowledge to practical scenarios, utilizing a range of technologies including Python, Django, HTML, CSS, and web scraping techniques. Key aspects of the project included the development of a user-friendly interface, efficient backend processing, real time data aggregation, and advanced customization options for users.

Throughout the internship, the focus was on addressing significant issues such as information overload, fragmented news consumption, and the need for reliable, accessible, and personalized news content. The project not only enhanced technical skills but also emphasized the importance of user-centric design, data security, and inclusive accessibility features.

The experience gained during this internship has been instrumental in understanding the complexities of real world application development, fostering both professional growth and a deeper appreciation for the field of computer science.

ORGANIZATION INFORMATION

EY GDS (Global Delivery Services) is an integral part of EY's Global organization. It provides a wide range of services, including tax, advisory, assurance, and transaction advisory services. EY GDS operates in multiple locations worldwide, delivering high-quality, innovative solutions to clients across various industries.

Edunet Foundation is a non-profit organization focused on enhancing education and employability through technology and innovation. It collaborates with various educational institutions and industries to provide training, resources, and support to students and professionals.

Week No.	Date	Activities / Work Done
Week 1 Mentoring Class	05/03/24	Planning the modules Implementing project layout
Week 1 Master Class	07/03/24	Resume Resonance : Creating an Impression that lasts/
Week 2 Mentoring Class	12/03/24	Home page implementation (HTML, CSS, Bootstrap)
Week 2 Master Class	14/03/24	Master session on Design thinking in real-world application
Week 3 Mentoring Class	19/03/24	Front-end and back-end interconnections
Week 3 Master Class	21/03/24	Managing Code Base with Git Hub
Week 4 Mentoring Class	26/03/24	Facebook,Whatsapp & Telegram shares Project setup creation,Deployment & Migration
Week 4 Master Class	28/03/24	Dev Ops: Code to Production

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1. INTRODUCTION

This internship report details the development and implementation of a News Aggregator project completed during the EY GDS-AICTE Internship Program. The objective of the project was to create a centralized platform aimed at aggregating news from diverse sources, providing users with a personalized and seamless news browsing experience.

The project leveraged a range of technologies including Python, Django, HTML, CSS, and web scraping techniques to achieve its goals. Key aspects of development included designing a user-friendly interface, implementing efficient backend processing for real-time data aggregation, and offering advanced customization options for users. These efforts were driven by the overarching goal of addressing challenges such as information overload and fragmented news consumption prevalent in today's digital landscape.

Throughout the internship, emphasis was placed not only on technical proficiency but also on integrating user-centric design principles, ensuring data security, and promoting inclusive accessibility features. This holistic approach not only enhanced practical skills but also provided valuable insights into real-world application development within the realm of computer science.

The experience gained during this internship has been instrumental in bridging academic knowledge with hands-on application, fostering professional growth, and cultivating a deeper appreciation for the complexities of software engineering and user experience design.

1.1 Modules

Homepage:

- **Objective:** The homepage serves as the entry point, showcasing curated top news articles and trending topics.
- **Features:** Powered by Django, it dynamically fetches and displays news content in a responsive design format, ensuring optimal viewing across devices.
- **Technologies Used:** Django, HTML, CSS, JavaScript.

Categories for News:

- **Objective:** Organizes news articles into categorized sections such as "Breaking News," "Politics," and "Business" for intuitive navigation.
- **Features:** Allows users to explore specific topics of interest with ease, enhancing accessibility and relevance.
- **Technologies Used:** Django templates for structured presentation.

Article View:

- **Objective:** Provides comprehensive details of selected articles including title, content, author, and publication date.
- **Features:** Enhances readability and engagement with options for adjusting text size and sharing articles on social media platforms.
- **Technologies Used:** Django templates, HTML, CSS, JavaScript for interactive elements.

Social Media Sharing:

- **Objective:** Enables users to share articles seamlessly on platforms like Facebook, WhatsApp, and Telegram.
- **Features:** Integrates social sharing functionalities to expand article reach and user engagement.
- **Technologies Used:** Social media APIs, Django backend.

Copy Link:

- **Objective:** Offers users the option to copy article links for sharing through other communication channels.
- **Features:** Provides flexibility in sharing news content beyond integrated social media platforms.
- **Technologies Used:** JavaScript for link copying functionality.

About Page:

- **Objective:** Provides essential information about the platform's mission, team members, and contact details.
- **Features:** Includes sections on privacy policy, terms of use, and frequently asked questions (FAQs) to enhance transparency.
- **Technologies Used:** HTML, CSS for layout and content presentation.

2. ANALYSIS

The analysis phase involved understanding the requirements for creating a user-friendly news aggregator platform. User needs were identified, and the system was designed to provide a seamless browsing experience, focusing on key functionalities like categorization, detailed views, and easy sharing options.

2.1 WEEKLY PROGRESS

Week 1: Requirements Gathering and Initial Setup Defined

project scope and objectives.

Set up Django project structure and initial database schema.

Week 2: UI Design and Frontend Development

Designed homepage layout using HTML, CSS, and Bootstrap.

Initiated UI design for the about page and integrated initial web crawlers for data aggregation.

Week 3: Backend Integration and Feature Development

Integrated frontend and backend components for seamless data flow.

Developed modules for Opinion News, Breaking News, and categorized sections (Sports, Entertainment, Politics).

Week 4: Testing, Deployment, and Finalization

Implemented social media sharing functionalities (Facebook, WhatsApp, Telegram).

Conducted thorough testing, debugging, and finalized module interconnections.

Prepared for deployment, migration to production environment, and final project setup.

2.2 Weekly Milestone

Week 1 Milestone:

Understanding of Django framework and Software Engineering Principles:

Explored Django's MVC architecture and its application in building scalable web applications.

Project Aims and Objectives:

Defined the project scope to include modules for news fetching, categorization, and user interface design.

Brief of Modules:

Designed initial project layout including Home, About, Contact, and News pages.

Drafted flowcharts to visualize data flow and interactions between different modules.

Week 2 Milestone:

UI Design of Home Page and About Page:

Developed wireframes and mockups for Home and About pages, focusing on user engagement and visual appeal.

Implemented frontend components using HTML, CSS, and Bootstrap to ensure responsiveness and accessibility.

Integration of Bootstrap Components:

Utilized Bootstrap grids, navigation bars, and cards for structuring content and improving overall UI/UX.

Maintaining UI/UX Consistency:

Ensured consistency in color schemes, typography, and design elements across all pages for a cohesive user experience.

Week 3 Milestone:

Enhanced Social Share UI and Color Scheme:

Updated UI elements for social sharing functionalities on news articles.

Refined color scheme and visual elements to enhance readability and user interaction.

Implementation of News Categorization Features:

Introduced categories such as Opinion News, Breaking News, Sports, Entertainment, and Politics.

Integrated filtering options to allow users to customize their news feed based on interests.

Week 4 Milestone:

Integration with Social Media Platforms:

Implemented sharing capabilities on Facebook, WhatsApp, and Telegram to broaden news dissemination.

Final Module Connections and Deployment Setup:

Ensured seamless integration of all project modules to deliver a fully functional News Aggregator platform.

Configured deployment settings using Docker containers on AWS for scalability and performance optimization.

SOFTWARE REQUIREMENTS SPECIFICATIONS

The project required the following software components:

- Django framework for backend development
- Python as the programming language
- HTML/CSS for frontend design
- JavaScript for interactive elements
- SQL Database for storing articles and user data

4. TECHNOLOGY

4.1 Django:

Django is a high-level Python web framework that encourages rapid development and clean, pragmatic design. It follows the "Don't Repeat Yourself" (DRY) principle and includes built-in features such as authentication, URL routing, and an ORM (Object-Relational Mapping) for database interactions. Django's robust security features help protect applications from common threats like SQL injection, cross-site scripting, and cross-site request forgery.

4.2 Python

Python is an interpreted, high-level programming language known for its readability and versatility. Its extensive standard library supports many common programming tasks such as file I/O, system calls, and even web development. Python's clear syntax and dynamic typing make it a popular choice for both beginners and experienced developers.

4.3 HTML/CSS

HTML (Hyper Text Markup Language) is the standard language for creating web pages. It provides the structure of the page, while CSS (Cascading Style Sheets) defines the visual presentation, including layout, colours, and fonts. Together, HTML and CSS form the backbone of web content presentation.

4.4 JavaScript

JavaScript is a dynamic programming language commonly used for creating interactive effects within web browsers. It allows developers to implement complex features on web pages, such as dynamically updating content, controlling multimedia, and animating images. JavaScript is essential for enhancing user experience by making web pages more responsive and interactive.

4.5 SQL Database

SQL (Structured Query Language) is the standard language for managing and manipulating relational databases. SQL databases are used to store, retrieve, and manage data efficiently. For this project, SQL was used to handle user data and news articles, ensuring data integrity and performance.

5. CODING

The coding phase involved several key steps:

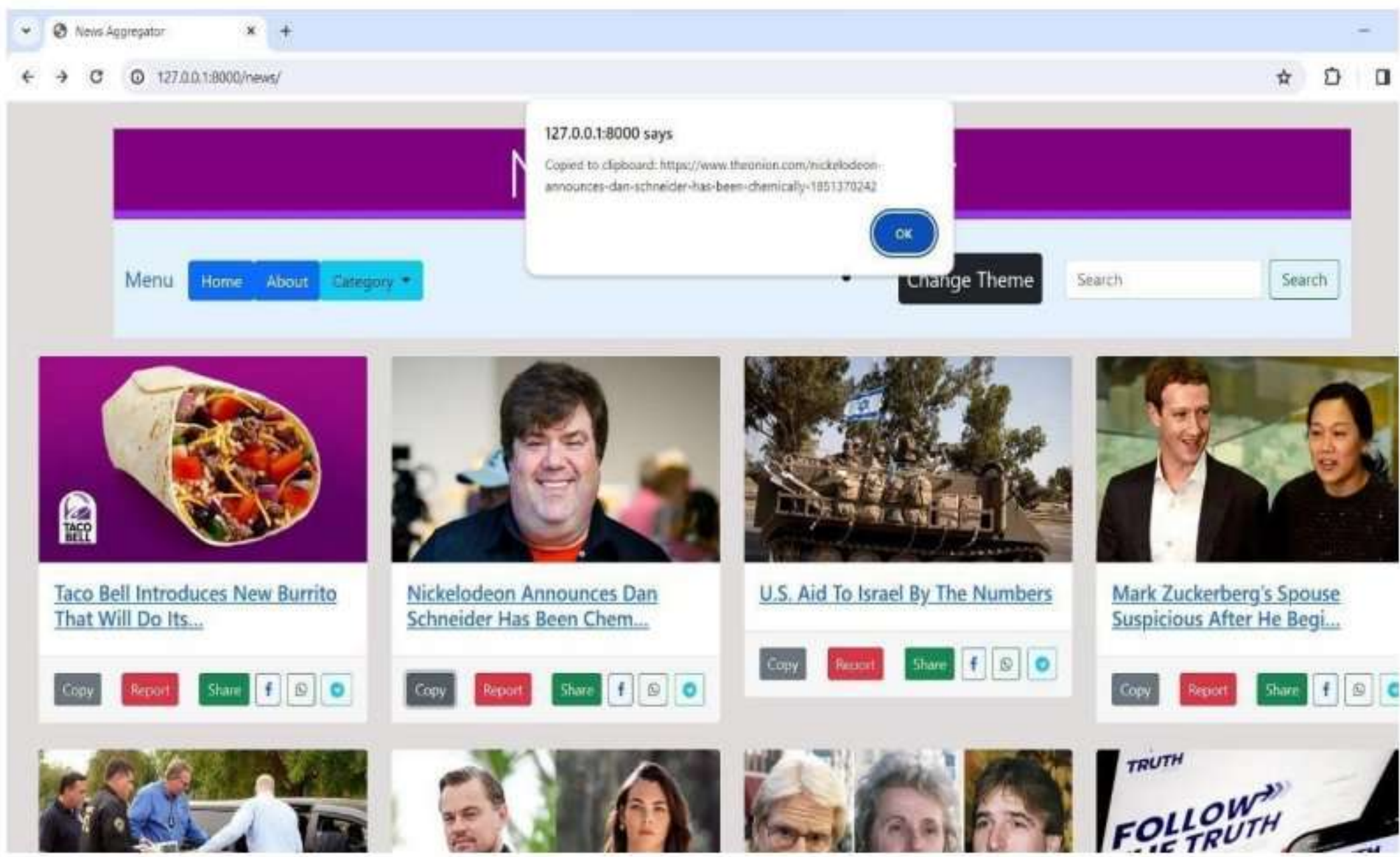
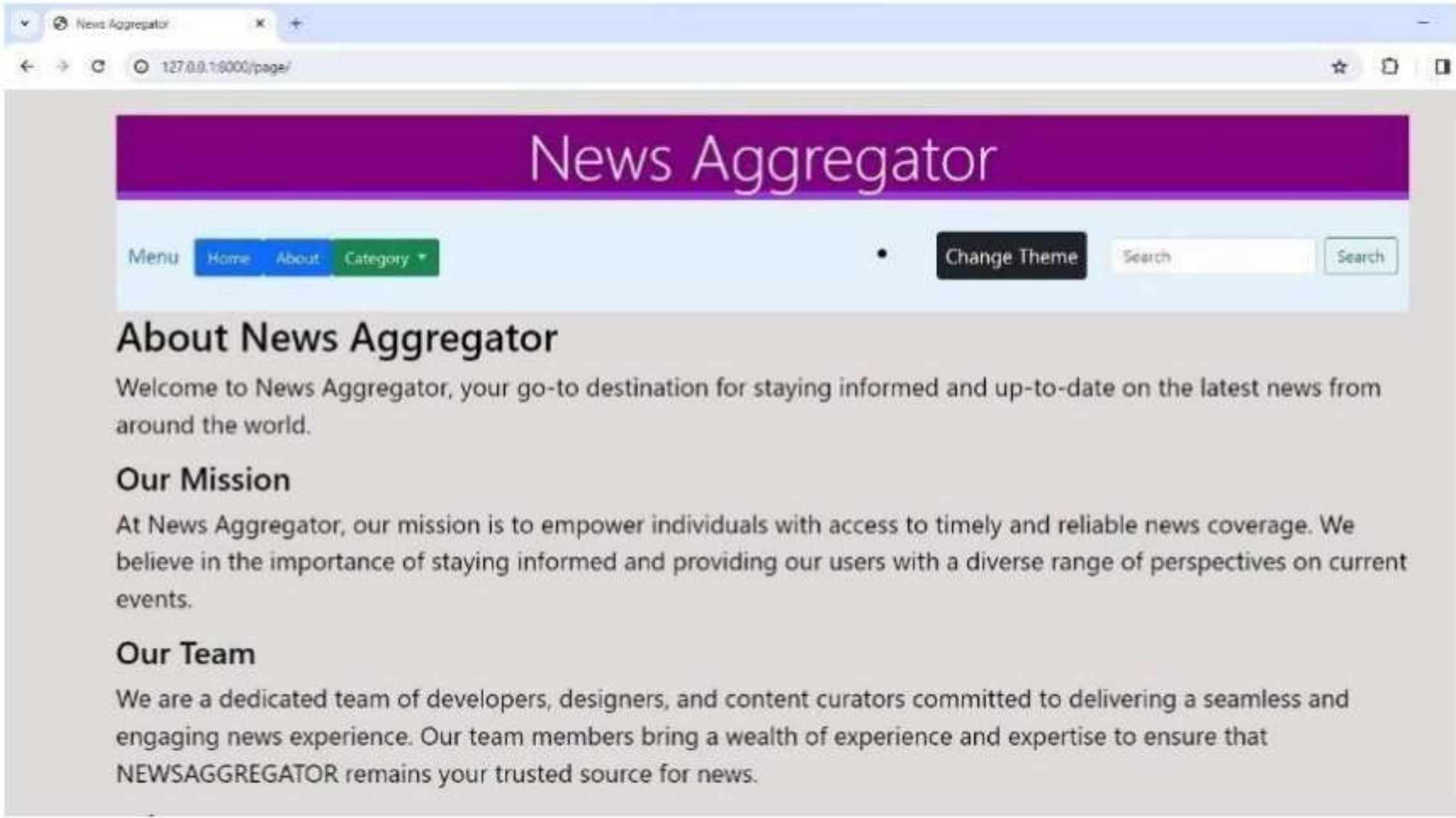
- **Design and Setup:** Setting up the Django project structure, configuring settings, and designing the database schema.
- **Backend Development:** Implementing the core logic for data aggregation, user authentication, and interaction with the SQL database using Django's ORM.
- **Frontend Development:** Creating user interfaces with HTML, CSS, and JavaScript to ensure a responsive and user-friendly experience.
- **Integration:** Combining the backend and frontend components, ensuring seamless communication and data flow between the server and the client.
- **Testing and Debugging:** Conducting thorough testing to identify and fix bugs, ensuring the platform's reliability and performance.
- **Deployment:** Setting up the server environment and deploying the application to a production server for public access.

Key challenges included ensuring data consistency across multiple sources, optimizing query performance, and maintaining a responsive user interface. These were addressed through efficient database indexing, caching strategies, and asynchronous loading of content.

6. SCREENSHOTS

Screenshots of the platform were taken to document the user interface and key features, including the homepage, category views, article views, and sharing functionalities.





7. CONCLUSION

The EY GDS-AICTE Internship Program has been an enriching and transformative experience, bridging the gap between academic knowledge and practical application. Over the course of this internship, I was involved in the development and implementation of a News Aggregator project, which aimed to create a centralized platform for aggregating news from various sources and providing users with a personalized and seamless news browsing experience. This comprehensive conclusion reflects on the journey, key learnings, and future prospects of the project.

Week-by-Week Progress and Achievements

Week 1: Requirements Gathering and Project Setup

- Requirements Analysis: Collaborated with mentors to define the project scope, objectives, and deliverables, focusing on addressing information overload and providing a user-friendly news aggregation platform.
- Project Planning: Applied software engineering principles to plan the project's structure and modular design, ensuring scalability and maintainability.
- Initial Implementation: Set up the development environment and began implementing the homepage using HTML, CSS, and Bootstrap.

Week 2: UI Design and Initial Functionality

- UI Enhancements: Refined the homepage design and created a visually appealing and user-friendly interface.
- Web Crawlers: Developed web crawlers for fetching news articles from various sources, ensuring ethical scraping practices.
- Mode Switching: Implemented functionality for switching between different display modes (e.g., light and dark themes) to enhance user experience.

Week 3: Backend and Frontend Integration

- **Backend Development:** Connected frontend components with backend logic using Django, facilitating seamless data retrieval and presentation.
- **News Categories:** Developed categorized sections for news topics such as Opinion, Breaking News, Sports, Entertainment, and Politics.
- **Interactivity:** Enhanced the interactivity of the platform using JavaScript for dynamic content updates and smoother navigation.

Week 4: Final Features and Deployment

- **Social Media Sharing:** Added functionalities for sharing articles on social media platforms (Facebook, WhatsApp, Telegram) to increase user engagement.
- **Module Interconnection:** Ensured all modules were interconnected for a cohesive user experience, addressing integration issues through rigorous testing.
- **Deployment:** Deployed the project to a production environment, configuring the server and database, and conducting final performance optimizations.

Key Takeaways and Skills Acquired

1. Practical Experience

- Applied theoretical knowledge to develop a functional News Aggregator project using technologies such as Python, Django, HTML, CSS, and JavaScript.
- Gained hands-on experience in both backend and frontend development, including database management and UI design.

2. Technical Proficiency

- Enhanced coding skills, particularly in web development and backend processing.
- Developed proficiency in Django, leveraging its features for rapid and secure web application development.

3. Project Management

- Managed the project lifecycle from planning and design to coding, testing, and deployment.
- Implemented modular design principles, ensuring the project's scalability and maintainability.

4. Problem-Solving Abilities

- Addressed real-world problems such as information overload and fragmented news consumption.
- Developed solutions for data consistency, query performance, and responsive user interfaces.

5. User-Centric Design

- Focused on creating a user-friendly and accessible platform, emphasizing responsive design and intuitive navigation.
- Implemented features that enhance user experience, such as theme switching and social media sharing.

6. Collaboration and Communication

- Worked effectively with peers and mentors, enhancing teamwork and communication skills.
- Learned to incorporate feedback and adapt to changing project requirements.

7. Data Security

- Ensured data security by implementing robust measures to protect user information.
- Addressed common security threats such as SQL injection, cross-site scripting, and cross-site request forgery.

In conclusion, the EY GDS-AICTE Internship Program has been instrumental in my professional growth, providing a platform to apply academic knowledge to real-world challenges. The skills and experiences gained during this internship have not only prepared me for future endeavors in the field of computer science but also instilled a deeper appreciation for the importance of user-centric design and data security. This internship has laid a strong foundation for my career, equipping me with the tools and knowledge to tackle complex projects and contribute meaningfully to the tech industry.

8. BIBLIOGRAPHY

- **Python and Django Documentation** - Comprehensive guides and tutorials for Python and Django development available at [Python Official Documentation](#) and [Django Official Documentation](#).
- **Bootstrap Documentation** - Official documentation for Bootstrap framework available at [Bootstrap Documentation](#).
- **HTML/CSS/JavaScript Resources** - Various online resources for frontend development techniques, including:
 - [W3Schools](#)
 - [MDN Web Docs](#)
- **EY Instructions and Mentorship** - Guidelines and mentorship provided by EY during the internship program, including personalized feedback and best practices for project development.

Samskruthi
26/06/2024

Ms. Samskruthi B L

Professor

Soundarya Institute of
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Vijay Kumar
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Soundarya Institute
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Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **PUNEETH N (UUCMS. No.: U03KU21S0069)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

A handwritten signature in red ink, appearing to read 'Supriya'.

Internship Coordinator

Prof. Supriya, [M.Tech]

Head of the Department
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Nagandrao Post, Bangalore - 560 073.
Department of BCA
Prof. Vijay Kumar A S, M. Tech, [Ph D]



18	18-05-2024	
19	19-05-2024	Outlier detection and data handling.
20	20-05-2024	Assignment-3.
21	21-05-2024	Train test and split.
22	22-05-2024	Linear regression Models.
23	23-05-2024	Logistics regression Models.
24	24-05-2024	Exploratory Data Analysis (EDA.).
25	25-05-2024	Feature analysis and selection using pandas and sci-kit learn.
26	26-05-2024	Model selection and Training.
27	27-05-2024	Assignment-4
28	28-05-2024	Project selection.
29	29-05-2024	Handling missing elements in duplicate data.
30	30-05-2024	Advanced visualization using Seaborn.
31	31-05-2024	Project submission.
		Proof of completion(Certificate).

Supriya D

**Prof. Supriya D
Professor**

**Soundarya Institute of
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**Prof. Vijay Kumar AS
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Management and Science**

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**Dr. Vasu BA
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Nagasandra, Bangalore - 560 073

Examiner :-

[Signature]

BACHELOR OF COMPUTER APPLICATION
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CERTIFICATE

This is to certify that the "Internship report" submitted by **RAHUL RAO R** (UUCMS. No.: **U03KU21S0011**) is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Department of BCA
Prof. Nagasuma CV

Head of the Department
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EXAMINERS	
1.....	
2.....	

10/05/2024

CPU troubleshooting

Prof. Nagasuma CV
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INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

RAHUL RAO R

UUCMS. No.: U03KU21S0011

Duration: 10th Api, 2024 to 10th May, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **RAHUL RAO R (UUCMS. No.: U03KU21S0011)** is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Department of BCA
Prof. Nagasuma CV

Head of the Department
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D]

ACKNOWLEDGEMENT

First I would like to thank **Mr. Praveen S**, IT Manger for giving me the opportunity to do an internship within the institution.

I also would like all the people that worked along with me **Gowtham** with their patience and openess they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

RAHUL RAO R (U03KU21S0011)

ABSTRACT

Computer networking enables the interconnection of computing devices for communication and resource sharing. It includes various network types like LANs, WANs, and PANs, each varying in scope and scale. Network architectures, such as client-server and peer-to-peer, define device interactions. Essential protocols like TCP/IP govern data transmission, while HTTP, FTP, and SMTP support specific applications. Key components, including routers, switches, and hubs, facilitate data routing and switching. IP addressing and DNS play critical roles in network addressing and domain name resolution. Network security measures, such as firewalls and encryption, protect data integrity and privacy. This overview covers fundamental networking concepts essential for further study and practical application.

ORGANISATION INFORMATION:

Netcraftz Institution, located at Jalahalli Cross in Bangalore, is a renowned educational organization committed to providing high-quality, industry-relevant training in technology and professional development. Their mission is to empower students and professionals with the skills needed to excel in the fast-evolving tech landscape, aiming to be a leading institution in technology education and innovation. Netcraftz offers a diverse range of courses, including programming languages like Java, Python, and C++, web development with front-end and back-end technologies, mobile app development for Android and iOS, and various certification programs such as Microsoft, Cisco (CCNA, CCNP), and AWS certifications. They also provide training in data science and analytics, cybersecurity, networking, and professional development. The institution features modern classrooms, well-equipped labs, a comprehensive library, and an online learning platform to support virtual education. Netcraftz boasts a team of experienced instructors who bring industry expertise to the classroom, ensuring practical, hands-on training. The institution collaborates with industry partners to offer real-world exposure, internships, and placement support. Additionally, Netcraftz provides career services, including personalized guidance and networking opportunities, and maintains dedicated support services for student queries and academic assistance. For more information on courses, enrollment procedures, and the latest offers, you can contact Netcraftz directly or visit their official website.

PROGRAMS AND OPPORTUNITIES:

Netcraftz Institution, offers a variety of programs and opportunities for students interested in technology and professional development. Here are some of the key programs and opportunities available at Netcraftz:

Programming Languages: Courses in popular programming languages such as Java, Python, C++, and JavaScript.

Web Development: Comprehensive training in front-end and back-end web development, including HTML, CSS, JavaScript, and frameworks like Angular, React, and Node.js.

Mobile App Development: Training in Android and iOS app development using Kotlin, Swift, and cross-platform technologies like Flutter.

METHODOLOGIES:

1. **Hands-on Labs:** Engage in practical exercises configuring routers, switches, and setting up networks to apply networking concepts directly.
2. **Addressing and Routing:** Learn IP addressing, subnetting, and routing protocols (e.g., RIP,) for efficient data routing in networks.
3. **Network Security:** Explore security techniques such as firewalls, encryption, and authentication protocols to protect against threats.
4. **Troubleshooting:** Develop skills in network troubleshooting using tools like ping, traceroute, and Wireshark to diagnose and resolve common issues.

KEY PARTS OF THE REPORT:

1. **Introduction:-** Provides background information, purpose, and scope of the report.
2. **Methodologies:** - Details the methods and approaches used for research and practical exercises.
3. **Hardware and Software Requirements:-** Lists and describes the necessary hardware and software for networking tasks.
4. **Results and Discussion:-** Presents findings from practical exercises, analyzes results, and discusses any challenges and solutions.
5. **Conclusion:-** Summarizes main findings and provides recommendations or implications for future work.

INSTITUTION THROUGH OUR REPORT:

Enhanced Knowledge Base: The report adds to the institution's repository of knowledge on networking, providing detailed insights and practical guidelines on setting up and managing network infrastructure. **Improved Network Efficiency :**By following the methodologies and best practices outlined in the report, the company can improve the efficiency and reliability of its network operations, leading to better performance and reduced downtime .**Cost Savings :**Implementing the practical recommendations from the report can help the company avoid costly mistakes and optimize resource allocation, potentially reducing expenditures on network equipment and maintenance. **Increased Security:** The report includes information on network security fundamentals, helping the company to strengthen its defenses against cyber threats and ensuring the integrity and confidentiality of its data. **Employee Training and Development** The detailed explanations and practical exercises in the report can serve as a training resource for employees, enhancing their skills and knowledge in networking, which in turn can lead to more effective network management and problem-solving capabilities

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INTERNSHIP OBJECTIVES

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

1.INTRODUCTION

This report details an internship focused on computer networking, encompassing basic hardware networking, troubleshooting, and the installation and configuration of routing and switching equipment. Key tasks included OS installation, software loading, and CPU troubleshooting. Additionally, the intern configured switches and routers to optimize network performance and ensure reliability. The report highlights the practical application of networking knowledge and skills in real-world scenarios, contributing to the seamless operation and maintenance of network infrastructures.

2.Modules

Network Types: LANs connect devices in a limited area, WANs span large geographical areas, and PANs link devices in close proximity to an individual. **Network Protocols:** TCP/IP governs data transmission, including HTTP for web, FTP for file transfer, and SMTP for email.

Network Devices: Routers forward data between networks, switches connect devices, hubs extend connections, and APs enable wireless connectivity.

Addressing and Routing: IP addressing uniquely identifies devices, subnetting organizes networks, and routing forwards data based on IP addresses. **Network Security:** Firewalls monitor traffic, encryption secures data, authentication verifies users, and VPNs provide secure connections.

3.Analysis

Network Traffic Analysis: Analyzing data packets to understand network usage patterns, identify anomalies, and optimize performance. **Performance Analysis:** Monitoring network performance metrics like latency, throughput, and packet loss to ensure efficiency. **Security Analysis:** Identifying and assessing network vulnerabilities, intrusion attempts, and security breaches to enhance network security. **Protocol Analysis:** Examining network protocol behaviors to troubleshoot issues, optimize performance, and ensure compatibility. **Traffic Flow Analysis:** Studying patterns of data flow within the network to optimize routing and resource allocation. **Cost-Benefit Analysis:** Evaluating the costs and benefits of network infrastructure upgrades or changes to make informed decisions. **Risk Analysis:** Assessing potential risks to network security and data integrity, and implementing mitigation strategies. **Trend Analysis:** Identifying long-term patterns or trends in network usage, which helps in capacity planning and resource management. **User Behavior Analysis:** Understanding how users interact with the network to tailor network policies and improve user experience. **Compliance Analysis:** Ensuring network configurations and activities comply with regulatory standards and organizational policies.

4.NETWORKING PROTOCOL

A networking protocol is a set of rules and conventions that govern how data is transmitted, received, and processed across a computer network. These protocols define standards for communication between devices to ensure interoperability. **TCP/IP (Transmission Control Protocol/Internet Protocol)**: The foundation protocol of the Internet, responsible for data transmission and routing on the network layer.

1. **HTTP (Hypertext Transfer Protocol)**: Protocol for transferring hypertext requests and information on the World Wide Web.
2. **FTP (File Transfer Protocol)**: Used for transferring files between a client and a server on a network.
3. **SMTP (Simple Mail Transfer Protocol)**: Protocol for sending email messages between servers.
4. **POP3 (Post Office Protocol version 3)** and **IMAP (Internet Message Access Protocol)**: Protocols used by email clients to retrieve emails from a mail server.
5. **DNS (Domain Name System)**: Resolves domain names to IP addresses, enabling users to access websites using human-readable names.
6. **DHCP (Dynamic Host Configuration Protocol)**: Assigns IP addresses dynamically to devices on a network.
7. **UDP (User Datagram Protocol)**: A connectionless protocol used for sending datagrams in network communication.
8. **SNMP (Simple Network Management Protocol)**: Protocol used for network management and monitoring network-attached devices.
9. **SSH (Secure Shell)**: Provides secure access to a remote computer over an unsecured network.

5. TECHNOLOGY

1. high-speed and long-distance transmission.

Routers: Devices that forward data packets between computer networks based on IP addresses. "Technology" in the context of computer networking refers to the hardware, software, and protocols used to build and maintain networks. Here are some key networking technologies:

1. **Ethernet:** Common technology for wired LANs, using twisted pair or fiber optic cables for data transmission.
2. **Wi-Fi (Wireless Fidelity):** Technology that enables wireless local area networking based on IEEE 802.11 standards.
3. **TCP/IP (Transmission Control Protocol/Internet Protocol):** Core networking protocol suite for communication over the Internet and most local networks.
4. **Fiber Optics:** Technology using optical fibers to transmit data as pulses of light, offering
5. **Switches:** Devices that connect devices within a network and forward data based on MAC addresses.
6. **Firewalls:** Security devices that monitor and control incoming and outgoing network traffic based on predetermined security rules.
7. **VPN (Virtual Private Network):** Technology that extends a private network across a public network, allowing users to securely send and receive data.
8. **DNS (Domain Name System):** Technology that translates domain names into IP addresses, enabling users to access websites using human-readable names.

6.NETWORKING

Types of Networking:

- **LAN (Local Area Network):** Connects devices in a limited geographical area, like an office, home, or school.
 - **WAN (Wide Area Network):** Spans large geographical areas, often connecting multiple LANs together, such as the Internet.
 - **PAN (Personal Area Network):** Connects devices in close proximity to an individual, like smartphones, laptops, and wearable devices.
2. **Networking Components:**
- **Devices:** Such as routers, switches, hubs, access points, and network interface cards (NICs).
 - **Cables and Wireless:** Ethernet cables, fiber optics, and wireless technologies like Wi-Fi, Bluetooth, and cellular networks.
3. **Networking Protocols:**
- **TCP/IP:** Fundamental protocol suite for the Internet and most networks.
 - **HTTP, FTP, SMTP:** Protocols for specific applications like web browsing, file transfer, and email.
 - **DNS, DHCP:** Protocols for domain name resolution and dynamic IP address assignment.
4. **Networking Concepts:**
- **Addressing:** IP addressing (IPv4/IPv6) for uniquely identifying devices on a network.
 - **Routing:** Forwarding data packets between networks using routers based on destination IP addresses.
 - **Switching:** Forwarding data within a network using switches based on MAC addresses.
 - **Security:** Firewalls, encryption, VPNs to protect networks from unauthorized access and attacks.
5. **Networking Services:**
- **File Sharing:** Sharing files and resources across a network.
 - **Printing:** Sharing printers over a network.
 - **Email:** Sending and receiving emails across networks.
 - **Web Services:** Hosting websites and web applications accessible over networks

7.NETWORKING TYPES

1. **LAN (Local Area Network):**
 - Covers a small geographical area such as a home, office, or campus.
 - Provides high-speed connectivity for devices within the same location.
 - Often used for file sharing, printing, and resource sharing.
2. **WAN (Wide Area Network):**
 - Spans large geographical areas, often connecting LANs across cities or countries.
 - Utilizes public or private communication links, including leased lines, satellites, or the Internet.
 - Enables long-distance communication and access to remote resources.
3. **PAN (Personal Area Network):**
 - Connects devices in close proximity to an individual, typically within a range of a few meters.
 - Includes devices like smartphones, tablets, laptops, and wearable gadgets connected via Bluetooth or NFC.
4. **MAN (Metropolitan Area Network):**
 - Covers a larger geographical area than a LAN but smaller than a WAN, such as a city or metropolitan area.
 - Often used by businesses or organizations to connect multiple LANs across different locations within a city.
5. **CAN (Campus Area Network):**
 - Interconnects multiple LANs within a university campus, corporate campus, or military base.
 - Provides high-speed communication between different departments or buildings.
6. **SAN (Storage Area Network):**
 - Specialized network dedicated to providing access to consolidated, block-level data storage.
 - Used for connecting storage devices such as disk arrays, tape libraries to servers.
7. **VPN (Virtual Private Network):**
 - Utilizes public networks like the Internet to create a secure, private connection over long distances.
 - Enables remote users to access the organization's network resources securely.
8. **Internet:**
 - Global network of networks connecting millions of devices worldwide.
 - Provides access to a vast array of services, information, and resources.

8.SWITCH/ROUTER

Switch:

- **Function:** Switches operate at the Data Link layer (Layer 2) of the OSI model.
- **Purpose:** They connect multiple devices within a local area network (LAN) and forward data based on MAC addresses.
- **Operation:** Switches use MAC addresses to forward data packets only to the intended destination device, reducing network congestion.
- **Features:** Can offer features like VLAN support, port mirroring, Quality of Service (QoS), and Power over Ethernet (PoE).
- **Example:** Ethernet switch, which is commonly used in homes, offices, and data centers to connect computers, printers, servers, etc.

Router:

- **Function:** Routers operate at the Network layer (Layer 3) of the OSI model.
- **Purpose:** They connect multiple networks together and forward data packets based on IP addresses.
- **Operation:** Routers determine the best path for data to travel between networks using routing tables.
- **Features:** Provide functions like IP address assignment, NAT (Network Address Translation), firewall, and VPN.
- **Example:** Home routers, enterprise routers, which connect LANs to the Internet or other networks.

9.OSI MODEL/TOPOLOGIES

1. **Physical Layer (Layer 1):**
 - Concerned with transmitting raw data bits over a physical medium.
 - Deals with electrical, mechanical, and physical specifications of the medium.
 - Examples: Ethernet cables, fiber optics, hubs.
2. **Data Link Layer (Layer 2):**
 - Responsible for node-to-node communication, error detection, and framing.
 - Divided into two sublayers: LLC (Logical Link Control) and MAC (Media Access Control).
 - Examples: Switches, Ethernet, Wi-Fi.
3. **Network Layer (Layer 3):**
 - Manages logical addressing, routing, and packet forwarding.
 - Determines the best path for data to travel from the source to the destination.
 - Examples: Routers, IP (Internet Protocol).
4. **Transport Layer (Layer 4):**
 - communication sessions between devices.
 - Manages session checkpointing and recovery.
 - Examples: NetBIOS, RPC (Remote Procedure Call).
5. **Presentation Layer (Layer 6):**
 - Translates, encrypts, and compresses data for transmission.
 - Handles data formatting, encryption, and decryption.
 - Examples: SSL/TLS, JPEG, ASCII.
6. **Application Layer (Layer 7):**
 - Provides user interfaces and network services for applications.
 - Supports communication between applications.
 - Examples: HTTP, FTP, DNS, SMTP.

Network Topologies:

Network topology refers to the physical or logical layout of devices and connections in a network. Common network topologies include:

1. **Bus Topology:**
 - All devices are connected to a single backbone cable.
 - Data is transmitted in both directions but can suffer from a single point of failure.
2. **Star Topology:**
 - All devices are connected to a central hub or switch.
 - Offers better performance and easier troubleshooting but depends heavily on the central device.
3. **Ring Topology:**
 - Devices are connected in a closed loop, with each device connected to two others.
 - Data circulates in one direction around the ring.
 - Can be prone to network disruptions if one device fails.
4. **Mesh Topology:**
 - Every device is connected to every other device in the network.
 - Provides redundancy and fault tolerance but can be expensive and complex to implement.
5. **Tree (Hierarchical) Topology:**
 - Network devices are arranged in a hierarchical structure resembling a tree.
 - Commonly used in large networks like WANs or organizational networks.

10.IP ADDRESS IP4/IP6

An IP (Internet Protocol) address is a numerical label assigned to each device connected to a computer network that uses the Internet Protocol for communication. It serves two main purposes: identifying the host or network interface and providing the location of the device in the network. There are two main versions of IP addresses:

1. IPv4 (Internet Protocol version 4):

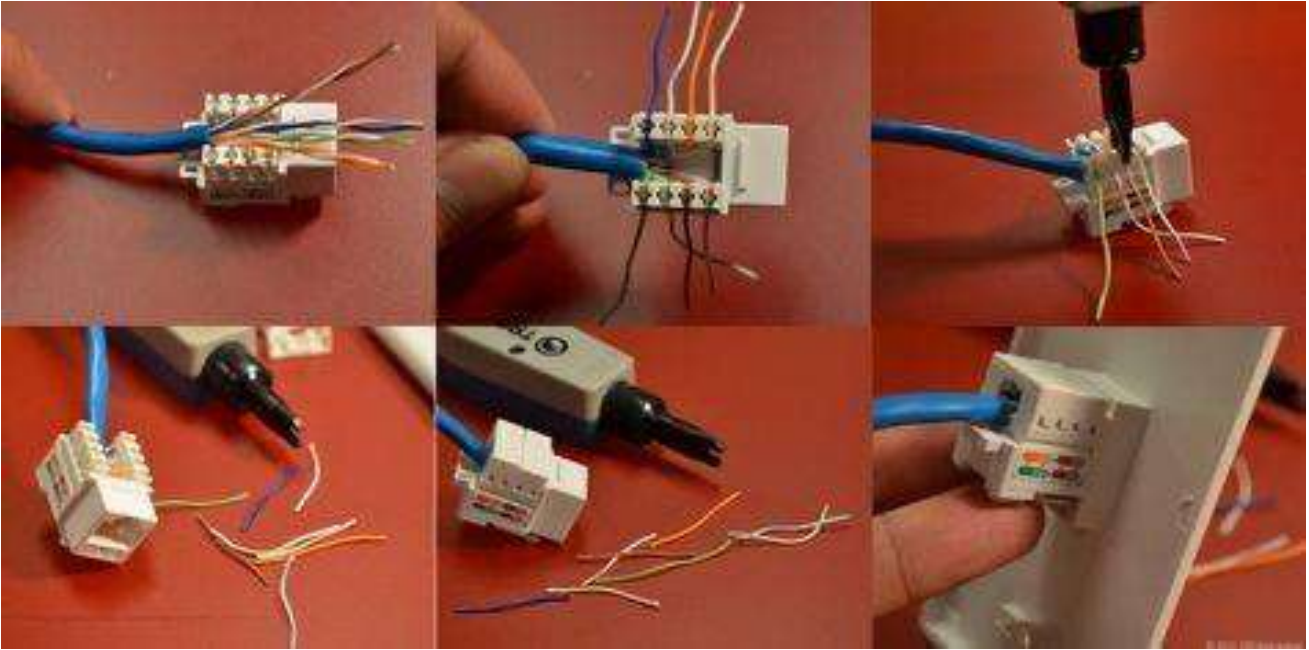
- Consists of a 32-bit address expressed as four decimal numbers separated by periods (e.g., 192.0.2.1).
- Provides approximately 4.3 billion unique addresses.
- IPv4 addresses are classified into different classes: A, B, C, D, and E.

2. IPv6 (Internet Protocol version 6):

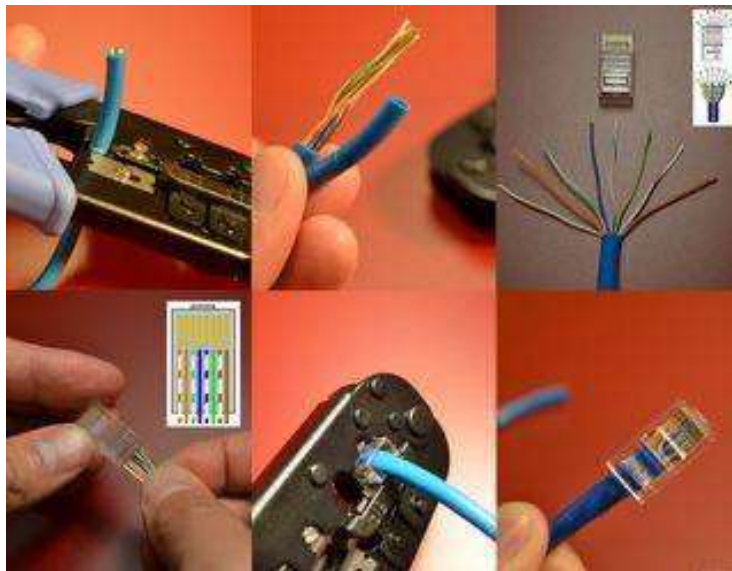
- Consists of a 128-bit address expressed as eight groups of hexadecimal digits separated by colons (e.g., 2001:0db8:85a3:0000:0000:8a2e:0370:7334).
- Provides an immensely larger address space compared to IPv4, allowing for trillions of unique addresses.
- Designed to address the exhaustion of IPv4 addresses and to offer additional features like improved security and auto-configuration.

IPv4 is still widely used but facing address exhaustion issues, while IPv6 adoption is increasing to accommodate the growing number of devices connected to the Internet.

11.SCREENSHOT



RJ45 Colour coding (Figure1)



RJ45 Crimping (Figure 2)



OS Installation (Figure 3)



A3 Switch (Figure 4)



Cat 6 Cable (Figure 5)

CONCLUSION

In conclusion, computer networking is a foundational aspect of modern technology, facilitating communication, resource sharing, and access to information across various devices and geographical locations. Through various network types, components, protocols, and concepts, networking enables the seamless exchange of data and services. From local connections within homes or offices to global connectivity via the Internet, networking plays a vital role in our interconnected world. As technology continues to evolve, networking remains a dynamic field driving innovation and connectivity. Understanding networking fundamentals is essential for both professionals and users alike to navigate and leverage the capabilities of modern technology effectively. Overall, computer networking has revolutionized the way we communicate, work, and interact, shaping the digital landscape and connecting people and devices worldwide. Computer networking is an indispensable pillar of contemporary technology, enabling communication, resource sharing, and data accessibility across diverse devices and geographical areas. The variety of network types, components, protocols, and principles collectively ensure the efficient and seamless exchange of information and services. From intimate local area networks in homes and offices to the expansive reach of the global Internet, networking is the backbone of our connected society. As technology progresses, the field of networking continually evolves, driving forward innovation and connectivity. Mastering the fundamentals of networking is crucial for both professionals and everyday users to effectively harness the potential of modern technology. Ultimately, computer networking has transformed our modes of communication, work, and interaction, significantly shaping the digital landscape and linking people and devices around the globe.

BIBLIOGRAPHY

The following books are referred during the analysis and execution phase of the project

WEBLINKS: <https://www.geeksforgeeks.org/computer-network-tutorials/> - covering all the most.

<https://www.youtube.com/@networkingplus> - YouTube videos

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

RAJEEV M

UUCMS. No.: U03KU21S0072

(Duration: 12th April, 2024 to 31th May, 2024)



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify the “**Internship report**” submitted by **RAJEEV M(UUCMS. No.: U03KU21S0072)** is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Department of BCA
Prof. Supriya D

Head of the Department
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D]

CERTIFICATE OF INTERNSHIP


THIS CERTIFICATE IS AWARDED TO

RAJEEV. M

This is to certify that the bearer of this certificate, with registration number U03KUM150072, pursuing a BCA from SOUDARYA INSTITUTE OF MANAGEMENT & SCIENCE has successfully completed an internship with our company.

The internship was completed under the guidance of **Mr. Shankar Narayan** in the domain of Java, with the position of "**Java Full Stack Intern**" held from 12/04/2024, to 31/05/2024. We have found the intern to be a self-starter who is motivated, duty-bound, and hardworking. Assignments were completed sincerely, and the performance was excellent.

We wish all the best in future endeavors


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First I would like to thank Mr. Shankar Narayan, HR, Head of **JSPIDERS, Rajajinagar** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me **JSPIDERS, Rajajinagar** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

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I am extremely grateful to my department staff members and friends who helped me in successful completion of this internship.

RAJEEV M (U03KU21S0072)

ABSTRACT

E-commerce thrives on the seamless integration of diverse data to deliver smooth shopping experiences and optimize operations. Integrating this data involves complex, data-intensive processes tailored to specific business requirements. Designing and managing these processes manually is challenging due to the dynamic nature of e-commerce environments. This paper addresses the challenge of efficiently designing and maintaining these data processes and introduces Commerce, an incremental approach designed to semi-automate the consolidation of e-commerce data processes to meet specific business needs. Commerce operates at a logical level, consolidating data flows based on high-level business requirements or platform-specific implementations. When integrating new data processes, Commerce prioritizes maximizing the reuse of existing components and employs a customizable cost model to minimize overall operational costs. We demonstrate the efficiency and effectiveness of our approach through experimental evaluations using a developed prototype.

Our approach focuses on critical areas such as inventory management, customer behavior analysis, and personalized marketing strategies within e-commerce. Commerce ensures efficient processing and integration of data from various sources, including sales transactions, customer feedback, and browsing patterns. By optimizing existing data processes and reducing redundancy, Commerce enhances system performance and decreases operational costs. Extensive testing with our prototype yielded significant improvements in data processing times and the accuracy of business insights. These findings underscore Commerce's ability to streamline data integration while flexibly adapting to evolving business demands, offering a scalable solution for modern e-commerce platforms.

Organisation Information:

JSpiders is the world's ace software course training organization with an aim to bridge the gap between the demands of the industry and the curriculum of educational institutions. JSpiders has a proven track record of successfully training and placing thousands of students in leading IT companies. Alumni testimonials frequently highlight the quality of training, the practical approach to learning, and the valuable support provided during job placements. With centers across the Globe, the institute is a platform where young minds are given the opportunity to build successful careers. JSpiders stands out as a premier training institute due to its commitment to quality education, industry-relevant curriculum, and robust placement support. Whether you are a fresh graduate or a professional looking to upskill, JSpiders provides the necessary tools and training to help you achieve your career goals in the IT industry.



Programs and opportunities:

JSpiders emphasizes practical knowledge through hands-on learning with live projects and real-world scenarios, ensuring students gain significant practical experience. The curriculum is designed in collaboration with industry experts to meet current market demands. The experienced faculty, consisting of instructors with extensive industry experience and strong teaching backgrounds, provides high-quality education. Additionally, JSpiders offers comprehensive support for job placement, including resume building, mock interviews, and direct placement opportunities with partner companies.

Methodologies:

We follow a structured methodology for our projects which starts from designing the solution to the implementation phase. Well planned Project reduces the time to deliver the project and any additional ad-hoc costs to our clients, hence we dedicate the majority of our time understanding our clients business and gathering requirements. This ground up approach helps us deliver not only the solution to our clients but also add value to your investments.

Key parts of the report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies.

Benefits of the Company/Institution through our report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies. We emphasize on building relationships with our clients by delivering projects on time and within budget.

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LEARNING OBJECTIVES

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An objective for this position should emphasize the skills you already possess in the area and your interest in learning more

Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.

Some internships are used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.

Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

Internships provide valuable networking opportunities by allowing interns to interact with professionals in their chosen field. These connections can lead to future job opportunities, collaborations, and valuable industry insights. Building a professional network during an internship can be instrumental in navigating and advancing one's career, as it opens doors to mentorship, advice, and potential references.

Interns often work alongside experienced professionals who can provide guidance, advice, and mentorship. This close interaction allows interns to learn best practices, industry standards, and practical skills that are not always covered in academic settings. Mentors can also help interns navigate challenges, set career goals, and offer constructive feedback, which is invaluable for professional growth.

1. INTRODUCTION

This report details my internship experience at Jspiders, where I developed an e-commerce website using Java Full Stack technologies. The project was built with the Spring Boot framework, Tailwind CSS for styling, and SQL for the database. This internship provided an invaluable opportunity to apply theoretical knowledge to a practical, real-world project.

Jspiders is renowned for its comprehensive training programs, and my experience was no exception. The trainers at Jspiders were exceptionally supportive, offering guidance and encouragement throughout the development process. Their expertise and commitment to teaching were instrumental in helping me overcome challenges and enhance my skills in full-stack development. The best part of the training was the one on one interactions with the trainer and the personal attention that I received during the training period, through which I was able to complete my internship with the exact knowledge that I required and I was seeking for.

The project involved designing and implementing a robust e-commerce platform that supports various functionalities, such as user authentication, product management, shopping cart, and order processing. By leveraging Spring Boot's capabilities for back-end development, Tailwind CSS for responsive design, and SQL for efficient data management, I was able to create a seamless and scalable web application.

This internship not only honed my technical skills but also provided insights into best practices for full-stack development. The hands-on experience and the supportive learning environment at Jspiders significantly contributed to my professional growth, preparing me for future endeavors in the field of software development.

2. TECHNOLOGY

2.1 HTML

(HyperText Markup Language) is the standard markup language for creating web pages, forming the backbone of web development alongside CSS and JavaScript. HTML defines the structure and layout of a web document using various elements and tags.

An HTML document begins with `<!DOCTYPE html>` and is enclosed within `<html>`. This document contains two main sections: `<head>` and `<body>`. The `<head>` section holds meta-information such as the title and links to stylesheets, while the `<body>` section contains the actual content of the document.

HTML employs tags to structure content, each consisting of an opening tag, content, and a closing tag. Common tags include `<h1>` to `<h6>` for headers, `<p>` for paragraphs, `<a>` for hyperlinks, `` for images, and ``, ``, and `` for lists. The `<div>` and `` tags are used to group and style block and inline elements, respectively.

Attributes provide additional information about HTML elements and are included in the opening tag. Key attributes include `id` for unique identification, `class` for specifying class names for CSS and JavaScript, `src` for defining the source of images and scripts, `href` for URLs in links, and `alt` for alternative text in images.

HTML also includes elements for creating forms and capturing user input. These elements include `<form>` for defining a form, `<input>` for input fields, `<textarea>` for multiline text input, `<button>` for clickable buttons, and `<select>` and `<option>` for dropdown lists.

HTML5 introduces semantic elements that provide clearer structure and meaning to web pages. Examples include `<header>` for introductory content or navigation, `<nav>` for navigation sections, `<main>` for the main content, `<article>` for self-contained content, `<section>` for sections of content, and `<footer>` for footer sections.

HTML supports multimedia content through elements like `<audio>` for embedding sound, `<video>` for embedding video, and `<canvas>` for drawing graphics via JavaScript.

2.2 TAILWIND CSS

Tailwind CSS is a utility-first CSS framework designed to provide a highly customizable and efficient way to build responsive and modern web interfaces. Unlike traditional CSS frameworks that come with predefined components, Tailwind CSS offers low-level utility classes that allow developers to construct custom designs directly in their HTML. Tailwind CSS's utility-first approach means that instead of writing custom CSS for each element, developers use predefined utility classes to style elements. This method encourages consistency, reusability, and reduces the need for writing custom CSS. For example, classes like 'bg-blue-500', 'text-center', and 'p-4' are used directly in the HTML to apply styles.

Tailwind CSS is highly configurable. It comes with a default configuration that can be customized to fit the specific needs of a project. Developers can modify or extend the default configuration by editing the `tailwind.config.js` file. This includes changing colors, fonts, spacing, breakpoints, and other design tokens. Additionally, Tailwind supports a plugin system that allows for further customization and addition of new utilities.

Tailwind CSS has built-in support for responsive design. Utility classes can be applied conditionally based on the viewport size using responsive variants. For example, by prefixing a utility class with `md:`, the style will only be applied on medium screens and above. This approach makes it straightforward to create responsive layouts without writing media queries manually. Using utility classes helps maintain a consistent design system across the application. Since the same classes are reused, there is less variation and inconsistency in styles. This is particularly beneficial in large projects with multiple developers, ensuring that the design language remains uniform.

Tailwind CSS offers a unique and efficient approach to styling web applications with its utility-first methodology. Its high degree of customization, built-in responsive design support, and emphasis on performance make it an attractive choice for developers seeking a scalable and maintainable CSS framework. Whether for rapid prototyping or building production-ready applications, Tailwind CSS provides the tools necessary to create consistent and visually appealing designs.

2.3 JAVA

Java is a versatile programming language used for web, enterprise, mobile, and embedded applications. It provides a robust platform and follows the "write once, run anywhere" (WORA) principle, meaning compiled Java code can run on any platform with a Java Virtual Machine (JVM).

➤ Java Fundamentals

Java is a high-level, object-oriented language known for its portability, scalability, and robustness. Core concepts include:

- Encapsulation: Bundling data and methods into a class and restricting access.
- Inheritance: Allowing new classes to inherit properties from existing ones.
- Polymorphism: Treating objects as instances of their parent class.
- Abstraction: Hiding complex implementation details.

➤ Memory Management

Java uses automatic garbage collection to manage memory, freeing up unused objects and ensuring efficient memory use.

➤ Java SE and EE

Java Standard Edition (Java SE) provides core functionality, while Java Enterprise Edition (Java EE) adds libraries for large-scale, multi-tiered applications.

➤ JDK and JRE

The Java Development Kit (JDK) includes tools for developing Java applications. The Java Runtime Environment (JRE) provides the necessary components to run Java applications but lacks development tools.

➤ IDEs

Popular Java IDEs like IntelliJ IDEA, Eclipse, and NetBeans offer features such as code completion, debugging, and project management.

➤ Frameworks and Libraries

Java's ecosystem includes frameworks like:

- Spring Framework: For enterprise applications.
- Hibernate: For simplifying database interactions.
- Apache Struts: For web applications.

Java is essential for modern applications, offering platform independence, robust memory management, and a comprehensive ecosystem. Its core principles and extensive tools allow developers to build scalable, efficient, and maintainable applications across various domains.

2.4 Spring Boot

As you develop applications using Spring Boot, you will encounter various requirements for building and deploying Java-based web applications. In some scenarios, you might need to create a microservice architecture, while in other situations, you may want to develop a monolithic application with a comprehensive set of features.

Regardless of your specific needs, there are certain fundamental concepts about Spring Boot that are essential to understand. You might not need to delve into all the intricacies of Spring Boot configuration—for instance, you may never need to customize the auto-configuration behavior extensively—but understanding the core architecture, major components, and how they interact is highly beneficial.

This introduction provides a high-level overview of the most critical concepts. The discussion intentionally avoids many details—such as the full extent of Spring Boot's auto-configuration capabilities—in favor of introducing the foundational ideas behind the Spring Boot framework.

➤ Spring Boot Fundamentals:

Spring Boot simplifies the development of production-ready applications by providing a set of conventions and default configurations. It eliminates the need for extensive configuration and boilerplate code, allowing developers to focus on business logic.

Spring Boot applications leverage an embedded server model, where the server (such as Tomcat, Jetty, or Undertow) is packaged within the application. This approach simplifies deployment and eliminates the need for an external application server.

➤ Scalability and Performance:

Spring Boot is designed to be highly scalable. Applications built with Spring Boot can easily be scaled horizontally by deploying multiple instances. The framework's lightweight and modular nature ensures that performance remains optimal, even under significant load.

Spring Boot supports microservices architecture, allowing different components of an application to scale independently. This modularity enables efficient resource utilization and improves overall system resilience.

2.5 Spring Boot Suite:

The Spring Boot Suite includes a collection of tools and frameworks that enhance the development experience. These tools are designed to work seamlessly with Spring Boot, providing integrated support for building, testing, and deploying applications.

➤ Spring Boot Starters:

Spring Boot Starters are a set of convenient dependency descriptors that you include in your application. They simplify the process of adding commonly used libraries and frameworks. Each starter brings in a group of dependencies that are typically used together, reducing the need for manual configuration.

➤ Auto-Configuration:

Spring Boot's auto-configuration mechanism automatically configures your application based on the dependencies present on the classpath. This feature minimizes the need for explicit configuration and speeds up the development process. Auto-configuration is extensible, allowing developers to override default behaviors when necessary.

➤ Spring Boot Actuator:

Spring Boot Actuator provides production-ready features that help you monitor and manage your application. These include health checks, metrics, and auditing capabilities. Actuator endpoints expose runtime information and management functions, facilitating the monitoring and maintenance of Spring Boot applications.

➤ Spring Boot CLI:

The Spring Boot CLI is a command-line tool that allows you to quickly prototype and run Spring Boot applications. It supports Groovy scripts, making it easy to experiment with Spring Boot features without the need for a full project setup.

➤ Spring Boot DevTools:

Spring Boot DevTools enhances the development experience by providing features like automatic restarts, live reload, and configurations specific to the development environment. These tools significantly reduce the time taken for iterative development and testing.

Spring Boot streamlines the development of Java-based applications by providing a robust framework with sensible defaults and extensive tools for building, testing, and deploying applications. Its design principles emphasize minimal configuration, embedded servers, and scalability, making it a popular choice for modern application development. The Spring Boot Suite further enhances productivity by offering integrated support tools, simplifying the development lifecycle from prototyping to production.

3. DATABASE

About Microsoft SQL Server 2008

Microsoft SQL server is a Structured Query Language (SQL) base, client/server relational database. Each of these terms describes a fundamental part of the architecture of SQL server. A database is similar to a data file in that it is a storage place for data. Like a data file, a database does not present information directly to a user, the user runs an application that accesses data from the database and presents it to the users in an untreatable format. A database typically has two components: the files holding the physical database access data.

The DBMS is responsible for enforcing database structure, including:

- Maintaining the relationships between data in the database.
- Ensuring that data is stored correctly, and the rules that define data relationships are not violated.
- Recovering all data to a point of known consistency in case of system failures.

Relational Database

Relational databases are widely recognized as one of the most effective ways to organize data. They apply mathematical set theory to data organization, ensuring efficiency and reliability. In relational database theory, data is collected into tables known as relations. These tables consist of rows and columns, with each row representing a unique record and each column representing a specific attribute of the data.

When organizing data into tables, there are multiple ways to define the table structures. To ensure these tables effectively organize the data, relational database theory introduces a process called normalization. Normalization systematically decomposes tables to reduce redundancy and dependency, enhancing data integrity and efficiency. This process involves several normal forms, each providing a higher level of data integrity.

Client/Server Architecture

In a Client/Server system, a central server, typically a powerful computer, manages resources and services that multiple users access from their computers, known as clients. This architecture is prevalent in database management, where the server hosts the database files and DBMS (Database Management System) software. Clients connect to the server over a network to access and manipulate the data.

In a Client/Server database architecture, the server is responsible for handling requests from clients, processing them, and sending back the required data. The SQL server communication component facilitates this interaction, allowing client applications to send SQL queries to the server and receive results. This setup also enables applications running on the server itself to communicate with the SQL server.

Server applications are designed to handle multiple clients simultaneously. For example, SQL servers can manage thousands of concurrent client connections, ensuring efficient data processing and retrieval. They incorporate features to handle logical problems, such as concurrency control, which ensures data integrity when multiple users access and modify the data simultaneously.

While SQL servers are primarily designed to function as servers in a Client/Server network, they are also capable of operating as standalone databases on client machines. This versatility allows SQL servers to scale from single-user applications to large, multi-user systems. The scalability and ease-of-use features of SQL servers ensure they perform efficiently on client devices without consuming excessive resources, making them suitable for various applications and environments.

Structured Query Language (SQL)

To effectively work with data in a database, you need to use a set of commands and statements, collectively known as a language, defined by the Database Management System (DBMS) software. This language allows users to perform various operations such as querying, updating, and managing the data within the database. Among the various languages available for relational databases, Structured Query Language (SQL) is the most widely used and recognized.

Overview of SQL

SQL, or Structured Query Language, is a standardized language specifically designed for managing and manipulating relational databases. It allows users to perform a wide range of functions, including:

- **Data Querying:** Extracting specific data from the database using SELECT statements.
- **Data Manipulation:** Inserting new data (INSERT), updating existing data (UPDATE), and deleting data (DELETE).
- **Data Definition:** Defining and managing database structures such as tables, indexes, and constraints using Data Definition Language (DDL) commands like CREATE, ALTER, and DROP.
- **Data Control:** Controlling access to data within the database using Data Control Language (DCL) commands like GRANT and REVOKE.
- **Transaction Control:** Managing transactions to ensure data integrity using Transaction Control Language (TCL) commands like COMMIT, ROLLBACK, and SAVEPOINT.

Standardization of SQL

SQL is governed by standards set by both the American National Standards Institute (ANSI) and the International Standards Organization (ISO). These standards ensure that SQL remains a universal language for database management, promoting compatibility and consistency across different DBMS platforms. The standardization process involves periodic updates and enhancements to include new features and address the evolving needs of database technologies.

4. SCREENSHOTS

Home page:

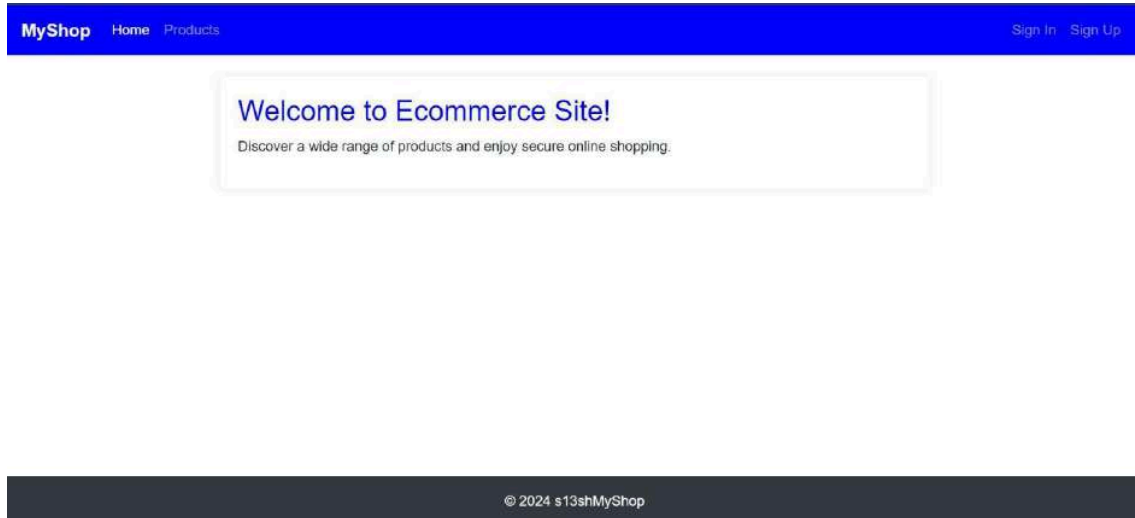


fig no. 1

Registration page:

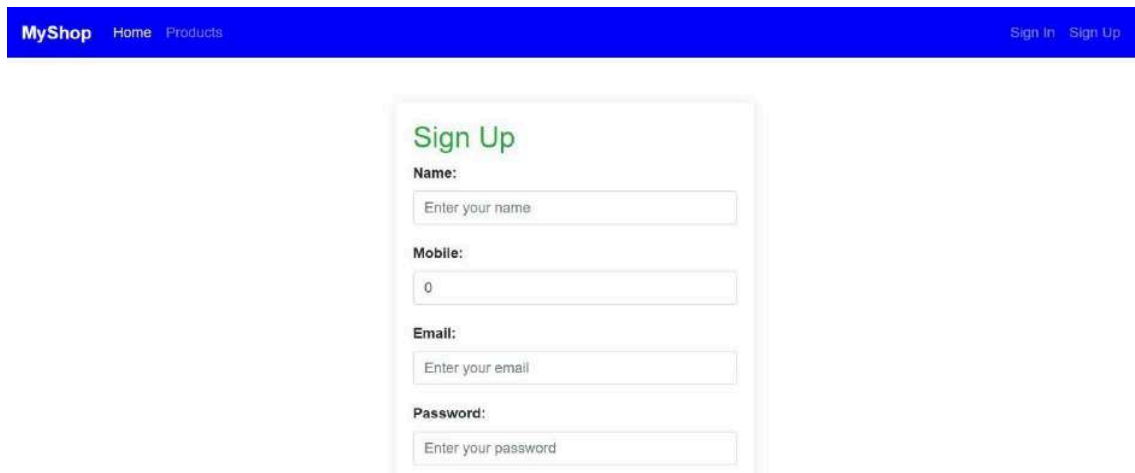


fig no. 2

Mobile:

Email:

Password:

Date of Birth:

Gender:

fig no. 3

Login Page:

MyShop [Home](#) [Products](#) [Sign In](#) [Sign Up](#)

Login

Email:

Password:

© 2024 s13shMyShop

fig no. 4

CONCLUSION

Our methodology streamlines the incremental integration of e-commerce website functionalities, starting with individual features that meet specific user needs. We systematically explore integration possibilities for new functionalities within the existing multi-functional framework, prioritizing the reuse of established components. Subsequently, we propose a cohesive website design, assessed against user-defined cost criteria.

A fully functional prototype has been developed to validate our approach. Through rigorous evaluation, we have assessed the efficiency, scalability, and overall quality of the implemented solutions. Significant improvements in execution time and enhanced integration of functionalities underscore the benefits of our approach.

Our ultimate objective is to establish a comprehensive platform that autonomously manages the entire lifecycle of e-commerce solutions. This encompasses everything from initial user requirements to the deployment and operational execution of advanced website functionalities.

BIBLIOGRAPHY

- 1. Github** - For code samples, foundational code was provided by the institution, with accessible github repositories, where we were allowed to get the codes and modify them according to our desired functionality requirements.
- 2. w3schools**- for referencing SQL database queries
- 3. Mobirise** - mobirise is a website with hundreds of usable website templates.

INTERNSHIP REPORT

*A report submitted in partial fulfilment of the requirements for the
Award of Degree of*

BACHELOR OF COMPUTER APPLICATION

by

Raju K M

UUCMS No : U03KU21S0007

Duration: 04th April, 2024 to 04th May, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by Raju K M(UUCMS No : **U03KU21S0007**) is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Prof. Anuradha S

Head of the Department
Prof. Vijay Kumar



TO WHOM EVER IT MAY CONCERN

This is to certify that **Raju K M**, a Student of Bachelor of Computer application **Soundarya institute of management and science**, of Bangalore University bearing Reg No: **U03KU21S0007** has successfully completed internship from 04-Apr-2024 to 04-May-2024 under the guidance of **Ram Krishna, Infinite computer solution India Ltd.**

During the period of internship program, he has been exposed to different assignments and has obtained good knowledge in **Data science and Mechine learning** . During his period with us, he is found to be punctual, hardworking, and sincere towards the work assigned to him.

We wish him an every success in life and career.

For: **Raju K M**

INFINITE COMPUTER SOLUTIONS INDIA LTD



Authorized Signature

Date: **05-05-2024**

Place: **Bangalore**

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RAJU K M(U03KU21S0007)

ABSTRACT

Machine learning is a topic of artificial intelligence (AI) where it is possible to elaborate algorithms to teach a particular machine to perform a task. It is necessary to have a dataset, and from that data, explore the correlation between them, discovering patterns and applying algorithms, which makes it possible to take a sum of input data and based on certain patterns to produce the outputs. Each entry in this dataset has its own features, and generates models that can be generalized for a specific task. The idea of machines learning on their own from a vast volume of data may be the simplified definition of machine learning. In general, machine learning is a field of artificial intelligence that is intended to explore constructs of algorithms that make it possible to understand autonomously, where it creates the possibility to recognize and extract patterns from a large volume of data, thus building a model of learning

Organisation Information:

"YBI Foundation: IMPART LEARNING TO EMPOWER & TRANSFORM YBIF Offers Job Guarantee Program, Free Internship, Micro Credential and Full Stack Programs YBIF Learning Portal(www.ybifoundation.org). DATA SCIENCE || MACHINE LEARNING || ARTIFICIAL INTELLIGENCE || BUSINESS ANALYTICS || DATA VISUALIZATION || BIG DATA || PROGRAMMING || MATH & STATISTICS || CLOUD COMPUTING"

Programs and opportunities:

Artificial Intelligence Machine Learning | Data Science Marketing Analytics Social Network Analytics Business And Data Analytics | And provides career programs and learning upskills based on upskilling platform and provides the opportunities of both technical and non -technical fields.

Methodologies:

We follow a structured methodology for our projects which starts from designing the solution to the implementation phase. Well planned Project reduces the time to deliver the project and any additional ad -hoc costs to our clients, hence we

dedicate majority of our time understanding our clients business and gather requirements. This ground up approach helps us deliver not only the solution to our clients but also add value to your investment.

Key parts of the report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies.

Benefits of the company/institution through report:

Beginner friendly and Live online class opportunities you can ask doubts in live online classes and you can clear your doubts. You can record the classes and Hands-on real-world projects and fundamental practice of the projects. And you can get a digitally verified certificates.

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INTRODUCTION

Data Science: It is an interdisciplinary field that focuses on extracting knowledge and insights from structured and unstructured data. It encompasses various techniques from statistics, computer science, and domain-specific knowledge to analyze and interpret complex data. The goal of data science is to use this data to inform decision-making, optimize processes, and uncover patterns that can lead to actionable insights.

Machine Learning (ML): It is a subset of artificial intelligence (AI) that involves the development of algorithms that enable computers to learn from and make predictions or decisions based on data. ML algorithms build models based on sample data, known as training data, to make predictions or decisions without being explicitly programmed to perform the task. This process of "learning" allows systems to improve their performance on tasks over time with more data and experience.

Together, data science and machine learning drive many of the technological advancements we see today, from personalized recommendations on streaming services to predictive maintenance in industrial settings. They are integral to various industries, including finance, healthcare, marketing, and technology, and continue to transform how businesses operate and compete in the market.

INTERNSHIP OBJECTIVES

- ▶ Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.

- ▶ An objective for this position should emphasize the skills you already possess in the area and your interest in learning more

- ▶ Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.

- ▶ Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.

- ▶ Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

OBJECTIVES OF PROJECT

The primary objective of the Fish Weight Prediction project is to develop a machine learning model that can accurately predict the weight of a fish based on various physical attributes. This project aims to leverage data science techniques to analyze and model the relationship between a fish's characteristics and its weight.

- 1. Quality Control:** Detect anomalies in manufacturing or production processes to maintain quality standards.
- 2. Anomaly Detection:** Identify unusual patterns that may indicate fraudulent activity.
- 3. Descriptive Analytics:** Summarize historical data to understand what has happened.
- 4. Exploratory Data Analysis:** Identify patterns, trends, and relationships within data.
- 5. Predictive Analytics:** Use statistical models and machine learning algorithms to forecast future events based on historical data.
- 6. Time Series Analysis:** Predict future values based on previously observed values.

PROJECT SCOPE

The project scope included the following steps:

- 1. Data Collection:** You would need to gather a significant amount of data related to various fish species, their characteristics (like length, width, etc.), and their corresponding weights. This data is crucial for training the prediction model.
- 2. Data Pre-processing:** This involves cleaning the data, handling missing values, and possibly scaling or normalizing the features to ensure the model performs well.
- 3. Feature Selection:** Identifying the most relevant features that have the most impact on predicting fish weight. This step helps in improving the efficiency of the model.

4. Model Selection: Choosing the appropriate machine learning algorithm for the prediction task. This could be regression-based models like linear regression, decision trees, or more advanced models like random forests or neural networks.

5. Model Training: Utilizing a portion of the collected data to train the model, allowing it to learn the patterns between fish characteristics and their weights.

6. Model Evaluation: Assessing the performance of the model using metrics like Mean Absolute Error, Mean Squared Error, or R-squared to determine how well the model predicts fish weights.

7. Deployment: Once the model is trained and evaluated, you can deploy it to make predictions on new, unseen data.

8. Testing and Fine-tuning: Testing the model with new data and fine-tuning it based on the performance to enhance its accuracy.

TECHNOLOGIES USED

1. Matplotlib: Matplotlib is a data visualization library and 2 -D plotting library of Python. It is the most popular and widely used plotting library in the Python community. It comes with an interactive environment across multiple platforms. Matplotlib can be used in Python scripts, the Python and Python shells, the Jupyter Notebook, web application servers, etc. It can be used to embed plots into applications using various GUI toolkits. So you can use Matplotlib to create plots, bar charts, pie charts, histograms, scatter plots, error charts, power spectra, stem plots, and whatever visualization charts you want! The Pyplot module also provides a MATLAB-like interface that is just as versatile and useful as MATLAB while being totally free and open source.

2.Pandas: Pandas provide various high-performance and easy -to-use data structures and operations for manipulating data in the form of numerical tables and time series. Pandas also has multiple tools for reading and writing data between in -memory data structures and different file formats. In short, it is perfect for quick and easy data manipulation, data aggregation, reading, and writing the data and data visualization. Pandas can also take in data from different types of files such as a s CSV, Excel, etc., or a SQL database and create a Python object known as a data frame. A data frame contains rows and columns and it can be used for data manipulation with operations such as join, merge, group by, concatenate, etc.

3.Scikit-learn: Scikit-learn is among those libraries for Python that is a free, software library for Machine Learning coding primarily in the Python programming language. Scikit -learn is built on top of other Python libraries like NumPy, SciPy, Matplotlib, Pandas, etc and so it provides full interoperability with those libraries while Scikit -learn is written mainly in Python, it has also used Python to write some core algorithms in order to improve performance. You can implement various Supervised and Unsupervised Machine learning models on Scikit -learn like Classification, Regression, Support Vector Machines, Random Forests, Nearest Neighbours, Naive Bayes, Decision Trees, and Clustering, etc. with Scikit -learn.

4.Numpy: NumPy is a free Python software library for numerical computing on data that can be in the form of large arrays and multi -dimensional matrices. These multidimensional

matrices are the main objects in NumPy where their dimensions are called axes and the number of axes is called a rank. NumPy also provides various tools to work with these arrays and high-level mathematical functions to manipulate this data with linear algebra, Fourier transforms, random number crunchings, etc. Some of the basic array operations that can be performed using NumPy include adding, slicing, multiplying, flattening, reshaping, and indexing the arrays. Other advanced functions include stacking the arrays, splitting them into sections, broadcasting arrays, etc. model of interaction to the web applications.

5.Seaborn: Seaborn is among the best data visualization library for Python that is based on Matplotlib and closely integrated with the NumPy and Pandas data structures. Seaborn has various dataset-oriented plotting functions that operate on data frames and arrays that have whole datasets within them. Then it internally performs the necessary statistical aggregation and mapping functions to create informative plots that the user desires. It is a high-level interface for creating beautiful and informative statistical graphics that are integral to exploring and understanding data. The Seaborn data graphics can include bar charts, pie charts, histograms, scatterplots, error charts, etc. Seaborn also has various tools for choosing colour palettes that can reveal patterns in the data.

SCREENSHOTS

```
In [ ]:  
# Step 1 : import library  
import pandas as pd
```

```
In [ ]:  
# Step 2 : import data  
fish = pd.read_csv('https://github.com/ybifoundation/Dataset/raw/main/Fish.csv')
```

```
In [ ]:  
fish.head()
```

```
Out [ ]:
```

	Category	Species	Weight	Height	Width	Length1	Length2	Length3
0	1	Bream	242.0	11.5200	4.0200	23.2	25.4	30.0
1	1	Bream	290.0	12.4800	4.3056	24.0	26.3	31.2
2	1	Bream	340.0	12.3778	4.6961	23.9	26.5	31.1
3	1	Bream	363.0	12.7300	4.4555	26.3	29.0	33.5
4	1	Bream	430.0	12.4440	5.1340	26.5	29.0	34.0

```
In [ ]:  
fish.info()
```

```
<class 'pandas.core.frame.DataFrame'>
```

```
RangeIndex: 159 entries, 0 to 158
```

```
Data columns (total 8 columns):
```

```
#   Column  Non-Null Count  Dtype
```



```

0  Category  159 non-null  int64

1  Species  159 non-null  object

2  Weight   159 non-null  float64

3  Height   159 non-null  float64

4  Width     159 non-null  float64

5  Length1  159 non-null  float64

6  Length2  159 non-null  float64

7  Length3  159 non-null  float64

dtypes: float64(6), int64(1), object(1)

```

memory usage: 10.1+ KB

```
In [ ]: fish.describe()
```

Out []:

	Category	Weight	Height	Width	Length1	Length2	Length3
count	159.000000	159.000000	159.000000	159.000000	159.000000	159.000000	159.000000
mean	3.264151	388.326415	8.970994	4.417486	26.247170	28.415723	31.227044
std	1.704249	357.978317	4.286208	1.685804	9.996441	10.716328	11.610246
min	1.000000	0.000000	1.728400	1.047600	7.500000	8.400000	8.800000
25%	2.000000	120.000000	5.944800	3.385650	19.050000	21.000000	23.150000
50%	3.000000	273.000000	7.786000	4.248500	25.200000	27.300000	29.400000
75%	4.500000	650.000000	12.365900	5.584500	32.700000	35.500000	39.650000
max	7.000000	1850.000000	18.957000	8.142000	59.000000	63.400000	68.000000


```
In [ ]:  
# Step 3 : define target (y) and features (X)
```

```
In [ ]:  
fish.columns
```

```
Out [ ]:  
Index(['Category', 'Species', 'Weight', 'Height', 'Width', 'Length1',  
       'Length2', 'Length3'],  
      dtype='object')
```

```
In [ ]:  
y = fish['Weight']
```

```
In [ ]:  
X = fish[['Category', 'Height', 'Width', 'Length1',  
         'Length2', 'Length3']]
```

```
In [ ]:  
# Step 4 : train test split  
from sklearn.model_selection import train_test_split  
X_train, X_test, y_train, y_test = train_test_split(X, y, train_size=0.7, random_state=2529)
```

```
In [ ]:  
# check shape of train and test sample  
X_train.shape, X_test.shape, y_train.shape, y_test.shape
```

```
Out [ ]:  
((111, 6), (48, 6), (111,), (48,))
```



```
In [ ]:  
# Step 5 : select model  
from sklearn.linear_model import LinearRegression  
model = LinearRegression()
```

```
In [ ]:  
# Step 6 : train or fit model  
model.fit(X_train,y_train)
```

```
Out [ ]:  
• LinearRegression
```

```
In [ ]:  
model.intercept_
```

```
Out [ ]:  
-684.4235918478537
```

```
In [ ]:  
model.coef_
```

```
Out [ ]:  
array([ 35.19634977,  52.19372157, -37.13869125,  11.2218449 ,  
        78.11233802, -59.11783139])
```

```
In [ ]:  
# Step 7 : predict model  
y_pred = model.predict(X_test)
```

```
In [ ]:  
y_pred
```

In []:

```
y_pred
```

Out []:

```
array([ 475.93351307,  525.81910195,   77.63275849,  881.18235121,
        160.9685664 ,  255.94371856,  361.87029932,  358.87060094,
        499.83411068, -150.87834151, -115.91810069,  428.65470115,
        114.67533404,  812.51385122,  586.5871178 ,  273.38510858,
        579.63908729,  225.18126845,  639.26060037,   85.08820599,
        136.92159041,  -87.7770087 ,  629.97231046,  732.63097812,
        859.8720695 , -166.76920607,  342.84209934,  722.92198147,
        321.44827179,  787.98248357,  486.93194673,  541.89982795,
        376.74813045,  624.81211202, -170.11945033,  917.76513801,
        792.26439518, -21.15655005,  300.24921659,  914.07325473,
        621.05636286,  934.17373986,  676.85479574,  653.92304403,
        615.51226767,  336.61090622,  505.75519147, -33.53283763])
```

In []:

```
# Step 8 : model accuracy
from sklearn.metrics import mean_absolute_error, r2_score
```

In []:

```
mean_absolute_error(y_test,y_pred)
```

Out []:

```
99.58910366731813
```

In []:

```
r2_score(y_test,y_pred)
```

Out []:

```
0.83982461599445
```

CONCLUSION

Machine learning (ML) and data science are used across various industries to solve complex problems, improve decision-making, and drive innovation.

Data-Driven Decision Making

- **Objective:** To transform vast amounts of data into actionable insights.
- **Application:** Businesses use ML and data science to analyze customer behaviour, market trends, and operational data to make informed decisions.
- **Example:** Retail companies analyze purchase history to forecast demand and optimize inventory management .

Automation and Efficiency

- **Objective:** To automate repetitive and complex tasks.
- **Application:** ML algorithms automate processes such as data entry, customer service (through chatbots), and fraud detection.
- **Example:** Banks use ML models to automatically detect and prevent fraudulent transactions in real-time .

Predictive Analytics

- **Objective:** To predict future outcomes based on historical data.
- **Application:** Industries like finance, healthcare, and marketing use predictive analytics to forecast trends, customer behaviours, and potential risks.
- **Example:** Healthcare providers use predictive models to anticipate patient readmissions and manage hospital resources effectively .

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INTERNSHIP REPORT

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UUCMS No : U03KU21S0007

Duration: 04th April, 2024 to 04th May, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka


2023 – 2024


BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by Raju K M(UUCMS No : U03KU21S0007) is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

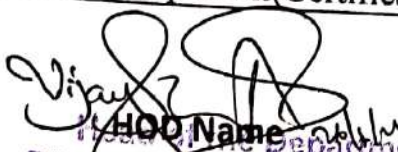

Internship Coordinator
Prof. Anuradha S



Head of the Department
DEPT. OF COMPUTER SCIENCE
Soundarya Institute of Management and Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore - 560 075.

EXAMINERS	
1.....	
2.....	

25	28-04-2024	Model selection and Training.
26	29-04-2024	Assignment-4
27	30-04-2024	Project selection.
28	01-05-2024	Handling missing elements in duplicate data.
29	02-05-2024	Advanced visualization using Seaborn.
30	03-05-2024	Project submission.
31	04-05-2024	Proof of completion(Certificate).


Internal Guide
Designation of Guide
College Name


HOD Name
Department
DEPT. OF COMPUTER SCIENCE
College Name
 Soundarya Institute of Management & Science
 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 560 073


Principal Name
Principal
College Name
 Soundarya Institute of Management & Science
 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 560 073

Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)



INTERNSHIP REPORT

*A report submitted in partial fulfilment of the requirements for the
Award of Degree of*

BACHELOR OF COMPUTER APPLICATION

by

Raju K M

UUCMS No : U03KU21S0007

Duration: 04th April, 2024 to 04th May, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

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2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



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Internship Coordinator
Prof. Anuradha S

Head of the Department
Prof. Vijay Kumar



TO WHOM EVER IT MAY CONCERN

This is to certify that **Raju K M**, a Student of Bachelor of Computer application **Soundarya institute of management and science**, of Bangalore University bearing Reg No: **U03KU21S0007** has successfully completed internship from 04-Apr-2024 to 04-May-2024 under the guidance of **Ram Krishna, Infinite computer solution India Ltd.**

During the period of internship program, he has been exposed to different assignments and has obtained good knowledge in **Data science and Mechine learning** . During his period with us, he is found to be punctual, hardworking, and sincere towards the work assigned to him.

We wish him an every success in life and career.

For: **Raju K M**

INFINITE COMPUTER SOLUTIONS INDIA LTD



Authorized Signature

Date: **05-05-2024**

Place: **Bangalore**

Infinite Computer Solutions (India) Limited
exciting times... infinite possibilities...
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ACKNOWLEDGEMENT

First I would like to thank Mr.Alok Yadav, HR, Head of **Ybi foundation, New Delhi** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me in **Ybi foundation, New Delhi** with their patience and openness they created an enjoyable working environment.

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I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

RAJU K M(U03KU21S0007)

ABSTRACT

Machine learning is a topic of artificial intelligence (AI) where it is possible to elaborate algorithms to teach a particular machine to perform a task. It is necessary to have a dataset, and from that data, explore the correlation between them, discovering patterns and applying algorithms, which makes it possible to take a sum of input data and based on certain patterns to produce the outputs. Each entry in this dataset has its own features, and generates models that can be generalized for a specific task. The idea of machines learning on their own from a vast volume of data may be the simplified definition of machine learning. In general, machine learning is a field of artificial intelligence that is intended to explore constructs of algorithms that make it possible to understand autonomously, where it creates the possibility to recognize and extract patterns from a large volume of data, thus building a model of learning

Organisation Information:

"YBI Foundation: IMPART LEARNING TO EMPOWER & TRANSFORM YBIF Offers Job Guarantee Program, Free Internship, Micro Credential and Full Stack Programs YBIF Learning Portal(www.ybifoundation.org). DATA SCIENCE || MACHINE LEARNING || ARTIFICIAL INTELLIGENCE || BUSINESS ANALYTICS || DATA VISUALIZATION || BIG DATA || PROGRAMMING || MATH & STATISTICS || CLOUD COMPUTING"

Programs and opportunities:

Artificial Intelligence Machine Learning | Data Science Marketing Analytics Social Network Analytics Business And Data Analytics | And provides career programs and learning upskills based on upskilling platform and provides the opportunities of both technical and non -technical fields.

Methodologies:

We follow a structured methodology for our projects which starts from designing the solution to the implementation phase. Well planned Project reduces the time to deliver the project and any additional ad -hoc costs to our clients, hence we

dedicate majority of our time understanding our clients business and gather requirements. This ground up approach helps us deliver not only the solution to our clients but also add value to your investment.

Key parts of the report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies.

Benefits of the company/institution through report:

Beginner friendly and Live online class opportunities you can ask doubts in live online classes and you can clear your doubts. You can record the classes and Hands-on real-world projects and fundamental practice of the projects. And you can get a digitally verified certificates.

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INTRODUCTION

Data Science: It is an interdisciplinary field that focuses on extracting knowledge and insights from structured and unstructured data. It encompasses various techniques from statistics, computer science, and domain-specific knowledge to analyze and interpret complex data. The goal of data science is to use this data to inform decision-making, optimize processes, and uncover patterns that can lead to actionable insights.

Machine Learning (ML): It is a subset of artificial intelligence (AI) that involves the development of algorithms that enable computers to learn from and make predictions or decisions based on data. ML algorithms build models based on sample data, known as training data, to make predictions or decisions without being explicitly programmed to perform the task. This process of "learning" allows systems to improve their performance on tasks over time with more data and experience.

Together, data science and machine learning drive many of the technological advancements we see today, from personalized recommendations on streaming services to predictive maintenance in industrial settings. They are integral to various industries, including finance, healthcare, marketing, and technology, and continue to transform how businesses operate and compete in the market.

INTERNSHIP OBJECTIVES

- ▶ Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.

- ▶ An objective for this position should emphasize the skills you already possess in the area and your interest in learning more

- ▶ Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.

- ▶ Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.

- ▶ Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

OBJECTIVES OF PROJECT

The primary objective of the Fish Weight Prediction project is to develop a machine learning model that can accurately predict the weight of a fish based on various physical attributes. This project aims to leverage data science techniques to analyze and model the relationship between a fish's characteristics and its weight.

- 1. Quality Control:** Detect anomalies in manufacturing or production processes to maintain quality standards.
- 2. Anomaly Detection:** Identify unusual patterns that may indicate fraudulent activity.
- 3. Descriptive Analytics:** Summarize historical data to understand what has happened.
- 4. Exploratory Data Analysis:** Identify patterns, trends, and relationships within data.
- 5. Predictive Analytics:** Use statistical models and machine learning algorithms to forecast future events based on historical data.
- 6. Time Series Analysis:** Predict future values based on previously observed values.

PROJECT SCOPE

The project scope included the following steps:

- 1. Data Collection:** You would need to gather a significant amount of data related to various fish species, their characteristics (like length, width, etc.), and their corresponding weights. This data is crucial for training the prediction model.
- 2. Data Pre-processing:** This involves cleaning the data, handling missing values, and possibly scaling or normalizing the features to ensure the model performs well.
- 3. Feature Selection:** Identifying the most relevant features that have the most impact on predicting fish weight. This step helps in improving the efficiency of the model.

4. Model Selection: Choosing the appropriate machine learning algorithm for the prediction task. This could be regression-based models like linear regression, decision trees, or more advanced models like random forests or neural networks.

5. Model Training: Utilizing a portion of the collected data to train the model, allowing it to learn the patterns between fish characteristics and their weights.

6. Model Evaluation: Assessing the performance of the model using metrics like Mean Absolute Error, Mean Squared Error, or R-squared to determine how well the model predicts fish weights.

7. Deployment: Once the model is trained and evaluated, you can deploy it to make predictions on new, unseen data.

8. Testing and Fine-tuning: Testing the model with new data and fine-tuning it based on the performance to enhance its accuracy.

TECHNOLOGIES USED

1. Matplotlib: Matplotlib is a data visualization library and 2 -D plotting library of Python. It is the most popular and widely used plotting library in the Python community. It comes with an interactive environment across multiple platforms. Matplotlib can be used in Python scripts, the Python and Python shells, the Jupyter Notebook, web application servers, etc. It can be used to embed plots into applications using various GUI toolkits. So you can use Matplotlib to create plots, bar charts, pie charts, histograms, scatter plots, error charts, power spectra, stem plots, and whatever visualization charts you want! The Pyplot module also provides a MATLAB-like interface that is just as versatile and useful as MATLAB while being totally free and open source.

2.Pandas: Pandas provide various high-performance and easy -to-use data structures and operations for manipulating data in the form of numerical tables and time series. Pandas also has multiple tools for reading and writing data between in -memory data structures and different file formats. In short, it is perfect for quick and easy data manipulation, data aggregation, reading, and writing the data and data visualization. Pandas can also take in data from different types of files such as a s CSV, Excel, etc., or a SQL database and create a Python object known as a data frame. A data frame contains rows and columns and it can be used for data manipulation with operations such as join, merge, group by, concatenate, etc.

3.Scikit-learn: Scikit-learn is among those libraries for Python that is a free, software library for Machine Learning coding primarily in the Python programming language. Scikit -learn is built on top of other Python libraries like NumPy, SciPy, Matplotlib, Pandas, etc and so it provides full interoperability with those libraries while Scikit -learn is written mainly in Python, it has also used Python to write some core algorithms in order to improve performance. You can implement various Supervised and Unsupervised Machine learning models on Scikit -learn like Classification, Regression, Support Vector Machines, Random Forests, Nearest Neighbours, Naive Bayes, Decision Trees, and Clustering, etc. with Scikit -learn.

4.Numpy: NumPy is a free Python software library for numerical computing on data that can be in the form of large arrays and multi -dimensional matrices. These multidimensional

matrices are the main objects in NumPy where their dimensions are called axes and the number of axes is called a rank. NumPy also provides various tools to work with these arrays and high-level mathematical functions to manipulate this data with linear algebra, Fourier transforms, random number crunchings, etc. Some of the basic array operations that can be performed using NumPy include adding, slicing, multiplying, flattening, reshaping, and indexing the arrays. Other advanced functions include stacking the arrays, splitting them into sections, broadcasting arrays, etc. model of interaction to the web applications.

5.Seaborn: Seaborn is among the best data visualization library for Python that is based on Matplotlib and closely integrated with the NumPy and Pandas data structures. Seaborn has various dataset-oriented plotting functions that operate on data frames and arrays that have whole datasets within them. Then it internally performs the necessary statistical aggregation and mapping functions to create informative plots that the user desires. It is a high-level interface for creating beautiful and informative statistical graphics that are integral to exploring and understanding data. The Seaborn data graphics can include bar charts, pie charts, histograms, scatterplots, error charts, etc. Seaborn also has various tools for choosing colour palettes that can reveal patterns in the data.

SCREENSHOTS

```
In [ ]:  
# Step 1 : import library  
import pandas as pd
```

```
In [ ]:  
# Step 2 : import data  
fish = pd.read_csv('https://github.com/ybifoundation/Dataset/raw/main/Fish.csv')
```

```
In [ ]:  
fish.head()
```

```
Out [ ]:
```

	Category	Species	Weight	Height	Width	Length1	Length2	Length3
0	1	Bream	242.0	11.5200	4.0200	23.2	25.4	30.0
1	1	Bream	290.0	12.4800	4.3056	24.0	26.3	31.2
2	1	Bream	340.0	12.3778	4.6961	23.9	26.5	31.1
3	1	Bream	363.0	12.7300	4.4555	26.3	29.0	33.5
4	1	Bream	430.0	12.4440	5.1340	26.5	29.0	34.0

```
In [ ]:  
fish.info()
```

```
<class 'pandas.core.frame.DataFrame'>
```

```
RangeIndex: 159 entries, 0 to 158
```

```
Data columns (total 8 columns):
```

```
# Column Non-Null Count Dtype
```

```

0  Category  159 non-null  int64

1  Species  159 non-null  object

2  Weight  159 non-null  float64

3  Height  159 non-null  float64

4  Width  159 non-null  float64

5  Length1  159 non-null  float64

6  Length2  159 non-null  float64

7  Length3  159 non-null  float64

dtypes: float64(6), int64(1), object(1)

```

memory usage: 10.1+ KB

```
In [ ]: fish.describe()
```

Out []:

	Category	Weight	Height	Width	Length1	Length2	Length3
count	159.000000	159.000000	159.000000	159.000000	159.000000	159.000000	159.000000
mean	3.264151	388.326415	8.970994	4.417486	26.247170	28.415723	31.227044
std	1.704249	357.978317	4.286208	1.685804	9.996441	10.716328	11.610246
min	1.000000	0.000000	1.728400	1.047600	7.500000	8.400000	8.800000
25%	2.000000	120.000000	5.944800	3.385650	19.050000	21.000000	23.150000
50%	3.000000	273.000000	7.786000	4.248500	25.200000	27.300000	29.400000
75%	4.500000	650.000000	12.365900	5.584500	32.700000	35.500000	39.650000
max	7.000000	1850.000000	18.957000	8.142000	59.000000	63.400000	68.000000


```
In [ ]:  
# Step 3 : define target (y) and features (X)
```

```
In [ ]:  
fish.columns
```

```
Out [ ]:  
Index(['Category', 'Species', 'Weight', 'Height', 'Width', 'Length1',  
       'Length2', 'Length3'],  
      dtype='object')
```

```
In [ ]:  
y = fish['Weight']
```

```
In [ ]:  
X = fish[['Category', 'Height', 'Width', 'Length1',  
         'Length2', 'Length3']]
```

```
In [ ]:  
# Step 4 : train test split  
from sklearn.model_selection import train_test_split  
X_train, X_test, y_train, y_test = train_test_split(X, y, train_size=0.7, random_state=2529)
```

```
In [ ]:  
# check shape of train and test sample  
X_train.shape, X_test.shape, y_train.shape, y_test.shape
```

```
Out [ ]:  
((111, 6), (48, 6), (111,), (48,))
```



```
In [ ]:  
# Step 5 : select model  
from sklearn.linear_model import LinearRegression  
model = LinearRegression()
```

```
In [ ]:  
# Step 6 : train or fit model  
model.fit(X_train,y_train)
```

```
Out [ ]:  
• LinearRegression
```

```
In [ ]:  
model.intercept_
```

```
Out [ ]:  
-684.4235918478537
```

```
In [ ]:  
model.coef_
```

```
Out [ ]:  
array([ 35.19634977,  52.19372157, -37.13869125,  11.2218449 ,  
        78.11233802, -59.11783139])
```

```
In [ ]:  
# Step 7 : predict model  
y_pred = model.predict(X_test)
```

```
In [ ]:  
y_pred
```

In []:

```
y_pred
```

Out []:

```
array([ 475.93351307,  525.81910195,   77.63275849,  881.18235121,
        160.9685664 ,  255.94371856,  361.87029932,  358.87060094,
        499.83411068, -150.87834151, -115.91810069,  428.65470115,
        114.67533404,  812.51385122,  586.5871178 ,  273.38510858,
        579.63908729,  225.18126845,  639.26060037,   85.08820599,
        136.92159041,  -87.7770087 ,  629.97231046,  732.63097812,
        859.8720695 , -166.76920607,  342.84209934,  722.92198147,
        321.44827179,  787.98248357,  486.93194673,  541.89982795,
        376.74813045,  624.81211202, -170.11945033,  917.76513801,
        792.26439518, -21.15655005,  300.24921659,  914.07325473,
        621.05636286,  934.17373986,  676.85479574,  653.92304403,
        615.51226767,  336.61090622,  505.75519147, -33.53283763])
```

In []:

```
# Step 8 : model accuracy
from sklearn.metrics import mean_absolute_error, r2_score
```

In []:

```
mean_absolute_error(y_test,y_pred)
```

Out []:

```
99.58910366731813
```

In []:

```
r2_score(y_test,y_pred)
```

Out []:

```
0.83982461599445
```

CONCLUSION

Machine learning (ML) and data science are used across various industries to solve complex problems, improve decision-making, and drive innovation.

Data-Driven Decision Making

- **Objective:** To transform vast amounts of data into actionable insights.
- **Application:** Businesses use ML and data science to analyze customer behaviour, market trends, and operational data to make informed decisions.
- **Example:** Retail companies analyze purchase history to forecast demand and optimize inventory management .

Automation and Efficiency

- **Objective:** To automate repetitive and complex tasks.
- **Application:** ML algorithms automate processes such as data entry, customer service (through chatbots), and fraud detection.
- **Example:** Banks use ML models to automatically detect and prevent fraudulent transactions in real-time .

Predictive Analytics

- **Objective:** To predict future outcomes based on historical data.
- **Application:** Industries like finance, healthcare, and marketing use predictive analytics to forecast trends, customer behaviours, and potential risks.
- **Example:** Healthcare providers use predictive models to anticipate patient readmissions and manage hospital resources effectively .

BIBLIOGRAPHY

- <https://www.geeksforgeeks.org/courses/data-science>
- <https://www.javatpoint.com/data-science>
- https://www.w3schools.com/python/python_ml_getting_started.asp
- <https://www.kaggle.com>
- <https://colab.research.google.com>

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

SACHIN B M

UUCMS. No.: U03KU21S0045

(Duration: 28th Feb, 2024 to 25th April, 2024)



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

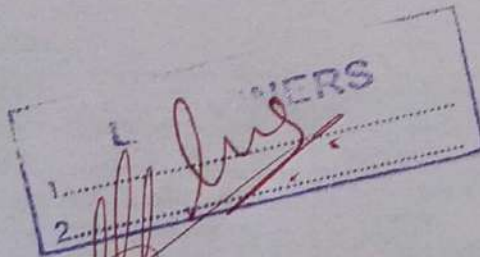
2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **SACHIN B M (UUCMS. No.: U03KU21S0045)** is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**



N. Kumar
24/6/24
Internship Coordinator
Prof. Manoj Kumar N

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Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore - 560 073



CERTIFICATE OF APPRECIATION

INTERNSHIP_170662655565b90dfb357f2

PROUDLY PRESENTED TO

SACHIN B M

STU65d386368cee51708361270

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Advanced Data Analytics** under the **Next Gen Employability Program 2023-24**.

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

ACKNOWLEDGEMENT

First I would like to thank Mr. Nagesh Singh, HR, Executive Director of **EDUNET FOUNDATION**, for giving me the opportunity to do an internship within the organization.

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SACHIN B M (U03KU21S0045)

ABSTRACT

This internship focused on performing an Exploratory Data Analysis (EDA) on space exploration missions utilizing Power BI, a leading business analytics tool. The primary objective was to gain comprehensive insights into various space missions, identifying patterns, trends, and key metrics that could inform future mission planning and decision-making.

The analysis involved gathering and cleaning data from multiple sources, including historical mission records, spacecraft specifications, mission outcomes, and budgetary data. Key EDA techniques such as data visualization, statistical summaries, and correlation analysis were employed to uncover hidden relationships and trends.

Power BI's robust visualization capabilities facilitated the creation of interactive dashboards and reports, enabling stakeholders to explore the data dynamically and derive actionable insights. The internship project culminated in the development of a comprehensive Power BI dashboard that provided an intuitive and detailed overview of space exploration missions, highlighting critical aspects such as mission success rates, cost analysis, and technological advancements over time.

This project not only enhanced our understanding of space exploration missions but also demonstrated the efficacy of Power BI in handling complex datasets and generating meaningful insights. The findings from this analysis have the potential to support strategic decision-making in future space endeavors, driving advancements in space technology and exploration strategies.

Organisation Information:

The Edunet Foundation is a non-profit organization dedicated to enhancing education through the integration of technology and innovative teaching methods. Their mission is to bridge the digital divide and provide equitable access to quality education for students and educators, particularly in underserved communities. The foundation focuses on initiatives such as digital literacy programs, teacher training workshops, and the development of educational resources and tools. They collaborate with various stakeholders, including government bodies, educational institutions, and corporate partners, to create sustainable and impactful educational solutions. Through their efforts, the Edunet Foundation aims to empower learners and educators to thrive in a rapidly evolving digital world.

Programs and opportunities:

The Edunet Foundation is dedicated to transforming education through a variety of innovative programs and opportunities. They offer comprehensive skill development initiatives, including STEM education, coding bootcamps, and digital literacy workshops, aimed at equipping students with essential 21st-century skills. Their teacher training programs provide professional development and certification courses to enhance teaching methods and integrate technology into classrooms. The foundation promotes project-based learning and e-learning platforms to foster critical thinking and self-paced learning.

Methodologies:

During an internship focused on exploratory data analysis (EDA) of space exploration missions using Power BI, the methodology encompasses several key phases to ensure a comprehensive and insightful analysis. Initially, the data collection phase involves gathering relevant datasets from credible sources such as NASA, ESA, or other space agencies, ensuring data accuracy and completeness.

Following data acquisition, the cleaning and preprocessing stage addresses any inconsistencies, missing values, and outliers, employing techniques such as normalization and data transformation to prepare the data for analysis. Subsequently, the exploratory phase leverages Power BI's powerful visualization tools to create interactive dashboards and reports. This involves generating various charts, graphs, and maps to uncover patterns, trends, and correlations within the data.

Key parts of the report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies.

Benefits of the Company/Institution through our report:

Participating in an internship focused on exploratory data analysis of space exploration missions using Power BI can bring numerous benefits to a company or institution. Interns gain hands-on experience in data visualization and analytics, which enhances their skill set and contributes to the organization's data-driven decision-making processes.

By leveraging Power BI, interns can uncover insightful trends and patterns within vast datasets, enabling more informed strategic planning for future space missions. This collaboration also fosters innovation, as interns bring fresh perspectives and new ideas to the table. Moreover, it strengthens the institution's reputation as a leader in space exploration and data analytics, attracting top talent and fostering partnerships with other research entities.

Week No.	Date	Activities / Work Done
Week 1 Mentoring Class	05/03/24	Data Importing and Cleaning
Week 1 Master Class	07/03/24	Resume Resonance : Creating an Impression that lasts/
Week 2 Mentoring Class	12/03/24	Building Relationships Between Data and Query Editor
Week 2 Master Class	14/03/24	Master session on Design thinking in real-world application
Week 3 Mentoring Class	19/03/24	Visualization and Dashboard
Week 3 Master Class	21/03/24	Managing Code Base with Git Hub
Week 4 Mentoring Class	26/03/24	Formatting, Project Testing 1. Formatting of visuals, background canvas will be done 2. Checking the functionality of the project before presentation
Week 4 Master Class	28/03/24	Dev Ops: Code to Production

TABLE OF CONTENTS FOR THE PROJECT:

- 1.Introduction.....
- 2.Analysis.....
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- 4.Technology.....
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- 7.Week-1.....
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- 9.Week-3.....
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Learning Objectives/Internship Objectives

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

INTRODUCTION.

Space exploration has always been a frontier of human curiosity and technological advancement. With the advent of modern data analytics tools, the ability to analyze and interpret the vast amounts of data generated by space missions has significantly improved. This internship report details my work on exploratory data analysis (EDA) for space exploration missions using Microsoft Power BI. The primary objective of this internship was to harness the powerful data visualization and analytical capabilities of Power BI to derive actionable insights from complex datasets associated with space missions.

During the internship, I engaged in transforming raw mission data into insightful visual representations, focusing on identifying key trends, patterns, and anomalies that could influence mission outcomes. The integration of EDA techniques with Power BI allowed for the efficient handling and analysis of large datasets, making critical information more accessible to scientists, engineers, and decision-makers. Through this internship, I aimed to contribute to the optimization of mission planning and execution, thereby supporting the broader goals of space exploration.

This report will cover the methodology, tools, and techniques employed during the internship, as well as the findings and their implications for future space missions. By documenting the processes and results, this report aims to provide a comprehensive overview of how EDA using Power BI can enhance data-driven decision-making in the realm of space exploration.

ANALYSIS.

The internship report on exploratory data analysis (EDA) for space exploration missions using Power BI presents a comprehensive analysis of the data collected from various space missions. The analysis involved importing, cleaning, and transforming raw datasets into structured formats suitable for visualization.

Key metrics and indicators, such as mission duration, fuel consumption, trajectory paths, and equipment performance, were identified and visualized using Power BI's advanced tools. Interactive dashboards were created to facilitate dynamic exploration of the data, allowing users to filter and drill down into specific aspects of the missions.

The analysis revealed critical insights, such as patterns in mission success rates, correlations between mission parameters and outcomes, and potential areas for optimization. These findings were supported by detailed visualizations, including time-series graphs, heatmaps, and scatter plots, which provided clear and actionable insights for stakeholders.

The report concludes with recommendations based on the EDA findings, highlighting opportunities for improving future mission planning and execution. Through this analysis, the internship demonstrated the power of EDA in transforming complex data into valuable knowledge, ultimately contributing to the advancement of space exploration efforts.

SOFTWARE REQUIREMENT SPECIFICATION.

The Software Requirement Specification (SRS) for the internship report on exploratory data analysis (EDA) using Power BI for space exploration missions delineates the functional and non-functional requirements necessary to successfully execute the project.

The primary objective is to develop an interactive and user-friendly Power BI dashboard that visualizes and analysis datasets from various space missions. The functional requirements include data extraction from multiple sources, data cleaning and transformation, integration of diverse datasets, creation of dynamic and customizable visualizations, and generation of insightful reports.

Non-functional requirements emphasize performance efficiency, ensuring the dashboard handles large datasets with minimal latency, and usability, guaranteeing an intuitive interface for end-users.

The system should also ensure data accuracy, maintainability for future updates, and compliance with data security and privacy standards.

TECHNOLOGY.

In the exploratory data analysis (EDA) internship focused on space exploration missions using Power BI, a range of technologies and tools were employed to achieve comprehensive and insightful analysis.

Power BI was the primary tool, offering robust data visualization and dashboard capabilities to present complex datasets in an intuitive manner. The intern utilized Power Query for data transformation and cleaning, ensuring the data was accurate and ready for analysis.

DAX (Data Analysis Expressions) was used for advanced calculations and creating dynamic reports. This combination of technologies enabled the intern to uncover hidden patterns, correlations, and trends within the space exploration data, ultimately supporting informed decision-making and strategic planning for future missions.

POWERBI.

Power BI is a powerful business analytics tool developed by Microsoft, designed to transform raw data into insightful and interactive visualizations. In the context of exploratory data analysis (EDA) for space exploration missions, Power BI plays a crucial role in handling and analyzing vast amounts of complex data generated from various mission activities.

By utilizing Power BI, analysts can connect to multiple data sources, clean and preprocess the data, and create dynamic dashboards that visually represent key metrics and trends. The tool's capabilities in handling large datasets, performing real-time analysis, and generating detailed reports enable users to explore the data from different perspectives, identify patterns, and make data-driven decisions.

It gives a user-friendly interface and powerful visualization features, such as interactive charts, graphs, and maps, make it easier for scientists, engineers, and stakeholders to comprehend intricate data and derive meaningful insights that can enhance the planning, execution, and success of space exploration missions.

Power BI was used in the exploratory data analysis (EDA) of space exploration missions to transform extensive and complex datasets into intuitive and interactive visualizations. By harnessing Power BI's robust capabilities, the analysis aimed to uncover significant patterns, trends, and correlations within mission data.

The tool facilitated the integration of diverse data sources, enabling the creation of comprehensive dashboards and reports that provided clear insights into various mission aspects. Power BI's advanced analytical features, such as drill-downs, slicers, and custom visualizations, allowed for in-depth exploration of the data, making it possible to identify critical factors affecting mission outcomes.

This approach not only streamlined the data analysis process but also enhanced the ability of scientists and engineers to make data-driven decisions, ultimately contributing to the efficiency and success of space exploration missions.

STAGES :

Exploratory Data Analysis (EDA) on space exploration missions using Power BI involved several stages, each critical to transforming raw data into actionable insights :

1. Data Collection and Import

- **Data Acquisition:** Gather data from various sources such as satellite telemetry, mission logs, scientific instruments, and databases.
- **Data Import:** Load the collected data into Power BI from sources like Excel, CSV files, SQL databases, or online data services.

2. Data Cleaning and Preparation

- **Data Cleaning:** Identify and handle missing, inconsistent, or erroneous data. This includes removing duplicates, correcting errors, and handling null values.
- **Data Transformation:** Format and transform data into a structure suitable for analysis. This may involve normalizing data, creating new calculated columns, and merging datasets.

3. Data Exploration and Initial Analysis

- **Descriptive Statistics:** Use Power BI to compute basic statistics such as mean, median, mode, standard deviation, and distribution patterns.
- **Initial Visualizations:** Create basic visualizations like histograms, box plots, and scatter plots to understand the data's structure and identify any outliers or anomalies.

4. Advanced Data Analysis and Pattern Identification

- **Trend Analysis:** Use line charts, area charts, and other visualizations to identify trends and patterns over time.
- **Correlation Analysis:** Create scatter plots and use correlation matrices to explore relationships between different variables.
- **Cluster Analysis:** Utilize clustering techniques to group similar data points, helping to identify significant patterns or classifications within the data.

5. Interactive Dashboard Creation

- **Visualization Design:** Design and create interactive dashboards using various visual elements like charts, graphs, maps, and tables.
- **Interactivity:** Add filters, slicers, and drill-down capabilities to enable dynamic exploration of the data.
- **Customization:** Customize visualizations to highlight key insights and make them user-friendly for stakeholders.

6. Insights Generation and Reporting

- **Insight Extraction:** Derive actionable insights from the visualizations and analyses performed. Identify key findings that can influence mission decisions and strategies.
- **Report Generation:** Compile the insights and visualizations into comprehensive reports. Ensure the reports are well-structured, clear, and tailored to the audience's needs.

Week 1: Data Importing and Cleaning

Objective: The first week of the internship focused on importing and cleaning the data to ensure its accuracy and reliability for exploratory data analysis (EDA) using Power BI. This foundational step is crucial for preparing the data for in-depth analysis and visualization.

Tasks Completed:

1. **Data Collection:**
 - Gathered data from various sources related to space exploration missions, including datasets on mission parameters, spacecraft telemetry, and environmental conditions.
 - Ensured data was obtained in formats compatible with Power BI, such as CSV, Excel, and database connections.
2. **Data Importing:**
 - Imported the collected data into Power BI using its built-in data connectors.
 - Established connections to data sources and verified successful data import without any loss of information.
3. **Initial Data Exploration:**
 - Conducted a preliminary review of the imported data to understand its structure, types of variables, and overall quality.
 - Identified key attributes and metrics relevant to space exploration missions, such as mission duration, distance travelled, fuel consumption, and scientific observations.
4. **Data Cleaning:**
 - Identified and handled missing values through imputation or removal, ensuring completeness of the dataset.
 - Addressed inconsistencies and errors in the data, such as duplicate records, incorrect data types, and outlier values.
 - Standardized data formats for consistency, such as date-time formats and unit conversions (e.g., kilometres to miles).
 - Ensured that categorical data was properly labelled and coded.
5. **Data Transformation:**
 - Performed necessary data transformations to prepare the dataset for analysis, including normalization and aggregation.
 - Created new calculated columns and measures to support the analysis, such as derived metrics and ratios.
6. **Data Validation:**
 - Verified the accuracy of the cleaned and transformed data by cross-checking with original sources and domain knowledge.
 - Ensured that the dataset was ready for subsequent analytical tasks by conducting sanity checks and sample analysis.

Challenges Encountered:

- Handling large datasets with numerous variables required significant computational resources and careful management.
- Ensuring data integrity while merging multiple datasets from different sources was complex and required meticulous validation.
- Dealing with inconsistent data formats and missing values necessitated the development of robust cleaning strategies.

Learnings:

- Gained proficiency in using Power BI for data importing and initial exploration, enhancing understanding of its data manipulation capabilities.
- Developed strong data cleaning skills, essential for ensuring high-quality datasets for analysis.
- Improved problem-solving abilities by addressing data-related challenges and ensuring data readiness for EDA.

Conclusion: The first week of the internship was crucial in establishing a solid foundation for the exploratory data analysis project. By successfully importing, cleaning, and preparing the data, I ensured that subsequent analysis and visualization tasks in Power BI would be based on accurate and reliable datasets. This work set the stage for meaningful insights and informed decision-making in the context of space exploration missions.

Week 2: Building Relationships Between Data and Query Editor

Introduction

The second week of the internship focused on building relationships between various datasets and utilizing the Query Editor in Power BI. The goal was to integrate multiple data sources, clean and transform the data, and establish relationships to facilitate comprehensive exploratory data analysis for space exploration missions.

Objectives

1. Understand the structure and content of various datasets related to space exploration missions.
2. Use Power BI Query Editor to clean and transform data.
3. Establish relationships between different datasets to enable seamless data integration.
4. Create a data model that supports effective analysis and visualization.

Activities

1. Dataset Familiarization:

- Reviewed the datasets provided, which included mission logs, telemetry data, scientific observations, and resource allocation records.
- Identified key attributes and metrics relevant to the analysis.

2. Data Cleaning and Transformation:

- Imported datasets into Power BI using the Query Editor.
- Performed data cleaning operations, such as handling missing values, correcting data types, and removing duplicates.
- Applied transformations to standardize data formats and prepare the datasets for analysis.

3. Establishing Relationships:

- Identified primary and foreign keys in the datasets to establish logical relationships.
- Linked datasets based on common attributes, such as mission IDs, timestamps, and spacecraft identifiers.
- Ensured the relationships were correctly defined to avoid any ambiguity in the data model.

4. Data Modelling:

- Created a comprehensive data model in Power BI, incorporating all relevant datasets and their relationships.
- Used the data model to design initial visualizations and test the integrity of the relationships.
- Adjusted the data model as needed to optimize performance and accuracy.

5. Initial Analysis and Visualization:

- Conducted preliminary analysis to verify the effectiveness of the data relationships.
- Developed basic visualizations to highlight key metrics and trends in the mission data.
- Shared initial findings with the project team for feedback and validation.

Challenges and Solutions

Challenge: Integrating datasets with varying structures and formats. **Solution:** Utilized the Query Editor's robust transformation capabilities to standardize data formats and ensure consistency across datasets.

Challenge: Handling large volumes of data without compromising performance. **Solution:** Optimized data loading and transformation processes, and implemented efficient data modeling practices to enhance performance.

Results and Learnings

By the end of the week, a well-defined data model was established, connecting various datasets relevant to space exploration missions. This model enabled seamless integration and analysis of mission data, providing a strong foundation for further exploratory data analysis in the coming weeks. The hands-on experience with the Query Editor and relationship-building in Power BI enhanced my skills in data preparation and modelling, crucial for effective data analysis and visualization.

Week 3: Creating a Dashboard

Objective

The primary goal for Week 3 was to design and develop an interactive dashboard using Power BI, which consolidates and visualizes key metrics and insights from the space exploration mission data. This dashboard aims to provide a comprehensive view of mission parameters, trends, and critical insights to facilitate data-driven decision-making.

Activities and Tasks

Day 1: Dashboard Planning and Requirement Gathering

- **Objective:** Understand the requirements and define the scope of the dashboard.
- **Tasks:**
 - Met with project stakeholders to gather requirements and understand key metrics.
 - Identified critical data points and KPIs to be included in the dashboard.
 - Created a rough sketch and storyboard for the dashboard layout and functionality.

Day 2: Data Preparation and Integration

- **Objective:** Prepare and integrate data sources required for the dashboard.
- **Tasks:**
 - Extracted relevant data from multiple sources, including telemetry data, mission logs, and sensor readings.
 - Cleaned and transformed data to ensure consistency and accuracy.
 - Loaded the prepared data into Power BI and established relationships between different data tables.

Day 3: Designing the Dashboard

- **Objective:** Create the initial design and layout of the dashboard.
- **Tasks:**
 - Designed the dashboard layout in Power BI, focusing on user experience and accessibility.
 - Added interactive elements such as filters, slicers, and drill-through options to enhance user engagement.
 - Created visualizations, including charts, graphs, and maps, to represent the key metrics identified during the planning phase.

Day 4: Implementing Dashboard Features

- **Objective:** Develop and implement advanced features in the dashboard.
- **Tasks:**
 - Implemented calculated measures and DAX (Data Analysis Expressions) formulas to derive new insights from the data.
 - Added conditional formatting to highlight critical values and trends.
 - Integrated real-time data refresh capabilities to ensure the dashboard displays up-to-date information.

Day 5: Testing and Refinement

- **Objective:** Test the dashboard for accuracy, performance, and usability.
- **Tasks:**
 - Conducted thorough testing to validate data accuracy and ensure visualizations are rendering correctly.
 - Gathered feedback from stakeholders and end-users on the dashboard design and functionality.
 - Made necessary adjustments based on feedback and refined the overall user experience.

Day 6: Documentation and Training

- **Objective:** Document the dashboard development process and provide training to end-users.
- **Tasks:**
 - Documented the dashboard features, data sources, and instructions for use.
 - Created a user guide and a training session for stakeholders to effectively utilize the dashboard.
 - Conducted a training session to demonstrate the dashboard features and functionalities to the end-users.

Day 7: Review and Final Presentation

- **Objective:** Finalize the dashboard and present it to the project stakeholders.
- **Tasks:**
 - Conducted a final review of the dashboard to ensure all elements are functioning as expected.
 - Prepared a presentation to showcase the dashboard, highlighting key insights and how it can aid in decision-making.
 - Presented the dashboard to stakeholders, demonstrating its capabilities and gathering final feedback.

Outcomes

- Successfully designed and developed an interactive dashboard in Power BI that consolidates key metrics and insights from the space exploration mission data.
- Enhanced data visualization and interpretation, enabling stakeholders to make informed decisions.
- Provided comprehensive documentation and training to ensure effective use of the dashboard.
- Received positive feedback from stakeholders on the dashboard's usability and the valuable insights it provides.

Challenges and Learnings

- Faced challenges in integrating data from multiple sources and ensuring data accuracy.
- Learned the importance of effective communication with stakeholders to gather detailed requirements.
- Gained proficiency in using advanced Power BI features, including DAX formulas and real-time data integration.

This week's activities laid a strong foundation for the successful deployment and use of the Power BI dashboard, significantly contributing to the overall objectives of the internship project.

SCREENSHOTS

DATABASE :

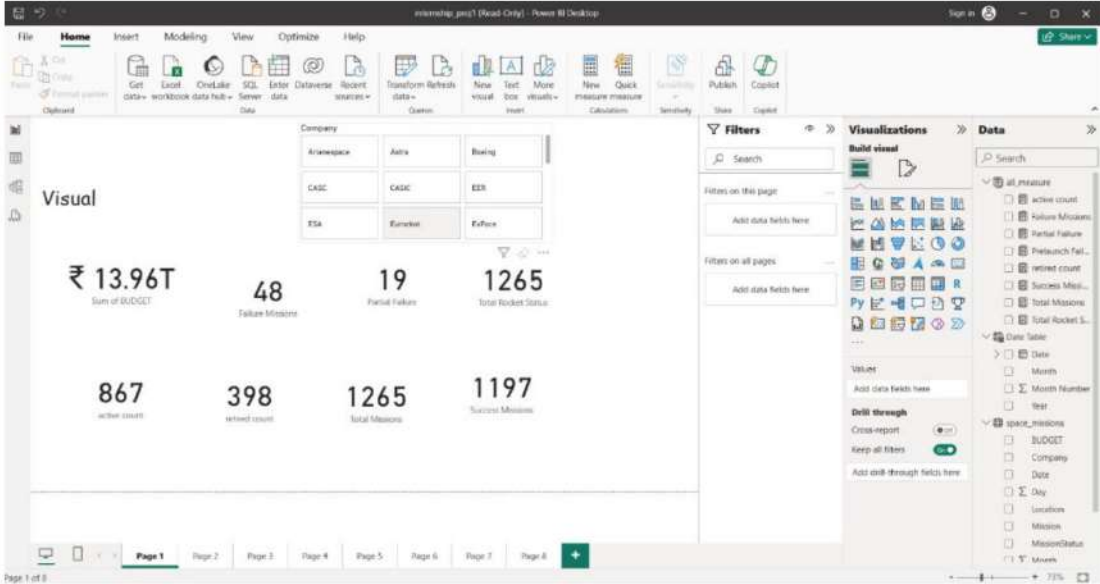
Company	Location	Date	Rocket	Mission	RocketStatus	BUDGET	MissionStatus	Year	Month	Day
CASC	Site 138 (LA-26), Jiuquan Satellite Launch Center, China	09 September 1982	Long March 2C	FSW-0 No.4	Active	¥2,6488,00,000	Success	1982	9	
CASC	Site 138 (LA-26), Jiuquan Satellite Launch Center, China	19 August 1983	Long March 2C	FSW-0 No.5	Active	¥2,6488,00,000	Success	1983	8	
CASC	Site 138 (LA-26), Jiuquan Satellite Launch Center, China	12 September 1984	Long March 2C	FSW-0 No.6	Active	¥2,6488,00,000	Success	1984	9	
CASC	Site 138 (LA-26), Jiuquan Satellite Launch Center, China	27 October 1985	Long March 2C	FSW-0 No.7	Active	¥2,6488,00,000	Success	1985	10	
CASC	Site 138 (LA-26), Jiuquan Satellite Launch Center, China	08 October 1986	Long March 2C	FSW-0 No.8	Active	¥2,6488,00,000	Success	1986	10	
CASC	Site 138 (LA-26), Jiuquan Satellite Launch Center, China	05 August 1987	Long March 2C	FSW-0 No.9	Active	¥2,6488,00,000	Success	1987	8	
CASC	Site 138 (LA-26), Jiuquan Satellite Launch Center, China	09 September 1987	Long March 2C	FSW-1 No.1	Active	¥2,6488,00,000	Success	1987	9	
CASC	Site 138 (LA-26), Jiuquan Satellite Launch Center, China	05 August 1988	Long March 2C	FSW-1 No.2	Active	¥2,6488,00,000	Success	1988	8	
CASC	Site 138 (LA-26), Jiuquan Satellite Launch Center, China	05 October 1989	Long March 2C	FSW-1 No.3	Active	¥2,6488,00,000	Success	1989	10	
CASC	Site 138 (LA-26), Jiuquan Satellite Launch Center, China	09 August 1992	Long March 2D	FSW-2 No.1	Active	¥2,5585,00,000	Success	1992	8	
CASC	Site 138 (LA-26), Jiuquan Satellite Launch Center, China	05 October 1992	Long March 2C	FSW-1 No.4, Feng	Active	¥2,6488,00,000	Success	1992	10	
CASC	Site 138 (LA-26), Jiuquan Satellite Launch Center, China	08 October 1993	Long March 2C	FSW-1 No.5	Active	¥2,6488,00,000	Success	1993	10	
CASC	LC-2, Xichang Satellite Launch Center, China	08 February 1994	Long March 3A	Shjian 4, Kuaifu-1 (mass simulator)	Active	¥1,9942,00,000	Success	1994	-2	
CASC	Site 138 (LA-26), Jiuquan Satellite Launch Center, China	03 July 1994	Long March 2D	FSW-2 No.2	Active	¥2,5585,00,000	Success	1994	7	
CASC	Site 138 (LA-26), Jiuquan Satellite Launch Center, China	20 October 1996	Long March 2D	FSW-2 No.3	Active	¥2,5585,00,000	Success	1996	10	
CASC	LC-2, Xichang Satellite Launch Center, China	17 May 1997	Long March 3A	ChinaSat 6	Active	¥1,9942,00,000	Success	1997	5	
CASC	LC-7, Taiyuan Satellite Launch Center, China	01 September 1997	Long March 2C	Indian mass simulator A&B	Active	¥2,6488,00,000	Success	1997	9	
CASC	LC-7, Taiyuan Satellite Launch Center, China	08 December 1997	Long March 2C	Indium 42 & 44	Active	¥2,6488,00,000	Success	1997	12	
CASC	LC-7, Taiyuan Satellite Launch Center, China	25 March 1998	Long March 2C	Indium 51 & 61	Active	¥2,6488,00,000	Success	1998	3	
CASC	LC-7, Taiyuan Satellite Launch Center, China	02 May 1998	Long March 2C	Indium 69 & 71	Active	¥2,6488,00,000	Success	1998	5	
CASC	LC-7, Taiyuan Satellite Launch Center, China	19 August 1998	Long March 2C	Indium 76 & 78	Active	¥2,6488,00,000	Success	1998	8	
CASC	LC-7, Taiyuan Satellite Launch Center, China	19 December 1998	Long March 2C	Indium 88 & 89	Active	¥2,6488,00,000	Success	1998	12	
CASC	LC-7, Taiyuan Satellite Launch Center, China	10 May 1999	Long March 4B	Fengyun 1C & Shjian-5	Active	¥1,9624,00,000	Success	1999	5	
CASC	LC-7, Taiyuan Satellite Launch Center, China	11 June 1999	Long March 2C	Indium 92 & 93	Active	¥2,6488,00,000	Success	1999	6	
CASC	LC-7, Taiyuan Satellite Launch Center, China	14 October 1999	Long March 4B	CHERS-1 & SACJ 1	Active	¥1,9624,00,000	Success	1999	10	
CASC	LC-2, Xichang Satellite Launch Center, China	25 January 2000	Long March 3A	ChinaSat-22	Active	¥1,9942,00,000	Success	2000	1	
CASC	LC-2, Xichang Satellite Launch Center, China	30 October 2000	Long March 3A	Beidou-1A	Active	¥1,9942,00,000	Success	2000	10	

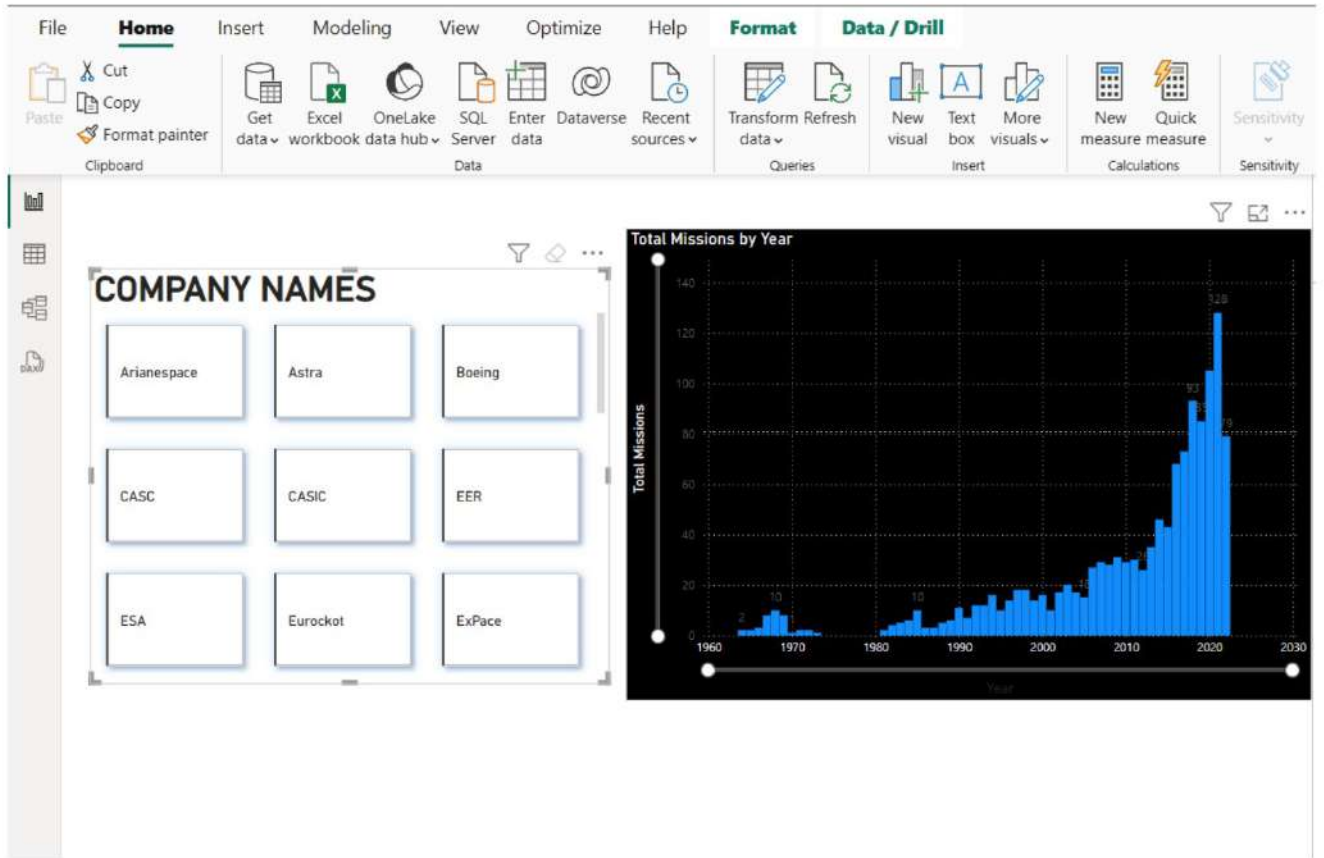
QUERY EDITOR:

The screenshot displays the Power Query Editor interface. The main window shows a table with the following columns: Agency, Location, Date, Rocket, Mission, and RocketStatus. The data is filtered to show rows where the Agency is 'US Air Force' or 'NASA'. The table contains 27 rows of data, including mission names like 'Transtage 1', 'LES 1', 'LES 2 & LES 3', '694-B', 'OPS 4296', 'OPS 8988', 'OPS 4204', 'OPS 4243', 'OPS 4282', 'OPS 4886', 'OPS 4941', 'OPS 4895', 'Apollo 4', 'OPS 5000', 'OPS 5028', 'OPS 5057', 'Apollo 8', 'OPS 5105', 'OPS 5138', and 'OPS 5187'.

The interface includes a ribbon menu with options like 'Home', 'Transform', 'Add Column', 'View', and 'Tools'. Below the ribbon, there are several toolbars for data manipulation. The main area shows a column profiling section with histograms for each column, indicating data types and validity percentages (e.g., 100% Valid, 0% Error, 0% Empty). The right-hand pane shows 'Query Settings' and 'APPLIED STEPS', including 'Source', 'Promoted Headers', 'Changed Type', 'Removed Column', 'Filtered Rows', 'Changed Type1', 'Multiplied Column', 'Multiplied Column1', 'Inverted Year', 'Inverted Month', 'Inverted Day', 'Changed Type2', and 'Renamed Columns'.

DASHBOARD:





CONCLUSION:

In conclusion, the internship on exploratory data analysis (EDA) using Power BI for space exploration missions was an enriching and transformative experience. Through this internship, I successfully harnessed the power of Power BI to analyze and visualize complex datasets, which revealed critical insights and patterns essential for mission planning and execution.

The skills and knowledge gained in data visualization, trend analysis, and anomaly detection have not only deepened my understanding of the space exploration field but also equipped me with valuable analytical tools applicable to various domains.

The findings from this project have demonstrated the significant potential of EDA in enhancing data-driven decision-making processes, thereby contributing to the success and efficiency of future space missions. Overall, this internship has been a pivotal step in my career, providing a solid foundation in both the technical and analytical aspects of data science within the context of space exploration.

BIBLIOGRAPHY :

The following books and websites are referred during the analysis and execution phase of the project

1. Data Analysis with Microsoft Power BI: A Kagen the Damned Novel
2. Dan Clark : Beginning Power BI

WEBLINKS:

1. <https://learn.microsoft.com/en-us/power-bi/transform-model/desktop-measures->
2. <https://www.packtpub.com/en-us/product/microsoft-power-bi-complete-reference-9781789950045>

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **H S SAGAR VASISHTA (UUCMS. No.: U03KU21S0010)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator,

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Prof. Nagasuma C V,
[M.Sc/MS,M.Tech]

Head of the Department,

Head of the Department

Department of BCA,

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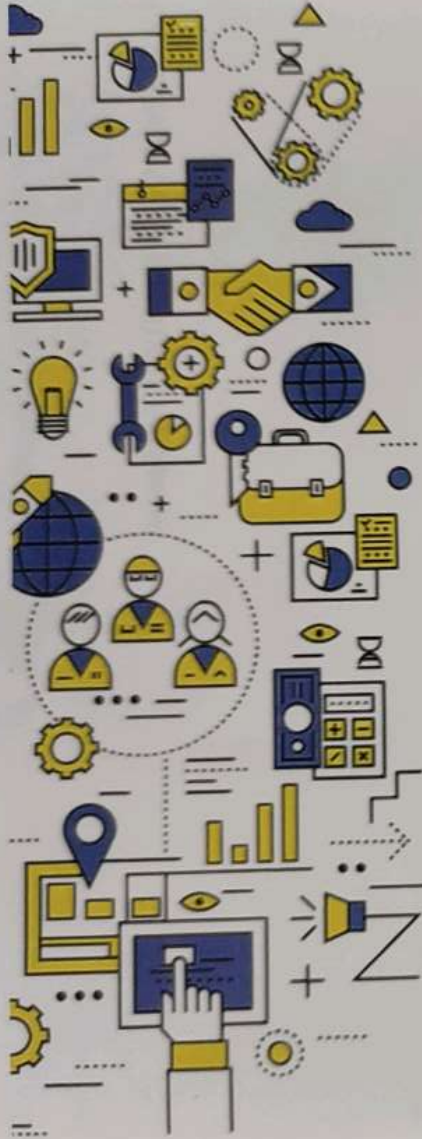
Soundarya Institute of Management and Science,

Prof. Vijay Kumar A S,

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Nagarajpet, Bangalore - 560 073.
[M.Tech, Ph.D]

EXAMINERS

- 1.....
2.....



CERTIFICATE OF APPRECIATION

INTERNSHIP_170662655565b90dfb35712

PROUDLY PRESENTED TO

H S SAGAR VASISHTA
STU65d44ba472c4a1708411812

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Full Stack Web Development** under the **Next Gen Employability Program 2023-24.**

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

		<ul style="list-style-type: none"> • Learnt: Reflecting on the project and identifying areas for improvement.
54	22/04/2024	Week Off
55	23/04/2024	
56	24/04/2024	<ul style="list-style-type: none"> • Finalized additional features and deployed updates. • Learnt: Incremental updates and deployment.
57	25/04/2024	<ul style="list-style-type: none"> • Wrapped up the internship, prepared final reports, and presented the project. • Learnt: Summarizing work and presenting to stakeholders.

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 Management and Science

Prof. Vijay Kumar AS
 (Head of the Department)
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INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

SALMAN V

UUCMS. No.: U03KU21S0061

(Duration: 12th April, 2024 to 31th May, 2024)



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Inana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the "Internship report" submitted by **SALMAN V(UUCMS. No.: U03KU21S0061)** is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Samskruthi
25/06/2024

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Head of the Department
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D]

EXAMINERS
Samskruthi

CERTIFICATE OF INTERNSHIP

THIS CERTIFICATE IS AWARDED TO

-----SALMAN . V-----

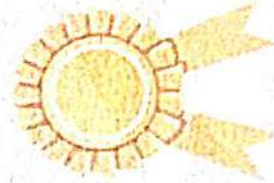
This is to certify that the bearer of this certificate, with registration number U03KU2130061 pursuing a BCA from SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE has successfully completed an internship with our company.

The internship was completed under the guidance of Mr. Shankar Narayan in the domain of Java, with the position of "Java Full Stack Intern" held from 12/05/2024 to 31/05/2024. We have found the intern to be a self-starter who is motivated, duty-bound, and hardworking. Assignments were completed sincerely, and the performance was excellent.

We wish all the best in future endeavors

Saishyulkumar


LEAD NAME

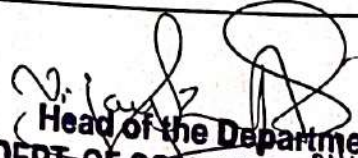



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29	09.05.2024	project - built an E-commerce website using all the topics learnt
30	10.05.2024	project - continued building the E-commerce website with functional payment options.


INTERNAL GUIDE
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Bangalore University

Project Report On

Shakthi Foundation

*Submitted in partial fulfilment of the requirement of the award of
Degree in Bachelor of Computer Applications during the
Academic year 2023-24*

Submitted by

**SALMAN V
U03KU21S0061**

Under the guidance of

Prof. Samskruthi B L



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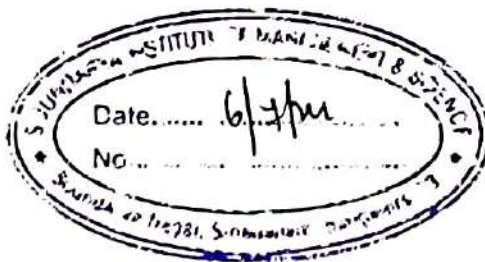
DEPARTMENT OF COMPUTER SCIENCE

Certificate

This is to certify that **SALMAN V** bearing the Reg No. **U03KU21S0061** has satisfactorily completed the project entitled **SHAKTHI FOUNDATION** under the guidance and supervision of **Prof. Samskruthi B L** Professor, Department of Computer Science, in partial fulfilment of VI Semester BCA course as prescribed by Bangalore University, Bangalore in our college during the academic year 2023-24


Project Guide


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Examiners



DECLARATION OF GUIDE

The Project work entitled **SHAKTHI FOUNDATION** is based on the work carried out by **SALMAN V** during the course of study under the supervision of **Prof. Samskruthi B L**. I assert the statements made and conclusions drawn are the outcome of Project work and hereby approve for the submission for the partial fulfillment for the award of Bachelor of Computer Application under Bangalore University for the year 2023-24.



Prof. SAMSKRUTHI B L

ACKNOWLEDGEMENT

I articulate my sincere gratitude to all those who helped me in making this venture a grand success, without whose constructive criticism as well as words of inspiration this project of mine would not have seen the light.

I take this opportunity to thank **Dr. Vasu B.A** Principal, Soundarya Institute Of Management & Science, Bangalore for permitting me to undertake this project as part of my curriculum.

I would like to mention my sincere gratitude to **Mr. Vijay Kumar A.S**, Head of the Department and my guide **Professor Samskruthi B L** for the guidance and encouragement that has been a source of inspiration for me and also for giving me the valuable information and advices that helped me a lot for the successful completion of my project work.

Last but not the least, I would like to express my sincere thanks to my dear parents and friends for accompanying me throughout the completion of the project.

THANK YOU.
SALMAN V

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6	6.1 Conclusion 6.2 Future Enhancement 6.3 References



Bangalore University

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Under the guidance of

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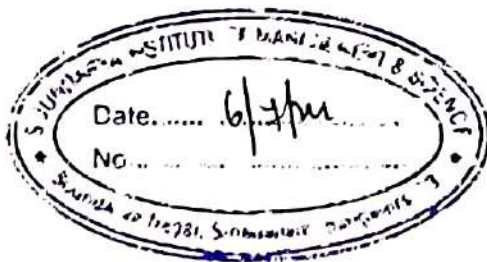
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A handwritten signature in black ink, appearing to be 'Anuradha S', with the date '25/06' written below it.

Internship Coordinator
prof. Anuradha S

EXAMINERS
1. _____
2. _____

Two handwritten signatures in black ink are written over the lines for the examiners.

Prof. Vijay Kumar A. S. M. Tech (Ph.D)

Head of the Department
Head of the Department
DEPARTMENT OF COMPUTER SCIENCE
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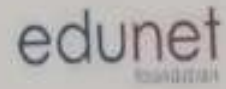
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Department of BCA
Prof. Supriya D

Head of the Department
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EXAMINERS

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2 _____



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SEVANTHI M

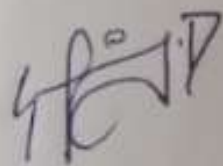
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for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Full Stack Web Development** under the **Next Gen Employability Program 2023-24**.

Nagesh Singh
Executive Director
Edunet Foundation

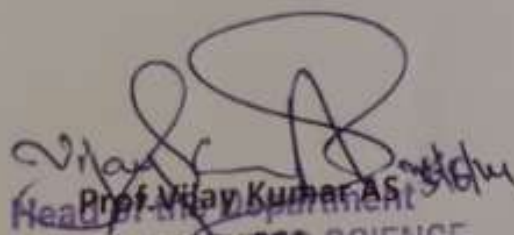
Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

51	20/04/2024	Saturday.
52	21/04/2024	Sunday.
53	22/04/2024	Creation of edit_staff and edit_staff_save.
54	23/04/2024	edit_User views.
55	24/04/2024	edit_Polling's.
56	25/04/2024	staff_home and student_home.



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INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

SHARADHI BP

UUCMS. No.: U03KU21S0095

Duration: 28th Feb, 2024 to 25th April, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
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This is to certify that the "Internship report" submitted by **SHARADHI BP** (UUCMS. No.: U03KU21S0095) is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**


24/8/24
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Head of the Department
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for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on Full Stack Web Development under the Next Gen Employability Program 2023-24.

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

ACKNOWLEDGEMENT

First I would like to thank Mr. Nagesh Singh Executive director, of , **edunet foundation** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me **edunet foundation** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

SHARADHI BP (U03KU21S0095)

ABSTRACT

Full stack development In the dynamic landscape of web development, the full-stack developer emerges as a pivotal figure adept at handling both front-end and back-end aspects of applications. This role requires a comprehensive skill set that includes proficiency in programming languages, frameworks, and tools essential for building robust and scalable web solutions. The front-end responsibilities of a full-stack developer involve crafting user interfaces that are intuitive, responsive, and visually appealing. Proficiency in HTML, CSS, and JavaScript frameworks. As On the back-end, full-stack developers manage server-side logic and databases. They employ languages such as JavaScript (Node.js), Python (Django) and interact with databases (SQL or NoSQL).

Organisation Information:

The Edunet Foundation is a distinguished organization dedicated to advancing educational opportunities and fostering skill development through strategic partnerships with corporate entities and educational institutions. Their mission centres around bridging the gap between academic learning and industry demands, particularly in sectors like IT. Collaborating closely with industry leaders such as EY GDS (Ernst & Young – Global Delivery Services) and educational bodies like AICTE (All India Council for Technical Education), Edunet Foundation designs and implements impactful internship programs. These initiatives are crafted to equip participants with essential skills and practical experience, preparing them for successful careers. By offering these programs at no cost to participants, the Foundation ensures accessibility to quality education and professional development.

Programs and opportunities:

The Edunet Foundation offers a range of programs and opportunities aimed at enhancing educational outcomes and fostering career development. These initiatives are designed to cater to diverse needs and aspirations, particularly in fields vital to economic growth like IT. Through strategic partnerships with leading corporations and educational institutions, Edunet Foundation provides access to internships, training workshops, and skill development programs. These opportunities are structured to equip participants with practical knowledge, industry-relevant skills, and certifications that enhance their employability.

Methodologies:

The methodology of the Edunet Foundation revolves around a systematic approach to educational and skill development initiatives. They employ a structured framework that begins with identifying key industry needs and aligning educational programs accordingly. Through partnerships with industry leaders and educational institutions, Edunet Foundation designs and implements practical learning experiences such as internships and workshops. These programs focus on hands-on training, ensuring participants gain relevant skills that are directly applicable in the workplace.

Key parts of the report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies..

Benefits of the Company/Institution through our report:

Under each division we further provide specific industry solution on focused domains with cutting edge technologies. We emphasize on building relationships with our clients by delivering projects on time and within budget.

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Internship Objectives

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

1. INTRODUCTION

In today's digital age, music streaming has revolutionized how we enjoy music, offering convenience and instant access to vast libraries of songs. Developing a Music Web Application using the Django framework brings together the power of Python with robust web development tools to create a seamless and engaging platform. This project aims to leverage Django's capabilities in full stack development to build a user-friendly application that not only manages music content effectively but also enhances the overall music streaming experience.

1.1 SOFTWARE REQUIREMENT SPECIFICATION

The purpose of this document is to outline the software requirements for a music web application built using the Django framework. The application will allow users to stream music, create playlists, and follow artist

1. Functional Requirement

User Authentication

Sign Up: Users must be able to create an account using email and password.

Login: Users must be able to log in using their credentials

Music Streaming

Play Music: Users can play songs from the library.

Playlist Playback: Users can play a playlist in sequence

1. Non-Functional Requirements

Scalability: The system should handle up to 10,000 concurrent users.

Response Time: Average response time for user requests should be under 2 seconds.

2. TECHNOLOGY

2.1 HTML

HTML (HyperText Markup Language) is the foundational language used to create and structure content on the web.

HTML is the backbone of web development, providing the structure and content of web pages.

In our Music Web Application, HTML plays a crucial role in defining the layout and elements that users interact with. We use HTML to create semantic markup, organizing content such as music tracks, playlists, and user profiles in a logical hierarchy.

Each page is constructed using HTML tags, specifying headings, paragraphs, lists, forms, and media elements like audio players.

By adhering to HTML5 standards, we ensure compatibility across different browsers and devices, allowing users to access and navigate the application seamlessly.

2.2 CSS

CSS (Cascading Style Sheets) is a powerful style sheet language used to control the presentation and layout of web pages. It allows developers to separate content (HTML) from design, making it easier to maintain and update websites.

CSS enhances the presentation of our Music Web Application by controlling the visual appearance and layout of HTML elements.

It allows us to define styles for fonts, colors, margins, padding, and responsive design principles.

In our project, CSS is utilized to create a cohesive and visually appealing interface, ensuring consistency in branding and user experience.

We employ CSS frameworks like Bootstrap to streamline styling tasks, implementing responsive grids and UI components that adapt to various screen sizes. By separating content (HTML) from presentation (CSS), we maintain a modular and maintainable codebase, facilitating easier updates and modifications to the application's design.

2.3 JavaScript

JavaScript is a versatile programming language that adds interactivity and dynamic behavior to web pages.

JavaScript adds interactivity and dynamic behavior to our Music Web Application, making it more engaging and responsive to user actions.

In our project, JavaScript is utilized for client-side scripting, enabling features such as form validation, real-time updates, and interactive elements like dropdown menus and sliders.

We integrate JavaScript libraries and frameworks as needed to enhance functionality, such as AJAX for asynchronous data loading without page reloads and libraries like jQuery for simplified DOM manipulation.

By leveraging JavaScript, we create a more interactive and intuitive user experience, ensuring seamless navigation and functionality across different devices and browsers.

2.4 Bootstrap

Bootstrap is a popular front-end framework that simplifies the development of responsive and mobile-first web pages. It provides a comprehensive set of CSS and JavaScript components, such as navigation bars, buttons, modals, and forms, which can be easily integrated into web projects.

In our Music Web Application, Bootstrap provides a comprehensive set of CSS classes and JavaScript plugins that facilitate rapid prototyping and development.

We utilize Bootstrap's grid system to create responsive layouts that adjust automatically based on screen size, ensuring consistency and usability across desktops, tablets, and smartphones.

Additionally, Bootstrap components such as navbars, modals, and forms enhance the application's user interface, offering a polished and professional look.

By leveraging Bootstrap's pre-built CSS and JS components, we save development time and effort, focusing more on application logic and user experience enhancements.

2.5 Python

Python is a high-level, interpreted programming language known for its readability, simplicity, and versatility.

Python serves as the backend programming language for our Music Web Application, powering the server-side logic and data processing.

In conjunction with Django, Python enables efficient development of web applications by providing a robust framework for handling HTTP requests, managing databases, and implementing business logic.

In our project, Python manages user authentication, data modeling using Django's ORM (Object-Relational Mapping), and integration with external APIs for music metadata and streaming services.

Python's simplicity, readability, and extensive libraries make it ideal for rapid development and scalability, ensuring our Music Web Application performs optimally and meets the demands of modern web applications.

2.6 Django Framework

Django is a high-level Python web framework that encourages rapid development and clean, pragmatic design. It follows the Model-View-Controller (MVC) architectural pattern, promoting a clear separation of concerns and making it easier to manage complex web applications.

In our Music Web Application, Django provides a structured approach to building backend components, including URL routing, views, templates, and ORM for database interactions.

Django's built-in features such as authentication, admin interface, and middleware streamline development tasks, allowing us to focus on application-specific logic and user-facing functionalities.

By adhering to Django's best practices and design patterns, we ensure our Music Web Application adheres to industry standards for security, performance, and maintainability.

3.DATABASE

SQLite is a popular relational database management system (RDBMS) known for its lightweight nature, simplicity, and self-contained architecture. Unlike traditional RDBMS like MySQL or PostgreSQL, SQLite does not operate as a client-server model but rather directly accesses and manipulates a database file stored on disk.

SQLite can be categorized into different types based on its usage and deployment:

Embedded SQLite:

Embedded SQLite is integrated directly into applications as a self-contained library.

Commonly used in applications that require local data storage, such as mobile apps, desktop software, IoT devices, and embedded systems.

It operates without a separate server process, storing the entire database in a single file on the device's storage.

In-Memory SQLite:

In-Memory SQLite databases reside entirely in RAM and are not persisted to disk.

Useful for temporary or cache-like storage needs where data does not need to be preserved beyond the application's runtime.

Offers fast read/write operations due to its location in memory, but data is lost once the application terminates.

Traditional SQLite:

Traditional SQLite databases are stored as disk files and can be accessed concurrently by multiple processes.

Suitable for applications requiring persistent data storage with concurrent read/write access.

Supports transactions, indexes, and other standard SQL features, making it suitable for a wide range of applications from small to medium-sized database

4. SCREENSHOTS

Figure 1



HOME PAGE

Figure 4

A hand-drawn diagram of a sign-up form. It features a vertical stack of input fields: "First Name", "Last Name", "User Name", "Email", "Mobile", and "Password". To the right of the "Password" field is a "Confirm Password" field with the text "Confirm Password required" written below it. A "Submit" button is located at the bottom left of the form.

SIGN UP PAGE

Figure 5

A hand-drawn diagram of a login form. It consists of two input fields: "User Name" and "Password". Below the "Password" field is a "Submit" button. To the right of this form is a separate box containing the text "Shara", a password field with five dots, and a "Submit" button below it.

LOGIN PAGE

Figure 2



SONG SELECTION

Figure 3



SONG PAGE

CONCLUSION

We have presented a Music Web Application using the Django framework in full stack development offers a robust platform to deliver a seamless and engaging music streaming experience. Django's powerful backend capabilities, coupled with frontend technologies like HTML, CSS, JavaScript, and Bootstrap, enable the creation of a user-friendly interface with responsive design. The integration of Django's ORM with a database system such as PostgreSQL ensures efficient data management, supporting features like user authentication, playlist management, and real-time updates. This project not only enhances technical skills in Django and web development but also provides practical experience in designing scalable applications that meet industry standards. A Music Web Application developed using Django not only meets user expectations but also sets a foundation for future innovations in web development.

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<https://www.w3schools.com>

<https://www.bootstrap.com>

Department of Computer Applications - BCA
Internship Day Book

Student Name and USN No: SHARADHI BP U03KU21S0095
 Company Name: Internship presented by the Edunet Foundation, in
 collaboration with EY GDS-AICTE
 Address: online intership

Sl. No.	Date	Activities / Work Done
1.	28-2-24	<ul style="list-style-type: none"> • Orientation session • Overview of internship objectives and expectations
2.	29-2-24	<ul style="list-style-type: none"> • Introduction to Full Stack Web Development
3.	1-3-24	<ul style="list-style-type: none"> • Study of Django framework basics • Created a new Django project for the music web application •
4.	2-3-24	<ul style="list-style-type: none"> • Explored Django's MTV (Model-Template-View) architecture
5.	3-3-24	<ul style="list-style-type: none"> • Attended workshop on HTML, CSS, and JavaScript basics • Designed and implemented basic HTML templates for the homepage
6.	4-3-24	<ul style="list-style-type: none"> • Created initial database models for music app (e.g., Song, Artist) • Configured SQLite database
7.	5-3-24	<ul style="list-style-type: none"> • Explored Django Admin interface • Registered models with the Admin interface
8.	6-3-24	<ul style="list-style-type: none"> • Attended mentorship session • Discussed project progress and received feedback
9.	7-3-24	<ul style="list-style-type: none"> • Implemented list and detail views for songs and artists
10.	8-3-24	<ul style="list-style-type: none"> • Worked on Django templates for displaying music data
11.	9-3-24	<ul style="list-style-type: none"> • Implemented search functionality for songs and artists
12.	10-3-24	<ul style="list-style-type: none"> • Attended workshop on advanced Django feature
13.	11-3-24	<ul style="list-style-type: none"> • Created forms for adding and editing songs and artists • Implemented form validation and error handling
14.	12-3-24	<ul style="list-style-type: none"> • Implemented user registration and login/logout functionality
15.	13-3-24	<ul style="list-style-type: none"> • Attended mentorship session • And asked doubts about the project get feedback on my project
16.	14-3-24	<ul style="list-style-type: none"> • Designed profile templates and views
17.	15-3-24	<ul style="list-style-type: none"> • Added permissions for different user roles (admin, user)

5	16-3-24	<ul style="list-style-type: none"> • Worked on enhancing UI/UX design • Applied CSS frameworks (e.g., Bootstrap) for responsive design
6	17-3-24	<ul style="list-style-type: none"> • Integrated multimedia handling for music files • Implemented file upload functionality for songs
7	18-3-24	<ul style="list-style-type: none"> • Configured media settings and static file handling
8	19-3-24	<ul style="list-style-type: none"> • Implemented playback functionality using JavaScript • Integrated music player for song previews
9	20-3-24	<ul style="list-style-type: none"> • Worked on advanced database queries
10	21-3-24	<ul style="list-style-type: none"> • Implemented API endpoints for songs and artists and I getting error and error I solved
11	22-3-24	<ul style="list-style-type: none"> • Tested APIs using Postman
12	23-3-24	<ul style="list-style-type: none"> • Attended workshop on API security and authentication • Implemented token-based authentication for APIs
13	24-3-24	<ul style="list-style-type: none"> • Worked on API documentation
14	25-3-24	<ul style="list-style-type: none"> • Attended the "DevOps: Code to production" masterclass
15	26-3-24	<ul style="list-style-type: none"> • Attended mentorship session
16	27-3-24	<ul style="list-style-type: none"> • masterclass they taught us like resume building
17	28-3-24	<ul style="list-style-type: none"> • Studied deployment strategies for Django applications • Prepared project for deployment
18	29-3-24	<ul style="list-style-type: none"> • Reviewed progress and received feedback on API integration
19	30-3-24	<ul style="list-style-type: none"> • Attended the "Managing code base with Github" masterclass.
20	31-3-24	<ul style="list-style-type: none"> • Implemented caching and optimized database queries
21	1-4-24	<ul style="list-style-type: none"> • Worked on SEO and accessibility improvements
22	2-4-24	<ul style="list-style-type: none"> • Conducted thorough testing of the application
23	3-4-24	<ul style="list-style-type: none"> • Attended mentorship session • Reviewed deployment and optimization
24	4-4-24	<ul style="list-style-type: none"> • Finale masterclass taught us softskill
25	5-4-24	<ul style="list-style-type: none"> • Implemented user feedback and suggestions • Refined UI/UX based on feedback
26	6-4-24	<ul style="list-style-type: none"> • Worked on documentation for the project • Created user manual and developer documentation
27	7-4-24	<ul style="list-style-type: none"> • Prepared final presentation for the project • Created slides and demo for the music web application
28	8-4-24	<ul style="list-style-type: none"> • Conducted final review of the application • Fixed remaining bugs and polished the project
29	9-4-24	<ul style="list-style-type: none"> • Rehearsed project presentation • Finalized all documentation and codebase
30	10-4-24	<ul style="list-style-type: none"> • Attended mentorship session • Reviewed final presentation and received last-minute feedback
31	11-4-24	<ul style="list-style-type: none"> • Delivered final project presentation
32	16-4-24	<ul style="list-style-type: none"> • Final project submission

Internal Guide
Prof. Santhosh R S

Professor
Soundarya Institute of
Management and Science

[Handwritten Signature]

Head of the Department
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Nagasandra Post, Bangalore - 560 075

Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)



INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

SHASHIVARNI

UUCMS. No.: U03KU21S0070

Duration: 28th February 2024 to 16th April, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by SHASHIVARNI (UUCMS. No. : **U03KU21S0070**) is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Department of BCA
Prof. Supriya D

Head of the Department
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D.]

ACKNOWLEDGEMENT

First I would like to thank **Mr. Hari Krishna Sripathi, Web Developer** for giving me the opportunity to do an internship.

I also would like all the people that worked along with me, My college friends with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped in successful completion of this internship.

SHASHIVARNI (U03KU21S0070)

ABSTRACT

This music web application is a lightweight and user-friendly platform designed to facilitate the uploading, listing, and playing of audio files directly through a web browser. The application employs a straightforward front-end built with HTML, CSS, and JavaScript, ensuring an intuitive user interface that enables seamless interaction. On the back-end, the application leverages Node.js and Express to handle file uploads, storage, and retrieval, providing robust and efficient server-side functionality. Users can easily upload their music files through a simple file input mechanism. The uploaded files are stored on the server, and a dynamic list of available music tracks is generated and displayed to the user. Each listed track can be selected and played using the built-in audio player, allowing for immediate playback without the need for external software.

ORGANISATION INFORMATION

Soundarya Institute of Management & Science (SIMS) in Bangalore is a premier educational institution known for high-quality education and fostering academic excellence. SIMS offers diverse undergraduate and postgraduate programs, including BBA, B.Com, BCA, MBA, M.Com, and MCA. The institute is dedicated to nurturing well-rounded individuals with skills, knowledge, and ethical values necessary for personal and professional success. With a mission to empower students and a vision to be a globally recognized centre of excellence, SIMS upholds values of excellence, integrity, inclusivity, innovation, and service. The faculty comprises experienced educators committed to mentorship and high-quality education. SIMS boasts state-of-the-art facilities, including modern classrooms, laboratories, and a comprehensive library, supporting an optimal learning environment. The institute is actively involved in community service and offers an internship program providing hands-on experience in real-world settings. Achievements include high placement rates, awards for academic and extracurricular excellence, and recognition for impactful research and community initiatives.

PROGRAMS AND OPPORTUNITIES

Soundarya Institute of Management & Science (SIMS) offers a variety of undergraduate and postgraduate programs, including BBA, B.Com, BCA, MBA, M.Com, and MCA, designed to equip students with essential knowledge and skills for their careers. The institute provides numerous professional development opportunities through internships, workshops, seminars, guest lectures, and certification programs. Research opportunities are abundant, with support for student projects, publications, and specialized research centres. Extracurricular activities such as clubs, sports, and cultural events promote personal growth and community engagement. SIMS also offers robust career services, including career counselling, placement assistance, and skill development workshops, alongside global opportunities like study abroad programs and international conferences, ensuring a comprehensive and enriching educational experience.

METHODOLOGIES

The development of a music web application using Django begins with a thorough requirement analysis to establish the application's scope, objectives, and necessary features, including user roles and security protocols. Developing a music web application involves various methodologies to ensure a structured, efficient, and successful process. Below are key methodologies typically employed in this context **KEY PARTS OF THE REPORT.** Agile Development Iterative Development: Break down the project into small, manageable sprints, allowing for iterative progress and continuous feedback. Scrum Meetings: Regular stand-ups to discuss progress, challenges, and next steps. User Stories: Define features from an end-user perspective to ensure the application meets user needs. By integrating these methodologies, developers can create a robust, user-friendly, and scalable music web application that meets user requirements and can adapt to future changes and growth.

Introduction: Overview of the project, its objectives, and significance.

Organization Information: Details about SIMS, including mission, vision, values, programs, and infrastructure.

Project Description: Purpose, key features, and benefits of the Music web application.

Methodologies: Summary of the development process: requirement analysis, design, development, testing, deployment, and maintenance.

Technologies Used: Overview of HTML, CSS, JavaScript, and Django, and their roles in the project.

INSTITUTION THROUGH OUR REPORT

The Music Web Application developed for institutional use significantly enhances democratic participation by automating the voting process, from candidate registration to vote counting, reducing manual effort and potential errors. It ensures accuracy in vote tallies and streamlines communication between voters and election administrators, promoting transparency and timely interactions. The system provides easy access to voting records and real-time results, aiding in better electoral planning and decision-making. This application serves as a tool for fostering engagement and ensuring the integrity of the electoral process within institutions.

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LEARNING OBJECTIVES

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

1.INTRODUCTION

This report presents a comprehensive analysis of the development and deployment of a music web application using the Django framework. Music web applications are essential in today's digital age, offering users the ability to upload, stream, manage, and share music online. Building such applications requires a robust and flexible framework capable of handling complex functionalities, ensuring security, and delivering a seamless user experience. Django, a high-level Python web framework, is an ideal choice for developing music web applications due to its comprehensive features and ease of use. ORM (Object-Relational Mapping): Simplifies database interactions by allowing developers to work with databases using Python objects. Admin Interface: Comes with a powerful built-in admin interface to manage application data. Security: Includes built-in protection against common security threats such as SQL injection, cross-site scripting (XSS), and cross-site request forgery (CSRF). Scalability: Designed to handle high-traffic applications and large datasets efficiently. Versatility: Suitable for a wide range of web applications, from simple websites to complex data-driven applications.

2.MODULES

A music web application using the Django framework could include the following modules:

1. **User Management Module Authentication**: Handles user registration, login, logout, and password management. **User Profiles** Manages user profile information, including personal details, profile pictures, and preferences.
2. **Music Management Module Audio File Upload**: Allows users to upload audio files. **Metadata Management** Stores and manages metadata for each music file, such as title, artist, album, genre, and duration
3. **Music Library and Playlists Module Library Management**: Allows users to create and manage their music libraries. **Playlist Creation** Enables users to create, edit, and delete playlists. **Playlist Sharing**: Provides options for users to share playlists with others.
4. **Results Module**: Displays real-time election results and provides detailed analytics post-election.
5. **Audit Module**: Keeps a secure log of all activities on the platform for transparency and accountability.
6. **Notification Module**: Sends out alerts and updates to users regarding election events and status.

These modules work together to create a seamless and secure online voting experience for both voters and administrators.

3.ANALYSIS

An analysis of a music web application using Django should cover the following aspects:

Functionality: Music web applications offer a range of functionalities tailored to meet the needs of users, artists, and publishers. These functionalities can be categorized into various aspects based on the publication process, from content creation to distribution and user interaction.

Security: Given the sensitive nature of music, the application must implement robust security measures. This includes secure session management, encryption of data in transit and at rest, protection against common web vulnerabilities (such as SQL injection, cross-site scripting), and compliance with relevant data protection regulations.

Performance: Ensuring optimal performance for music web applications is crucial for delivering a seamless user experience. Performance impacts user satisfaction, retention, and overall functionality.

Scalability: As the number of users grows, the application must scale accordingly without compromising performance or security. This may involve optimizing database queries, using caching mechanisms, and considering cloud-based solutions for hosting.

User Experience: The interface should be user-friendly, with clear instructions and feedback. Accessibility features should be included to cater to all users.

Auditability: The system should log all actions to provide a clear audit trail. This is crucial for verifying the integrity of the election process and resolving any disputes.

Compliance: The application must adhere to legal requirements for elections, which can vary by region. This includes music eligibility checks, secure storage of voter information, and proper handling of election results.

This analysis forms the basis for ensuring that the voting web application is reliable, secure, and user-friendly.

4.SOFTWARE REQUIREMENT SPECIFICATION

HTML, CSS, and JavaScript (Frontend):

- Provide a user-friendly interface for leave application submission and status tracking.
- Ensure responsive design for compatibility across different devices.
- Use JavaScript for interactive features like form validation and dynamic content updates.

Python and Django (Backend):

- Implement user authentication and role-based access control (RBAC).
- Develop functionalities for managing leave applications (submit, approve, reject).
- Integrate with SQLite for secure storage and retrieval of application data.

SQLite (Database):

- Design database schema for user profiles, leave applications, and transaction logs.
- Ensure data integrity and reliability through ACID properties.
- Implement backup and restore mechanisms for data security and continuity.

5. TECHNOLOGY

5.1. Frontend Technology

5.1.1 HTML

HTML (Hypertext Markup Language) is a fundamental language used in web development to structure and present content on web pages. It consists of elements that define the various parts of a webpage, such as text, images, links, and multimedia. These elements are enclosed within tags, which denote their purpose and behavior within the document.

Each HTML document begins with a `<!DOCTYPE>` declaration that specifies the type and version of HTML being used. The main sections of an HTML document include the `<head>` section, where metadata like the page title, character encoding, and links to external resources are defined. The `<body>` section contains the visible content of the page, including headings, paragraphs, lists, and semantic elements that provide meaning and structure to the content.

Attributes within HTML tags define additional properties or behaviors of elements. Common attributes include `class` and `id` for styling and JavaScript interaction, `href` for hyperlinks, `src` for specifying image or media sources, and `alt` for alternative text descriptions. Elements can be nested to create hierarchical structures, enabling complex layouts and content organization.

HTML5, the latest version of HTML, introduces semantic elements that describe the purpose of content more accurately, improving accessibility and search engine optimization. It also supports multimedia elements for embedding audio, video, and graphics directly into web pages. Forms in HTML allow user interaction by defining input fields, buttons, and other controls for submitting data to web servers.

Web browsers interpret HTML documents to render content according to the defined structure and styling instructions. HTML forms the foundation for web development, supporting responsive design techniques that ensure optimal viewing experiences across various devices and screen sizes. Understanding HTML is essential for creating accessible, interactive, and visually appealing web applications and sites.

5.1.2 CSS

CSS (Cascading Style Sheets) is a language used in web development to define the presentation of HTML documents. It controls how elements appear on web pages, including their layout, colors, fonts, and spacing. CSS works by associating styling rules with HTML elements, enhancing the visual appeal and usability of web content.

Styling in CSS involves selectors that target specific HTML elements based on their type (e.g., headings, paragraphs), class (e.g., `.header`, `.button`), ID (e.g., `#navbar`, `#content`), attributes, or relationships with other elements. These selectors allow developers to apply styles to elements selectively.

CSS declarations consist of property-value pairs that specify visual characteristics like colors, dimensions, fonts, and positioning. Values assigned to these properties determine how elements are displayed and interacted with on the webpage.

CSS can be applied to HTML documents in various ways: inline styles directly within HTML tags, embedded styles within the `<style>` element in the `<head>` section of an HTML document, or external style sheets linked using the `<link>` element. External style sheets promote consistency and ease of maintenance by separating styling from content.

CSS3, the latest version of CSS, introduces advanced features such as animations, transitions, gradients, flexible box layouts, grid layouts, and responsive design techniques. These features enable developers to create visually appealing, dynamic, and responsive web designs that adapt seamlessly across different devices and screen sizes.

5.1.3 Overview of Java Script

JavaScript is a high-level, interpreted programming language primarily used in web development to enhance interactivity and functionality within web pages. It enables dynamic updates to the content and behavior of HTML and CSS elements, making web pages more responsive and user-friendly.

JavaScript (JS) works alongside HTML and CSS, interacting with the Document Object Model (DOM) of a webpage. The DOM represents the structure of HTML documents as objects, allowing JavaScript to manipulate elements, modify their attributes, and respond to user actions such as clicks, inputs, and scrolls.

JS is versatile, supporting both procedural and object-oriented programming paradigms. It includes core features like variables, data types (such as numbers, strings, arrays, objects), operators, control structures (like loops and conditionals), and functions. Functions in JavaScript can be defined and invoked to perform specific tasks, promoting code reusability and modularization.

Asynchronous programming is a key feature of JavaScript, facilitated by callbacks, promises, and `async/await` syntax in modern ES6+ versions. This enables handling of operations that do not block the main execution thread, such as fetching data from servers (AJAX calls) and executing animations or timed events.

JavaScript frameworks and libraries such as React, Angular, and Vue.js extend its capabilities, providing pre-built components and abstractions for building complex web applications efficiently. These frameworks leverage JavaScript's strengths in managing state, routing, and UI components to create interactive and scalable web interfaces.

JS is executed by web browsers, making it a client-side scripting language. However, with advancements like Node.js, JavaScript can also run on servers, enabling full-stack development. Node.js utilizes JavaScript on the server-side to handle tasks such as server logic, file system operations, and database interactions, extending JavaScript's versatility beyond the browser environment.

JavaScript is fundamental to modern web development, enabling developers to create dynamic and interactive web applications, enhance user experience, and build scalable web solutions across various platforms and devices.

2.BACKEND TECHNOLOGY

5.2.4 DJANGO (PYTHON FRAMEWORK)

Python Django is a high-level web framework that facilitates rapid development and clean, pragmatic design of web applications. It follows the "Don't Repeat Yourself" (DRY) principle and promotes efficient development by emphasizing reusability and pluggability of components.

Django's architecture is built on several core principles, including a model-view-template (MVT) pattern. Models define the database schema and encapsulate data access logic, views handle user requests and generate responses, and templates render HTML dynamically, separating presentation from business logic.

Key features of Django include an integrated ORM (Object-Relational Mapping) layer that abstracts database access through Python classes, simplifying database interactions without requiring SQL queries. Django's admin interface automates the creation of CRUD (Create, Read, Update, Delete) interfaces for models, enhancing administrative tasks.

Django's robust security features, such as protection against common web vulnerabilities (e.g., SQL injection, cross-site scripting), authentication mechanisms (e.g., user authentication, permissions), and CSRF (Cross-Site Request Forgery) protection, help developers build secure web applications.

The framework provides built-in support for URL routing, middleware, form handling, file uploads, internationalization, and caching mechanisms, reducing the need for external libraries and ensuring comprehensive functionality out of the box.

Django's ecosystem includes a vibrant community, extensive documentation, and a rich ecosystem of reusable apps (Django packages) that extend its functionality. It supports deployment on various web servers and platforms, facilitating scalable and maintainable web application deployment.

Django's combination of simplicity, flexibility, and scalability makes it an ideal choice for developers aiming to build robust, secure, and maintainable web applications efficiently using Python.

3. DATABASE

5.3.1. SQLITE

SQLite is a lightweight, serverless, self-contained relational database management system (RDBMS) that Django supports out of the box as its default database backend. It is implemented as a C library and is embedded directly into the Django application, making it easy to set up and use for development and small-scale production environments.

In Django, SQLite is particularly suitable for projects with low to medium traffic and relatively simple data storage needs. It stores data in a single file, making it portable and straightforward to manage. This simplicity makes SQLite an excellent choice for prototyping, testing, and development phases of Django projects.

Key features and considerations of SQLite in Django include:

1. **Ease of Setup:** SQLite requires minimal configuration in Django. By default, Django settings are configured to use SQLite, making it easy to get started with database-backed applications.
2. **Performance:** SQLite performs well for small to medium-sized datasets and applications with moderate traffic. However, it may not scale as effectively as more robust database systems like PostgreSQL or MySQL for high-traffic applications.
3. **Concurrency:** SQLite supports concurrent read access but has limitations with concurrent write access due to its file-based nature. This makes it less suitable for applications requiring high levels of concurrent write operations.
4. **Compatibility:** Django's ORM (Object-Relational Mapping) layer abstracts database operations, allowing developers to write database-agnostic code. This means Django applications can easily switch between different database backends, including SQLite, PostgreSQL, MySQL, Oracle, and others, with minimal code changes.
5. **Deployment:** While SQLite is suitable for development and small-scale deployments, it may not be ideal for production environments that require high availability, scalability, or advanced database features. In such cases, migrating to a more robust RDBMS like PostgreSQL or MySQL is recommended.
6. **Limitations:** SQLite lacks certain advanced features found in client-server RDBMSs, such as stored procedures, triggers on views, and fine-grained access control. These limitations should be considered when designing applications that require complex database interactions.

6.SCREENSHOTS

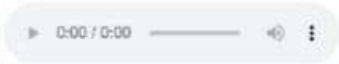
```
C:\Users\shash > cd index.html > ? > html
1 <<!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Music Web App</title>
7   <link rel="stylesheet" href="styles.css">
8 </head>
9 <body>
10  <div class="container">
11    <h1>Music Web App</h1>
12    <input type="file" id="fileInput" accept="audio/*">
13    <button onclick="uploadFile()">upload</button>
14    <h2>Music List</h2>
15    <ul id="musicList"></ul>
16    <audio id="audioPlayer" controls></audio>
17  </div>
18
19  <script src="app.js"></script>
20 </body>
21 </html>
```

Music Web App

Choose File | No file chosen

Upload

Music List



```
Users > shash > OneDrive > Desktop > index.html > python1.py > _
1 import timeit
2 import matplotlib.pyplot as plt
3
4 # Input Array elements
5 def Input(Array, n):
6     # Iterating till the range
7     for i in range(0, n):
8         ele = int(input("Arr : "))
9         # adding the element
10        Array.append(ele)
11
12 # Linear Searching
13 def linear_search(Array, key):
14     for x in Array:
15         if x == key:
16             return True
17     return False
18
19 # Main Block
20 N = []
21 CPU = []
22 trail = int(input("Enter no. of trails: "))
23 for t in range(0, trail):
24     Array = []
25     print("----> TRAIL NO: ", t + 1)
26     n = int(input("Enter number of elements: "))
27     Input(Array, n)
28     print(Array)
29     key = int(input("Enter key: "))
30     start = timeit.default_timer()
31     s = linear_search(Array, key)
32     print("Element Found = ", s)
33     times = timeit.default_timer() - start
34     N.append(n)
35     CPU.append(round(float(times) * 1000000, 2))
36
37 print("N : ", N)
```



Drake, Kayla

One Dance (Viral Reels)

00:00 00:00



7.CONCLUSION

The development and deployment of a music web application using the Django framework offer a robust and scalable solution for managing, distributing, and enjoying music content. Django's powerful features, such as its ORM for database management, built-in security measures, and modular architecture, make it an ideal choice for building comprehensive music platforms..

The EY Edunet internship program has played a pivotal role in contributing to this project's success. Interns have gained hands-on experience in full-stack development, working with Django's versatile capabilities to build and refine the application's features. This real-world project work has not only enriched their technical skills but also provided valuable insights into project management, teamwork, and problem-solving within a professional setting.

Furthermore, the internship has facilitated a collaborative environment where innovative ideas are encouraged, leading to creative solutions that enhance the application's functionality. The synergy between theoretical knowledge and practical application has empowered interns to make meaningful contributions to the project, fostering a sense of ownership and pride in their work.

The intersection of technology and education through initiatives like the EY Edunet internship underscores the importance of industry-academia partnerships. It provides a platform for aspiring developers to bridge the gap between their academic pursuits and professional aspirations. As we reflect on this project's journey, it is clear that such collaborations are instrumental in nurturing the next generation of tech talent, who are poised to drive forward innovations in web development and beyond.

8.BIBLOGRAPHY

WEBLINKS:

[Django Music Web Application - YouTube](#) : It for creating the Multi-user .

<https://youtu.be/tXDFwYDvFyg-telegram>: it for creating multi-user.

INTERNSHIP REPORT

A report submitted in partial fulfillment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

SHREE HARSHA ROYAL K

UUCMS. No.: U03KU21S0063

Duration: 9th May 2024 to 17th June 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **SHREE HARSHA ROYAL K (UUCMS. No.: U03KU21SOO63)** is work done by her and submitted during 2023-2024 academic year in partial fulfillment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Prof.Samskruthi B.L.

Head of the Department of BCA
Prof. Vijay Kumar A S,
M. Tech.[Ph.D]

CERTIFICATE



Corporate Identification Number
U80903DL2020NPL371984

14364000021177628



Ybi Foundation


This is to Certify that

Shree Harsha royal K

has successfully completed
**data Science and Machine Learning
Internship**

Duration : 5 Weeks completed on Monday, Jun 17 2024
demonstrated exceptional dedication with strong willingness to learn and actively engaged in various projects, tasks exhibiting remarkable skills with high level of professionalism.

Credential ID :
6 RBW E7 GUR9 V2 E


Dr. Alok Yadav
Ybi Foundation



Verify Certificate Here

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ACKNOWLEDGEMENT

First I would like to thank **Dr. Alok Yadav**, Executive Director of **YBI FOUNDATION**, for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me at **YBI FOUNDATION**, with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely grateful to my department staff members and friends who helped me in successful completion of this internship.

SREE HARSHA ROYAL K

(U03KU21S0063)

ABSTRACT

Machine learning is a topic of artificial intelligence (AI) where it is possible to elaborate algorithms to teach a particular machine to perform a task. It is necessary to have a dataset, and from that data, explore the correlation between them, discovering patterns and applying algorithms, which makes it possible to take a sum of input data and based on certain patterns to produce the outputs. Each entry in this dataset has its own features, and generates models that can be generalized for a specific task. The idea of machines learning on their own from a vast volume of data may be the simplified definition of machine learning. In general, machine learning is a field of artificial intelligence that is intended to explore constructs of algorithms that make it possible to understand autonomously, where it creates the possibility to recognize and extract patterns from a large volume of data, thus building a model of learning

ORGANIZATION INFORMATION

The **YBI Foundation** is dedicated to empowering and transforming individuals through education. Their mission is to provide learning opportunities that lead to meaningful career advancements. They offer a variety of programs, including a Job Guarantee Program, free internships, micro-credential courses, and comprehensive full stack programs.

Their learning portal, accessible at [www.ybifoundation.org](<http://www.ybifoundation.org>), features courses in several high-demand fields. These include Data Science, Machine Learning, Artificial Intelligence, Business Analytics, Data Visualization, Big Data, Programming, Math & Statistics, and Cloud Computing. Each program is designed to equip learners with the essential skills and knowledge needed in today's tech industry.

The foundation targets individuals aiming to start or advance their careers in technology. By providing practical experience and focused training, the YBI Foundation helps learners become proficient and job-ready in various tech disciplines, supporting their professional growth and success.

PROGRAMS AND OPPORTUNITIES

The YBI Foundation offers a comprehensive Full Stack program that covers front-end and back-end development, databases, version control, and cloud deployment. This program provides hands-on experience through projects and internships, ensuring participants are well-equipped for careers in full stack development. Additionally, the foundation's offerings include job guarantee programs, free

internships, and micro-credential courses across fields like Data Science, Machine Learning, and Artificial Intelligence, accessible via their [learning portal](<https://www.ybifoundation.org/#/fullstack>).

The YBI Foundation also emphasizes practical learning and job readiness through its diverse course offerings. The foundation's programs include Data Science, Machine Learning, Artificial Intelligence, Business Analytics, Data Visualization, Big Data, Programming, Math & Statistics, and Cloud Computing. Each course is designed to provide industry-relevant skills and knowledge, ensuring learners are prepared to meet the demands of the tech industry. The YBI Foundation's comprehensive approach helps individuals start or advance their careers, supporting their professional growth and success.

METHODOLOGIES

Cancer prediction using machine learning and data science involves several key methodologies. Initially, data collection and preprocessing are essential, involving the aggregation of data from sources like genomic databases and medical imaging, followed by cleaning and normalizing the data. Feature selection and engineering are crucial for identifying predictive markers, and techniques like Principal Component Analysis (PCA) help in dimensionality reduction.

Model selection and training encompass choosing appropriate algorithms such as logistic regression, decision trees, and neural networks. Deep learning techniques, including convolutional neural networks (CNNs) for image analysis and recurrent neural networks (RNNs) for time-series data, enhance predictive accuracy. Model evaluation and validation are performed using metrics like accuracy and precision to ensure robust performance and generalization to new data.

KEY PARTS

The program focuses on practical learning, culminating in project submissions and presentations, with top teams recognized for their innovative solutions.

BENEFITS OF THE COMPANY/INSTITUTION

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies. We emphasize on building relationships with our clients by delivering projects on time and within budget.

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1. INTERNSHIP OBJECTIVES

- ❖ Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- ❖ An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- ❖ Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- ❖ Some internships are used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- ❖ Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

2. TECHNOLOGY

2.1 PANDAS

Pandas is a powerful and popular open-source library used for data analysis and manipulation in Python. It provides high-performance, easy-to-use data structures and data analysis tools specifically designed for working with tabular data (like spreadsheets) and time series data.

Here are some key features of Pandas:

- **DataFrames:** The core data structure in Pandas is the DataFrame, a two-dimensional labeled data table with columns and rows. It offers flexibility for storing and manipulating various data types like integers, strings, floating-point numbers, and Boolean values.
- **Series:** Pandas Series are one-dimensional labeled arrays that can hold any data type. They are often used to represent single columns from a DataFrame.
- **Data Cleaning and Manipulation:** Pandas offers tools for handling missing data, filtering data based on conditions, sorting data, and modifying data values.
- **Data Analysis:** It provides functions for calculating statistics (mean, median, standard deviation), performing group by operations, and merging or joining datasets.
- **Time Series Analysis:** Pandas provides functionalities specifically designed for working with time series data, including date and time data manipulation, resampling, and time zone handling.
- **Integration with other Libraries:** Pandas integrates well with other popular Python libraries like NumPy (numerical computing) and Matplotlib (data visualization), making it a versatile tool for a data science workflow.

2.2 NumPy

NumPy (Numerical Python) is a fundamental library for scientific computing in Python. It provides powerful tools for working with multi-dimensional arrays and matrices, along with a wide range of mathematical functions for numerical operations. Here's a closer look at NumPy:

Core Functionality:

- **NDArrays:** NumPy's core data structure is the ndarray (n-dimensional array), a versatile object that can store data of various data types (integers, floats, strings, etc.) efficiently. It allows you to represent and manipulate complex datasets in a structured way.
- **Array and Matrix Operations:** NumPy offers a rich set of functions for performing mathematical operations on arrays and matrices. These include element-wise operations (addition, subtraction, multiplication, etc.), linear algebra operations (matrix multiplication, inversion, etc.), statistical functions (mean, standard deviation, etc.), and random number generation.
- **Broadcasting:** A powerful feature that allows element-wise operations between arrays of different shapes under certain conditions. This simplifies calculations and avoids the need for explicit loops.
- **Integration with Other Libraries:** NumPy integrates seamlessly with other scientific Python libraries like Pandas (data analysis) and Matplotlib (data visualization), making it a cornerstone for scientific computing workflows.

Benefits of Using NumPy:

- **Performance:** NumPy is written in C for high performance, making it significantly faster than pure Python code for numerical computations.
- **Versatility:** It can handle various data types and array shapes, making it suitable for diverse scientific computing tasks.
- **Foundation for Other Libraries:** Many scientific Python libraries rely on NumPy's functionalities as the building block for data structures and operations.
- **Large Community:** NumPy has a large and active community, providing extensive documentation, tutorials, and community support.

2.3 SCIPY

SciPy (pronounced "Sigh Pie") is a powerful open-source library built on top of NumPy that provides a variety of tools for scientific computing in Python. It extends NumPy's functionalities by offering a collection of algorithms and functions for various scientific and engineering domains. Here's a breakdown of SciPy:

Building Upon NumPy:

- **Leverages NumPy Arrays:** SciPy relies heavily on NumPy's efficient ndarrays (multi-dimensional arrays) for data representation and manipulation. It seamlessly integrates with NumPy's core functionalities.
- **Focus on Advanced Algorithms:** SciPy goes beyond basic mathematical operations by providing high-level algorithms for tasks like optimization, integration, interpolation, linear algebra, image processing, signal processing, and statistics.

Key Features of SciPy:

- **Optimization:** Offers algorithms for finding minimum or maximum values of functions, solving constrained optimization problems, and fitting data to models.
- **Integration:** Provides functions for calculating integrals numerically, which is useful for finding areas, volumes, and other quantities under curves.
- **Interpolation:** Offers methods for estimating intermediate values of a function based on a set of known data points.
- **Linear Algebra:** Extends NumPy's linear algebra functionalities with advanced operations like solving systems of linear equations, finding eigenvalues and eigenvectors, and matrix decompositions.
- **Image Processing:** Provides tools for image manipulation, filtering, analysis, and object detection.
- **Signal Processing:** Offers functions for signal filtering, Fourier transforms, and other signal analysis tasks.
- **Statistics:** Includes routines for statistical hypothesis testing, random number generation, and probability distributions.

2.4 SCIKIT-LEARN

Scikit-learn (often abbreviated as sklearn) is a free and open-source machine learning library for Python. It provides a comprehensive set of algorithms and tools for various machine learning tasks, making it a popular choice for both beginners and experienced data scientists. Here's a closer look at scikit-learn:

Key Features:

- **Supervised Learning:** Offers algorithms for classification (predicting discrete categories) and regression (predicting continuous values) tasks. Common algorithms include Support Vector Machines (SVMs), Random Forests, K-Nearest Neighbors (KNN), and linear regression.

- **Unsupervised Learning:** Provides tools for clustering (grouping data points based on similarities) and dimensionality reduction (reducing the number of features) techniques like K-Means clustering and Principal Component Analysis (PCA).
- **Model Selection and Evaluation:** Includes functionalities for splitting data into training and testing sets, hyperparameter tuning (optimizing model parameters), and metrics for evaluating model performance (accuracy, precision, recall, etc.).
- **Preprocessing:** Offers tools for data cleaning, normalization, scaling, feature selection, and text processing to prepare data for machine learning algorithms.
- **Pipelines:** Allows chaining preprocessing and model fitting steps into a single workflow for streamlined machine learning tasks.
- **Integration with Other Libraries:** Works well with NumPy, SciPy, Pandas, and Matplotlib, creating a powerful ecosystem for data science in Python.

2.5 SEABORN

Seaborn is a powerful Python library built on top of Matplotlib specifically designed for creating statistical graphics. It provides a high-level interface for drawing attractive and informative visualizations of your data. Here's a breakdown of what Seaborn offers:

Statistical Focus:

- **Distribution Plots:** Create informative visualizations of data distribution like histograms, kernel density plots, violin plots, and box plots to understand the spread and shape of your data.
- **Relational Plots:** Explore relationships between variables using scatter plots, joint plots, pair plots, and heatmaps to identify patterns and correlations.
- **Categorical Plots:** Visualize categorical data effectively with bar charts, violin plots, box plots, and strip plots to compare groups and identify differences.
- **Regression Plots:** Create visualizations to assess regression models, including linear regression plots with confidence intervals and residuals plots.
- **Time Series Plots:** Seaborn offers functionalities for plotting time series data with options for highlighting trends and seasonality.

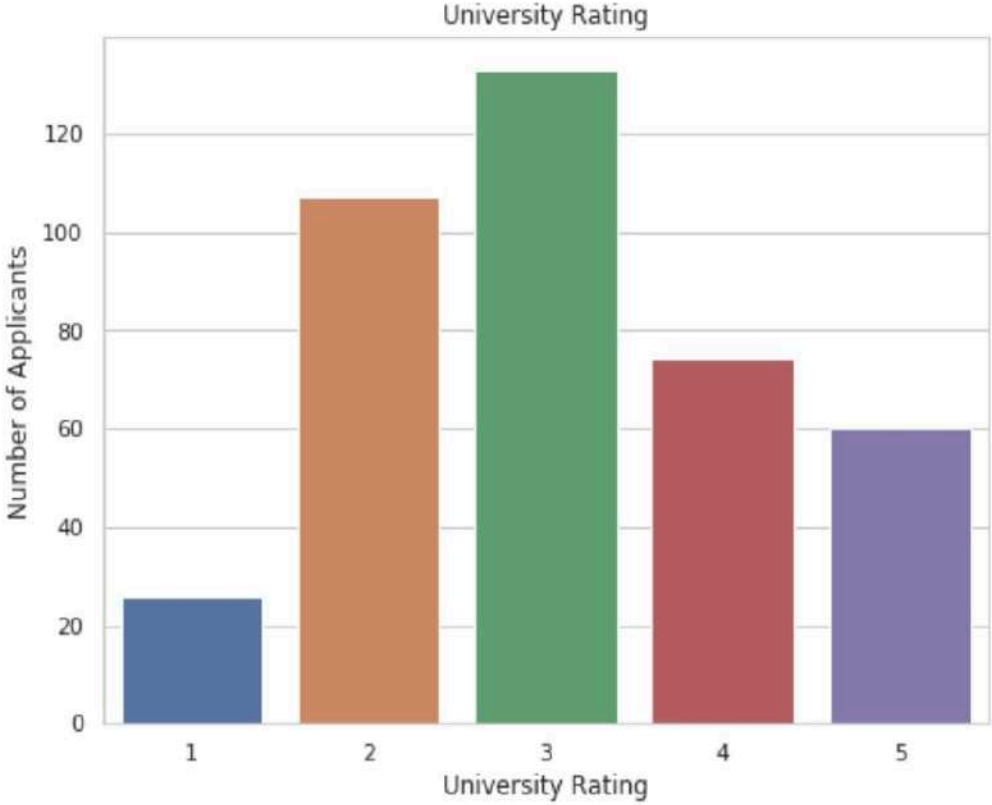
Enhanced Visualizations:

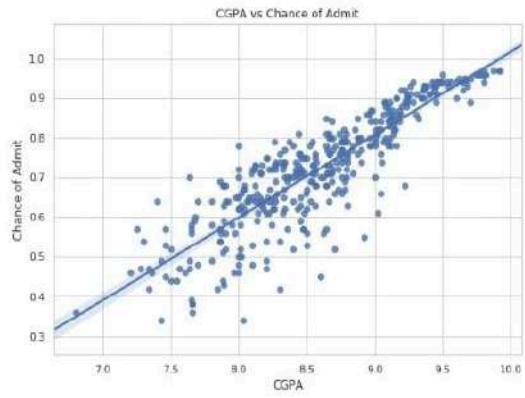
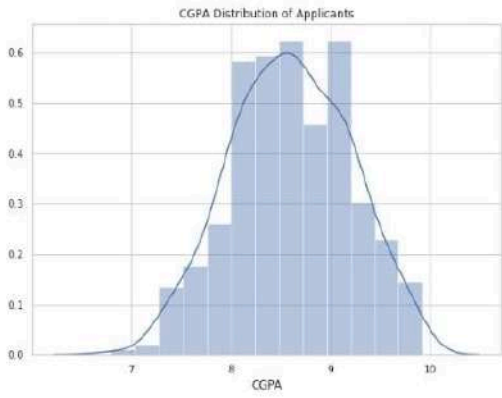
- **Aesthetics:** Seaborn builds upon Matplotlib to provide a default visual style that is generally more pleasing and publication-ready compared to raw Matplotlib plots. This includes color palettes, fonts, and layout elements.
- **Customization:** While Seaborn offers a default style, it also allows for customization of colors, markers, line styles, and other visual elements to match your preferences or branding.
- **Integration with Pandas:** Seaborn integrates seamlessly with Pandas DataFrames, making it easy to create visualizations directly from your data structures.

Benefits of Using Seaborn:

- **Ease of Use:** Seaborn's high-level interface simplifies creating statistical graphics compared to using Matplotlib directly. It requires less code and offers pre-defined functions for common statistical plots.
- **Improved Aesthetics:** The default visual style of Seaborn generally produces more visually appealing and informative graphs compared to raw Matplotlib plots.
- **Focus on Statistical Graphics:** Seaborn is specifically designed for statistical data visualization, so it provides a collection of plots and functionalities tailored for this purpose.
- **Seamless Pandas Integration:** The tight integration with Pandas DataFrames makes it a natural choice for data scientists and analysts who work with Pandas for data manipulation.

3.SCREENSHOTS





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Cancer Prediction Exit Fullscreen

Cancer Prediction

Dataset Information:

Target Variable (y):

- Diagnosis (M = malignant, B = benign)

Ten features (X) are computed for each cell nucleus:

1. radius (mean of distances from center to points on the perimeter)
2. texture (standard deviation of gray-scale values)
3. perimeter
4. area
5. smoothness (local variation in radius lengths)
6. compactness ($\text{perimeter}^2 / \text{area} - 1.0$)
7. concavity (severity of concave portions of the contour)
8. concave points (number of concave portions of the contour)
9. symmetry
10. fractal dimension (coastline approximation - 1)

For each characteristic three measures are given:

- a. Mean
- b. Standard error
- c. Largest/Worst

Hosted by Kaggle View Notebook

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Cancer Prediction Exit Fullscreen

```
In [9]:
X = cancer.drop(['id', 'diagnosis', 'Unnamed: 32'], axis=1)
```

```
In [10]:
# Step 4 : train test split
from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(X, y, train_size=0.7, random_state=2529)
```

```
In [11]:
# check shape of train and test sample
X_train.shape, X_test.shape, y_train.shape, y_test.shape
```

```
Out[11]:
((398, 30), (171, 30), (398,), (171,))
```

```
In [12]:
# Step 5 : select model
from sklearn.linear_model import LogisticRegression
model = LogisticRegression(max_iter=1000)
```

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4.CONCLUSION

In conclusion, pandas has become an indispensable tool in the realm of machine learning and data science due to its versatility and ease of use. Its ability to handle large datasets efficiently, along with powerful data manipulation capabilities, makes it a favorite among practitioners and researchers alike. Whether it's preprocessing data, exploring patterns, or preparing data for model training, pandas provides a robust foundation that simplifies complex tasks.

Moreover, the continuous development and community support behind pandas ensure that it remains relevant and adaptable to evolving data challenges in machine learning. As data volumes grow and analysis requirements become more sophisticated, pandas continues to evolve, offering new features and optimizations that enhance its utility in driving insights and innovations across various domains. Its role in streamlining data workflows underscores its importance as a fundamental component in modern machine learning pipelines.

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2. Raschka, Sebastian, and Vahid Mirjalili. *Python Machine Learning: Machine Learning and Deep Learning with Python, scikit-learn, and TensorFlow 2*. 2nd ed., Packt Publishing, 2019.

Web Links:

1. numpy.org - Official website for NumPy, a fundamental package for scientific computing with Python. Available at: <https://numpy.org>
2. scikit-learn.org - Official documentation and tutorials for Scikit-learn (sklearn), a machine learning library for Python. Available at: <https://scikit-learn.org>
3. seaborn.pydata.org - Official website for Seaborn, a Python visualization library based on matplotlib. Available at: <https://seaborn.pydata.org>

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATIONS

by

SHRUSTI K

UUCMS. No.: U03KU21S0054

Duration: 28th February, 2024 to 25th April, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATIONS
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **SHRUSTI K (UUCMS. No. U03KU21S0054)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATIONS** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator

Ms. Samskruthi B

Head of the Department

Department of BCA

Prof. Vijay Kumar A S

CERTIFICATE



CERTIFICATE OF APPRECIATION

INTERNSHIP_170662655565b90dfb357f2

PROUDLY PRESENTED TO

SHRUSTI K

STU65d4abd3120b1708436157

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Full Stack Web Development** under the **Next Gen Employability Program 2023-24**.

A handwritten signature in blue ink, appearing to read 'Nagesh Singh'.

Nagesh Singh
Executive Director
Edunet Foundation

A handwritten signature in blue ink, appearing to read 'Dr. Ramesh Unnikrishnan'.

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

ACKNOWLEDGEMENT

First, I would like to thank **Mr. Nagesh Singh**, ED, Executive Director of Edunet Foundation for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me Nagesh Singh, **Edunet Foundation** with their patience and openness they created an enjoyable working environment.

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SHRUSTI.K(U03KU21S0054)

ABSTRACT

This project involves the development of a music web application using the Django framework, designed to offer users a robust platform for exploring, streaming, and managing music. The application includes features such as secure user authentication, personalized playlists, music recommendations, and social sharing capabilities. Django's backend facilitates efficient data management and seamless integration with external music streaming APIs, ensuring a high-quality user experience. The frontend utilizes modern web technologies to provide an intuitive and responsive interface. Key functionalities include an extensive music library with search and filter options, playlist creation and management, and algorithm-driven music recommendations based on user preferences. Social features enable users to share their favourite tracks and playlists on various platforms. This project highlights Django's strengths in building scalable, maintainable web applications, emphasizing security, performance, and a user-centric design.

The music web application, developed using the Django framework, aims to provide users with a comprehensive platform for discovering, streaming, and sharing music. Leveraging Django's robust and scalable architecture, the application integrates user authentication, personalized playlists, and social sharing features to create an engaging and interactive user experience. By employing Django's powerful ORM, the app efficiently manages a large database of songs, artists, and user data, ensuring smooth and reliable performance. The application also incorporates modern web technologies for a responsive design, making it accessible across various devices. With a focus on user-centric design and high-quality streaming capabilities, this Django-based music web application offers a seamless and enjoyable way for music enthusiasts to explore their favourite tunes and connect with others who share similar tastes.

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INTRODUCTION

Music Web Application, an innovative platform crafted with the Django framework to revolutionize your music listening experience. Our application offers an extensive music library spanning various genres, artists, and albums, providing something for every musical taste. The user-friendly interface ensures smooth navigation, allowing you to create and manage personalized playlists effortlessly. With robust search and discovery features, you can quickly find your favourite tracks and explore new music tailored to your preferences. Our high-quality streaming guarantees an exceptional audio experience, while user authentication and profile management add a personal touch. Additionally, social sharing capabilities let you connect and share your musical journey with others. Built on the reliable and scalable Django framework, our application combines modern frontend technologies and efficient database management to deliver a seamless and engaging user experience. Join us and immerse yourself in a world of music like never before.

Music Web Application, a dynamic platform designed to elevate your music listening experience. Built using the robust Django framework, our application offers a seamless and intuitive interface for music enthusiasts to explore, discover, and enjoy a vast library of tracks.

Our goal is to provide a comprehensive music platform that not only meets but exceeds your expectations. With a focus on quality, usability, and user satisfaction, we strive to create a space where music lovers can come together and enjoy their favourite tunes effortlessly.

INTERNSHIP OBJECTIVES

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

MODULES

- **User Authentication Module-** Manages user registration, login, and profile settings, providing a secure and personalized interaction with the platform.
- **Music Library Module-** Offers a vast collection of songs across various genres, artists, and albums, facilitating easy browsing and exploration.
- **Search and Discovery Module-** Enables users to quickly find their favorite tracks and discover new music through advanced search algorithms and curated recommendations.
- **Playlist Management Module-** Allows users to create, edit, and organize personalized playlists, enhancing their listening experience.
- **Streaming Module-** Ensures high-quality, uninterrupted music playback.
- **Social Sharing Module-** Integrates with social media platforms, enabling users to share their favorite music and playlists with friends.
- **Admin Module-** Provides backend management tools for content updates, user moderation, and analytics.

TECHNOLOGY

➤ FRONT-END DEVELOPMENT

- **HTML:** Fundamental technologies for building the structure, style, and interactivity of web pages. HTML play crucial roles in creating an engaging and user-friendly interface. HTML (Hypertext Markup Language) is used to structure the content on the web pages, defining elements such as headings, paragraphs, lists, and links. It forms the backbone of the application's frontend, allowing the display of dynamic content such as artist names, album details, and song lists pulled from the Django backend.
- **CSS:** A utility-first CSS framework that allows for rapid UI development. Through CSS, developers can control the aesthetics of the application, including fonts, colors, spacing, and responsive design features that ensure the application looks good on various devices. By integrating HTML and CSS with Django's template system, developers can create dynamic, data-driven web pages that provide a seamless and enjoyable user experience, ultimately making the music web application not only functional but also visually attractive and easy to navigate.
- **JavaScript:** A popular library for building user interfaces, known for its component-based architecture. JavaScript is not Java, though if you come from a Java background due to several reasons. Using JavaScript for both frontend and backend development allows for code reusability, as developers can share code between the client and server.
- **Bootstrap:** A widely-used CSS framework for responsive and mobile-first web development. Bootstrap is a popular open-source front-end framework that helps developers create responsive and mobile-first web pages quickly and efficiently. Developed by Twitter, Bootstrap provides a collection of pre-designed HTML, CSS, and JavaScript components and utilities that simplify the process of designing web interfaces. Bootstrap is a powerful and widely-used open-source front-end framework designed to streamline the development of responsive and mobile-first websites. Originally developed by Twitter, Bootstrap provides a comprehensive collection of pre-designed HTML, CSS, and JavaScript components, enabling developers to create visually appealing and functional web interfaces quickly and efficiently.

➤ **BACK-END DEVELOPMENT**

- **Python:** Python is a versatile and high-level programming language renowned for its readability, simplicity, and broad range of applications. Created by Guido van Rossum and first released in 1991, Python emphasizes code readability with its clean and straightforward syntax, making it an excellent choice for beginners and experienced developers alike. Its dynamic typing and interpreted nature allow for rapid development and debugging. Python's extensive standard library supports many common programming tasks, while its vast ecosystem of third-party libraries and frameworks enables efficient web development, data science, machine learning, automation, and more.

Python emphasizes code readability with its clean syntax and indentation structure. This clarity helps developers write logical, maintainable code more efficiently. Python's community is active and growing, contributing to its robust support system and continuous development. This combination of simplicity, power, and community support has made Python a popular choice for developing complex applications in a straightforward manner.

Notable libraries such as Django and Flask facilitate robust web applications, while NumPy, Pandas, and TensorFlow empower data analysis and machine learning projects. Python's cross-platform compatibility ensures it runs seamlessly on various operating systems, and its active community contributes to its continuous evolution and support. This open-source language remains at the forefront of programming due to its versatility, ease of learning, and powerful capabilities.

- **Django:** Django is a high-level Python web framework that simplifies and accelerates web development by emphasizing reusability, rapid development, and the principle of "don't repeat yourself" (DRY). It was designed to help developers build scalable and maintainable web applications quickly. Released in 2005, Django has since become one of the most popular frameworks for web development due to its robust features and versatility.

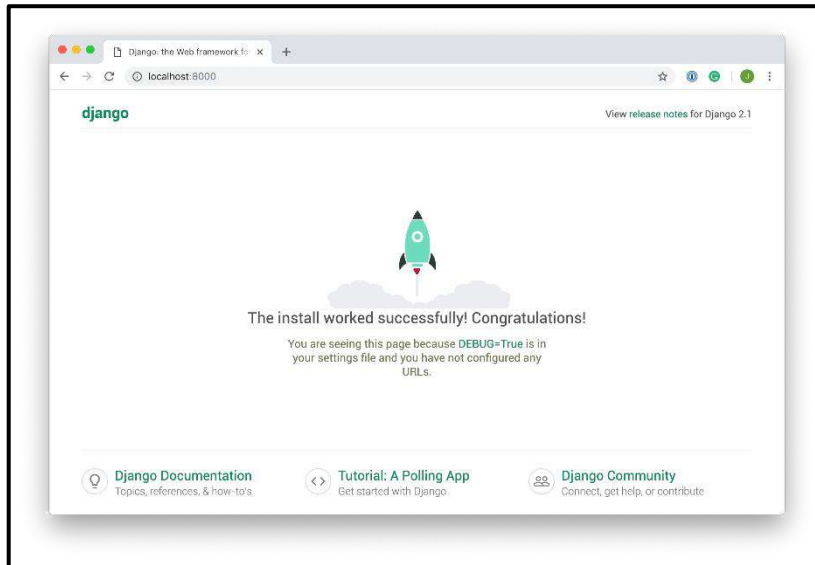
Django's features include an integrated ORM (Object-Relational Mapping) system, which simplifies database interactions and supports multiple database backends like PostgreSQL, MySQL, SQLite, and Oracle. It also provides a built-in admin interface for easy content management and customization.

Django's template system allows developers to create dynamic web pages with minimal effort, separating the application logic from the presentation layer. It also supports various middleware to process requests globally, handling tasks like authentication, session management, and caching. The framework's scalability is evident in its ability to handle high-traffic sites, and it can be easily integrated with other technologies and services.

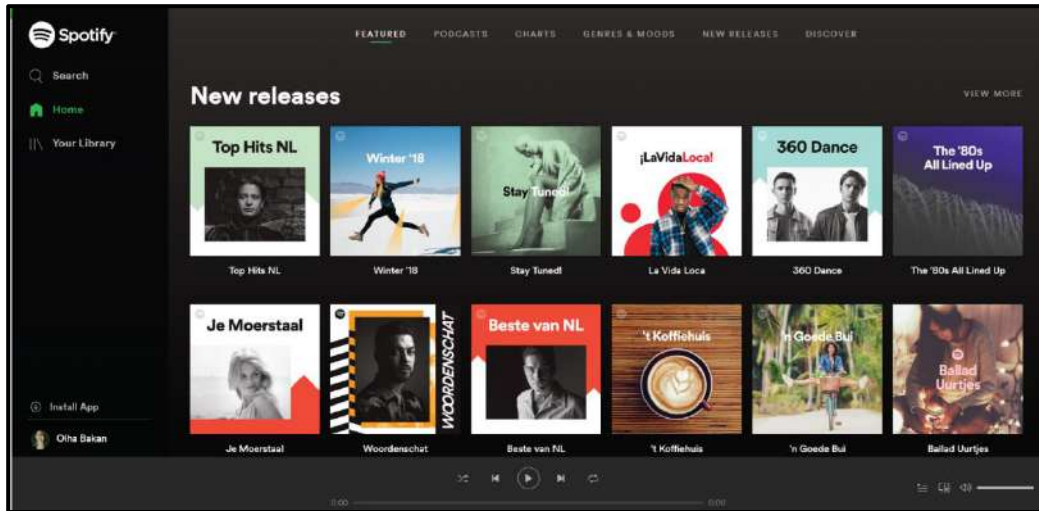
Moreover, Django is supported by a vibrant and active community, which contributes to a rich ecosystem of third-party packages and plugins, extending its functionality. This community support also means comprehensive documentation and a wealth of learning resources are available to both new and experienced developers. Overall, Django's emphasis on speed, security, and scalability makes it a preferred choice for developers looking to build robust, efficient web applications.

- **Database:** In the development of a music web application using Django frameworks, the database plays a crucial role in storing and managing the vast amounts of data involved. A relational database management system (RDBMS) such as MySQL is typically employed due to its robustness, scalability, and support for complex queries. Django's Object-Relational Mapping (ORM) facilitates seamless interaction with the database, allowing developers to define models that translate directly into database tables. These models encompass various entities like Users, Artists, Albums, Songs, and Playlists, capturing relationships and constraints effectively.

SCREENSHOTS



```
1 # Django URL configuration
2
3 The "urlpatterns" list couples URLs to views. For more information please see:
4 https://docs.djangoproject.com/en/1.10/topics/http/urls/
5 Examples:
6 function views
7 1. Add an import: from my_app import views
8 2. Add a URL to urlpatterns: url(r'^$', views.home, name='home')
9 class-based views
10 1. Add an import: from other_app.views import home
11 2. Add a URL to urlpatterns: url(r'^$', home.as_view(), name='home')
12 including another URLconf
13 1. Import the include() function: from django.conf.urls import include
14 2. Add a URL to urlpatterns: url(r'^blog/', include('blog.urls'))
15 """
16 from django.conf.urls import url
17 from django.contrib import admin
18
19 urlpatterns = [
20     url(r'^admin/', admin.site.urls),
21 ]
22
```



CONCLUSION

In conclusion, using Django to build a music web application offers a balanced mix of back-end robustness and front-end flexibility, making it an ideal choice for developers aiming to create a feature-rich, high-performance music streaming platform. With Django, developers can focus on implementing core functionalities and innovative features, confident in the framework's ability to handle the underlying infrastructure efficiently.

Building a music web application using Django frameworks offers a powerful and efficient approach to developing a comprehensive and scalable platform. Django's robust features, including its ORM for database management, built-in user authentication, and versatile template engine, provide a solid backend foundation. When combined with front-end technologies like HTML, CSS, and Bootstrap, the result is a responsive, visually appealing, and user-friendly application. The framework's emphasis on reusability and modularity ensures maintainable and clean code, essential for long-term project success.

Moreover, Django's extensive documentation and supportive community make it accessible for developers of all levels. Ultimately, Django facilitates the creation of a high-performance music streaming platform, allowing developers to focus on innovative features and enhancing the overall user experience.

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- **APIs and Datasets:** Citing any external APIs or music datasets used to fetch and display music metadata, such as album details, artist information, and song lyrics.
- **Tutorials and Documentation:** Listing tutorials, guides, and official documentation that provided valuable insights and practical examples during the development phase.
- **Code Snippets and Open-Source Projects:** Giving credit to specific code snippets, plugins, or open-source projects that were integrated into the application to enhance functionality.

WEBLINKS

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- www.freecodecamp.org - this website was used to solve all my problems and doubts that arrived during this internship on the topic of CSS.
- www.web.dev - this website was used to solve all my problems and doubts that arrived during this internship on the topic of html.

BACHELOR OF COMPUTER APPLICATIONS
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the "Internship report" submitted by **SHRUSTI K** (UUCMS. No. **U03KU21S0054**) is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATIONS** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Samskruthi
25/06/2024

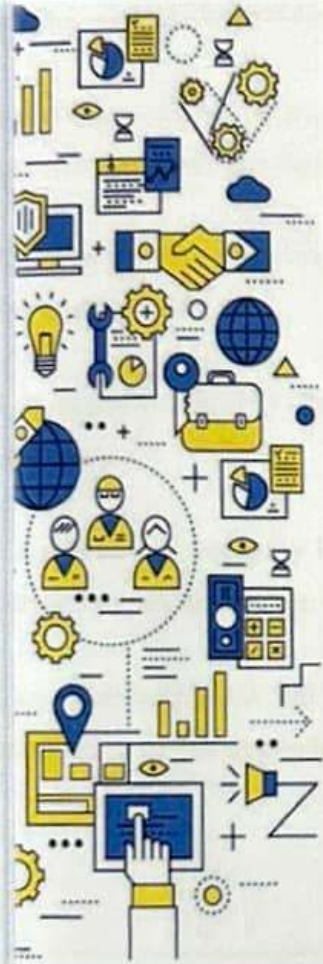
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EXAMINERS
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CERTIFICATE OF APPRECIATION

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PROUDLY PRESENTED TO

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Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE



51	20/04/2024	Saturday.
52	21/04/2024	Sunday.
53	22/04/2024	Creation of edit_staff and edit_staff_save.
54	23/04/2024	edit_User views.
55	24/04/2024	edit_Music.
56	25/04/2024	staff_home and student_home.

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INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

SMITHA S

UUCMS. No.: U03KU21S0093

Duration: 28th February, 2024 to 25th April, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

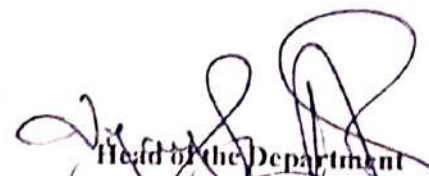
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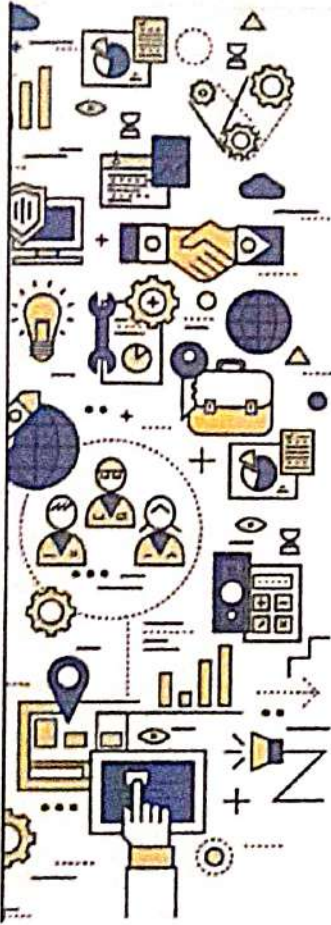
CERTIFICATE

This is to certify that the "Internship report" submitted by **Smitha S (UUCMS. No.: U03KU21S0093)** is work done by her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**


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Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

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First I would like to thank Mr. Nagesh Singh, Executive Director, of **Edunet Foundation, Bangalore** for giving me the opportunity to do an internship within the organization.

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SMITHA S (U03KU21S0093)

ABSTRACT

Full Stack Web Development relies on the seamless integration of various front-end and back-end technologies to create cohesive and dynamic web applications. The development process is often complex due to the need to harmonize disparate technologies and adhere to specific project requirements. This report addresses the challenges associated with designing and maintaining robust web applications and proposes an incremental approach for semi-automatically integrating front-end and back-end components to meet defined project goals.

The Full Stack Development internship, facilitated by the Edunet Foundation in collaboration with EY GDS and AICTE, provided a structured environment to tackle these challenges. The approach involved working at both the logical and implementation levels, consolidating development efforts from high-level design requirements to platform-specific implementations. The internship emphasized maximizing the reuse of existing code components and optimizing development workflows using a customizable cost model aimed at minimizing overall development effort and enhancing project efficiency. The efficiency and effectiveness of this incremental development approach were validated through continuous feedback and iterative improvements, leading to a streamlined development process.

Organisation Information:

The Edunet Foundation, in collaboration with EY Global Delivery Services (EY GDS) and the All India Council for Technical Education (AICTE), offers a dynamic and comprehensive internship program designed to equip participants with essential skills in Full Stack Web Development. This program is a testament to the commitment of these organizations to enhance educational and professional opportunities for students in the IT sector.

Edunet Foundation

Edunet Foundation is dedicated to bridging the gap between academic learning and industry requirements by providing robust training programs and internships. Their initiatives focus on empowering students with practical skills that align with current technological advancements, thereby fostering a future-ready workforce.

EY Global Delivery Services (EY GDS)

EY GDS is a global network of service delivery centers that provide high-quality support services across various EY business lines. EY GDS focuses on delivering consistent, high-quality, and value-added services to EY member firms, helping them meet their clients' needs. Their collaboration in the internship program brings in-depth industry expertise and mentorship, ensuring that participants gain real-world insights and hands-on experience.

AICTE

The All India Council for Technical Education (AICTE) is the statutory body and a national-level council for technical education in India. AICTE plays a pivotal role in promoting and maintaining standards in technical education in the country. By partnering with organizations like Edunet Foundation and EY GDS, AICTE ensures that students receive industry-relevant training that enhances their employability and professional growth.

Programs and opportunities:

The collaboration between Edunet Foundation, EY Global Delivery Services (EY GDS), and AICTE presents a unique and comprehensive Full Stack Web Development internship program. This initiative is designed to provide participants with a ground-up approach to learning and mastering essential technologies and methodologies in the field of web development. The program focuses on delivering high-quality solutions and adding value to participants' skill sets, preparing them for successful careers in the IT industry.

Methodologies:

A structured methodology is followed for projects, beginning with the design phase and progressing through to implementation. This well-planned approach significantly reduces the time required to deliver the project and minimizes any additional ad-hoc costs for clients. The majority of time is dedicated to understanding the client's business and gathering detailed requirements. This ground-up approach ensures that solutions are delivered that not only meet client needs but also add value to their investments.

Key parts of the report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies.

Benefits of the Company/Institution through our report:

Under each division we further provide specific industry solution on focused domains with cutting edge technologies. We emphasize on building relationships with our clients by delivering projects on time and within budget.

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Internship Objectives

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

1. INTRODUCTION

The internship report focuses on the development of a notes sharing application tailored for academicians using the Django framework. This application aims to streamline the process of sharing and managing academic resources among educators and researchers. The project leverages Django's robust capabilities in web development, ensuring scalability, security, and ease of maintenance.

1.1 Modules

The notes sharing application is divided into several key modules to facilitate different aspects of academic resource management:

1. **User Management:**
 - Provides functionalities for user registration, authentication, and profile management.
 - Differentiates between roles such as professors, researchers, and students, each with specific permissions and access levels.
2. **Notes Management:**
 - Allows users to upload, search, and share academic notes, presentations, and other educational resources.
 - Supports admin control to track revisions and updates made to shared documents.
3. **Course Material Access Control:**
 - Maps specific course materials to students based on their course registration on the registration page.
 - Ensures that materials from one course cannot be accessed by students of another course.
4. **Admin Dashboard:**
 - Offers administrative controls for managing user accounts, content moderation, and overall platform settings.
 - Monitors usage statistics and generates reports on user activity and content engagement.

2. ANALYSIS

The development of the notes sharing application begins with a comprehensive analysis phase aimed at thoroughly understanding its requirements and objectives. This phase is crucial for shaping the project scope and ensuring alignment with user expectations and industry standards.

Functional Requirements form the backbone of the application's functionality. These include implementing robust **User Authentication** mechanisms to ensure secure login and registration processes, essential for safeguarding user data and maintaining privacy.

Content Management features enable users to upload, edit, and delete notes seamlessly, fostering efficient collaboration and knowledge sharing among academicians.

Collaboration Features such as commenting, tagging, and rating functionalities enhance user engagement and facilitate feedback mechanisms crucial for academic discourse.

Advanced **Search and Filtering** capabilities allow users to locate specific notes based on various criteria, enhancing accessibility and usability. An **Admin Dashboard** provides monitoring and management tools for administrators, empowering them with insights into user activities and content management tasks.

Addressing **Non-functional Requirements** is equally critical for ensuring optimal performance and user experience. The application must handle **Performance** efficiently, supporting concurrent user interactions without compromising speed or responsiveness.

Security measures, including data encryption, secure authentication, and access controls, are implemented rigorously to protect sensitive information and maintain integrity.

Scalability considerations involve designing the application architecture to accommodate future growth in both user base and data volume, ensuring seamless scalability without compromising performance. **Usability** is prioritized through intuitive user interface design and responsiveness across various devices and screen sizes, enhancing accessibility and user satisfaction.

3. SOFTWARE REQUIREMENT SPECIFICATIONS (SRS)

1. Introduction

This document outlines the Software Requirements Specification (SRS) for a notes sharing application designed for academicians, leveraging the Django framework. The application aims to facilitate the efficient sharing and management of academic resources among professors, researchers, and students.

2. Functional Requirements

- **User Management:**
 - Secure registration and login processes.
 - Role-based access control for professors, researchers, and students.
- **Content Management:**
 - Upload, edit, and delete academic notes, research papers, and presentations.
 - Version control to track document revisions.
- **Course Material Access Control:**
 - Map specific course materials to students based on course registration.
 - Restrict access to materials, ensuring students can only access their registered course materials.
- **Admin Dashboard:**
 - Manage user accounts, moderate content, and adjust platform settings.
 - Monitor usage statistics and generate user activity reports.

3. Non-Functional Requirements

- **Performance:**
 - Ensure efficient handling of concurrent user interactions.
- **Security:**
 - Implement data encryption, secure authentication, and access controls.
- **Scalability:**
 - Design to accommodate growth in user base and data volume.
- **Usability:**
 - Provide an intuitive user interface, responsive across various devices and screen sizes.

4. System Architecture

- **Front-End:**
 - HTML, CSS, Bootstrap for responsive design.
 - JavaScript for interactivity.
- **Back-End:**
 - Django framework with Python for server-side logic.
 - PostgreSQL for relational data storage.

5. User Interface Mockups

Visual representations of key screens and interfaces, demonstrating layout and functionality.

6. Testing and Validation

Strategies and criteria for testing the application to ensure compliance with requirements, including unit tests, integration tests, and user acceptance testing.

7. Constraints

- Limited development timeline and resources.
- Compliance with academic privacy and data protection regulations.

8. Timeline and Milestones

Project schedule outlining key deliverables and milestones, from initial development to final deployment and testing phases.

4. TECHNOLOGY

4.1 DJANGO

Django is a high-level Python web framework that facilitates rapid development and clean, pragmatic design. It follows the Model-View-Template (MVT) architectural pattern, which is a variation of the popular Model-View-Controller (MVC) pattern. Developed to prioritize reusability, rapid development, and the principle of "don't repeat yourself" (DRY), Django has become a cornerstone in the toolkit of many full stack developers.

Key Features and Components:

- ORM (Object-Relational Mapping):

Django's ORM simplifies the interaction with databases by mapping database tables to Python objects. This abstraction allows developers to work with database models using Python code directly, eliminating the need for SQL queries in most cases. This not only enhances productivity but also ensures database portability across different platforms.

- Admin Interface:

Django provides an automatic admin interface for managing application data. This feature is particularly useful during development and for administrative tasks, as it allows CRUD (Create, Read, Update, Delete) operations on models without requiring additional code.

- URL Routing and Views:

URL routing in Django is handled through a centralized URL configuration mechanism. Views are Python functions or classes that receive web requests and return web responses. This separation of concerns ensures clean and maintainable code, as developers can easily map URLs to views and manage application logic.

- Template Engine:

Django's template engine allows developers to design HTML templates with minimal syntax and embed dynamic content using template tags and filters. This promotes the separation of presentation and business logic, enhancing code readability and maintainability.

- Security Features:

Django emphasizes security best practices by providing built-in protection against common web vulnerabilities such as SQL injection, cross-site scripting (XSS), cross-site request forgery (CSRF), and clickjacking. These features help developers create secure web applications without extensive effort.

- Middleware Support:

Middleware components in Django are used to process requests and responses globally. This enables developers to add cross-cutting concerns such as authentication, logging, or caching in

a modular and reusable manner, enhancing application scalability and performance.

- **Use Cases and Ecosystem:**

Django is widely adopted across industries for building various types of web applications, including e-commerce platforms, content management systems (CMS), social networks, and data-driven applications. Its rich ecosystem includes reusable packages and extensions (e.g., Django REST framework for building APIs) that extend its functionality and cater to specific application requirements.

4.2 HTML

HTML (HyperText Markup Language) is the standard markup language used to create and structure content on the World Wide Web. It defines the structure of web pages using a set of markup tags and attributes.

Key Features and Components:

- **Markup Tags:**

HTML uses a predefined set of tags to define the structure of content on a web page. Tags like `<html>`, `<head>`, `<body>`, `<p>`, `<div>`, ``, and `<a>` are used to organize and present different types of content such as text, images, links, and multimedia.

- **Attributes:**

Tags in HTML can have attributes that provide additional information about elements. Attributes like `id`, `class`, `src`, `href`, `alt`, and `style` allow developers to specify characteristics or behaviors of elements, enhancing the presentation and functionality of web pages.

- **Semantic Elements:**

HTML5 introduced semantic elements like `<header>`, `<nav>`, `<section>`, `<article>`, `<footer>`, and `<aside>`. These elements define the meaning and structure of content, making web pages more accessible to both users and search engines.

- **Forms and Input Elements:**

HTML includes form elements such as `<form>`, `<input>`, `<textarea>`, `<select>`, and `<button>` for capturing user input and interactions. Forms facilitate data collection and user engagement on web pages.

- **Embedded Multimedia:**

HTML supports embedding multimedia content such as images, audio, video, and interactive elements using tags like ``, `<audio>`, `<video>`, and `<iframe>`. This capability enriches user experience and functionality on web pages.

Use Cases and Importance:

HTML serves as the foundation for web development, allowing developers to create structured and accessible content that can be rendered across different browsers and devices. It forms the basis for integrating with CSS (Cascading Style Sheets) for styling and JavaScript for dynamic behavior, enabling the creation of interactive and responsive web applications.

4.3 CSS AND BOOTSTRAP

CSS (Cascading Style Sheets) is a stylesheet language used to define the presentation and layout of HTML elements on a web page. It enhances the visual appearance of web pages by specifying colors, fonts, spacing, and other design aspects.

Key Features and Components:

1. **Selectors and Properties:** CSS uses selectors to target HTML elements and apply styling rules defined by properties. Selectors can target elements based on their type (`div`, `p`), class (`.classname`), ID (`#idname`), attributes, and more. Properties define visual aspects such as color (`color`), font (`font-family`, `font-size`), margins (`margin`, `padding`), and positioning (`position`, `display`).
2. **Box Model:** The CSS box model describes the structure of an HTML element, comprising content, padding, border, and margin. Understanding the box model helps developers control spacing and layout within web pages effectively.
3. **Flexbox and Grid Layout:** CSS offers layout models like Flexbox and Grid Layout for creating responsive and flexible page structures. Flexbox (`display: flex`) simplifies alignment and distribution of elements along a single axis, while Grid Layout (`display: grid`) facilitates two-dimensional layouts with rows and columns.
4. **Media Queries:** Media queries allow developers to apply different styles based on the characteristics of the device or viewport size. This enables responsive design, ensuring that web pages adapt and display optimally across various screen sizes, from desktops to mobile devices.

Bootstrap: Front-end Framework for Rapid Development

Bootstrap is a popular front-end framework that simplifies web development by providing pre-designed components and responsive CSS classes. It includes HTML, CSS, and JavaScript components for building responsive websites and web applications.

Key Features and Components:

1. **Grid System:** Bootstrap's grid system (`container`, `row`, `col-*`) allows developers to create responsive layouts easily. It supports a 12-column grid layout that adjusts automatically based on screen size, ensuring consistent alignment and spacing of content across devices.

2. **Components and Utilities:** Bootstrap offers a wide range of UI components such as buttons, forms, navigation bars, cards, modals, and carousels. These components are styled with Bootstrap's CSS classes (`btn`, `form-control`, `navbar`, `card`) and often come with built-in JavaScript functionality for interactive behavior (`collapse`, `modal`).
3. **Responsive Design:** Bootstrap is designed with mobile-first principles, ensuring that websites built with Bootstrap are responsive by default. It prioritizes usability and accessibility across different devices and screen sizes, enhancing user experience.
4. **Customization and Theming:** Bootstrap allows customization through its SASS variables and mixins, enabling developers to modify colors, fonts, spacing, and other design aspects to match project requirements. Custom themes can be created to maintain brand identity and visual consistency.

Use Cases and Importance:

CSS and Bootstrap are essential tools for front-end development, enabling developers to create visually appealing, responsive, and user-friendly web interfaces. They streamline the development process, improve code maintainability, and enhance the overall design consistency of web applications.

4.4 JAVASCRIPT

JavaScript is a versatile programming language primarily used for client-side scripting in web browsers. It enhances the interactivity and functionality of web pages by enabling dynamic content updates, event handling, and asynchronous communication.

Key Features and Components:

1. **DOM Manipulation:** JavaScript interacts with the Document Object Model (DOM) of web pages, allowing developers to dynamically manipulate HTML and CSS. This enables tasks such as adding or removing elements, changing styles, and responding to user interactions in real time.
2. **Event Handling:** JavaScript facilitates event-driven programming, where functions (event handlers) are executed in response to user actions like clicks, mouse movements, and keyboard inputs. This interactivity enhances user experience by making web applications responsive and interactive.
3. **Asynchronous Programming:** JavaScript supports asynchronous operations using Promises and `async/await` syntax. This allows tasks like fetching data from servers (AJAX calls) or executing time-consuming operations without blocking the main execution thread, thereby improving performance and responsiveness.
4. **ES6+ Features:** ECMAScript 6 (ES6) introduced modern JavaScript features such as arrow functions, classes, template literals, destructuring, and modules. These features enhance code readability, maintainability, and facilitate the adoption of functional programming paradigms.

4.5 PYTHON

Python is a high-level, interpreted programming language known for its simplicity, readability, and versatility. It is widely used for backend development, data analysis, machine learning, and scripting tasks.

Key Features and Components:

1. **Readable Syntax:** Python's syntax emphasizes readability and clarity, making it easier to write and maintain code. Its indentation-based block structure enforces code consistency and reduces the likelihood of syntax errors.
2. **Extensive Standard Library:** Python comes with a comprehensive standard library that provides modules and packages for various functionalities, such as file I/O, networking, database access, and handling different data formats (JSON, CSV, XML).
3. **Frameworks and Libraries:** Python offers numerous frameworks and libraries for web development, including Django, Flask, and Pyramid. These frameworks provide tools and libraries to streamline development, handle routing, manage databases, and build RESTful APIs.
4. **Data Science and AI/ML Capabilities:** Python is popular in the fields of data science, artificial intelligence, and machine learning due to libraries like NumPy, Pandas, SciPy, TensorFlow, and PyTorch. These libraries offer powerful tools for data manipulation, statistical analysis, and building machine learning models.

4.6 DATABASE

In the context of full stack development using Django, databases play a crucial role in storing, retrieving, and managing data for web applications. Django, as a high-level Python web framework, provides robust tools and abstractions for interacting with databases seamlessly.

Key Concepts and Components:

1. **ORM (Object-Relational Mapping):** Django's ORM is a powerful feature that abstracts the interaction with databases by mapping database tables to Python objects. Developers define database models as Python classes (`models.Model`) and fields (`CharField`, `IntegerField`, `ForeignKey`, etc.), which Django translates into corresponding database tables and columns. This abstraction simplifies database operations and promotes code reusability.
2. **Database Support:** Django supports multiple relational database management systems (RDBMS) out of the box, including PostgreSQL, MySQL, SQLite, and Oracle. It uses database-specific backends (`django.db.backends.*`) to facilitate seamless integration and optimize performance across different database engines.
3. **Migrations:** Django's migration system (`manage.py makemigrations` and `manage.py migrate`) automates the process of updating database schema changes made in models.

Migrations ensure data integrity and consistency by generating SQL commands to create, modify, or delete database tables and columns without manual intervention.

4. **QuerySets and Managers:** Django QuerySets (`objects.all()`, `filter()`, `get()`, etc.) enable developers to retrieve and manipulate data from the database using Pythonic syntax. Managers (`objects = models.Manager()`) customize QuerySet behaviors, allowing for complex queries, aggregation, and chaining operations to optimize database access.
5. **Admin Interface Integration:** Django's admin interface provides built-in CRUD (Create, Read, Update, Delete) operations for managing database records. It automatically generates a user-friendly interface based on model definitions, facilitating data administration and content management without writing custom views or forms.

Use Cases and Importance:

Databases in Django are essential for storing application data, user information, session management, and content management system (CMS) functionalities. They support various application types, including e-commerce platforms, social networks, content-driven websites, and enterprise solutions, by ensuring data persistence and reliability.

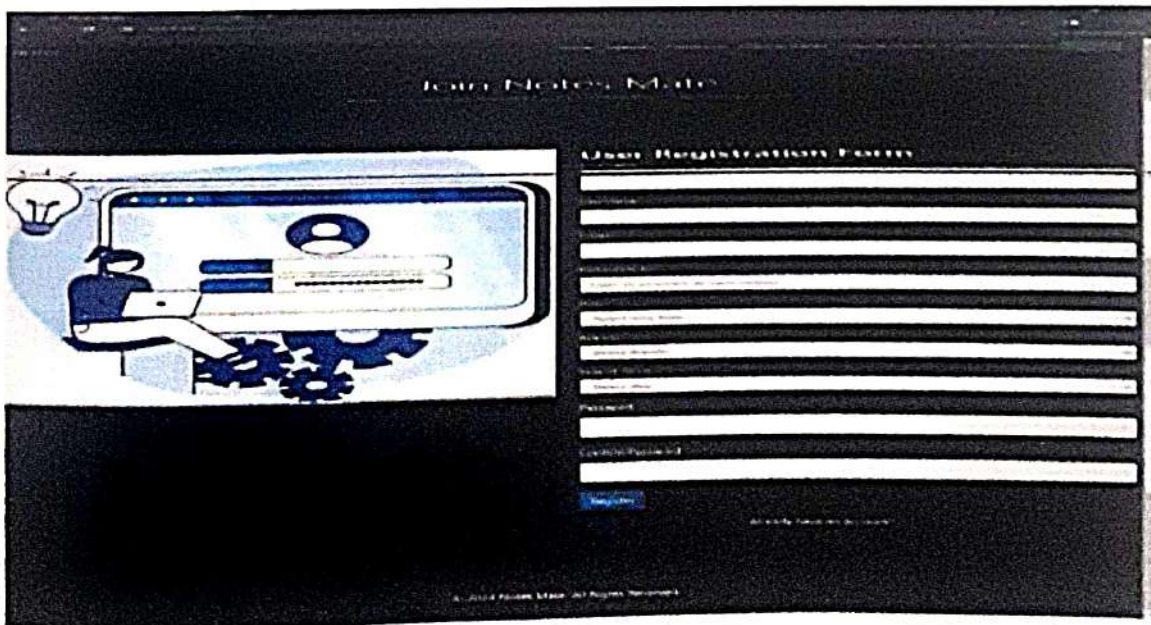
5. SCREENSHOTS

FIGURE 1:



HOME PAGE

FIGURE 2:



REGISTRATION PAGE

FIGURE 3



LOGIN PAGE

FIGURE 4:



ADMIN DASHBOARD

FIGURE 5:

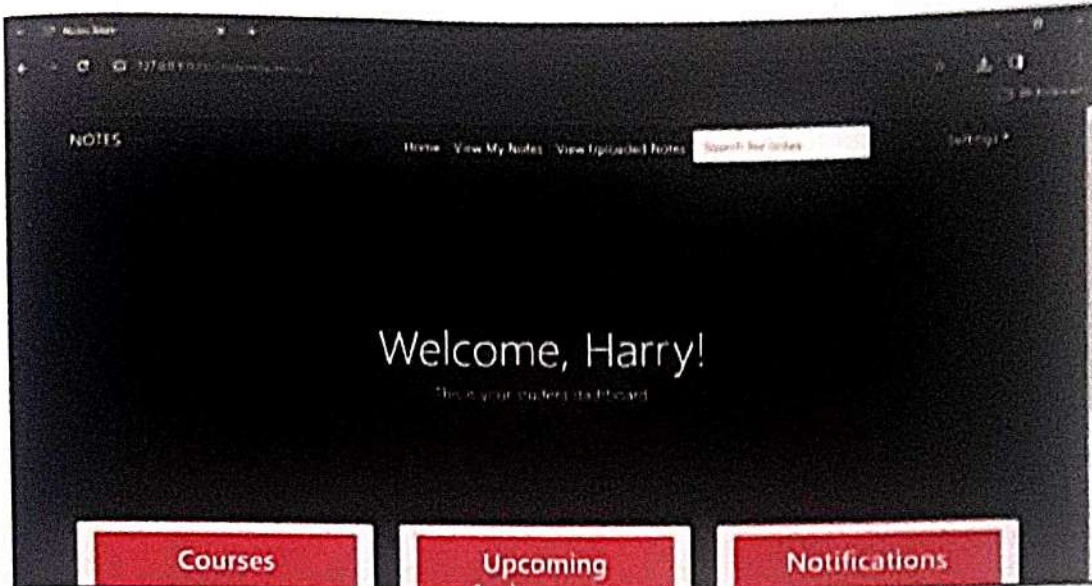
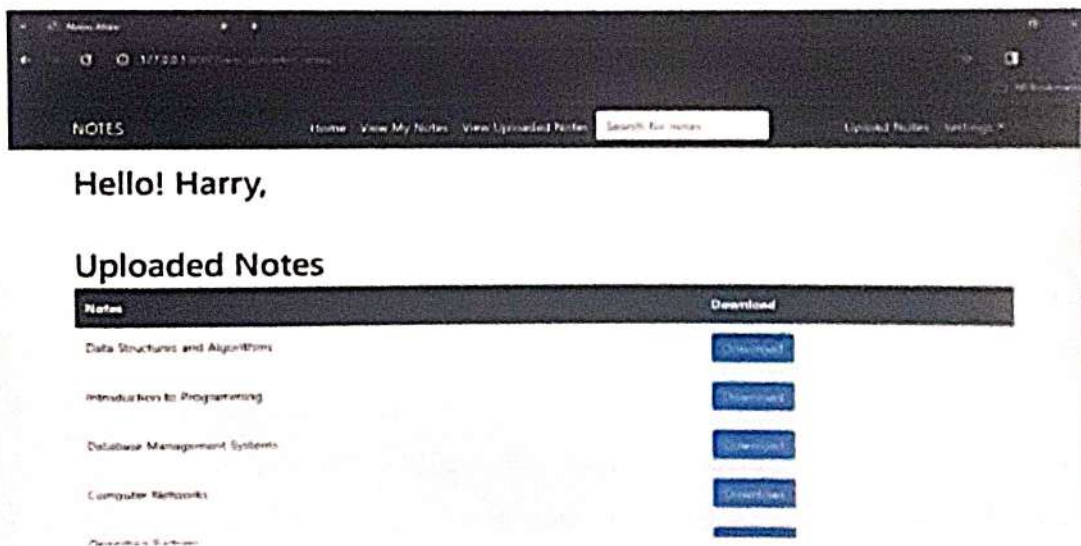


FIGURE 6:



STUDENT'S DASHBOARD

FIGURE 7:

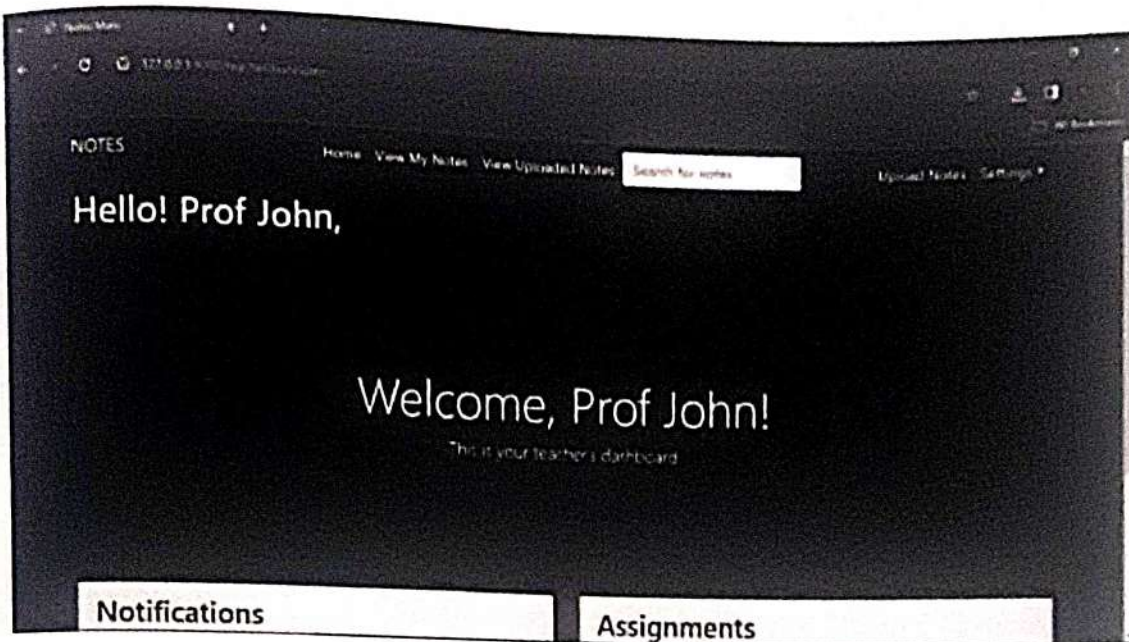
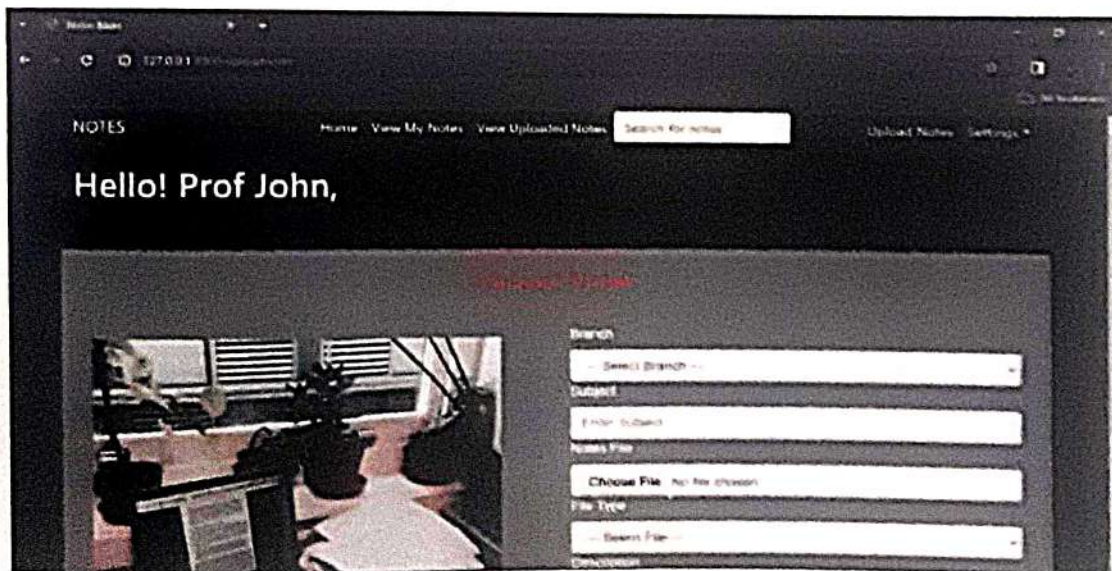


FIGURE 8:



TEACHER'S DASHBOARD

CONCLUSION

In conclusion, the development of the notes sharing application using the Django framework has been a comprehensive endeavor aimed at addressing the specific needs of academicians for efficient management and collaboration of academic resources. Throughout this internship, meticulous attention was given to every phase of the software development lifecycle, from initial requirements analysis to final deployment.

The application incorporates Django's robust capabilities in web development, leveraging its powerful backend functionalities, seamless database management with inbuilt SQLite, and secure user authentication mechanisms. These features collectively ensure scalability, security, and optimal performance, crucial for handling concurrent user interactions and managing extensive academic resources effectively. The notes sharing application not only meets the immediate needs of its users but also fosters a conducive environment for collaborative learning and knowledge dissemination among academicians. By streamlining the process of sharing and managing academic resources, the application contributes significantly to the advancement of academic research and teaching methodologies.

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4. Vincent, W. S. (2018). *Django for Beginners: Build websites with Python and Django*. WelcomeToCode.
5. www.w3schools.com/- covering all the most important front-end concepts. This tutorial is primarily for new users.
6. <https://docs.djangoproject.com/en/5.0/>- what is the Django all about? For sample projects.

Department of Computer Applications - BCA

Internship Day Book

Student Name and USN No: SMITHA S U03KU21S0093		
Company Name: Edunet Foundation, in collaboration with EY GDS-AICTE		
Address: Virtual Internship		
Notes Sharing App for Academicians using Django		
SI. No.	Date	Activities / Work Done
1	28-02-2024	<ul style="list-style-type: none">• Attended orientation session.• Understood the internship structure and objectives.• Selected project via Google form.
2	29-02-2024	<ul style="list-style-type: none">• Reviewed project guidelines and requirements.• Began initial project-related research.
3	01-03-2024	<ul style="list-style-type: none">• Set up the development environment.• Installed necessary software and tools.
4	02-03-2024	<ul style="list-style-type: none">• Studied previous projects for reference.• Identified key deliverables and project milestones.
5	03-03-2024	<ul style="list-style-type: none">• Continued research on project topics.• Began drafting the project plan.
6	04-03-2024	<ul style="list-style-type: none">• Finalized the project plan.• Submitted project plan for mentor review.
7	05-03-2024	<ul style="list-style-type: none">• Received feedback on project plan from mentor.• Made necessary adjustments to the project plan.
8	06-03-2024	<ul style="list-style-type: none">• Attended master session on resume building.• Began working on resume updates.
9	07-03-2024	<ul style="list-style-type: none">• Continued with resume updates.• Participated in a mentorship session.
10	08-03-2024	<ul style="list-style-type: none">• Completed the weekly milestone and feedback form.• Continued project-related tasks.
11	09-03-2024	<ul style="list-style-type: none">• Self-paced learning on HTML and CSS.

		<ul style="list-style-type: none"> • Implemented basic project structure using HTML.
12	10-03-2024	<ul style="list-style-type: none"> • Continued self-paced learning. • Added CSS for styling the project layout.
13	11-03-2024	<ul style="list-style-type: none"> • Worked on project-related tasks. • Attended an "Ask Me Anything" session with industry experts.
14	12-03-2024	<ul style="list-style-type: none"> • Continued project development. • Submitted the first weekly progress report.
15	13-03-2024	<ul style="list-style-type: none"> • Attended master session on design thinking. • Applied design thinking principles to the project.
16	14-03-2024	<ul style="list-style-type: none"> • Participated in a mentorship session. • Refined project based on mentor feedback.
17	15-03-2024	<ul style="list-style-type: none"> • Completed the weekly milestone and feedback form. • Continued with self-paced learning on JavaScript.
18	16-03-2024	<ul style="list-style-type: none"> • Implemented basic JavaScript functionalities in the project. • Tested and debugged initial code.
19	17-03-2024	<ul style="list-style-type: none"> • Continued working on JavaScript functionalities. • Integrated interactive elements into the project.
20	18-03-2024	<ul style="list-style-type: none"> • Attended an "Ask Me Anything" session. • Discussed project challenges and received expert advice.
21	19-03-2024	<ul style="list-style-type: none"> • Finalized the second weekly progress report. • Submitted the report for review.
22	20-03-2024	<ul style="list-style-type: none"> • Attended master session on managing codebase with GitHub. • Set up a GitHub repository for the project.
23	21-03-2024	<ul style="list-style-type: none"> • Participated in a mentorship session. • Learned about best practices for version control.
24	22-03-2024	<ul style="list-style-type: none"> • Completed the weekly milestone and feedback form. • Continued with project tasks and self-paced learning on GitHub.
25	23-03-2024	<ul style="list-style-type: none"> • Practiced Git commands for version control.

26	24-03-2024	<ul style="list-style-type: none"> • Pushed initial project code to GitHub. • Collaborated with peers on GitHub. • Reviewed and merged pull requests.
27	25-03-2024	<ul style="list-style-type: none"> • Continued project development. • Attended an "Ask Me Anything" session.
28	26-03-2024	<ul style="list-style-type: none"> • Completed the third weekly progress report. • Submitted the report for mentor review.
29	27-03-2024	<ul style="list-style-type: none"> • Attended master session on DevOps: Code to Production. • Learned about continuous integration and continuous deployment (CI/CD).
30	28-03-2024	<ul style="list-style-type: none"> • Participated in a mentorship session. • Began implementing CI/CD pipeline for the project.
31	29-03-2024	<ul style="list-style-type: none"> • Completed the weekly milestone and feedback form. • Continued with self-paced learning on DevOps tools.
32	30-03-2024	<ul style="list-style-type: none"> • Integrated CI/CD pipeline into the project. • Tested deployment process.
33	31-03-2024	<ul style="list-style-type: none"> • Worked on finalizing the project. • Prepared project documentation and user guides.
34	01-04-2024	<ul style="list-style-type: none"> • Attended an "Ask Me Anything" session. • Discussed final project submission requirements.
35	02-04-2024	<ul style="list-style-type: none"> • Submitted final project and PPT for review. • Completed the fourth weekly progress report.
36	03-04-2024	<ul style="list-style-type: none"> • Attended mock presentation session. • Presented project to subject matter experts.
37	04-04-2024	<ul style="list-style-type: none"> • Received feedback on mock presentation. • Incorporated changes as suggested by mentors.
38	05-04-2024	<ul style="list-style-type: none"> • Continued refining the project based on feedback. • Prepared for the final presentation.
39	06-04-2024	<ul style="list-style-type: none"> • Conducted a practice run of the final presentation. • Received feedback from peers and mentors.
40	07-04-2024	<ul style="list-style-type: none"> • Implemented final changes to the project.

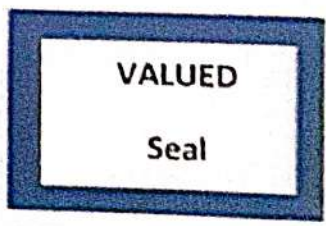
		<ul style="list-style-type: none"> Completed the weekly milestone and feedback form.
41	08-04-2024	<ul style="list-style-type: none"> Continued practicing the final presentation. Attended an "Ask Me Anything" session for final tips.
42	09-04-2024	<ul style="list-style-type: none"> Submitted the fifth weekly progress report. Finalized all project documentation.
43	10-04-2024	<ul style="list-style-type: none"> Prepared final presentation materials. Reviewed presentation checklist.
44	11-04-2024	<ul style="list-style-type: none"> Conducted a final review of the project. Attended a mentorship session for last-minute advice.
45	12-04-2024	<ul style="list-style-type: none"> Final practice run of the presentation. Received final feedback from mentors.
46	13-04-2024	<ul style="list-style-type: none"> Made any last-minute changes to the project. Rehearsed presentation delivery.
47	14-04-2024	<ul style="list-style-type: none"> Finalized the presentation slides. Submitted the final project presentation for review.
48	15-04-2024	<ul style="list-style-type: none"> Reflected on the overall internship experience. Completed the final weekly milestone and feedback form.
49	17-04-2024	<ul style="list-style-type: none"> Submitted final internship report. Received certification of completion from EY, AICTE, and Edunet.

prof. Senthilshree
 Internal Guide
 Designation of Guide
 College Name

[Signature]
 HOD Name
 Head of the Department
 HOD, BCA
 DEPT. OF COMPUTER SCIENCE
 College Name
 Soundarya Institute of Management & Science
 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 560 073

[Signature]
 Principal Name
 Principal
 PRINCIPAL
 College Name
 Soundarya Institute Of Management & Science
 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 560 073

Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)



INTERNSHIP REPORT

*A report submitted in partial fulfilment of the requirements for the Award of
Degree of*

BACHELOR OF COMPUTER APPLICATIONS

by

SUBRAT KUMAR JENA

UUCMS. No.: U03KU21S0059

Duration: 12th April, 2024 to 31th May, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka 2023 – 2024

BACHELOR OF COMPUTER APPLICATIONS

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **SUBRAT KUMAR JENA** (UUCMS. No.: **U03KU21S0059**) is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATIONS** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE**,
Bangalore.

Internship Coordinator

Prof. Samskruthi B L

Head of the Department

Department of BCA
Prof. Vijay Kumar A S

M. Tech., [Ph. D]

CERTIFICATE OF INTERNSHIP

THIS CERTIFICATE IS AWARDED TO

SUBRAT KUMAR JENA

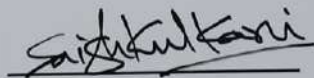
This is to certify that the bearer of this certificate, with registration number U03KU2130059, pursuing a BCA from SOONDARYA INSTITUTE OF MANAGEMENT & SCIENCE, has successfully completed an internship with our company.

The internship was completed under the guidance of **Mr. Shankar Narayan** in the domain of Java, with the position of "**Java Full Stack Intern**" held from 12/04/2024, to 31/05/2024.

We have found the intern to be a self-starter who is motivated, duty-bound, and hardworking.

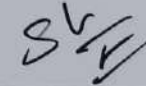
Assignments were completed sincerely, and the performance was excellent.

We wish all the best in future endeavors



LEAD NAME





Manager

JSPIDERS & PYSPIDER
Development training institute
Unit Of Test Yantra Software Solutions Pvt, Ltd.
A-83, 5th Main, Industrial Estate
Rajajinagar 6th Block, Bengaluru-560 021

ACKNOWLEDGEMENT

I am profoundly grateful to Mr. Rahul Madhi for his invaluable guidance and support throughout my internship. His expertise, insights, and mentorship have been instrumental in enhancing my knowledge and skills. I appreciate the opportunities and learning experiences provided during this period, which have significantly contributed to my professional and personal growth.

Thank you for your constant encouragement and for providing a conducive environment for learning.

It has been a privilege to work under your supervision.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

ABSTRACT

This report presents the development of an e-commerce website utilizing HTML, CSS, Java, and MySQL technologies. The project encompasses several key modules: user authentication, and order management. Each module is designed to provide a seamless and secure online shopping experience. The analysis section discusses user needs, system constraints, and potential challenges, ensuring a thorough understanding of the project requirements. The Software Requirements Specifications (SRS) outline both functional and non-functional requirements, guiding the design, development, and testing phases. The technology section details the tools and frameworks used, including HTML and CSS for front-end development, Java for back-end logic, and MySQL for database management.

Finally, the coding section provides an overview of the implementation process, highlighting the integration of various components to create a robust and user-friendly e-commerce platform. This report aims to provide a comprehensive overview of the development process, ensuring that all aspects of the project are well-documented and understood.

Organization Information:

Jspiders is a renowned training institute in India that specializes in providing comprehensive training in software development and testing. They offer courses tailored for aspiring IT professionals, focusing on various programming languages, software testing methodologies, and other technical skills essential for a career in the software industry.

Jspiders offers internship programs designed to bridge the gap between academic learning and industry requirements. These internships provide students with hands-on experience in real-world projects, enhancing their practical skills and preparing them for professional challenges. Here are some key aspects of Jspiders' internship programs:

- **Real-World Projects:** Interns work on live projects that simulate industry scenarios, helping them apply theoretical knowledge in practical situations.
- **2. Mentorship and Guidance:** Experienced mentors guide interns throughout the program, offering insights, feedback, and support to ensure a valuable learning experience.
- **3. Skill Development:** The internship focuses on developing essential technical skills, including coding, debugging, software testing, and project management.
- **4. Industry Exposure:** Interns get a chance to experience the workings of the software industry, including exposure to current technologies, tools, and practices.

Programs and opportunities:

The e-commerce website project integrates HTML, CSS, Java, JSP (Java Server Pages), and MySQL to create a robust online shopping platform. Key modules include user authentication, product catalog and order management, ensuring secure and seamless user interactions. The project offers scalability for adding new features, expands market reach globally, enables data-driven decision-making, and enhances user experience with a responsive and dynamic interface.

Methodologies:

The methodology for developing the e-commerce website includes requirements gathering, system design, technology selection, and implementation. Requirements are gathered through stakeholder meetings and user interviews, leading to the creation of system architecture and design. Technologies like HTML/CSS, Java/JSP, and MySQL are selected for front-end, back-end, and database respectively. Implementation involves developing front-end interfaces, implementing business logic, and setting up the database.

Key parts of the report:

This report details the development of an e-commerce website using HTML, CSS, Java, JSP, and MySQL. It includes user authentication, product catalog, and order management. The methodology involves requirements gathering, system design, technology selection, and implementation. The project uses HTML/CSS for the front-end, Java/JSP for the back-end, and MySQL for the database. The platform is scalable, user-friendly, and supports data-driven decision-making.

Benefits of the Company/Institution through our report:

Interning at Jspiders provides hands-on experience with real projects, mentorship from industry experts, and critical technical skill development. Interns gain valuable industry exposure, enhance their resumes, and may receive job offers based on their performance, thanks to Jspiders' strong placement support and industry connections.

INDEX

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9.	Conclusion.....	21
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Learning Objectives/Internship Objectives

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

01. INTRODUCTION

This report details the development of an e-commerce website using HTML, CSS, Java, and MySQL. The website is designed to provide a seamless shopping experience, incorporating various modules such as user authentication, product catalog, and order management. This report covers the modules, analysis, software requirements specifications, technologies used, and an overview of the coding process.

02. Modules

Module 1: User Authentication

Description: This module handles user registration, login, and logout functionalities. It ensures that user data is securely stored and managed.

Features:

- User registration with validation
- Secure login and logout
- Password encryption

Module 2: Product Catalog

Description: This module displays the list of products available for purchase. It allows users to browse through various categories and view detailed information about each product.

Features:

- Product listing with categories
- Product detail page
- Search functionality

Module 3: Order Management

Description: This module handles the order processing, including order creation,

payment processing, and order tracking.

Features:

- Order summary
- Payment gateway integration
- Order history and tracking

03. Analysis

This section analyzes the requirements and approach for developing the e-commerce website.

User Needs

- A user-friendly interface for browsing and purchasing products
- Secure and easy-to-use authentication system
- Efficient search and filtering options
- Reliable payment processing
- System Constraints
- Ensuring data security and privacy
- Handling concurrent user requests efficiently
- Scalability to accommodate a growing number of products and users

Potential Challenges

- Implementing a secure authentication mechanism
- Ensuring the website is responsive and performs well on various devices
- Integrating with a payment gateway securely

04. Software Requirements Specifications

Functional Requirements

- User registration and login/logout functionality.
- Product catalog with search and filter options.
- Add, update, and remove item features.
- Order processing and payment integration.
- User profile management.

Non-Functional Requirements

- Performance: Fast loading times and smooth navigation
- Usability: Intuitive and responsive design
- Scalability: Ability to handle increased traffic and data

05. Technology

- HTML & CSS

HTML:

Structure: Defines the content and layout of a webpage using elements like headings, paragraphs, images, and links.

CSS:

Styling: Controls the visual presentation of the webpage, including colors, fonts, spacing and layout.

- Java

Java is used for the backend development of the website. It handles the business logic, data processing, and interactions with the database.

- MySQL

MySQL is used as the database management system to store user data, product information, and order details. It ensures data integrity and supports efficient data retrieval.

06. Coding

Frontend Development

- HTML: Structures the web pages, defining the layout and content.
- CSS: Styles the web pages, ensuring a visually appealing and consistent design.
- JavaScript (optional): Enhances user interaction and dynamic content loading.

Backend Development

- Java: Implements the business logic, handles user requests, and processes data.
- Servlets and JSP: Used to create dynamic web content and interact with the frontend.

Database Management

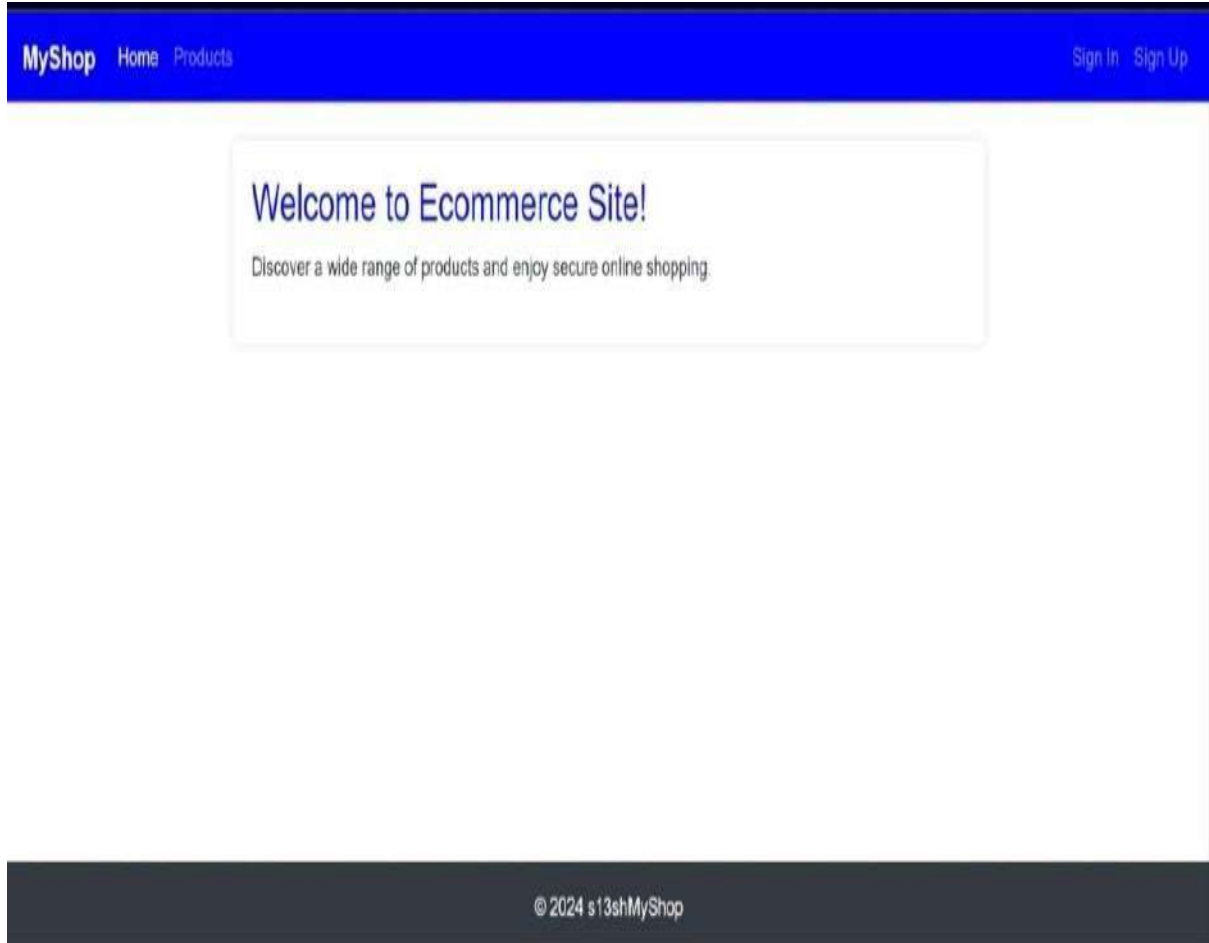
- MySQL: Stores user information, product details, and order data. Provides SQL queries to manage and retrieve data efficiently.

Integration

- Payment Gateway: Securely processes payments and ensures transactional integrity.
- APIs: Used to connect with external services and enhance website functionality.

07. SCREENSHOT

Home page:



Registration page:

The screenshot shows the registration page of 'MyShop'. It features the same blue navigation bar as the home page. The main content area contains a registration form with the following fields:

- Mobile:** A text input field containing the number '0'.
- Email:** A text input field with the placeholder text 'Enter your email'.
- Password:** A text input field with the placeholder text 'Enter your password'.
- Date of Birth:** A date input field with the placeholder text 'dd-mm-yyyy' and a calendar icon on the right.
- Gender:** A dropdown menu currently showing 'Male'.

At the bottom of the form are two buttons: a grey 'Back' button and a green 'Sign Up' button.

Login page:

MyShop Home Products Sign In Sign Up

Login

Email:

Password:

© 2024 s13shMyShop

08. CONCLUSION

The development of the e-commerce website using HTML, CSS, Java, JSP, and MySQL has resulted in a robust, scalable, and user-friendly platform. The integration of key modules such as user authentication, product catalog, shopping cart, and order management ensures a secure and seamless shopping experience. By following a systematic methodology of requirements gathering, system design, technology selection, and implementation, the project successfully addresses user needs and business goals. The platform's scalability and data-driven capabilities provide significant opportunities for growth and optimization, making it a valuable tool for expanding market reach and enhancing customer satisfaction.

➤ Bibliography

The following activities and projects were done under the guidance of jspyders.

Project Title: E-commerce Website Development.

Description: This project, completed at [jspyders], involved developing an e-commerce website. The site features user registration and login, a product catalog and secure payment integration. The goal was to create a user - friendly platform for online shopping.

Reference:

1. Github: For sample codes, foundational code was provided from the company with accessible github repositories, for reference and modification as per the requirements.
2. W3school: For SQL database queries.
3. Mobirise: website that provide usable templates for creating websites.

INTERNSHIP REPORT

*A report submitted in partial fulfilment of the requirements for the Award of
Degree of*

BACHELOR OF COMPUTER APPLICATIONS

by

SUBRAT KUMAR JENA

UUCMS. No.: U03KU21S0059

Duration: 12th April, 2024 to 31th May, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka 2023 – 2024

BACHELOR OF COMPUTER APPLICATIONS

SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

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Bangalore.

Samskruthi
25/06/2024

Internship Coordinator

Prof. Samskruthi B L

Vijay Kumar A S
26/6/24

Head of the Department
Head of the Department
DEPT. OF COMPUTER SCIENCE
Department of BCA
Soundarya Institute of Management and Science
Prof. Vijay Kumar A S
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore - 560 073.

EXAMINERS	
1.	<i>[Signature]</i>
2.	<i>[Signature]</i>

CERTIFICATE OF INTERNSHIP

THIS CERTIFICATE IS AWARDED TO

SUBRAT KUMAR JENA

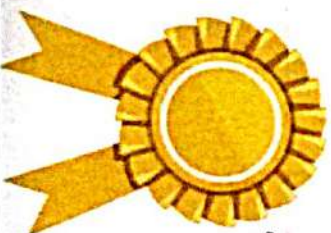
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The internship was completed under the guidance of Mr. Shankar Narayan in the domain of Java, with the position of "Java Full Stack Intern" held from 12/04/2024 to 21/05/2024. We have found the intern to be a self-starter who is motivated, duty-bound, and hardworking. Assignments were completed sincerely, and the performance was excellent.
We wish all the best in future endeavors


LEAD NAME

Manager





DATE: 12/04/2024

TO WHOMEVER IT MAY CONCERN

We would like to inform you that **Mr. Subrat Kumar Jena**, Ph no. **8296664021** (Reg.no.: U03KU21S0059) of VI(CS) pursuing BCA from Soundarya Institute of Management & Science, Bengaluru

Student is undergoing his internship with our company, under guidance of **Mr. Shankar Narayan** he is being working under the domain: Java from 12-04-2024 to 31-05-2024 (Timings: 3.30 pm to 5.30 pm), as "**Java Full Stack-Intern**".

We have found him to be a self-starter who is motivated, duty-bound and hardworking. He is working sincerely on his assignments and his performance is at par excellence.

We wish him all the best for his future endeavours.



Regards,

MR. SHANKAR NARAYAN
JSPIDERS RAJAJINAGAR,
BANGALORE

JSPIDERS & PYSPIDER:
Development training institute
Unit Of Test Yantra Software Solutions Pvt. Ltd.
A-83, 5th Main, Industrial Estate
Rajajinagar 6th Block, Bengaluru-560 021

28	08.05.2024	Developed CRUD Application with Spring Boot - built a CRUD (Create, Read, Update, Delete) application using Spring Boot, understanding its features for rapid development.
29	09.05.2024	project - built an E-commerce website using all the topics learnt
30	10.05.2024	project - continued building the E-commerce website with functional payment options.

Samskruthi
26/06/2024
INTERNAL GUIDE
SAMSKRUTHI B

Vijay Kumar
Head of the Department
DEPT. VITAY KUMARASCIENCE
HOD BCA
Soundarya Institute of Management and
Nagasandra Post, Bangalore - 560 073
SIMS

Vasub
VASU B
PRINCIPAL
Soundarya Institute Of Management &
Nagasandra Post, Bangalore - 560 073
SIMS

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

SUSHIN RAJ A

UUCMS. No.: U03KU21S0084

(Duration: 12th April, 2024 to 31th May, 2024)



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **SUSHIN RAJ A(UUCMS. No.: U03KU21S0084)** is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Department of BCA
Prof. Santosh RS

Head of the Department
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D]

CERTIFICATE OF INTERNSHIP

THIS CERTIFICATE IS AWARDED TO

----- SUSHIN RAJ. A -----

This is to certify that the bearer of this certificate, with registration number U03KU21S0084, pursuing a BCA from SOUNDARYA INSTITUTE OF MANAGEMENT & SCIENCE, has successfully completed an internship with our company.

The internship was completed under the guidance of **Mr. Shankar Narayan** in the domain of Java, with the position of "**Java Full Stack Intern**" held from 12/04/2024, to 31/05/2024. We have found the intern to be a self-starter who is motivated, duty-bound, and hardworking. Assignments were completed sincerely, and the performance was excellent.
We wish all the best in future endeavors

Saigankulkarni

LEAD NAME



SVK

Manager
JSPIDERS & PYSPIDER:
Development training Institute
Unit Of Test Yantira Software Solutions Pvt. Ltd.
A-83, 5th Main, Industrial Estate
Rajajinagar 6th Block, Bengaluru-560 021

ACKNOWLEDGEMENT

First I would like to thank Mr. Shankar Narayan, HR, Head of **JSPIDERS, Rajajinagar** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me **JSPIDERS, Rajajinagar** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely grateful to my department staff members and friends who helped me in successful completion of this internship.

SUSHIN RAJ A (U03KU21S0084)

ABSTRACT

E-commerce websites need to smoothly integrate various types of data to ensure a good shopping experience and efficient operations. These data integration processes are complex and driven by specific business requirements, making manual management difficult due to the dynamic nature of e-commerce. In this paper, we tackle the challenge of designing and maintaining these complex data processes. We propose an incremental approach called ShopFlow to semi-automatically consolidate e-commerce data processes according to business needs.

ShopFlow works at a logical level, combining data flows from high-level business requirements or specific platform implementations. When integrating a new data process, ShopFlow aims to reuse existing processes as much as possible and uses a customizable cost model to minimize overall operational costs. We show the efficiency and effectiveness of our approach through experiments with our prototype.

Our method focuses on key areas like inventory management, customer behavior analysis, and personalized marketing strategies. ShopFlow ensures efficient processing and integration of data from various sources such as sales transactions, customer feedback, and browsing patterns. By reusing existing data processes and reducing redundant operations, ShopFlow improves system performance and lowers operational costs.

We extensively tested our prototype and observed significant improvements in data processing times and the accuracy of business insights. The results show that ShopFlow not only simplifies the data integration process but also adapts well to changing business needs, providing a scalable solution for e-commerce platforms.

Organisation Information:

JSpiders is the world's ace software course training organization with an aim to bridge the gap between the demands of the industry and the curriculum of educational institutions. JSpiders has a proven track record of successfully training and placing thousands of students in leading IT companies. Alumni testimonials frequently highlight the quality of training, the practical approach to learning, and the valuable support provided during job placements.

With centers across the Globe, the institute is a platform where young minds are given the opportunity to build successful careers.

JSpiders stands out as a premier training institute due to its commitment to quality education, industry-relevant curriculum, and robust placement support. Whether you are a fresh graduate or a professional looking to upskill, JSpiders provides the necessary tools and training to help you achieve your career goals in the IT industry.



Programs and opportunities:

JSpiders emphasizes practical knowledge through hands-on learning with live projects and real-world scenarios, ensuring students gain significant practical experience. The curriculum is designed in collaboration with industry experts to meet current market demands. The experienced faculty, consisting of instructors with extensive industry experience and strong teaching backgrounds, provides high-quality education.

Additionally, JSpiders offers comprehensive support for job placement, including resume building, mock interviews, and direct placement opportunities with partner companies.

Methodologies:

We follow a structured methodology for our projects which starts from designing the solution to the implementation phase. Well planned Project reduces the time to deliver the project and any additional ad-hoc costs to our clients, hence we dedicate the majority of our time understanding our clients business and gathering requirements. This ground up approach helps us deliver not only the solution to our clients but also add value to your investments.

Key parts of the report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies.

Benefits of the Company/Institution through our report:

Under each division we further provide specific industry solutions on focused domains with cutting edge technologies. We emphasize on building relationships with our clients by delivering projects on time and within budget.

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LEARNING OBJECTIVES

Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.

An objective for this position should emphasize the skills you already possess in the area and your interest in learning more

Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.

Some internships are used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.

Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

Internships provide valuable networking opportunities by allowing interns to interact with professionals in their chosen field. These connections can lead to future job opportunities, collaborations, and valuable industry insights. Building a professional network during an internship can be instrumental in navigating and advancing one's career, as it opens doors to mentorship, advice, and potential references.

Interns often work alongside experienced professionals who can provide guidance, advice, and mentorship. This close interaction allows interns to learn best practices, industry standards, and practical skills that are not always covered in academic settings. Mentors can also help interns navigate challenges, set career goals, and offer constructive feedback, which is invaluable for professional growth.

1. INTRODUCTION

This report details my internship experience at Jspiders, where I developed an e-commerce website using Java Full Stack technologies. The project was built with the Spring Boot framework, Tailwind CSS for styling, and SQL for the database. This internship provided an invaluable opportunity to apply theoretical knowledge to a practical, real-world project.

Jspiders is renowned for its comprehensive training programs, and my experience was no exception. The trainers at Jspiders were exceptionally supportive, offering guidance and encouragement throughout the development process. Their expertise and commitment to teaching were instrumental in helping me overcome challenges and enhance my skills in full-stack development. The best part of the training was the one on one interactions with the trainer and the personal attention that I received during the training period, through which I was able to complete my internship with the exact knowledge that I required and I was seeking for.

The project involved designing and implementing a robust e-commerce platform that supports various functionalities, such as user authentication, product management, shopping cart, and order processing. By leveraging Spring Boot's capabilities for back-end development, Tailwind CSS for responsive design, and SQL for efficient data management, I was able to create a seamless and scalable web application.

This internship not only honed my technical skills but also provided insights into best practices for full-stack development. The hands-on experience and the supportive learning environment at Jspiders significantly contributed to my professional growth, preparing me for future endeavors in the field of software development.

2. TECHNOLOGY

2.1 HTML

(HyperText Markup Language) is the standard markup language for creating web pages, forming the backbone of web development alongside CSS and JavaScript. HTML defines the structure and layout of a web document using various elements and tags.

An HTML document begins with `<!DOCTYPE html>` and is enclosed within `<html>`. This document contains two main sections: `<head>` and `<body>`. The `<head>` section holds meta-information such as the title and links to stylesheets, while the `<body>` section contains the actual content of the document.

HTML employs tags to structure content, each consisting of an opening tag, content, and a closing tag. Common tags include `<h1>` to `<h6>` for headers, `<p>` for paragraphs, `<a>` for hyperlinks, `` for images, and ``, ``, and `` for lists. The `<div>` and `` tags are used to group and style block and inline elements, respectively.

Attributes provide additional information about HTML elements and are included in the opening tag. Key attributes include `id` for unique identification, `class` for specifying class names for CSS and JavaScript, `src` for defining the source of images and scripts, `href` for URLs in links, and `alt` for alternative text in images.

HTML also includes elements for creating forms and capturing user input. These elements include `<form>` for defining a form, `<input>` for input fields, `<textarea>` for multiline text input, `<button>` for clickable buttons, and `<select>` and `<option>` for dropdown lists.

HTML5 introduces semantic elements that provide clearer structure and meaning to web pages. Examples include `<header>` for introductory content or navigation, `<nav>` for navigation sections, `<main>` for the main content, `<article>` for self-contained content, `<section>` for sections of content, and `<footer>` for footer sections.

HTML supports multimedia content through elements like `<audio>` for embedding sound, `<video>` for embedding video, and `<canvas>` for drawing graphics via JavaScript.

2.2 TAILWIND CSS

Tailwind CSS is a utility-first CSS framework designed to provide a highly customizable and efficient way to build responsive and modern web interfaces. Unlike traditional CSS frameworks that come with predefined components, Tailwind CSS offers low-level utility classes that allow developers to construct custom designs directly in their HTML. Tailwind CSS's utility-first approach means that instead of writing custom CSS for each element, developers use predefined utility classes to style elements. This method encourages consistency, reusability, and reduces the need for writing custom CSS. For example, classes like 'bg-blue-500', 'text-center', and 'p-4' are used directly in the HTML to apply styles.

Tailwind CSS is highly configurable. It comes with a default configuration that can be customized to fit the specific needs of a project. Developers can modify or extend the default configuration by editing the `tailwind.config.js` file. This includes changing colors, fonts, spacing, breakpoints, and other design tokens. Additionally, Tailwind supports a plugin system that allows for further customization and addition of new utilities.

Tailwind CSS has built-in support for responsive design. Utility classes can be applied conditionally based on the viewport size using responsive variants. For example, by prefixing a utility class with `md:`, the style will only be applied on medium screens and above. This approach makes it straightforward to create responsive layouts without writing media queries manually. Using utility classes helps maintain a consistent design system across the application. Since the same classes are reused, there is less variation and inconsistency in styles. This is particularly beneficial in large projects with multiple developers, ensuring that the design language remains uniform.

Tailwind CSS offers a unique and efficient approach to styling web applications with its utility-first methodology. Its high degree of customization, built-in responsive design support, and emphasis on performance make it an attractive choice for developers seeking a scalable and maintainable CSS framework. Whether for rapid prototyping or building production-ready applications, Tailwind CSS provides the tools necessary to create consistent and visually appealing designs.

2.3 JAVA

Java is a versatile programming language used for web, enterprise, mobile, and embedded applications. It provides a robust platform and follows the "write once, run anywhere" (WORA) principle, meaning compiled Java code can run on any platform with a Java Virtual Machine (JVM).

➤ Java Fundamentals

Java is a high-level, object-oriented language known for its portability, scalability, and robustness. Core concepts include:

- Encapsulation: Bundling data and methods into a class and restricting access.
- Inheritance: Allowing new classes to inherit properties from existing ones.
- Polymorphism: Treating objects as instances of their parent class.
- Abstraction: Hiding complex implementation details.

➤ Memory Management

Java uses automatic garbage collection to manage memory, freeing up unused objects and ensuring efficient memory use.

➤ Java SE and EE

Java Standard Edition (Java SE) provides core functionality, while Java Enterprise Edition (Java EE) adds libraries for large-scale, multi-tiered applications.

➤ JDK and JRE

The Java Development Kit (JDK) includes tools for developing Java applications. The Java Runtime Environment (JRE) provides the necessary components to run Java applications but lacks development tools.

➤ IDEs

Popular Java IDEs like IntelliJ IDEA, Eclipse, and NetBeans offer features such as code completion, debugging, and project management.

➤ Frameworks and Libraries

Java's ecosystem includes frameworks like:

- Spring Framework: For enterprise applications.
- Hibernate: For simplifying database interactions.
- Apache Struts: For web applications.

Java is essential for modern applications, offering platform independence, robust memory management, and a comprehensive ecosystem. Its core principles and extensive tools allow developers to build scalable, efficient, and maintainable applications across various domains.

2.4 Spring Boot

As you develop applications using Spring Boot, you will encounter various requirements for building and deploying Java-based web applications. In some scenarios, you might need to create a microservice architecture, while in other situations, you may want to develop a monolithic application with a comprehensive set of features.

Regardless of your specific needs, there are certain fundamental concepts about Spring Boot that are essential to understand. You might not need to delve into all the intricacies of Spring Boot configuration—for instance, you may never need to customize the auto-configuration behavior extensively—but understanding the core architecture, major components, and how they interact is highly beneficial.

This introduction provides a high-level overview of the most critical concepts. The discussion intentionally avoids many details—such as the full extent of Spring Boot's auto-configuration capabilities—in favor of introducing the foundational ideas behind the Spring Boot framework.

➤ Spring Boot Fundamentals:

Spring Boot simplifies the development of production-ready applications by providing a set of conventions and default configurations. It eliminates the need for extensive configuration and boilerplate code, allowing developers to focus on business logic.

Spring Boot applications leverage an embedded server model, where the server (such as Tomcat, Jetty, or Undertow) is packaged within the application. This approach simplifies deployment and eliminates the need for an external application server.

➤ Scalability and Performance:

Spring Boot is designed to be highly scalable. Applications built with Spring Boot can easily be scaled horizontally by deploying multiple instances. The framework's lightweight and modular nature ensures that performance remains optimal, even under significant load.

Spring Boot supports microservices architecture, allowing different components of an application to scale independently. This modularity enables efficient resource utilization and improves overall system resilience.

2.5 Spring Boot Suite:

The Spring Boot Suite includes a collection of tools and frameworks that enhance the development experience. These tools are designed to work seamlessly with Spring Boot, providing integrated support for building, testing, and deploying applications.

➤ Spring Boot Starters:

Spring Boot Starters are a set of convenient dependency descriptors that you include in your application. They simplify the process of adding commonly used libraries and frameworks. Each starter brings in a group of dependencies that are typically used together, reducing the need for manual configuration.

➤ Auto-Configuration:

Spring Boot's auto-configuration mechanism automatically configures your application based on the dependencies present on the classpath. This feature minimizes the need for explicit configuration and speeds up the development process. Auto-configuration is extensible, allowing developers to override default behaviors when necessary.

➤ Spring Boot Actuator:

Spring Boot Actuator provides production-ready features that help you monitor and manage your application. These include health checks, metrics, and auditing capabilities. Actuator endpoints expose runtime information and management functions, facilitating the monitoring and maintenance of Spring Boot applications.

➤ Spring Boot CLI:

The Spring Boot CLI is a command-line tool that allows you to quickly prototype and run Spring Boot applications. It supports Groovy scripts, making it easy to experiment with Spring Boot features without the need for a full project setup.

➤ Spring Boot DevTools:

Spring Boot DevTools enhances the development experience by providing features like automatic restarts, live reload, and configurations specific to the development environment. These tools significantly reduce the time taken for iterative development and testing.

Spring Boot streamlines the development of Java-based applications by providing a robust framework with sensible defaults and extensive tools for building, testing, and deploying applications. Its design principles emphasize minimal configuration, embedded servers, and scalability, making it a popular choice for modern application development. The Spring Boot Suite further enhances productivity by offering integrated support tools, simplifying the development lifecycle from prototyping to production.

3. DATABASE

About Microsoft SQL Server 2008

Microsoft SQL server is a Structured Query Language (SQL) base, client/server relational database. Each of these terms describes a fundamental part of the architecture of SQL server. A database is similar to a data file in that it is a storage place for data. Like a data file, a database does not present information directly to a user, the user runs an application that accesses data from the database and presents it to the users in an untreatable format. A database typically has two components: the files holding the physical database access data.

The DBMS is responsible for enforcing database structure, including:

- Maintaining the relationships between data in the database.
- Ensuring that data is stored correctly, and the rules that define data relationships are not violated.
- Recovering all data to a point of known consistency in case of system failures.

Relational Database

Relational databases are widely recognized as one of the most effective ways to organize data. They apply mathematical set theory to data organization, ensuring efficiency and reliability. In relational database theory, data is collected into tables known as relations. These tables consist of rows and columns, with each row representing a unique record and each column representing a specific attribute of the data.

When organizing data into tables, there are multiple ways to define the table structures. To ensure these tables effectively organize the data, relational database theory introduces a process called normalization. Normalization systematically decomposes tables to reduce redundancy and dependency, enhancing data integrity and efficiency. This process involves several normal forms, each providing a higher level of data integrity.

Client/Server Architecture

In a Client/Server system, a central server, typically a powerful computer, manages resources and services that multiple users access from their computers, known as clients. This architecture is prevalent in database management, where the server hosts the database files and DBMS (Database Management System) software. Clients connect to the server over a network to access and manipulate the data.

In a Client/Server database architecture, the server is responsible for handling requests from clients, processing them, and sending back the required data. The SQL server communication component facilitates this interaction, allowing client applications to send SQL queries to the server and receive results. This setup also enables applications running on the server itself to communicate with the SQL server.

Server applications are designed to handle multiple clients simultaneously. For example, SQL servers can manage thousands of concurrent client connections, ensuring efficient data processing and retrieval. They incorporate features to handle logical problems, such as concurrency control, which ensures data integrity when multiple users access and modify the data simultaneously.

While SQL servers are primarily designed to function as servers in a Client/Server network, they are also capable of operating as standalone databases on client machines. This versatility allows SQL servers to scale from single-user applications to large, multi-user systems. The scalability and ease-of-use features of SQL servers ensure they perform efficiently on client devices without consuming excessive resources, making them suitable for various applications and environments.

Structured Query Language (SQL)

To effectively work with data in a database, you need to use a set of commands and statements, collectively known as a language, defined by the Database Management System (DBMS) software. This language allows users to perform various operations such as querying, updating, and managing the data within the database. Among the various languages available for relational databases, Structured Query Language (SQL) is the most widely used and recognized.

Overview of SQL

SQL, or Structured Query Language, is a standardized language specifically designed for managing and manipulating relational databases. It allows users to perform a wide range of functions, including:

- **Data Querying:** Extracting specific data from the database using SELECT statements.
- **Data Manipulation:** Inserting new data (INSERT), updating existing data (UPDATE), and deleting data (DELETE).
- **Data Definition:** Defining and managing database structures such as tables, indexes, and constraints using Data Definition Language (DDL) commands like CREATE, ALTER, and DROP.
- **Data Control:** Controlling access to data within the database using Data Control Language (DCL) commands like GRANT and REVOKE.
- **Transaction Control:** Managing transactions to ensure data integrity using Transaction Control Language (TCL) commands like COMMIT, ROLLBACK, and SAVEPOINT.

Standardization of SQL

SQL is governed by standards set by both the American National Standards Institute (ANSI) and the International Standards Organization (ISO). These standards ensure that SQL remains a universal language for database management, promoting compatibility and consistency across different DBMS platforms. The standardization process involves periodic updates and enhancements to include new features and address the evolving needs of database technologies.

4. SCREENSHOTS

Home page:

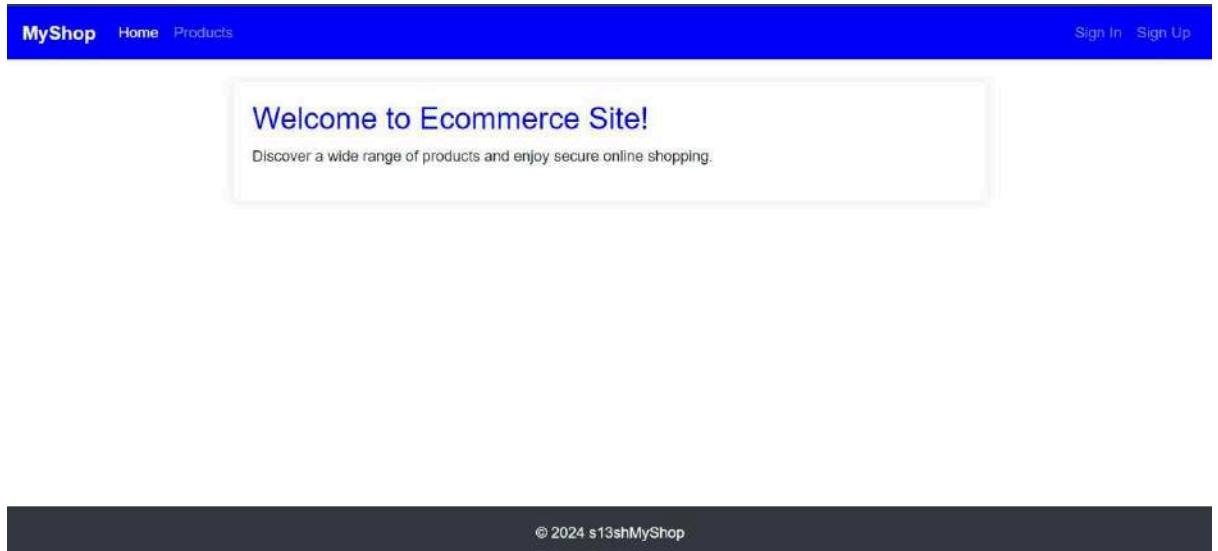


fig no. 1

Registration page:

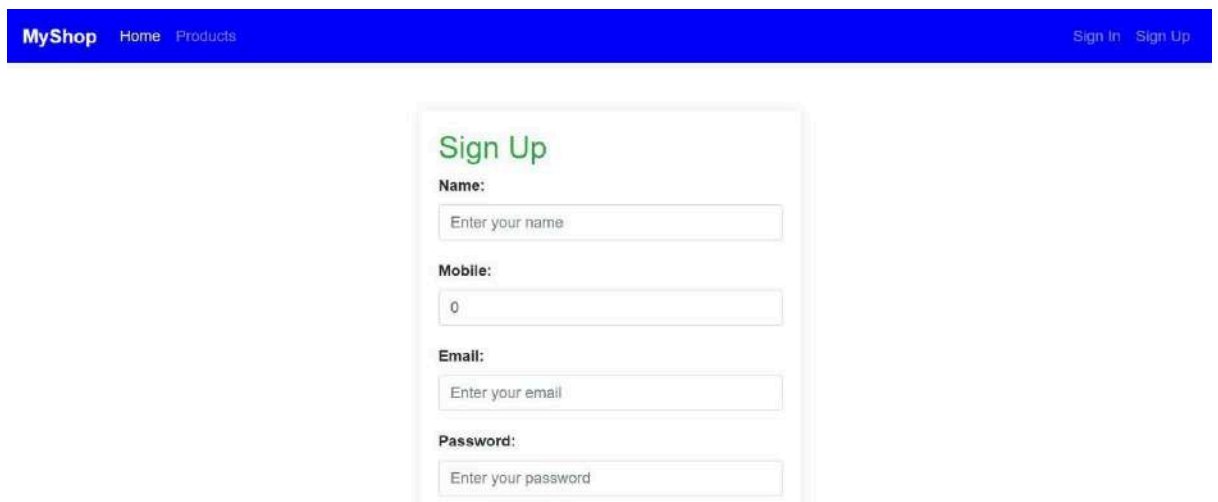


fig no. 2

Mobile:

Email:

Password:

Date of Birth:

Gender:

fig no. 3

Login Page:

MyShop Home Products Sign In Sign Up

Login

Email:

Password:

© 2024 s13shMyShop

fig no. 4

CONCLUSION

I improved my skills during a Java Full Stack internship, learning various tools and techniques. I developed a method to make it easier to add new features to an e-commerce website. I start with basic features that meet individual user needs. Then, I look for ways to add these new features to the existing website, reusing as much of the current system as possible. I propose a final website design and evaluate it using a cost model specified by the user.

I created a prototype to show how my approach works. I tested it to see how well it performs, how scalable it is, and the quality of the solutions it produces. My tests showed faster execution times and other benefits from having integrated features. My ultimate goal is to create a complete platform that manages the entire lifecycle of e-commerce solutions. This includes gathering user requirements, deploying, and running website features.

BIBLIOGRAPHY

- 1. Github** - For code samples, foundational code was provided by the institution, with accessible github repositories, where we were allowed to get the codes and modify them according to our desired functionality requirements.
- 2. w3schools**- for referencing SQL database queries
- 3. Mobirise** - mobirise is a website with hundreds of usable website templates.

Student Name and USN No: SUSHIN RAJ A- U03KU21S0084		
Company Name: Jspiders		
Address: A-83, 5th main, Industrial Estate, Rajajinagar 6th block, Bengaluru		
SI. No.	Date	Activities / Work Done
HTML/CSS		
1	12.04.2024	Developed a basic webpage layout - utilized HTML tags <code><div></code> , <code><p></code> , <code><h1></code> , and <code><a></code> for structuring content and adding navigation links.
2	15.04.2024	Improved web page accessibility - implemented semantic HTML tags <code><header></code> , <code><footer></code> , <code><nav></code> for clearer structure and navigation..
3	17.04.2024	Enhanced user interaction - created hyperlinks using <code><a></code> tags to navigate between web pages or sections within the same page..
4	18.04.2024	Structured web page content - utilized HTML elements to format text, create links, and integrate media like images using <code></code> tags.
5	19.04.2024	Integrated images into web pages - added images using <code></code> tags with appropriate URLs and alternative text for accessibility.
6	22.04.2024	Styled webpage elements - applied CSS using inline, internal, and external stylesheets to achieve desired visual presentation.
7	23.04.2024	Organized data presentation - created tables with <code><table></code> , <code><tr></code> , <code><td></code> , and <code><th></code> tags to display information in rows and columns.
8	24.04.2024	Structured content presentation - designed ordered and unordered lists using <code></code> and <code></code> tags for proper numbering and bullet points.
9	25.04.2024	Implemented user input forms - developed HTML forms using <code><form></code> tags with input elements for data collection and submission.
10	26.04.2024	Styled webpage elements selectively - utilized various CSS selectors like Type, Class, ID, and Pseudo-classes/elements for targeted styling.

11	29.04.2024	Customized element rendering - applied CSS box model concepts to control content, padding, border, and margin for precise element rendering.
12	30.04.2024	Positioned webpage elements - utilized CSS positioning techniques like Static, Relative, Absolute, Fixed, and Sticky for element placement.
13	01.05.2024	Styled text content - utilized CSS text properties for font styling, alignment, decoration, spacing, transformation, and shadow effects.
14	02.05.2024	Enhanced background styling - applied CSS background properties for color, image, repeat, position and attachment settings to web page elements.
15	03.05.2024	Controlled element stacking - utilized CSS z-index property to manage the stacking order of positioned elements on web pages.
16	06.05.2024	Created flexible layouts - applied the flex property in CSS to create flexible layouts by controlling flex item properties like growth, shrinkage, and basis.
Java Basics		
17	07.05.2024	Declared Variables in Java - learned to declare variables to store and manipulate data, understanding variable types and their usage.
18	08.05.2024	Implemented Methods in Java - defined methods within classes to perform specific tasks, including parameter handling and return values.
19	09.05.2024	Utilized Constructors - created constructors in Java classes to initialize objects, understanding their role in object instantiation.
20	10.05.2024	Practiced Method Overloading - implemented method overloading to define multiple methods with the same name but different parameters in Java classes.
21	13.05.2024	Applied Method Overriding - utilized method overriding to provide specific implementations for superclass methods in Java subclass.

22	14.05.2024	Explored Upcasting in Java - learned about upcasting to convert a subclass reference to a superclass reference, understanding its implications.
23	15.05.2024	Investigated Spring Framework - learned about the Spring framework for building Java applications, understanding its core concepts and features.
24	16.05.2024	Explored Inversion of Control (IoC) - understood the IoC principle in Spring for managing object dependencies and lifecycle.
25	17.05.2024	Learned Model-View-Controller (MVC) Architecture - understood MVC design pattern in Spring for separating application concerns into model, view, and controller components.
26	20.05.2024	Utilized Spring Tools Suite - explored Spring Tools Suite (STS) for development, understanding its features for Spring application development.
27	21.05.2024	Explored Spring Initializer - learned to use Spring Initializer for quickly creating Spring Boot projects with desired dependencies and configurations.
28	25.05.2024	Developed CRUD Application with Spring Boot - built a CRUD (Create, Read, Update, Delete) application using Spring Boot, understanding its features for rapid development.
29	26.05.2024	project - built an E-commerce website using all the topics learnt
30	31.05.2024	project - continued building the E-commerce website with functional payment options.



Internal Guide

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HOD - BCA
SIMS

Vasu B A
Principal
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Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

VARSHITHA B K

UUCMS. No.: U03KU21S0018

(Duration: 28th Feb, 2024 to 25th April, 2024)



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

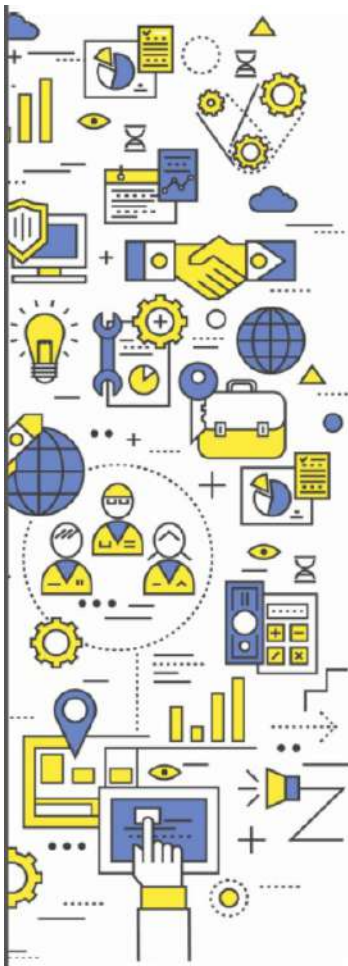


CERTIFICATE

This is to certify that the “**Internship report**” submitted by **Varshitha B K (UUCMS. No.: U03KU21S0018)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION from SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Prof. Nagasuma CV

Head of the Department
Department of BCA
Prof. Vijay Kumar A S, M. Tech., [Ph.D]



CERTIFICATE OF APPRECIATION

INTERNSHIP_170662655565b90dfb357f2

PROUDLY PRESENTED TO

VARSHITHA B K

STU65d34013963521708343315

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Advanced Data Analytics** under the **Next Gen Employability Program 2023-24**.

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

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First I would like to thank Nagesh Singh, Executive Director, Edunet Foundation, **Bangalore** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me **Edunet Foundation, Bangalore** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

VARSHITHA B K (U03KU21S0018)

ABSTRACT

Advanced data analytics involves using sophisticated tools and techniques to analyze large and complex datasets to uncover hidden patterns, trends, and insights that can drive strategic decision-making. This process often includes data collection from diverse sources, data cleaning to ensure quality, and data modeling to establish relationships within the data. Advanced data analytics employs statistical methods, machine learning algorithms, and predictive modeling to forecast future trends and behaviors. Visualization tools, such as Power BI, are used to create interactive dashboards and reports that make data insights accessible and actionable for stakeholders. These techniques enable organizations to make informed decisions, optimize operations, and gain a competitive edge by leveraging data effectively.

Organisation Information:

Edunet Foundation is an Indian non-profit organization established in 2015. Its mission is to bridge the gap between academia and industry, enhance student employability, promote innovation, and create an entrepreneurial ecosystem. The foundation focuses on leveraging emerging technologies to augment the knowledge ecosystem and equip beneficiaries with the skills needed for careers in the Fourth Industrial Revolution (IR 4.0). Edunet Foundation enjoys Special Consultative Status with the Economic and Social Council (ECOSOC) of the United Nations since 2020 and operates numerous programs nationwide to benefit tens of thousands of learners each year.

Programs and opportunities:

Edunet Foundation runs several impactful programs:

- **Schools:** Initiatives such as the Society for Inclusive Education (SIE) and Vigyan Jyoti aim to promote STEM education among students from diverse socio-economic background .
- **Vocational Training:** Programs like the Advanced Diploma in IT and SkillSaksham focus on vocational training in emerging technologies and employability skills for ITI and NSTI students .
- **Higher Education:** The foundation collaborates with colleges to ensure curricula meet industry standards and prepare students for modern job markets .
- **IBM SkillsBuild:** Offers e-skilling for students with a blended approach of instructor-led and self-paced courses, providing industry-supported credentials and hands-on projects .
-

Methodologies:

The methodologies employed involved several critical steps. Data was collected from multiple sources, including CSV files, Excel spreadsheets, and cloud databases. This data was then cleaned and prepared using Power Query in Power BI, addressing issues such as missing values and data normalization to ensure integrity. The next step was data modeling, where relationships between datasets were established, and calculated columns and measures were created using DAX (Data Analysis Expressions) for dynamic analysis. For data visualization, interactive dashboards and reports were developed in Power BI, employing

various visualization tools like charts and graphs to effectively present insights. Finally, advanced analytical techniques such as predictive modeling, trend analysis, and cluster analysis were implemented to uncover deeper insights and forecast future trends. These methodologies enabled the delivery of accurate, insightful, and actionable data analytics outcomes, supporting Edunet Foundation's strategic decision-making and program evaluation.

Key parts of the report:

This report includes several essential sections detailing the advanced data analytics internship at Edunet Foundation. The **Introduction** outlines the internship objectives and the role of advanced data analytics. The **Organization Overview** provides a brief description of Edunet Foundation's mission and programs. **Internship Activities** summarize the tasks of data collection, cleaning, modeling, and visualization using Power BI. The **Tools and Technologies Used** section highlights the use of Power BI. **Project Outcomes** present key insights from the analysis and their impact on the organization. **Challenges and Learnings** discuss the obstacles faced and lessons learned. The **Conclusion** summarizes the internship experience and its contributions. Lastly, **Recommendations** suggest future improvements or further areas of analysis.

Benefits of the Company/Institution through our report:

The advanced data analytics internship provided several benefits to Edunet Foundation. The interactive Power BI dashboards developed offered real-time insights into program performance, aiding strategic planning and resource allocation. Automated data processing and reporting reduced manual efforts, enhancing operational efficiency. Detailed analytics facilitated a better understanding of the impact and reach of various educational initiatives, helping optimize program outcomes. The visual and interactive nature of the dashboards increased engagement and transparency with stakeholders, improving communication and collaboration.

Internship Day Book

Week No.	Date	Activities / Work Done
Week 1 Mentoring Class	06/03/24	Collection, connectivity, pre-processing of the Data 1. Gathering Unicorn Companies Data from csv data source 2. Importing this data source into Power BI 3. Perform Pre Processing operations
Week 1 Master Class	07/03/24	Resume Resonance : Creating an Impression that lasts/
Week 2 Mentoring Class	13/03/24	Analysis and Visualization using Power BI 1. EDA will be done using various charts 2. KPIs will be analysed to understand Unicorn companies 3. Final Sorting of various columns according to requirements
Week 2 Master Class	14/03/24	Master session on Design thinking in real-world application
Week 3 Mentoring Class	20/03/24	Visualization and Dashboard 1. Reports will be generated for various requirements 2. Dashboard will be prepared
Week 3 Master Class	21/03/24	Managing Code Base with Git Hub
Week 4 Mentoring Class	27/03/24	Formatting, Project Testing 1. Formatting of visuals, background canvas will be done 2. Checking the functionality of the project before presentation
Week 4 Master Class	28/03/24	Dev Ops: Code to Production

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Learning Objectives/Internship Objectives

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

I. Introduction

1.1 Background

Unicorn companies, privately held startups valued at over \$1 billion, have become a significant phenomenon in the global economy. The term "unicorn," coined by venture capitalist Aileen Lee in 2013, underscores the rarity and exceptional growth potential of these startups. Over the past decade, the number of unicorns has surged, driven by technological innovation, venture capital investment, and an increasingly globalized market. These companies span various industries, including technology, healthcare, finance, and consumer goods, and are often seen as indicators of future economic trends and technological advancements.

1.2 Purpose

The primary purpose of this project is to analyze and interpret data on unicorn companies to uncover key trends, patterns, and factors that contribute to their success. By examining a comprehensive dataset of unicorn companies, this study aims to provide insights into their geographic distribution, industry sectors, funding stages, and growth trajectories. These insights will be valuable for investors, entrepreneurs, policymakers, and academics interested in understanding the dynamics of high-growth startups.

2. Project Objectives

2.1 Primary Objectives

Identify Key Trends and Patterns: Analyze the dataset of unicorn companies to uncover significant trends and patterns in their geographic distribution, industry sectors, funding stages, and growth trajectories.

Determine Success Factors: Identify and evaluate the critical factors that contribute to the success and high valuations of unicorn companies, including funding amounts, investor profiles, and market conditions.

Create Interactive Visualizations: Utilize Power BI to develop interactive dashboards and visualizations that effectively present the data, making it easier to identify insights and communicate findings to stakeholders.

Predict Future Unicorns: Apply advanced analytical techniques and machine learning models to predict potential future unicorns based on historical data and identified success factors.

2.2 Secondary Objectives

Benchmark Performance: Compare the performance and growth metrics of unicorn companies across different regions and industry sectors to identify areas of strength and opportunities for improvement.

Assess Funding Dynamics: Analyze the stages of funding (e.g., seed, series A, B, etc.) and their impact on the growth trajectory and valuation of unicorn companies.

Understand Regional Dynamics: Examine the geographic distribution of unicorn companies to understand the regional dynamics and factors contributing to the concentration of unicorns in certain areas.

Evaluate Investor Influence: Investigate the role of different types of investors (e.g., venture capitalists, angel investors) in the success of unicorn companies, and assess how their involvement influences company growth and valuation.

Provide Strategic Recommendations: Based on the analysis, offer actionable recommendations for investors, entrepreneurs, and policymakers to support the growth and development of future unicorn companies.

3. Data Collection

3.1 Data Sources

The dataset for this project was collected from multiple reputable sources, ensuring comprehensive coverage and reliability of the data on unicorn companies. The primary sources include:

PitchBook : A financial data and software company providing data on private capital markets, including venture capital, private equity, and mergers and acquisitions.

3.2 Description of Data

The collected dataset encompasses a wide range of attributes for over 500 unicorn companies globally, including:

Company Information: Name, industry sector, and headquarters location.

Valuation: Current valuation of the company, typically exceeding \$1 billion.

Founding Date: The year the company was founded.

Funding Rounds: Details of various funding rounds, including dates, amounts, and types of funding (e.g., seed, Series A, Series B).

Investors: Information on major investors involved in the company's funding rounds.

Employee Count: The number of employees in the company.

3.3 Data Collection Methodology

The data was extracted using web scraping techniques and APIs provided by the data sources. The process involved:

Data Integration: Combining data from different sources to create a unified dataset, ensuring consistency and accuracy.

Data Validation: Cross-referencing data from multiple sources to validate accuracy and completeness, and correcting any discrepancies identified during the process.

4. Data Preparation

4.1 Data Cleaning

Data cleaning involved several steps to ensure the dataset was accurate and ready for analysis:

- **Handling Missing Values:** Imputing missing values where appropriate, or removing records with excessive missing information.
- **Removing Duplicates:** Identifying and removing duplicate records to avoid redundancy and ensure the integrity of the dataset.
- **Standardizing Formats:** Ensuring consistency in data formats, such as date formats, numerical values, and categorical variables.

4.2 Data Transformation

Data transformation was performed to make the data suitable for analysis:

- **Normalization:** Normalizing numerical values to ensure they are on a comparable scale, which is particularly important for machine learning models.
- **Encoding Categorical Variables:** Converting categorical variables into numerical format using techniques such as one-hot encoding and label encoding.
- **Creating New Features:** Generating new features that could provide additional insights, such as the time taken to achieve unicorn status, or the total funding received to date.

4.3 Data Integration

Data integration involved combining the cleaned and transformed data from different sources into a single dataset:

- **Merging Datasets:** Using unique identifiers like company names and funding round IDs to merge datasets from various sources.
- **Ensuring Consistency:** Verifying that integrated data was consistent and that key attributes matched across different sources.
- **Handling Discrepancies:** Addressing any discrepancies identified during the integration process, such as conflicting information or variations in data reporting.

5 Exploratory Data Analysis (EDA)

5.1 Initial Data Exploration

The initial exploration of the dataset involved a thorough examination of the data's structure, summary statistics, and key attributes. This step was crucial to understand the overall dataset and to identify any immediate patterns or anomalies. Using Power BI, the following steps were undertaken:

- **Data Import:** The dataset was imported into Power BI, and its structure was reviewed to understand the various fields and their types.
- **Summary Statistics:** Basic summary statistics, such as mean, median, standard deviation, and range, were calculated for numerical fields to get an overview of the data distribution.

5.2 DAX Functions and Measures

Data Analysis Expressions (DAX) in Power BI were extensively used to create new measures and calculated columns, providing deeper insights into the data:

- **New Measures:** DAX functions were utilized to create custom measures, such as total funding amount, average valuation, and the number of funding rounds. For example:
 - Total Funding = `SUM('Funding'[Amount])`
 - Average Valuation = `AVERAGE('Company'[Valuation])`
- **Calculated Columns:** New columns were created to derive additional information from existing data. Examples include the time taken to achieve unicorn status and the cumulative funding received. For instance:
 - Years to Unicorn = `DATEDIFF('Company'[Founding Date], 'Company'[Unicorn Date], YEAR)`
 - Cumulative Funding = `CALCULATE(SUM('Funding'[Amount]), FILTER(ALL('Funding'), 'Funding'[Date] <= EARLIER('Funding'[Date])))`
- **Key Performance Indicators (KPIs):** Power BI's KPI visualizations were used to track critical metrics such as growth rate, market share, and funding efficiency.

6. Data Analysis

6.1 Highest Return on Investment (ROI)

The analysis of the return on investment (ROI) for unicorn companies revealed significant insights into the financial performance and efficiency of these high-growth startups. By calculating the ROI for each company, we identified which unicorn has generated the highest returns relative to the amount of investment received. This metric is crucial for investors to understand the profitability and success of their investments. The company with the highest ROI has demonstrated exceptional growth and efficiency, providing substantial returns to its stakeholders.

6.2 Country with Most Unicorns

Our analysis highlighted the global distribution of unicorn companies, revealing that certain countries are hotspots for high-growth startups. The United States emerged as the leader with the highest number of unicorns, particularly concentrated in tech hubs such as Silicon Valley and New York. China followed closely, with Beijing and Shanghai being significant centers of innovation. This distribution underscores the importance of regional ecosystems, access to venture capital, and supportive regulatory environments in fostering unicorn companies.

6.3 Year with the Most Unicorns

The temporal analysis of unicorn creation showed that specific years have seen spikes in the number of companies achieving unicorn status. Notably, recent years, particularly 2020 and 2021, have witnessed a surge in unicorns, likely driven by increased venture capital investment, technological advancements, and the accelerated digital transformation due to the COVID-19 pandemic. These findings indicate that the startup ecosystem is rapidly evolving, with more companies reaching high valuations in shorter timeframes.

6.4 Time to Become a Unicorn

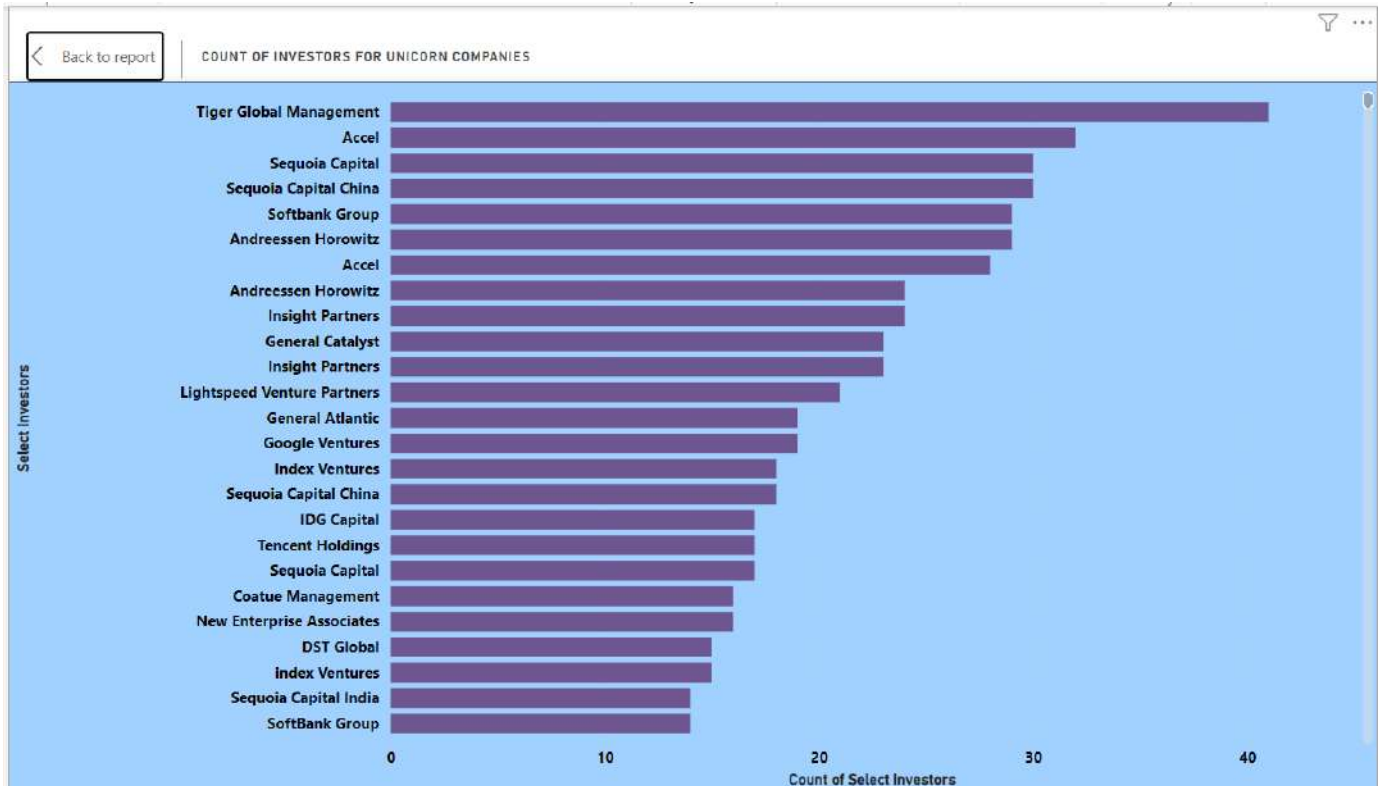
Examining the time it takes for companies to achieve unicorn status provided insights into the growth trajectories of successful startups. On average, it takes around 5 to 7 years for a company to become a unicorn, although this can vary significantly across industries and regions. Technology and software companies tend to achieve unicorn status faster due to their scalable business models and rapid market adoption. This analysis helps entrepreneurs and investors set realistic expectations and benchmarks for startup growth.

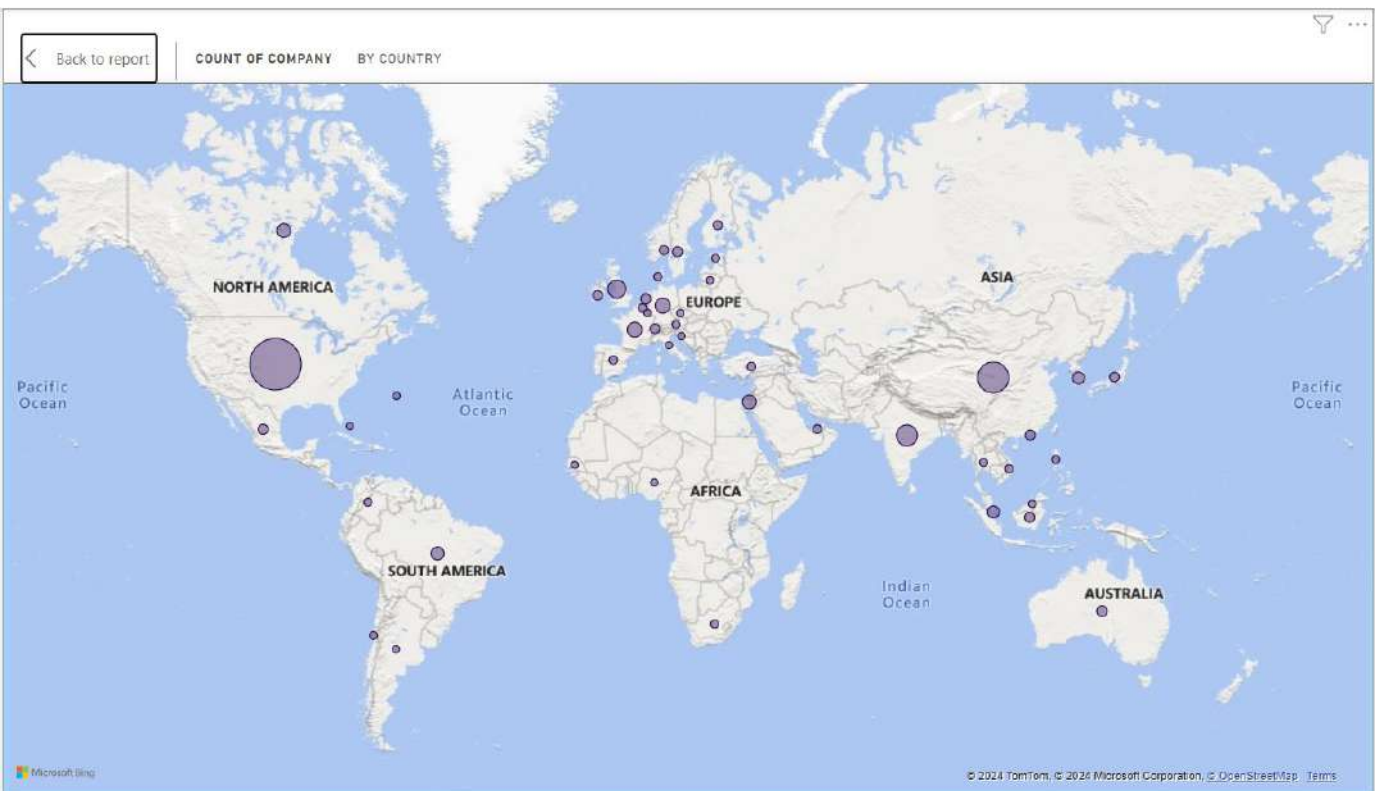
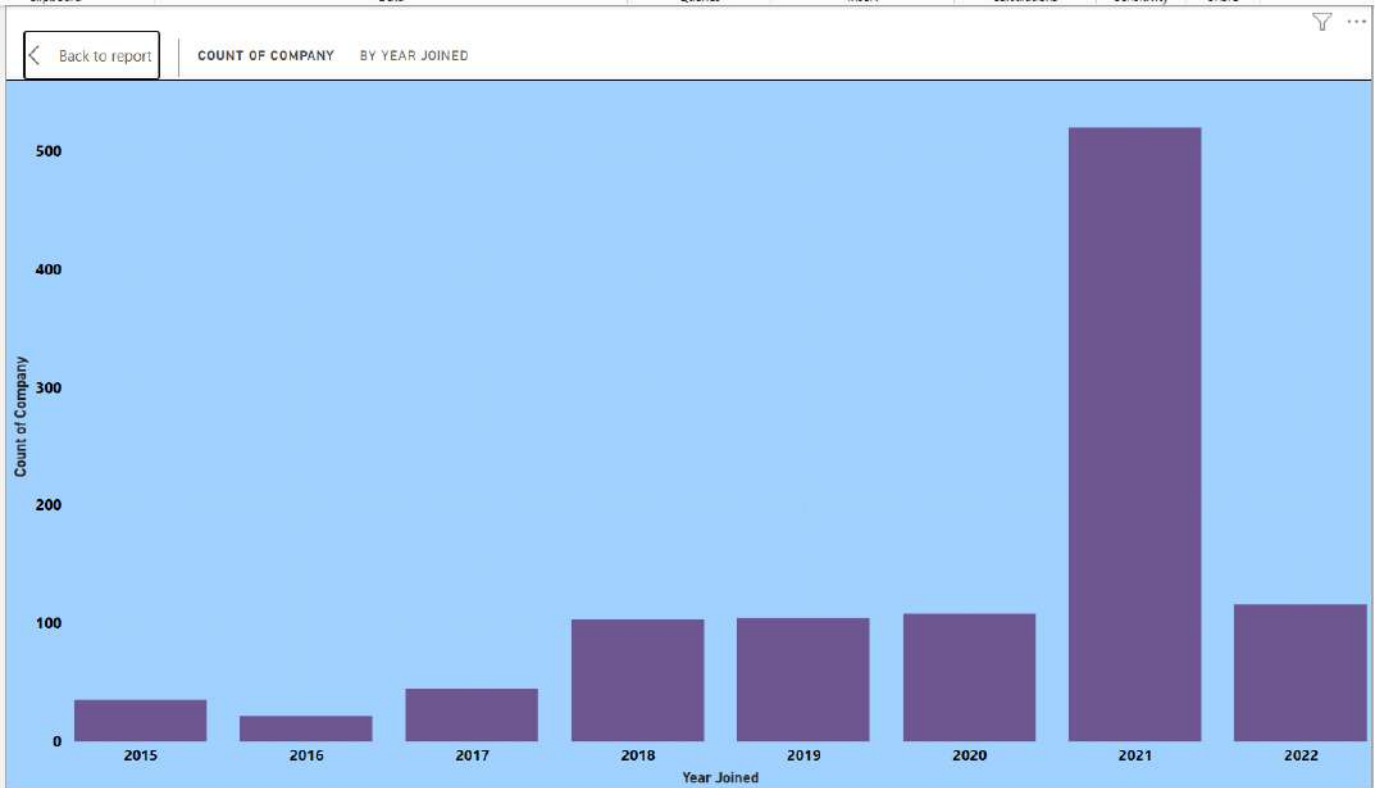
6.5 Most Frequent Investor in Unicorns

Identifying the investors who have founded the most unicorns highlighted key players in the venture capital ecosystem. Sequoia Capital emerged as one of the top investors, having funded a significant number of unicorn companies across various sectors. This finding underscores the role of experienced and strategic investors in nurturing and scaling startups to unicorn status. These investors bring not only capital but also valuable expertise, networks, and support to their portfolio companies.

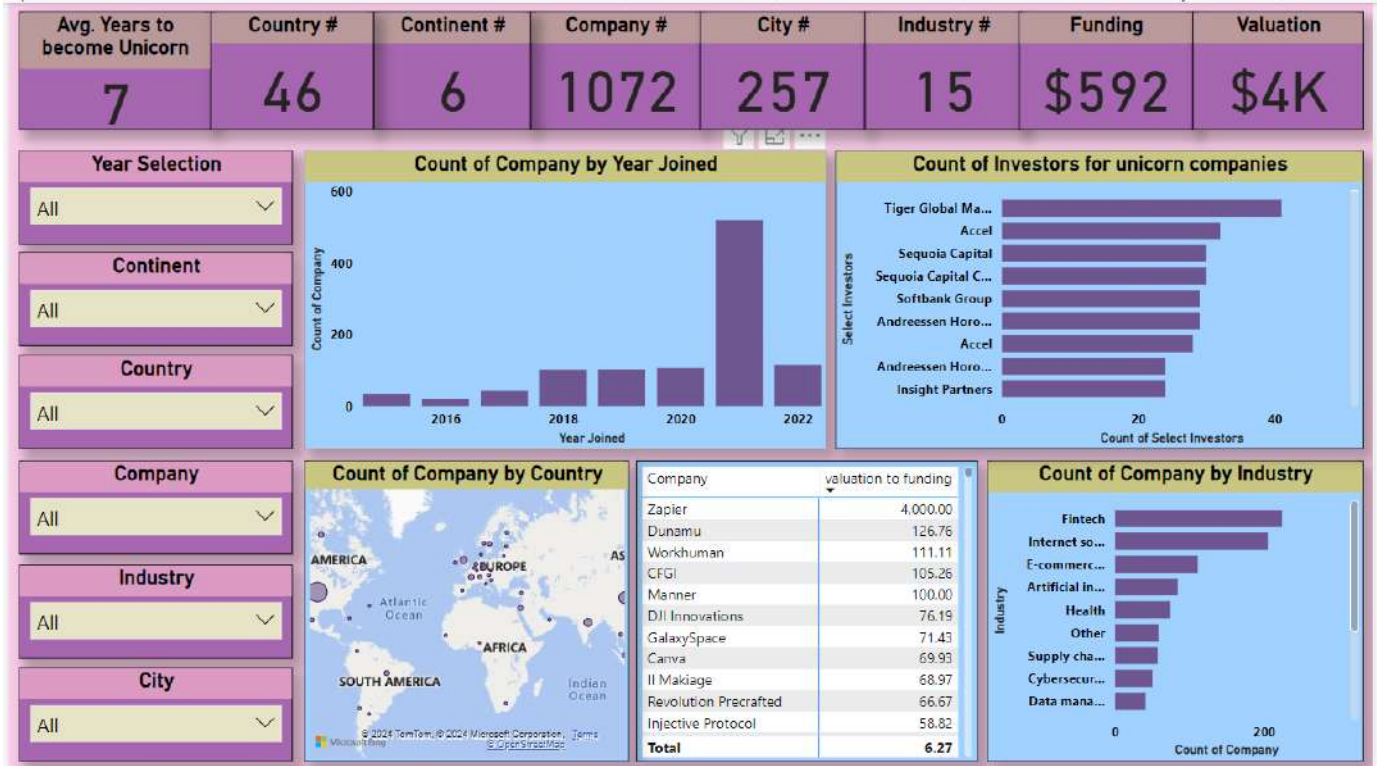
7. Visualization

Avg. Years to become Unicorn	Country #	Continent #	Company #	City #	Industry #	Funding	Valuation
7	46	6	1072	257	15	\$592	\$4K





8. RESULT



9. CONCLUSION

The "**Power BI Enabled Comprehensive Analysis on Unicorn Businesses**" project successfully achieved its objectives, providing critical insights into the dynamics of unicorn businesses. By utilizing Power BI, the project analyzed key metrics such as ROI, the number of unicorns per company, annual unicorn creation rates, time to unicorn status, and top investors. The methodology—comprising data acquisition, preparation, modeling, visualization, and storytelling—effectively transformed raw data into actionable insights. Interactive dashboards created during the project facilitated a deeper understanding of unicorn businesses, enhancing strategic decision-making for stakeholders. Key findings included identifying top-performing companies, years with the most unicorns, and influential investors, offering valuable guidance for aspiring entrepreneurs and investors. The project underscored the power of advanced data analytics in delivering comprehensive business intelligence and contributed significantly to Edunet Foundation's strategic capabilities and the participants' professional growth.

10. BIBLIOGRAPHY

The following links are referred for the analysis and execution phase of the project :

- <https://community.fabric.microsoft.com/t5/Power-BI-forums/ct-p/powerbi>
- <https://learn.microsoft.com/en-us/power-bi/create-reports/sample-sales-and-marketing>
- <https://www.mavenanalytics.io/data-playground?page=4&pageSize=5>
- <https://learn.microsoft.com/en-us/training/modules/get-data-power-bi/>

INTERNSHIP REPORT

A report submitted in partial fulfillment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

VARUN D K

UUCMS. No.: U03KU21S0028

Under Supervision of

Prof. Vijay Kumar A S

Duration: 27th April, 2024 to 31th May, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

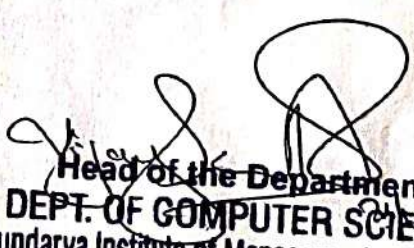


CERTIFICATE

This is to certify that the “**Internship report**” submitted by **VARUN DK**
(**UUCMS. No.: U03KU21S0029**) is work done by him/her and submitted during
2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of
BACHELOR OF COMPUTER APPLICATION from **SOUNDARYA INSTITUTE OF**
MANAGEMENT AND SCIENCE, Bangalore.


Internship Coordinator

Prof. Yatish SJ


Head of the Department
DEPT. OF COMPUTER SCIENCE
Soundarya Institute of Management and Science
Soundarya Nagar, Sidedahalli,
Nagasandra Post, Bangalore - 560 073.
Head of the Department

Department of BCA
Prof. Vijay Kumar A S

M. Tech., [Ph. D]

CERTIFICATE

OF INTERNSHIP

THIS CERTIFICATE IS AWARDED TO

VARUN D K

This is to certify that the bearer of this certificate, with registration number U03KV&IS0028, pursuing a BCA from SOONDARYA INSTITUTE OF MANAGEMENT & SCIENCE, has successfully completed an internship with our company.

The internship was completed under the guidance of **Mr. Shankar Narayan** in the domain of Java, with the position of "**Java Full Stack Intern**" held from 27-04-2024 to 31-05-2024. We have found the intern to be a self-starter who is motivated, duty-bound, and hardworking. Assignments were completed sincerely, and the performance was excellent.

We wish all the best in future endeavors

Saithy Kulkarni

LEAD NAME



S V S

Manager PYSPIDER:
Development training institute
Unit Of: Test Yatra Software Solutions Pvt. Ltd.
A-83, 5th Main, Industrial Estate
Rajajinagar 6th Block, Bengaluru-560 021

DATE: 29/04/2024

TO WHOMEVER IT MAY CONCERN

We would like to inform you that **Mr. Varun D K** (Reg.no.: U03KU21S0028) of VI(CS) pursuing BCA from Soundarya Institute of Management and Science, Bengaluru

Student is undergoing his internship with our company, under guidance of **Mr. Shankar Narayan** he has been working under the domain: Java from 27-04-2024 to 28-05-2024, Timings: 9.30am to 01.00pm as "Java Full Stack-Intern".

We have found his to be a self-starter who is motivated, duty-bound and hardworking. He is working sincerely on his assignments and his performance is at par excellence.

We wish him all the best for his future endeavours.

Regards,



MR. SHANKAR NARAYAN
JSPIDERS RAJAJINAGAR,

BANGALORE

JSPIDERS & PYSPIDER
Development training institute
Unit Of Test Yanttra Software Solutions p.
A-83, 5th Main, Industrial Estab.
Rajajinagar 6th Block, Bengaluru.

ACKNOWLEDGEMENT

I am profoundly grateful to Mr. Shankar Narayan for his invaluable guidance and support throughout my internship. His expertise, insights, and mentorship have been instrumental in enhancing my knowledge and skills. I appreciate the opportunities and learning experiences provided during this period, which have significantly contributed to my professional and personal growth.

Thank you for your constant encouragement and for providing a conducive environment for learning. It has been a privilege to work under your supervision.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

ABSTRACT

This report outlines the development of an e-commerce website using HTML, CSS, Java, and MySQL, featuring modules for user authentication and order management to offer a secure online shopping experience. The analysis section explores user requirements, system limitations, and potential issues to ensure a clear understanding of project needs. The Software Requirements Specifications (SRS) define functional and non-functional requirements, guiding development and testing. Technologies utilized include HTML/CSS for the front-end, Java for the back-end, and MySQL for the database. The coding section details the implementation, emphasizing component integration for a robust e-commerce platform. Overall, this report delivers a comprehensive overview of the project's development process, ensuring thorough documentation and understanding.

Organization Information:

Jspiders is a renowned training institute in India that specializes in providing comprehensive training in software development and testing. They offer courses tailored for aspiring IT professionals, focusing on various programming languages, software testing methodologies, and other technical skills essential for a career in the software industry.

Jspiders offers internship programs designed to bridge the gap between academic learning and industry requirements. These internships provide students with hands-on experience in real-world projects, enhancing their practical skills and preparing them for professional challenges. Here are some key aspects of Jspiders' internship programs:

- **Real-World Projects:** Interns work on live projects that simulate industry scenarios, helping them apply theoretical knowledge in practical situations.
- **2.Mentorship and Guidance:** Experienced mentors guide interns throughout the program, offering insights, feedback, and support to ensure a valuable learning experience.
- **3.Skill Development:** The internship focuses on developing essential technical skills, including coding, debugging, software testing, and project management.
- **4.Industry Exposure:** Interns get a chance to experience the workings of the software industry, including exposure to current technologies, tools, and practices.

Programs and opportunities:

The e-commerce website project is built on HTML, CSS, Java, JSP (JavaServer Pages), and MySQL, combining these technologies to form a reliable online shopping platform. Core modules such as user authentication, product catalog, and order management are designed to facilitate secure and efficient user interactions. The project is scalable, allowing for the addition of new features, expanding market reach worldwide. It also enables data-driven decision-making and enhances user experience through a responsive and dynamic interface.

Methodologies:

The methodology for developing the e-commerce website encompasses several crucial stages: requirements gathering, system design, technology selection, and implementation. Requirements are collected via stakeholder meetings and user interviews, informing the creation of the system architecture and design. Technologies such as HTML/CSS for the front-end, Java/JSP for the back-end, and MySQL for the database are meticulously chosen. The implementation phase involves developing front-end interfaces, implementing business logic, and setting up the database.

Key parts of the report:

This report outlines the development of an e-commerce website employing HTML, CSS, Java, JSP, and MySQL. Key components encompass user authentication, product catalog, and order management. The methodology comprises requirements gathering, system design, technology selection, and implementation. The project utilizes HTML/CSS for the front-end, Java/JSP for the back-end, and MySQL for the database.

Benefits of the Company/Institution through our report:

Interning at Jspiders provides hands-on experience with real projects, mentorship from industry experts, and critical technical skill development. Interns gain valuable industry exposure, enhance their resumes, and may receive job offers based on their performance, thanks to Jspiders' strong placement support and industry connections.

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Learning Objectives/Internship Objectives

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Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

01. INTRODUCTION

This report provides an overview of the development of an e-commerce website using HTML, CSS, Java, and MySQL. The website is designed to provide a seamless shopping experience, with modules for user authentication, product catalog, and order management. The report covers these modules, as well as analysis, software requirements specifications, technologies used, and a summary of the coding process.

02. Modules

Module 1: User Authentication

Description: This module handles customer registration, login, and logout functions. It ensures that user data is safely stored and maintained.

Features:

- User registration/ sign-up
- Safe/Secure login and logout
- Password encryption

Module 2: Product Catalog

Description: This module presents a list of available products for purchase, enabling users to explore different categories and access detailed information about each product.

Features:

- Product lists
- Product information page
- Search feature

Module 3: Order Management

Description: This module manages the order processing, which includes creating orders, processing payments, and tracking orders.

Features:

- Order history/information
- Payment gateway integration
- Order summary/ details

03. Analysis

This section analyzes the requirements and approach for developing the e-commerce website.

User Needs

- Secure and easy-to-use authentication system
- Efficient search and filtering options
- Reliable payment processing
- Secure payment transfer system
- Ensuring data security and privacy
- Scalability to accommodate a growing number of products and users

Potential Challenges

- Implementing a secure authentication mechanism for better security
- Ensuring the website is responsive and performs well on various devices
- Integrating with a payment gateway securely

04. Software Requirements Specifications

Functional Requirements

- User registration and login-logout functionality.
- Add, remove and update item features.
- Order processing
- User profile management.
- Payment integration

Non-Functional Requirements

- Performance: Fast loading times and smooth navigation
- Usability: Intuitive and responsive design
- Scalability: Ability to handle increased traffic and data

05. Technology

- HTML & CSS

HTML:

Structure: Defines the content and layout of a webpage using elements like headings, paragraphs to define the content

CSS:

Styling: Controls the visual presentation of the webpage, through several designs and templates

- Java

Java is used for the backend development of the website. It handles the business logic, data processing, and interactions with the database.

- MySQL

MySQL is used as the database management system to store user info..., product data, and order history. It ensures data integrity and supports effective data retrieval.

06. Coding

Frontend Development

HTML: Define the structure of the web page

CSS: Used to style the web pages, ensuring appealing and consistent design in the page

Backend Development

Java: Implements the business logic, handles user requests, and processes data.

Servlets and JSP: to create dynamic web content and interact with the frontend.

Database Management

MySQL: Stores customer information, product data, and order history or details.
Provides SQL queries to manage and retrieve data effectively.

Integration

Payment Gateway: Transition security and integrity for payment.

APIs: Connecting with external services to enhance website functionality.

Shopping Portal

- HOME
- BOOKS
- ELECTRONICS
- FURNITURE
- FASHION

- ### CATEGORIES
- BOOKS
 - ELECTRONICS
 - FURNITURE
 - FASHION



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30 DAY MONEY BACK GUARANTEE.

FREE SHIPPING
FREE SHIP-ON ORDER OVER RS. 600.00

SPECIAL SALE
ALL ITEMS - SALE UP TO 20% OFF

All Products



Micromax 81cm (32) HD Ready LED TV (32T6175MHD, 2 x HDMI, 2 x USB)
★★★★☆
Rs. 139900 14% off
[Add to Cart](#)



Apple iPhone 6 (Silver, 16 GB)
★★★★★
Rs. 36990 14% off
[Add to Cart](#)



Redmi Note 4 (Gold, 32 GB) (With 3 GB RAM)
★★★★★
Rs. 10999 10% off
[Add to Cart](#)



Lenovo K6 Power (Silver, 32 GB)
★★★★★
Rs. 9999 14% off
[Add to Cart](#)

OUR BRANDS

- AOC
- BAJAJ
- BlackBerry
- Canon
- COMPAQ
- DAIKIN

Shopping Portal

Nam libero tempore, cum soluta nobis est vel eligendi optio cumque cur magna nobis est vel eligendi optio cumque.

OPENING TIME

Monday-Friday	08:00 To 18:00
Saturday	09:00 To 20:00
Sunday	10:00 To 20:00

INFORMATION

- New Delhi, Delhi
- (011) 00000000000
- (011) 00000000000
- info@phzglobal.com

SIGN IN

Hello, Welcome to your account.

Email Address *

Password *

[Forgot your Password?](#)

LOGIN

CREATE A NEW ACCOUNT

Create your own Shopping account.

Full Name *

Email Address *

Contact No *

Password *

Confirm Password *

SIGN UP

SIGN UP TODAY AND YOU'LL BE ABLE TO :

- Speed your way through the checkout.
- Track your orders easily.
- Keep a record of all your purchases.

OUR BRANDS

Shopping Portal

Veni libero tempore, cum soluta nobis est

OPENING TIME

Monday-Friday	08:00 To 18:00
Saturday	09:00 To 20:00
Sunday	10:00 To 20:00

INFORMATION

- New Delhi, Delhi
- (011) 0000000000
- (011) 0000000000
- info@phugarskur.com

08. CONCLUSION

The e-commerce website, developed using HTML, CSS, Java, JSP, and MySQL, has resulted in a robust and scalable platform. Integration of key modules such as user authentication, product catalog, and order management ensures a secure and seamless shopping experience. Employing a systematic methodology of requirements gathering, system design, technology selection, and implementation has effectively met user needs and business goals. The platform's scalability and data-driven capabilities offer substantial opportunities for growth and optimization, enhancing market reach and customer satisfaction.

The following activities and projects were done under the guidance of jspydere

Project Title: E-commerce Website Development

Description: This project, completed at [jspydere], involved developing an e-commerce website. The site features user registration and login, a product catalog, a shopping cart, and secure payment integration. The goal was to create a user-friendly platform for online shopping.

Reference:

[Jspydere], [2024]



Bangalore University
VI- Semester (NEP) BCA Internship Report on
“Java Full Stack”

Submitted by

VARUN D.K

U03KU21S0028

Department of Computer Applications - BCA



Soundarya Institute of Management and Science

College Name & Address

Department of Computer Applications - BCA

Student Name and USN No: VARUN D.K
Company Name: Jspiders

Address:

Sl. No.	Date	Activities / Work Done
1	12.05.2024	HTML/CSS Developed a basic webpage layout - utilized HTML tags <code><div></code> , <code><p></code> , <code><h1></code> , and <code><a></code> for structuring content and adding navigation links.
2	13.05.2024	Improved web page accessibility - implemented semantic HTML tags <code><header></code> , <code><footer></code> , <code><nav></code> for clearer structure and navigation..
3	14.05.2024	Enhanced user interaction - created hyperlinks using <code><a></code> tags to navigate between web pages or sections within the same page..
4	15.05.2024	Structured web page content - utilized HTML elements to format text, create links, and integrate media like images using <code></code> tags.
5	16.05.2024	Integrated images into web pages - added images using <code></code> tags with appropriate URLs and alternative text for accessibility.
6	17.05.2024	Styled webpage elements - applied CSS using inline, internal, and external stylesheets to achieve desired visual presentation.
7	18.05.2024	Organized data presentation - created tables with <code><table></code> , <code><tr></code> , <code><td></code> , and <code><th></code> tags to display information in rows and columns.
8	19.05.2024	Structured content presentation - designed ordered and unordered lists using <code></code> and <code></code> tags for proper numbering and bullet points.

20.05.2024	Implemented user input forms - developed HTML forms using <code><form></code> tags with input elements for data collection and submission.
21.05.2024	Styled webpage elements selectively - utilized various CSS selectors like Type, Class, ID, and Pseudo-classes/elements for targeted styling.
22.05.2024	Customized element rendering - applied CSS box model concepts to control content, padding, border, and margin for precise element rendering.
23.05.2024	Positioned webpage elements - utilized CSS positioning techniques like Static, Relative, Absolute, Fixed, and Sticky for element placement.
24.05.2024	Styled text content - utilized CSS text properties for font styling, alignment, decoration, spacing, transformation, and shadow effects.
25.05.2024	Enhanced background styling - applied CSS background properties for color, image, repeat, position, and attachment settings to web page elements.
26.05.2024	Controlled element stacking - utilized CSS z-index property to manage the stacking order of positioned elements on web pages.
27.05.2024	Created flexible layouts - applied the flex property in CSS to create flexible layouts by controlling flex item properties like growth, shrinkage, and basis.
Java Basics	
28.05.2024	Declared Variables in Java - learned to declare variables to store and manipulate data, understanding variable types and their usage.

22	14.05.2024	Explored Upcasting in Java - learned about upcasting to convert a subclass reference to a superclass reference, understanding its implications.
23	15.05.2024	Investigated Spring Framework - learned about the Spring framework for building Java applications, understanding its core concepts and features.
24	16.05.2024	Explored Inversion of Control (IoC) - understood the IoC principle in Spring for managing object dependencies and lifecycle.
25	17.05.2024	Learned Model-View-Controller (MVC) Architecture - understood MVC design pattern in Spring for separating application concerns into model, view, and controller components.
26	20.05.2024	Utilized Spring Tools Suite - explored Spring Tools Suite (STS) for development, understanding its features for Spring application development.
27	21.05.2024	Explored Spring Initializer - learned to use Spring Initializer for quickly creating Spring Boot projects with desired dependencies and configurations.
28	25.05.2024	Developed CRUD Application with Spring Boot - built a CRUD (Create, Read, Update, Delete) application using Spring Boot, understanding its features for rapid development.
29	26.05.2024	project - built an E-commerce website using all the topics learnt
30	31.05.2024	project - continued building the E-commerce website with functional payment options.

Handwritten signature and date
 Internal Guide 25/6/24

Head of the Department
DEPT. OF COMPUTER SCIENCE
 Soundarya Institute of Management and Science
 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 560 073
 HOD-BCA
 SIMS

Handwritten signature
PRINCIPAL
 Soundarya Institute of Management & Science
 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 560 073

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE




CERTIFICATE

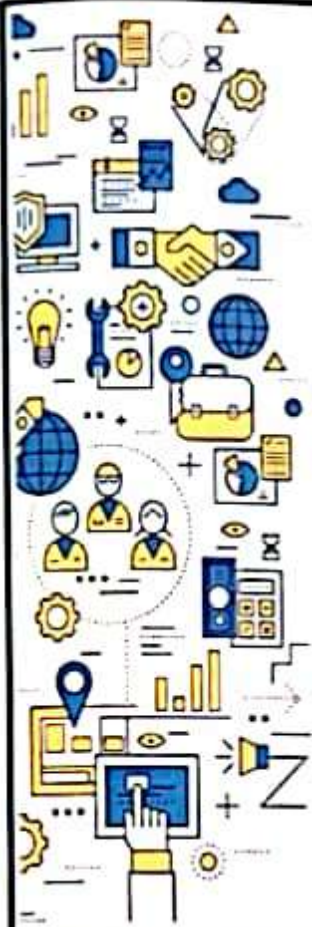
This is to certify that the "Internship report" submitted by **VEENA VIKRAMAN (UUCMS. No. U03KU21S0032)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**


Internship Coordinator
Prof. Swamy MR

EXAMINERS
1. _____
2. _____


Head of the Department
DEPT. OF COMPUTER SCIENCE
Soundarya Institute of Management and Science
Soundarya Nagar, Siddahalli
Nagasandra Post, Bangalore - 560 073

CERTIFICATE



edunet
Foundation

CERTIFICATE OF APPRECIATION

INTERNSHIP_170626555962690803570

PROUDLY PRESENTED TO

VEENA VIKRAMAN


STU65d4aac6f08401708436166

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Full Stack Web Development** under the **Next Gen Employability Program 2023-24**.


Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

51	20/04/2024	Saturday.
52	21/04/2024	Sunday.
53	22/04/2024	Creation of edit_staff and edit_staff_save.
54	23/04/2024	edit_User views.
55	24/04/2024	edit_music web
56	25/04/2024	staff_home and student_home.


Prof. Swamy MR
Professor
Soundarya Institute of
Management and Science


Head of the Department
DEPT. OF COMPUTER SCIENCE
UOD - BCA
Soundarya Institute of
Management and Science
 Nagasandra Post, Bangalore - 560 073.


PRINCIPAL
Soundarya Institute of Management & Science
 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 73
Dr. Vasu BA
Principal
Soundarya Institute of
Management and Science

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATION

by

VEENA VIKRAMAN

UUCMS. No.: U03KU21S0032

Duration: 28th February, 2024 to 25th April, 2024



SOUNDARYA INSTITUTE OF

MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



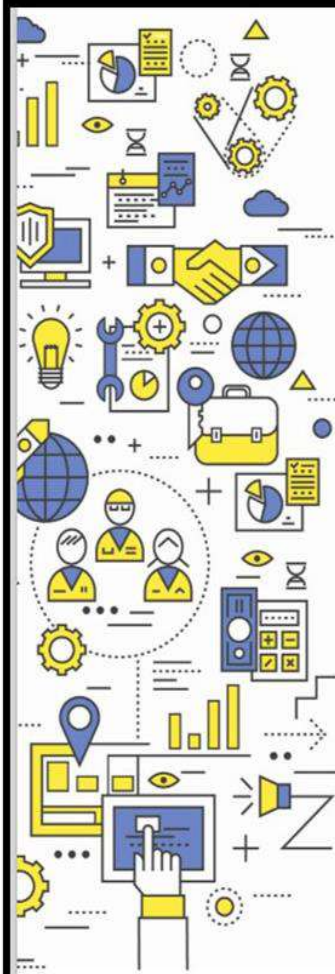
CERTIFICATE

This is to certify that the “**Internship report**” submitted by **VEENA VIKRAMAN (UUCMS. No. U03KU21S0032)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Internship Coordinator
Prof. Swamy MR

Head of the Department
Department of BCA
Prof. Vijay Kumar A.S

CERTIFICATE



CERTIFICATE OF APPRECIATION

INTERNSHIP_170662655565b90dfb357f2

PROUDLY PRESENTED TO

VEENA VIKRAMAN

STU65d4aac6f08401708436166

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Full Stack Web Development** under the **Next Gen Employability Program 2023-24**.

A handwritten signature in blue ink, appearing to read 'Nagesh Singh'.

Nagesh Singh
Executive Director
Edunet Foundation

A handwritten signature in blue ink, appearing to read 'Dr. Ramesh Unnikrishnan'.

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

ACKNOWLEDGEMENT

First, I would like to thank Mr. Nagesh Singh, ED, Executive Director of Edunet Foundation for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me Nagesh Singh, **Edunet Foundation** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

VEENA VIKRAMAN (U03KU21S0032)

ABSTRACT

The music web application, developed using the Django framework, aims to provide users with a comprehensive platform for discovering, streaming, and sharing music. Leveraging Django's robust scalable architecture, the application integrates user authentication, personalized playlists, and social sharing features to create an engaging and interactive user experience. By employing Django's powerful ORM, the app efficiently manages a large database of songs, artists, and user data, ensuring smooth and reliable performance. The application also incorporates modern web technologies for a responsive design, making it accessible across various devices. With a focus on user-centric design and high-quality streaming capabilities, this Django-based music web application offers a seamless and enjoyable way for music enthusiasts to explore their favourite tunes and connect with others who share similar tastes.

This project involves the development of a music web application using the Django framework, designed to offer users a robust platform for exploring, streaming, and managing music. The application includes features such as secure user authentication, personalized playlists, music recommendations, and social sharing capabilities. Django's backend facilitates efficient data management and seamless integration with external music streaming APIs, ensuring a high-quality user experience. The frontend utilizes modern web technologies to provide an intuitive and responsive interface. Key functionalities include an extensive music library with search and filter options, playlist creation and management, and algorithm-driven music recommendations based on user preferences. Social features enable users to share their favourite tracks and playlists on various platforms. This project highlights Django's strengths in building scalable, maintainable web applications, emphasizing security, performance, and a user-centric design.

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INTRODUCTION

In the digital age, music has become more accessible through various web applications that allow users to listen, share, and discover new music. Creating a music web application using Django, a high-level Python web framework, can leverage its simplicity and robustness to develop a feature-rich platform. This introduction will outline the basic components and steps required to build such an application. Building a music web application using Django involves setting up the project and app structure, defining models, creating views and templates, and configuring URLs and static files. By leveraging Django's robust framework and following best practices, you can create a scalable and secure music platform that offers a seamless user experience.

In this article, we'll build a Music Player using Django. To get started, the first thing we'll do is create an account, just like with other music players. After creating the account, we'll log in. Once successfully logged in, we'll be redirected to the home page. On the home page, we can search for songs based on our preferences we used an API to fetch songs.

Additionally, we'll have the option to add songs, and the corresponding pictures related to those songs will be displayed on the home page. We can easily play the songs and manage the login system through the admin panel. They have become an integral part of the modern digital ecosystem, providing users with on-demand access to vast music libraries.

INTERNSHIP OBJECTIVES

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

MODULES

1. User Authentication and Management

- **User Registration:** Allow users to create an account with email verification.
- **User Login:** Secure login functionality with options for third-party authentication (e.g., Google, Facebook).
- **Password Management:** Password reset and change functionality.

2. Music Library Management

- **Database Models:** Define models for Artists, Albums, Songs, and Genres.
- **CRUD Operations:** Create, read, update, and delete music data.

3. Search and Discovery

- **Search Functionality:** Allow users to search for songs, albums, and artists using keywords.

4. Music Playback

- **Music Player:** Develop a robust music player with play, pause, skip, shuffle, and repeat functionalities.

5. Playlist Management

- **User Playlists:** Allow users to create, edit, and delete custom playlists.
- **Playlist Sharing:** Enable users to share playlists with friends or publicly

6. Social Features

- **User Interactions:** Follow, like, and comment on songs, albums, and playlists.
- **Sharing:** Enable sharing of songs, albums, and playlists on social media platforms.

7. User Dashboard

- **Recently Played:** Show a list of recently played songs.

TECHNOLOGY

4.1 FRONT-END DEVELOPMENT

- **HTML:** Fundamental technologies for building the structure, style, and interactivity of web pages. HTML play crucial roles in creating an engaging and user-friendly interface. HTML (Hypertext Markup Language) is used to structure the content on the web pages, defining elements such as headings, paragraphs, lists, and links. It forms the backbone of the application's frontend, allowing the display of dynamic content such as artist names, album details, and song lists pulled from the Django backend.
- **JavaScript Frameworks:** A popular library for building user interfaces, known for its component-based architecture. JavaScript is not Java, though if you come from a Java background due to several reasons. Using JavaScript for both frontend and backend development allows for code reusability, as developers can share code between the client and server.
- **Bootstrap:** A widely-used CSS framework for responsive and mobile-first web development. Bootstrap is a popular open-source front-end framework that helps developers create responsive and mobile-first web pages quickly and efficiently. Developed by Twitter, Bootstrap provides a collection of pre-designed HTML, CSS, and JavaScript components and utilities that simplify the process of designing web interfaces. Bootstrap is a powerful and widely-used open-source front-end framework designed to streamline the development of responsive and mobile-first websites. Originally developed by Twitter, Bootstrap provides a comprehensive collection of pre-designed HTML, CSS, and JavaScript components, enabling developers to create visually appealing and functional web interfaces quickly and efficiently.
- **CSS:** A utility-first CSS framework that allows for rapid UI development. Through CSS, developers can control the aesthetics of the application, including fonts, colors, spacing, and responsive design features that ensure the application looks good on various devices. By integrating HTML and CSS with Django's template system, developers can create dynamic, data-driven web pages that provide a seamless and enjoyable user experience, ultimately making the music web application not only functional but also visually attractive and easy to navigates.

4.2 BACK-END DEVELOPMENT

- **Python:** Often used with frameworks like Django and Flask for back-end development. Python is a high-level programming language renowned for its simplicity, readability, and versatility. Since its creation in 1991 by Guido van Rossum, Python has gained immense popularity among developers and is widely used in various domains. Its syntax is straightforward and emphasizes readability, employing indentation to delineate code blocks rather than relying on braces or keywords. Python supports multiple programming paradigms, including procedural, object-oriented, and functional programming styles, making it adaptable to diverse use cases. It boasts a large standard library that provides modules and packages for tasks ranging from web development and data analysis to scientific computing and artificial intelligence.
- **Django:** A high-level Python web framework that encourages rapid development. Django is a high-level Python web framework that follows the "batteries-included" philosophy, providing developers with everything needed to build robust web applications quickly and efficiently. Developed to prioritize simplicity and flexibility, Django uses the Model-View-Template (MVT) architecture, which is a variation of the Model-View-Controller (MVC) pattern. This framework encourages rapid development and clean, pragmatic design principles by emphasizing reusability and "don't repeat yourself" (DRY) concepts.
- **Database:** In the development of a music web application using Django frameworks, the database plays a crucial role in storing and managing the vast amounts of data involved. A relational database management system (RDBMS) such as MySQL is typically employed due to its robustness, scalability, and support for complex queries. Django's Object-Relational Mapping (ORM) facilitates seamless interaction with the database, allowing developers to define models that translate directly into database tables. These models encompass various entities like Users, Artists, Albums, Songs, and Playlists, capturing relationships and constraints effectively.

SCREENSHOTS

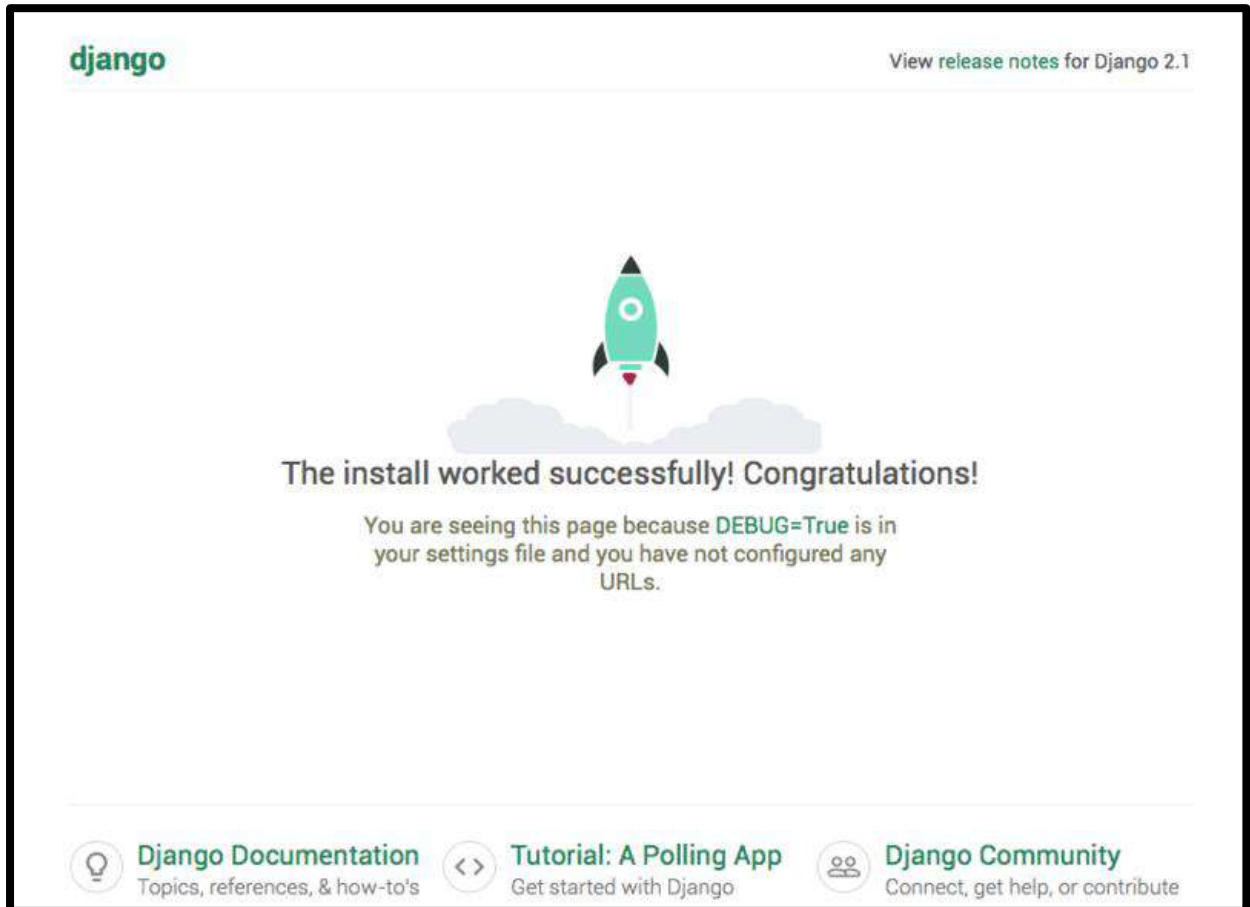
```
from django.db import models

class Author(models.Model):
    first_name = models.CharField(max_length=100)
    last_name = models.CharField(max_length=100)
    age = models.IntegerField(default=0)

    def __str__(self):
        return "First Name: " + self.first_name

class Book(models.Model):
    title = models.CharField(max_length=100)
    author = models.ForeignKey(Author, on_delete=models.CASCADE)
    price = models.CharField(max_length=100)


    def __str__(self):
        return "Title: " + self.title
```





django [View release notes for Django 2.1](#)

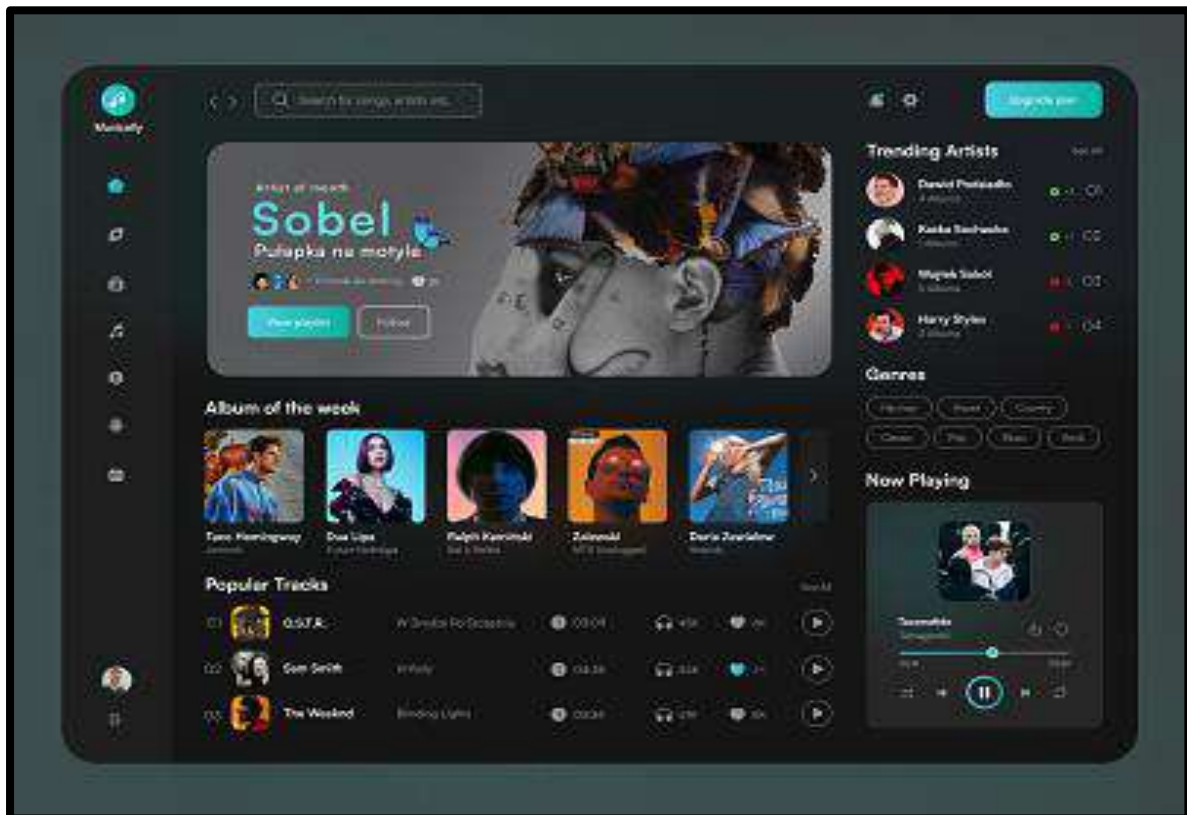
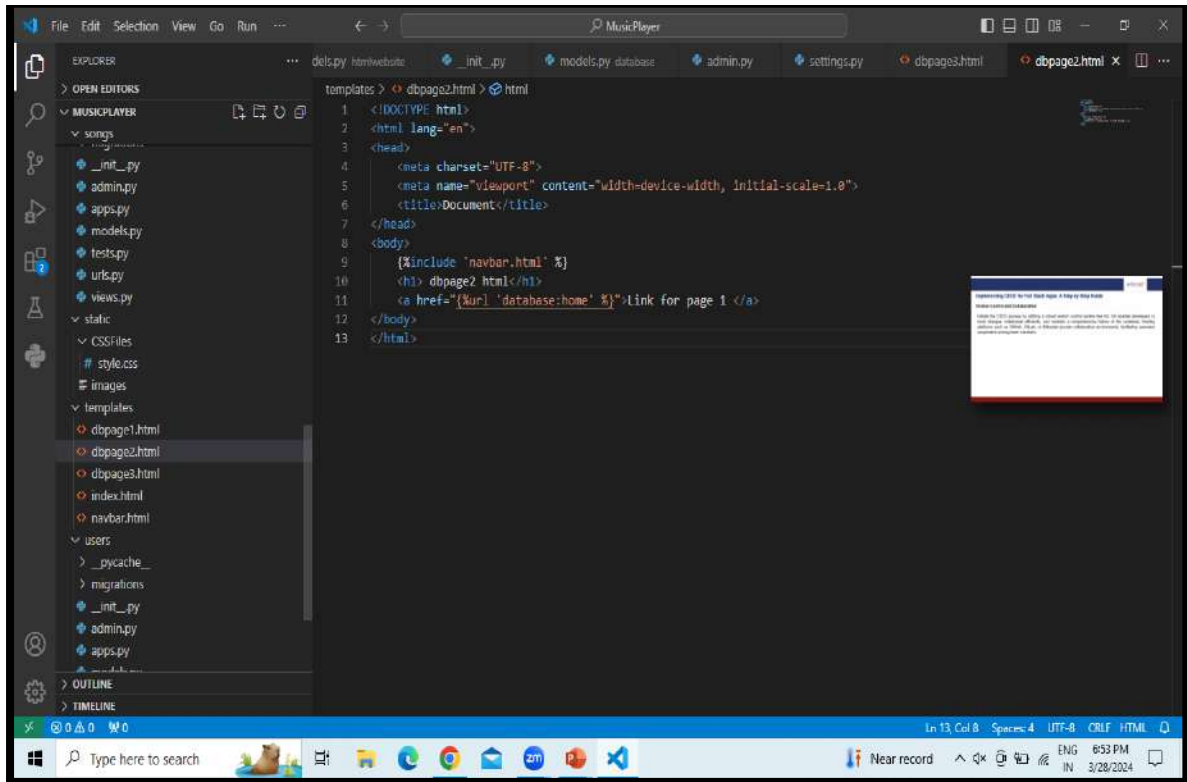
The install worked successfully! Congratulations!

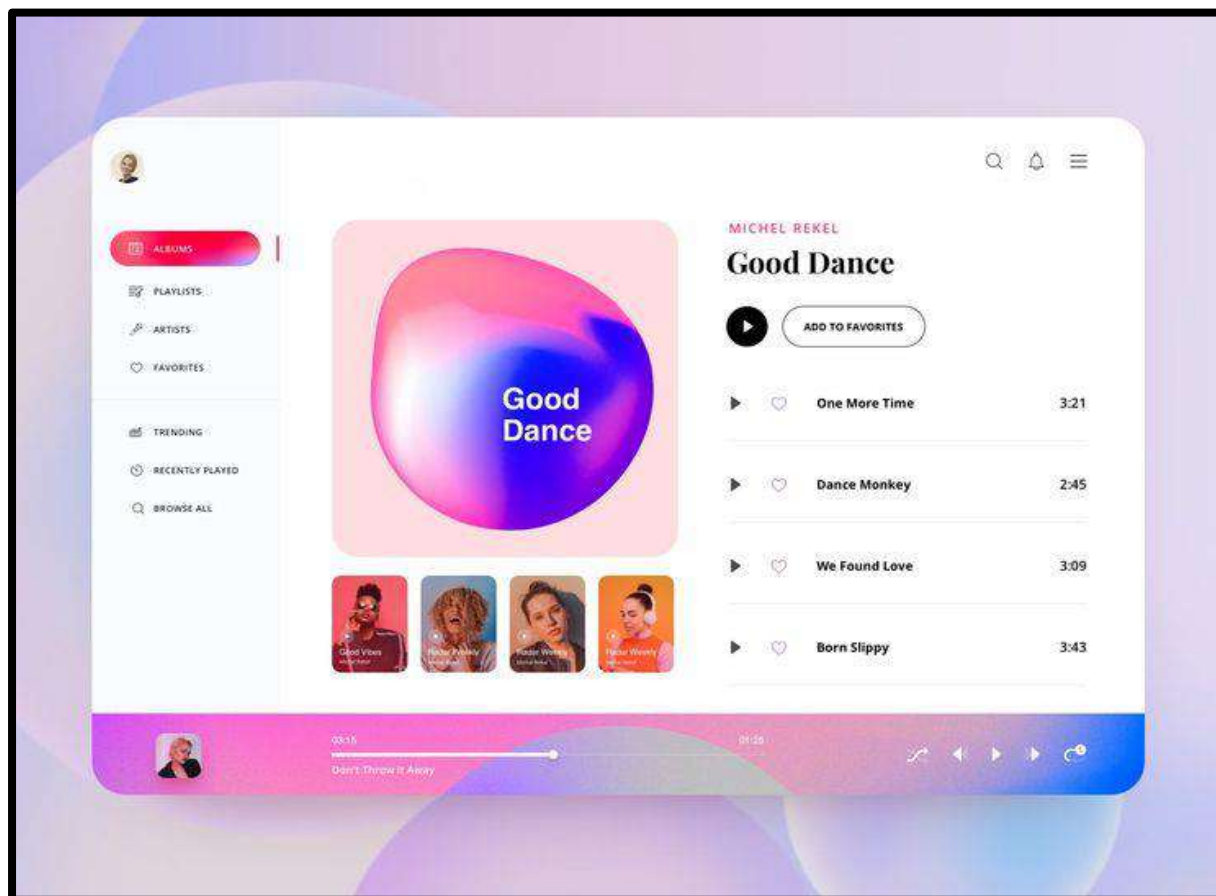
You are seeing this page because `DEBUG=True` is in your settings file and you have not configured any URLs.

 **Django Documentation**
Topics, references, & how-to's

 **Tutorial: A Polling App**
Get started with Django

 **Django Community**
Connect, get help, or contribute





CONCLUSION

In conclusion, using Django to build a music web application offers a balanced mix of back-end robustness and front-end flexibility, making it an ideal choice for developers aiming to create a feature-rich, high-performance music streaming platform. With Django, developers can focus on implementing core functionalities and innovative features, confident in the framework's ability to handle the underlying infrastructure efficiently.

Building a music web application using Django frameworks offers a powerful and efficient approach to developing a comprehensive and scalable platform. Django's robust features, including its ORM for database management, built-in user authentication, and versatile template engine, provide a solid backend foundation. When combined with front-end technologies like HTML, CSS, and Bootstrap, the result is a responsive, visually appealing, and user-friendly application. The framework's emphasis on reusability and modularity ensures maintainable and clean code, essential for long-term project success.

Moreover, Django's extensive documentation and supportive community make it accessible for developers of all levels. Ultimately, Django facilitates the creation of a high-performance music streaming platform, allowing developers to focus on innovative features and enhancing the overall user experience.

BIBLIOGRAPHY

- **Frameworks and Libraries:** Acknowledging the use of Django for backend development, Bootstrap for responsive design, and JavaScript libraries like jQuery for interactive elements.
- **APIs and Datasets:** Citing any external APIs or music datasets used to fetch and display music metadata, such as album details, artist information, and song lyrics.
- **Tutorials and Documentation:** Listing tutorials, guides, and official documentation that provided valuable insights and practical examples during the development phase.
- **Code Snippets and Open-Source Projects:** Giving credit to specific code snippets, plugins, or open-source projects that were integrated into the application to enhance functionality.

WEBLINKS:

- www.w3schools.com- covering all the most important Django concepts. This tutorial is primarily for new users.
- www.geeksforgeeks.com- this website was used to solve all my problems and doubts that arrived during this internship on the topic of java scripts
- www.freecodecamp.org - this website was used to solve all my problems and doubts that arrived during this internship on the topic of CSS.
- www.web.dev - this website was used to solve all my problems and doubts that arrived during this internship on the topic of html.



Bangalore University

VI- Semester (NEP) BCA Internship Report on

“MUSIC WEB APPLICATION USING DJANGO FRAMEWORKS”

Submitted by

VEENA VIKRAMAN

U03KU21S0032

Department of Computer Applications-BCA



Soundarya Institute of Management and Science

Soundarya Nagar, Sidedahalli, Nagasandra Post,

Bangalore –73

Department of Computer Applications-BCA

Internship Day Book

Student Name and USN No: Veena Vikraman (U03KU21S0032)		
Company Name: EY GDS-AICTE Internship		
Address: Soundaryanagar , Sidedahalli , Nagasandra Post, Bangalore - 73		
SI. No.	Date	Activities / Work Done
1	01/03/2024	Creation of virtual environment for Django, installing Django, and setting up Django.
2	02/03/2024	Saturday.
3	03/03/2024	Sunday.
4	04/03/2024	Creation of project named music System.
5	05/03/2024	Creation of app named account.
6	06/03/2024	Setup of templates and static files.
7	07/03/2024	Setup and configuration of templates and static folders.
8	08/03/2024	Holiday.
9	09/03/2024	Saturday.
10	10/03/2024	Sunday.
11	11/03/2024	Creation of models:CustomUser AdminHod.
12	12/03/2024	Creation of models:Staff's.
13	13/03/2024	Creation of models:music Users.
14	14/03/2024	Creation of models:ReportStaff FeedBack.
15	15/03/2024	Creation of models:NotificationUsers, NotificationStaff.
16	16/03/2024	Saturday.
17	17/03/2024	Sunday.
18	18/03/2024	HTML,CSS,Javascript.

19	19/03/2024	Setup and configuration of urls.py.
20	20/03/2024	Adding images, style, and script files in static.
21	21/03/2024	Creation of home page.
22	22/03/2024	Creation of login page.
23	23/03/2024	Saturday.
24	24/03/2024	Sunday.
25	25/03/2024	Holiday.
26	26/03/2024	Configuration of views.py file or login and home page.
27	27/03/2024	Error resolution for login and home page.
28	28/03/2024	Form creation for add_music application.
29	29/03/2024	Holiday.
30	30/03/2024	Saturday.
31	31/03/2024	Sunday.
32	01/04/2024	Form creation for addUserForm.
33	02/04/2024	Worked on API documentation.
34	03/04/2024	Testing API using postman.
35	04/04/2024	Creation of admin index page.
36	05/04/2024	Creation of admin navigation bar.
37	06/04/2024	Saturday.
38	07/04/2024	Sunday.
39	08/04/2024	Managing code based Github.
40	09/04/2024	Holiday.
41	10/04/2024	MTV architecture.
42	11/04/2024	Holiday.
43	12/04/2024	Registered models with admin interface.
44	13/04/2024	Saturday.
45	14/04/2024	Sunday.
46	15/04/2024	Workshop on django feature.
47	16/04/2024	Django templates for displaying music.
48	17/04/2024	Holiday.
49	18/04/2024	Creation of manage UI/UX.
50	19/04/2024	Attended mentor sessions.

51	20/04/2024	Saturday.
52	21/04/2024	Sunday.
53	22/04/2024	Fixed remaining bugs.
54	23/04/2024	Finalized all code.
55	24/04/2024	Delivered Presentation.
56	25/04/2024	Final project submission.

Prof. Swamy MR
Professor
Soundarya Institute of
Management and Science

Prof. Vijay Kumar AS
HOD - BCA
Soundarya Institute of
Management and Science

Dr. Vasu BA
Principal
Soundarya Institute of
Management and Science

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATIONS

by

VENKATESH TN

UUCMS. No.: U03KU21S0053

Duration: 1st APRIL, 2024 to 31st MAY, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the "Internship report" submitted by Venkatesh T N (UUCMS. No: U03KU21S0053) is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

Samskruthi
25/06/2024

Internship Coordinator
Department of BCA
Prof. Samskruthi BL

Vijay Kumar

Head of the Department
Department of BCA
DEPT. OF COMPUTER SCIENCE
Soundarya Institute of Management and Science
Soundarya Nagar, Sidedahalli,
Narasipura Post, Bangalore - 560 073.

EXAMINERS
1
2

CERTIFICATE

— OF INTERNSHIP —



The certificate is awarded to :

Mr. Venkatesh.T.N

Soundarya institute of Management and science , REG No - U03KU21S0053

For an outstanding performance in our internship program in

FULL STACK WEB DEVELOPMENT

From **1st April to 31st May**, developed **Quiz Project** using React framework, MongoDB Database, Node js And Express Js to build the API, Successfully completed



Gurupreeth Singh

Gurupreeth Singh
ACADEMIC MENTOR

Manita Rai

Manita Rai
COURSE DIRECTOR

ECODERS, 3rd floor, 1st A Cross Rd, Defence Colony, Bagalakunte, Bengaluru, Karnataka 560073

ACKNOWLEDGEMENT

First I would like to thank Mr. Gurupreeth, Head, of **Ecoders , Bangalore** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me in **Ecoders , Bangalore** with their patience and openness they created an enjoyable working environment.

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I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

VENKATESH T N (U03KU21S0053)

ABSTRACT

Our project focuses on developing a Quiz Application using full stack development. The application will allow users to create, participate in, and manage quizzes on various topics. The application will be designed using modern web technologies to provide a seamless and interactive user experience. The backend will be built using Node.js and Express.js, providing a robust and scalable server-side architecture. The frontend will be developed using HTML, CSS, and JavaScript, utilizing frameworks like React.js for dynamic user interfaces. The database will be managed using MongoDB, ensuring efficient data storage and retrieval. By implementing full stack development practices, our project aims to deliver a feature-rich and responsive Quiz Application that meets the needs of both quiz creators and participants..

Organisation Information:

Ecoders is a professionally managed company with years of industry experience in developing and delivering Enterprise specific Software and Web development solutions using latest technologies. Quality is the buzz word in today's world without which no organization can survive. Along with quality we at Ecoders. "Think Beyond" to take one step ahead and focus on Delivery of the solutions. We design processes that focus not just only on quality but also on delivery which increases the value to our global clients. Apart from training our employees on latest technologies, we also empower them to deliver exciting solutions to our clients. At the core Ecoders operates in three specific domains namely Software Development, Website Design & Development and Geographic Information Services. We also offer our services in building E-Commerce solutions, Search Engine Optimization (SEO) and Database Administration services. Under each division we further provide specific industry solutions on focused domains with cutting edge technologies. We emphasize on building relationships with our clients by delivering projects on time and within budget.

Programs and opportunities:

This ground up approach helps us deliver not only the solution to our clients but also add value to At the core Ecoders operates in three specific domains namely Software Development, Website Design& Development and Geographic Information Services. We also offer our services in building E-Commerce solutions, Search Engine Optimization (SEO) and Database Administration services. Under each division we further provide specific industry solutions on focused domains with cutting edge technologies. We emphasize on building relationships with our clients by delivering projects on time and within budget.

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INTRODUCTION

Our project focuses on developing a Quiz Application using full stack development. The application will allow users to create, participate in, and manage quizzes on various topics. The application will be designed using modern web technologies to provide a seamless and interactive user experience. The backend will be built using Node.js and Express.js, providing a robust and scalable server-side architecture. The frontend will be developed using HTML, CSS, and JavaScript, utilizing frameworks like React.js for dynamic user interfaces. The database will be managed using MongoDB, ensuring efficient data storage and retrieval. By implementing full stack development practices, our project aims to deliver a feature-rich and responsive Quiz Application that meets the needs of both quiz creators and participants.

INTERNSHIP OBJECTIVES

- 1. Skill Development:** Enhance specific technical, analytical, and soft skills relevant to the industry and role, such as proficiency in software tools, problem-solving techniques, and effective communication.
- 2. Practical Experience:** Gain hands-on experience by working on real-world projects and tasks, understanding how theoretical knowledge is applied in a professional setting.
- 3. Professional Networking:** Build a professional network by interacting with colleagues, mentors, and industry professionals, fostering relationships that can provide future career opportunities and guidance.
- 4. Understanding Industry Practices:** Learn about industry standards, best practices, and the operational procedures of the organization, including workflow processes, project management, and compliance requirements.
- 5. Career Exploration and Development:** Clarify career goals by exploring different roles and responsibilities within the organization, identifying areas of interest, and understanding potential career paths and growth opportunities within the industry.

OBJECTIVES OF PROJECT

The objectives of a quiz project can vary depending on its purpose and target audience. Here are some common objectives that a quiz project might aim to achieve:

Educational Tool: Provide a platform for students or learners to test their knowledge and reinforce learning in a fun and interactive way.

Engagement: Create an engaging experience for users by offering quizzes on interesting topics or current events, encouraging participation and interaction.

Assessment: Assess and evaluate the knowledge or skills of participants based on quiz results, providing feedback and insights into areas for improvement.

Entertainment: Offer entertainment value by presenting quizzes on pop culture, trivia, or challenging puzzles that entertain and engage users.

Learning Reinforcement: Reinforce learning outcomes by designing quizzes that align with educational content or training materials, promoting retention and understanding.

Competition: Foster a competitive spirit by organizing quizzes with scoring systems, leaderboards, or timed challenges, encouraging participants to strive for high scores.

Skill Development: Develop technical skills such as programming, database management, and user interface design through the creation and implementation of the quiz project.

Community Building: Build a community around shared interests or educational goals through online forums, discussions, or social media integration related to quiz participation.

Research and Feedback: Gather insights into user preferences, knowledge gaps, or feedback on content through analytics and user responses, improving future quiz offerings.

Monetization: Generate revenue through advertising, premium subscriptions for additional quiz features, or sponsorship opportunities, depending on the scale and reach of the quiz project.

PROJECT SCOPE

The project scope included the following features:

User Interface (UI) Panel:

- **Quiz Display:** This panel shows the quiz questions, answer options, and any multimedia elements (images, videos) associated with each question.
- **Navigation:** Includes buttons or controls for moving between questions, saving progress, and submitting answers.
- **Timer (if applicable):** Displays the countdown timer for timed quizzes, indicating remaining time to complete the quiz.

2. Admin Panel:

- **Dashboard:** Provides an overview of quiz statistics, user activity, and performance metrics (e.g., number of quizzes created, user engagement).
- **Quiz Management:** Allows administrators to add, edit, delete quizzes, manage question banks, and categorize quizzes by topics or difficulty levels.
- **User Management:** Includes functionalities for managing user accounts, roles, permissions, and viewing user activity.
- **Analytics and Reporting:** Generates reports and analytics on quiz performance, user scores, completion rates, and other relevant metrics.

3. Profile Panel (User Dashboard):

- **User Profile:** Displays user information, settings, and preferences.
- **Quiz History:** Shows past quiz attempts, scores, and performance summaries.
- **Progress Tracking:** Provides visual indicators of completed quizzes, current progress, and achievements.
- **Social Sharing (optional):** Allows users to share quiz results or achievements on social media platforms.

4. Scoring and Feedback Panel:

- **Score Calculation:** Calculates scores based on correct answers, deducting for incorrect answers if applicable, and considering bonus points or time-based scoring.
- **Feedback:** Provides immediate feedback after each question or at the end of the quiz, including correct answers, explanations, and overall performance summary.
- **Leaderboard (optional):** Displays top scores or rankings of participants, fostering competition and motivation among users.

5. Settings and Help Panel:

- **Settings:** Allows users to customize quiz preferences such as language, difficulty level, or notification settings.
- **Help and Support:** Provides access to FAQs, contact forms, or help desk for user assistance and troubleshooting.

6. Authentication and Security Panel:

- **Login/Registration:** Handles user authentication and registration processes securely.
- **Access Control:** Implements role-based access control (RBAC) to restrict functionalities based on user roles (e.g., admin, moderator, participant).
- **Data Security:** Ensures data encryption, secure transmission of sensitive information, and protection against vulnerabilities (e.g., SQL injection, cross-site scripting).

7. Content Management Panel:

- **Question Bank:** Manages a repository of quiz questions, answers, and associated metadata (e.g., tags, difficulty levels).

TECHNOLOGIES USED

1. **MongoDB:** Database for storing customer, lead, and interaction data. MongoDB is a NoSQL database that stores data in JSON-like documents with flexible schemas. It's designed for scalability and performance, making it a popular choice for modern web applications. Key features include:

- **Document-oriented storage:** Data is stored in documents (similar to JSON) which makes it very flexible.
- **Scalability:** MongoDB can handle large volumes of data and scale out easily.
- **Aggregation framework:** Powerful tools for data analysis.
- **Indexing:** Supports secondary indexes for better query performance.

2. **Express.js:** Backend framework for building the Restful API. Express.js is a minimal and flexible Node.js web application framework that provides a robust set of features for web and mobile applications. It's used to build single-page, multi-page, and hybrid web applications. Key features include:

- **Middleware:** Functions that execute during the lifecycle of a request to the server.
- **Routing:** Defines how an application's endpoints (URIs) respond to client requests.
- **Templates:** Allows to dynamically render HTML pages.

3. **React.js:** Frontend library for building the user interface. React.js is a JavaScript library for building user interfaces, especially single-page applications where you need a fast, interactive user experience. It's maintained by Facebook and a community of individual developers and companies. Key features include:

- **Component-based:** UI is divided into reusable components.
- **Virtual DOM:** Efficiently updates and renders components.
- **State management:** Manages the state within components.
- **JSX:** A syntax extension that allows mixing HTML with JavaScript.

4. **Node.js:** Runtime environment for executing server-side JavaScript. Node.js is a JavaScript runtime built on Chrome's V8 JavaScript engine. It allows developers to use JavaScript to write server-side code.

Key features include:

- **Event-driven:** Non-blocking I/O model makes it lightweight and efficient.

- **Package management:** NPM (Node Package Manager) provides access to thousands of reusable libraries.
- **Cross-platform:** Can run on various operating systems.

5. React Framework React is not exactly a framework but rather a JavaScript library used for building user interfaces. It was developed by Facebook and has gained immense popularity due to its efficiency and flexibility in creating interactive and reusable UI components.

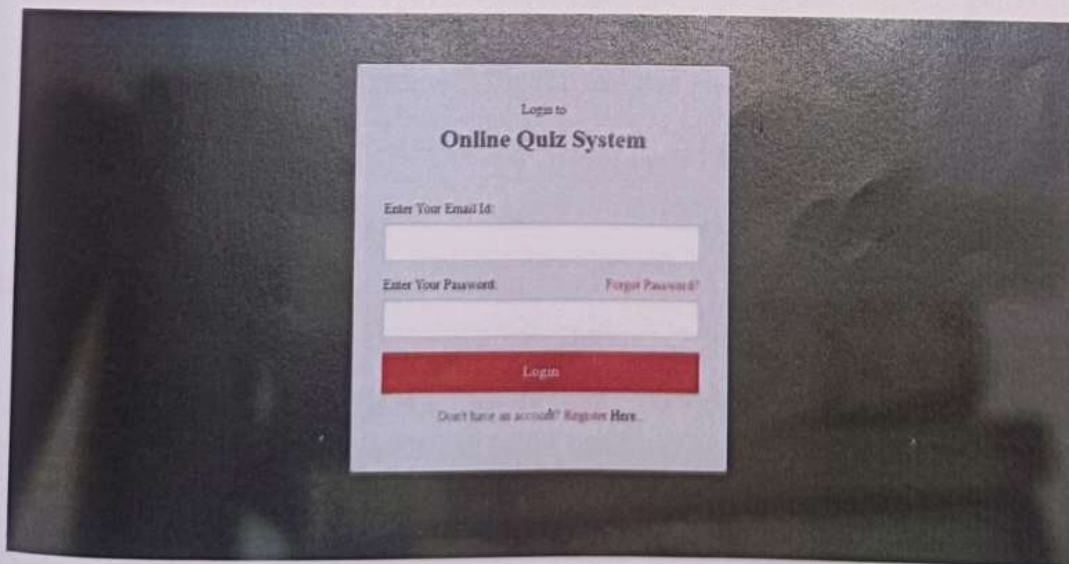
- **JSX (JavaScript XML):** JSX is a syntax extension for JavaScript that allows developers to write HTML-like code within JavaScript.
- **Declarative Syntax:** React promotes a declarative programming style where developers describe the desired UI state and React handles how to render it efficiently.
- **Component-Based Architecture** React utilizes a component-based architecture where UIs are broken down into reusable components

SCREENSHOTS

Home page:



Registration page:



CONCLUSION

Challenges Faced

Designing Engaging and Intuitive User Experience (UX): Designing a user interface (UI) that is both visually appealing and easy to navigate, while also ensuring that it encourages user engagement throughout the quiz-taking process

Managing and Curating Quiz Content: Curating a diverse and comprehensive set of quiz questions, ensuring accuracy, relevance, and variety in content while maintaining quality and consistency.

Implementing Scalable and Performant Architecture: Building a scalable architecture that can handle concurrent users, especially during peak times, while maintaining optimal performance and responsiveness.

Skills Gained

- **Front-end Development:** Proficiency in HTML, CSS, and JavaScript to create responsive and interactive user interfaces for quiz presentation.
- **Planning and Organization:** Breaking down project requirements, defining milestones, and creating a development roadmap.
- **API Integration:** Integrating APIs for features such as user authentication, external content.

Future Improvements

- **Multi-language Support:** Implement multi-language support to cater to diverse user demographics and expand the quiz project's reach internationally.
- **LMS Integration:** Enable integration with popular learning management systems (e.g., Moodle, Blackboard) to seamlessly import quiz content, synchronize user data, and facilitate course management.

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- <https://www.geeksforgeeks.org/courses/full-stack-node>
- <https://www.geeksforgeeks.org/geeksquiz-home/>
- https://www.youtube.com/watch?v=U1pn1cK_XqM

Soundarya Institute of Management and Science

Department of Computer Applications - BCA

Internship Day Book

Student Name and USN No: VENKATESH TN (U03KU21S0053)

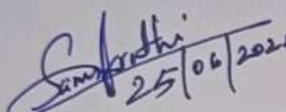
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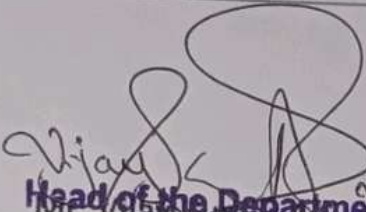
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Bangalore-560073

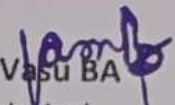
Sl. No.	Date	Activities / Work Done
1	2-04-2024	Overview about Company Profile and Overall Internship Details.
2	3-04-2024	Introduced to company policies and training programs.
3	4-04-2024	To gain practical experience in creating, managing, and analyzing quizzes, and to develop a deeper understanding of content creation and audience engagement.
4	11-04-2024	Understood the corporate culture and IT Company.
5	12-04-2024	Onboarding and Training session started, like Introduction program, Oriented session, Mentorship Initiatives, Feedback session.
6	13-04-2024	Attending meetings and learnt the atmosphere of the company.
7	16-04-2024	Cooperated with team members .

8	17-04-2024	Assigned a mock projects.
9	18-04-2024	Started the sample project with the guidance.
10	23-04-2024	SLearned about technologies fitting for the sample project.
11	24-04-2024	Designed the project layout,architecture and implemented it.
12	25-04-2024	Saw how to troubleshoot problems when they arised.
13	30-04-2024	Received instruction on presentation approaches from colleagues.
14	01-05-2024	Finalized the sample project.
15	02-05-2024	Collected data and generated reports using Excel or alternative software.
16	07-05-2024	Supported the management of events or promotional efforts.
17	08-05-2024	Supported in maintaining the company website by adding new content or features.
18	09-05-2024	Contributed to user testing activities for website or software prototypes
19	14-05-2024	Given responsibility for the core project.
20	15-05-2024	Engaged in project planning and feature development.
21	16-05-2024	Developed the project structure and conducted analysis.
22	21-05-2024	Started coding the layout for webpages.
23	22-05-2024	Acquired the skill to identify hidden errors.

24	23-05-2024	Verifying code quality and rectifying bugs.
25	28-05-2024	Conducted usability testing on project prototypes to gather user feedback
26	29-05-2024	Supported in the preparation of project presentations or reports for stakeholders.
27	30-05-2024	Documented all project observations and conclusions for future use.


 25/06/2024
 Prof. Samskruthi BL
 Professor
 Soundarya Institute of
 Management and Science


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 Nagasandra Post, Bangalore - 560 073

Examiner :

INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirements for the Award of Degree of

BACHELOR OF COMPUTER APPLICATIONS by

N VINAY

UUCMS. No.: U03KU21S0062

(Duration: 28th Feb, 2024 to 25th April, 2024)



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

Affiliated to Bangalore University, Jnana Bharathi,

Bengaluru, Karnataka

2023 – 2024

**BACHELOR OF COMPUTER APPLICATIONS SOUNDARYA
INSTITUTE OF MANAGEMENT AND SCIENCE**



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **N VINAY(UUCMS. No.:**
U03KU21S0062) is work done by him and submitted during 2023-2024 academic year in partial fulfilment of the
requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATIONS from SOUNDARYA**
INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.

Internship Coordinator

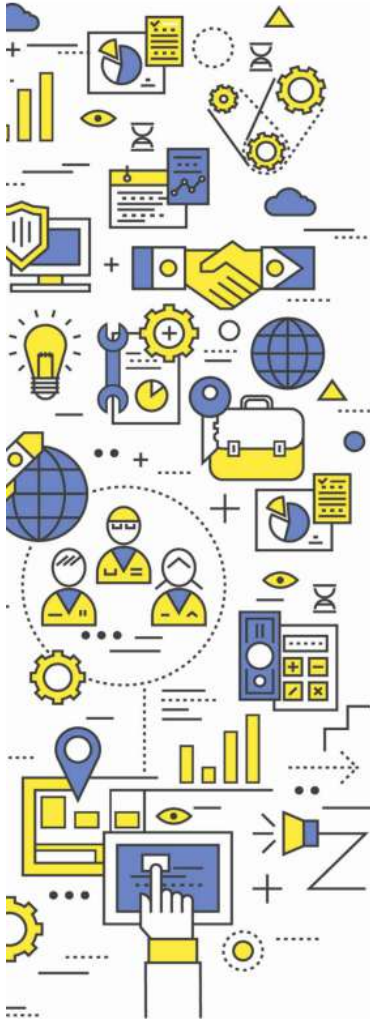
Department of BCA

Ms. Samskruthi B L

Head of the Department

Department of BCA

Prof. Vijay Kumar A S, M.Tech.,[Ph.D]



CERTIFICATE OF APPRECIATION

INTERNSHIP_170662655565b90dfb357f2

PROUDLY PRESENTED TO

VINAY

STU65d47836409251708423222

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Full Stack Web Development** under the **Next Gen Employability Program 2023-24**.

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

Date: 5th March 2024

Dear Mr./Ms. VINAY

AICTE Student ID: STU65d47836409251708423222

AICTE Internship ID: INTERNSHIP_170662655565b90dfb357f2

We extend our warmest congratulations on your selection for an internship presented by the Edunet Foundation, in collaboration with EY GDS-AICTE, focusing on Full Stack Web Development.

The EY GDS - AICTE Internship is structured to support individuals in developing essential foundational skills needed for productive careers in the IT sector. Participants have the opportunity to earn credentials and benefit from guidance provided by industry experts, all at no cost throughout the duration of the program.

EY GDS (Ernst & Young – Global Delivery Services), in partnership with AICTE, provides a unique learning experience through a 6-week Internship, commencing from 28th February 2024 to 25th April 2024. Throughout this period, you will have the opportunity to work independently on a project, with guidance from a mentor who will assist you in identifying solutions and developing them into a tangible project.

Benefits:

- Personalized mentorship sessions and collaborative group learning.
- Opportunities to expedite learning through project-based internships.
- A holistic learning experience provided by industry experts through knowledge-sharing sessions.
- Showcase your skills by creating prototypes to solve real-world challenges.
- Earn certifications from EY, AICTE, and Edunet, boosting your confidence and value to potential future employers.
- Opportunity to present your project prototypes to a panel of industry experts at a regional showcase event.

Timeline and the Project:

Week	Agenda	Student Deliverables
Week 0	Orientation of Internship, Project allocation	<ul style="list-style-type: none"> • Selection of Projects through Google form • Commence Project Related Tasks
Week 1	Master session on Resume Building, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 2	Master session on Design Thinking in Real World Applications, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 3	Master session on Managing codebase with Git Hub, Mentorship sessions, and Ask Me Anything sessions	<ul style="list-style-type: none"> • Complete the Weekly Milestone and feedback form • Project related tasks • Self-paced learning
Week 4	Master session on DevOps: Code to	<ul style="list-style-type: none"> ☐ Complete Weekly Milestone

	Production, Mentorship sessions, Ask Me Anything sessions, and Final Project Submission	<input type="checkbox"/> Self-Paced learning <input type="checkbox"/> Final project and PPT Submission
Week 5	Mock project presentations	<input type="checkbox"/> Presentation of Project in front of Subject Matter Experts <input type="checkbox"/> Incorporate changes in the project mentioned by Mentors
Week 6	Final Project Presentations (PPT)	<input type="checkbox"/> Final Presentation of Project before EY Industry Experts

Criteria for certification:

- Participation in master sessions with EY & EF experts is mandatory
- Participation in mentorship sessions with EF experts is mandatory
- Completion of tasks/milestones every week
- Submission of a project presentation required
- Commitment of 6-8hrs/week throughout internship

Stipend:

There will be NO stipend for this internship.

We wish you a great learning experience during the internship. Thank you!



Sincerely,
Nagesh Singh
Executive Director – Edunet Foundation

ACKNOWLEDGEMENT

First, I would like to thank Mr. Nagesh Singh, Executive Director of EDUNET FOUNDATION, for giving me the opportunity to do an internship within the organization.

I also thank all the people that worked along with me at EDUNET FOUNDATION, for their patience and openness which created an enjoyable working environment.

I am highly indebted to Director and Principal Dr. Vasu BA for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department Mr. Vijay Kumar A S for his constructive criticism throughout my internship.

I am extremely grateful to my department staff members and friends who helped me in the successful completion of this internship.

N VINAY (U03KU21S0062)

ABSTRACT

During my internship with Edunet Organization, I developed a comprehensive news aggregator web application using the Django framework. The primary goal of this project was to create a centralized platform where users could conveniently access and manage news from various reputable sources, offering a seamless and personalized news reading experience.

The application integrated multiple news sources such as BBC, CNN, and Reuters through APIs, ensuring a wide range of news articles was available on a single platform. Users could create accounts, log in, and personalize their news feeds based on their interests and preferences, making the news consumption experience more relevant and engaging.

Key features of the project included customizable feeds, allowing users to select topics and categories of interest. Advanced search and filtering options were implemented to enable users to quickly find specific news articles. The user interface was designed to be responsive and intuitive, ensuring accessibility across different devices and providing a smooth user experience.

The technical stack for this project comprised Django for backend development and REST API integration, along with HTML, CSS, Bootstrap, and JavaScript for the frontend. SQLite was used for local development, and PostgreSQL was deployed for the production environment.

Overall, this project significantly enhanced my technical skills in web development, API integration, and user interface design. It provided me with practical experience in developing and deploying a real-world application, equipping me with the knowledge and expertise needed for future professional endeavors in web development.

ORGANIZATION INFORMATION

EY GDS (Global Delivery Services) is an integral part of EY's Global organization. It provides a wide range of services, including tax, advisory, assurance, and transaction advisory services. EY GDS operates in multiple locations worldwide, delivering high-quality, innovative solutions to clients across various industries.

Edunet Foundation is a non-profit organization focused on enhancing education and employability through technology and innovation. It collaborates with various educational institutions and industries to provide training, resources, and support to students and professionals.

Week No.	Date	Activities / Work Done
Week 1 Mentoring Class	05/03/24	Planning the modules Implementing project layout
Week 1 Master Class	07/03/24	Resume Resonance : Creating an Impression that lasts/
Week 2 Mentoring Class	12/03/24	Home page implementation (HTML, CSS, Bootstrap)
Week 2 Master Class	14/03/24	Master session on Design thinking in real-world application
Week 3 Mentoring Class	19/03/24	Front-end and back-end interconnections
Week 3 Master Class	21/03/24	Managing Code Base with Git Hub
Week 4 Mentoring Class	26/03/24	Facebook, WhatsApp & Telegram shares Project setup creation, Deployment & Migration
Week 4 Master Class	28/03/24	Dev Ops: Code to Production

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- 4.5 SQL Database

5. Coding

6. Screenshots

7. Conclusion

8. Bibliography

1. INTRODUCTION

This internship report details the development and implementation of a News Aggregator project completed during the EY GDS-AICTE Internship Program. The objective of the project was to create a centralized platform aimed at aggregating news from diverse sources, providing users with a personalized and seamless news browsing experience.

The project leveraged a range of technologies including Python, Django, HTML, CSS, and web scraping techniques to achieve its goals. Key aspects of development included designing a user-friendly interface, implementing efficient backend processing for real-time data aggregation, and offering advanced customization options for users. These efforts were driven by the overarching goal of addressing challenges such as information overload and fragmented news consumption prevalent in today's digital landscape.

Throughout the internship, emphasis was placed not only on technical proficiency but also on integrating user-centric design principles, ensuring data security, and promoting inclusive accessibility features. This holistic approach not only enhanced practical skills but also provided valuable insights into real-world application development within the realm of computer science.

The experience gained during this internship has been instrumental in bridging academic knowledge with hands-on application, fostering professional growth, and cultivating a deeper appreciation for the complexities of software engineering and user experience design.

1.1 Modules Homepage:

- **Objective:** The homepage serves as the entry point, showcasing curated top news articles and trending topics.
- **Features:** Powered by Django, it dynamically fetches and displays news content in a responsive design format, ensuring optimal viewing across devices.
- **Technologies Used:** Django, HTML, CSS, JavaScript.

Categories for News:

- **Objective:** Organizes news articles into categorized sections such as "Breaking News," "Politics," and "Business" for intuitive navigation.
- **Features:** Allows users to explore specific topics of interest with ease, enhancing accessibility and relevance.
- **Technologies Used:** Django templates for structured presentation.

Article View:

- **Objective:** Provides comprehensive details of selected articles including title, content, author, and publication date.
- **Features:** Enhances readability and engagement with options for adjusting text size and sharing articles on social media platforms.
- **Technologies Used:** Django templates, HTML, CSS, JavaScript for interactive elements.

Social Media Sharing:

- **Objective:** Enables users to share articles seamlessly on platforms like Facebook, WhatsApp, and Telegram.
- **Features:** Integrates social sharing functionalities to expand article reach and user engagement.
- **Technologies Used:** Social media APIs, Django backend.

Copy Link:

- **Objective:** Offers users the option to copy article links for sharing through other communication channels.

- **Features:** Provides flexibility in sharing news content beyond integrated social media platforms.
- **Technologies Used:** JavaScript for link copying functionality.

About Page:

- **Objective:** Provides essential information about the platform's mission, team members, and contact details.
- **Features:** Includes sections on privacy policy, terms of use, and frequently asked questions (FAQs) to enhance transparency.
- **Technologies Used:** HTML, CSS for layout and content presentation.

2. ANALYSIS

The analysis phase involved understanding the requirements for creating a user-friendly news aggregator platform. User needs were identified, and the system was designed to provide a seamless browsing experience, focusing on key functionalities like categorization, detailed views, and easy sharing options.

2.1 WEEKLY PROGRESS

Week 1: Requirements Gathering and Initial Setup Defined project

scope and objectives.

Set up Django project structure and initial database schema.

Week 2: UI Design and Frontend Development

Designed homepage layout using HTML, CSS, and Bootstrap.

Initiated UI design for the about page and integrated initial web crawlers for data aggregation.

Week 3: Backend Integration and Feature Development

Integrated frontend and backend components for seamless data flow.

Developed modules for Opinion News, Breaking News, and categorized sections (Sports, Entertainment, Politics).

Week 4: Testing, Deployment, and Finalization

Implemented social media sharing functionalities (Facebook, WhatsApp, Telegram).

Conducted thorough testing, debugging, and finalized module interconnections.

Prepared for deployment, migration to production environment, and final project setup.

2.2 Weekly Milestone

Week 1 Milestone:

Understanding of Django framework and Software Engineering Principles:

Explored Django's MVC architecture and its application in building scalable web applications.

Project Aims and Objectives:

Defined the project scope to include modules for news fetching, categorization, and user interface design.

Brief of Modules:

Designed initial project layout including Home, About, Contact, and News pages.

Drafted flowcharts to visualize data flow and interactions between different modules.

Week 2 Milestone:

UI Design of Home Page and About Page:

Developed wireframes and mockups for Home and About pages, focusing on user engagement and visual appeal.

Implemented frontend components using HTML, CSS, and Bootstrap to ensure responsiveness and accessibility.

Integration of Bootstrap Components:

Utilized Bootstrap grids, navigation bars, and cards for structuring content and improving overall UI/UX.

Maintaining UI/UX Consistency:

Ensured consistency in color schemes, typography, and design elements across all pages for a cohesive user experience.

Week 3 Milestone:

Enhanced Social Share UI and Color Scheme:

Updated UI elements for social sharing functionalities on news articles.

Refined color scheme and visual elements to enhance readability and user interaction.

Implementation of News Categorization Features:

Introduced categories such as Opinion News, Breaking News, Sports, Entertainment, and Politics.

Integrated filtering options to allow users to customize their news feed based on interests.

Week 4 Milestone:

Integration with Social Media Platforms:

Implemented sharing capabilities on Facebook, WhatsApp, and Telegram to broaden news dissemination.

Final Module Connections and Deployment Setup:

Ensured seamless integration of all project modules to deliver a fully functional News Aggregator platform.

Configured deployment settings using Docker containers on AWS for scalability and performance optimization.

SOFTWARE REQUIREMENTS SPECIFICATIONS

The project required the following software components:

- Django framework for backend development
- Python as the programming language
- HTML/CSS for frontend design
- JavaScript for interactive elements
- SQL Database for storing articles and user data

4. TECHNOLOGY

4.1 Django:

Django is a high-level Python web framework that encourages rapid development and clean, pragmatic design. It follows the "Don't Repeat Yourself" (DRY) principle and includes built-in features such as authentication, URL routing, and an ORM (Object-Relational Mapping) for database interactions. Django's robust security features help protect applications from common threats like SQL injection, cross-site scripting, and cross-site request forgery.

4.2 Python

Python is an interpreted, high-level programming language known for its readability and versatility. Its extensive standard library supports many common programming tasks such as file I/O, system calls, and even web development. Python's clear syntax and dynamic typing make it a popular choice for both beginners and experienced developers.

4.3 HTML/CSS

HTML (Hyper Text Markup Language) is the standard language for creating web pages. It provides the structure of the page, while CSS (Cascading Style Sheets) defines the visual presentation, including layout, colours, and fonts. Together, HTML and CSS form the backbone of web content presentation.

4.4 JavaScript

JavaScript is a dynamic programming language commonly used for creating interactive effects within web browsers. It allows developers to implement complex features on web pages, such as dynamically updating content, controlling multimedia, and animating images. JavaScript is essential for enhancing user experience by making web pages more responsive and interactive.

4.5 SQL Database

SQL (Structured Query Language) is the standard language for managing and manipulating relational databases. SQL databases are used to store, retrieve, and manage data efficiently. For this project, SQL was used to handle user data and news articles, ensuring data integrity and performance.

5. CODING

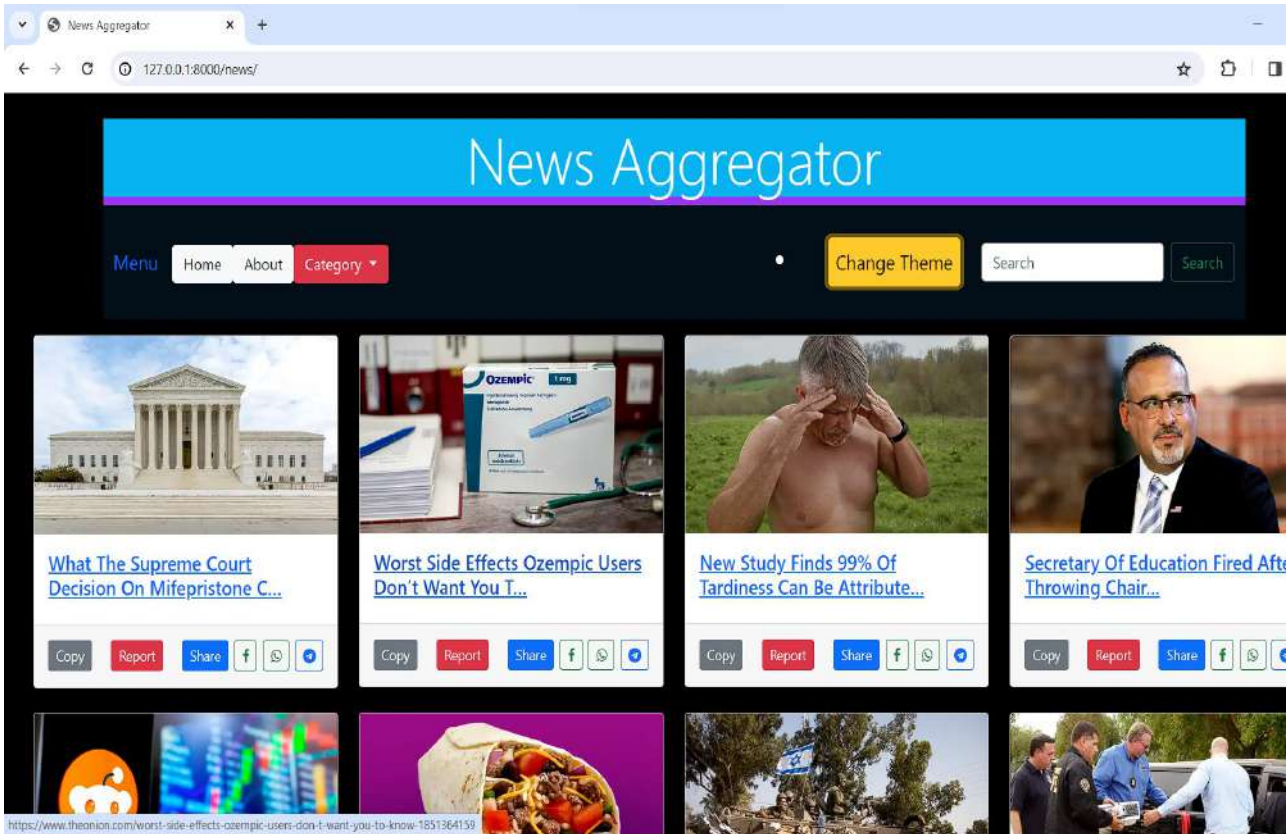
The coding phase involved several key steps:

- **Design and Setup:** Setting up the Django project structure, configuring settings, and designing the database schema.
- **Backend Development:** Implementing the core logic for data aggregation, user authentication, and interaction with the SQL database using Django's ORM.
- **Frontend Development:** Creating user interfaces with HTML, CSS, and JavaScript to ensure a responsive and user-friendly experience.
- **Integration:** Combining the backend and frontend components, ensuring seamless communication and data flow between the server and the client.
- **Testing and Debugging:** Conducting thorough testing to identify and fix bugs, ensuring the platform's reliability and performance.
- **Deployment:** Setting up the server environment and deploying the application to a production server for public access.

Key challenges included ensuring data consistency across multiple sources, optimizing query performance, and maintaining a responsive user interface. These were addressed through efficient database indexing, caching strategies, and asynchronous loading of content.

6. SCREENSHOTS

Screenshots of the platform were taken to document the user interface and key features, including the homepage, category views, article views, and sharing functionalities.



7. CONCLUSION

The EY GDS-AICTE Internship Program has been an enriching and transformative experience, bridging the gap between academic knowledge and practical application. Over the course of this internship, I was involved in the development and implementation of a News Aggregator project, which aimed to create a centralized platform for aggregating news from various sources and providing users with a personalized and seamless news browsing experience. This comprehensive conclusion reflects on the journey, key learnings, and future prospects of the project.

Week-by-Week Progress and Achievements

Week 1: Requirements Gathering and Project Setup

- **Requirements Analysis:** Collaborated with mentors to define the project scope, objectives, and deliverables, focusing on addressing information overload and providing a user-friendly news aggregation platform.
- **Project Planning:** Applied software engineering principles to plan the project's structure and modular design, ensuring scalability and maintainability.
- **Initial Implementation:** Set up the development environment and began implementing the homepage using HTML, CSS, and Bootstrap.

Week 2: UI Design and Initial Functionality

- **UI Enhancements:** Refined the homepage design and created a visually appealing and user-friendly interface.
- **Web Crawlers:** Developed web crawlers for fetching news articles from various sources, ensuring ethical scraping practices.
- **Mode Switching:** Implemented functionality for switching between different display modes (e.g., light and dark themes) to enhance user experience.

Week 3: Backend and Frontend Integration

- **Backend Development:** Connected frontend components with backend logic using Django, facilitating seamless data retrieval and presentation.
- **News Categories:** Developed categorized sections for news topics such as Opinion, Breaking News, Sports, Entertainment, and Politics.
- **Interactivity:** Enhanced the interactivity of the platform using JavaScript for dynamic content updates and smoother navigation.

Week 4: Final Features and Deployment

- **Social Media Sharing:** Added functionalities for sharing articles on social media platforms (Facebook, WhatsApp, Telegram) to increase user engagement.
- **Module Interconnection:** Ensured all modules were interconnected for a cohesive user experience, addressing integration issues through rigorous testing.
- **Deployment:** Deployed the project to a production environment, configuring the server and database, and conducting final performance optimizations.

Key Takeaways and Skills Acquired

1. Practical Experience

- Applied theoretical knowledge to develop a functional News Aggregator project using technologies such as Python, Django, HTML, CSS, and JavaScript.
- Gained hands-on experience in both backend and frontend development, including database management and UI design.

2. Technical Proficiency

- Enhanced coding skills, particularly in web development and backend processing.
- Developed proficiency in Django, leveraging its features for rapid and secure web application development.

3. Project Management

- Managed the project lifecycle from planning and design to coding, testing, and deployment.
- Implemented modular design principles, ensuring the project's scalability and maintainability.

4. Problem-Solving Abilities

- Addressed real-world problems such as information overload and fragmented news consumption.
- Developed solutions for data consistency, query performance, and responsive user interfaces.

5. User-Centric Design

- Focused on creating a user-friendly and accessible platform, emphasizing responsive design and intuitive navigation.
- Implemented features that enhance user experience, such as theme switching and social media sharing.

6. Collaboration and Communication

- Worked effectively with peers and mentors, enhancing teamwork and communication skills.
- Learned to incorporate feedback and adapt to changing project requirements.

7. Data Security

- Ensured data security by implementing robust measures to protect user information.
- Addressed common security threats such as SQL injection, cross-site scripting, and cross-site request forgery.

In conclusion, the EY GDS-AICTE Internship Program has been instrumental in my professional growth, providing a platform to apply academic knowledge to real-world challenges. The skills and experiences gained during this internship have not only prepared me for future endeavors in the field of computer science but also instilled a deeper appreciation for the importance of user-centric design and data security. This internship has laid a strong foundation for my career, equipping me with the tools and knowledge to tackle complex projects and contribute meaningfully to the tech industry.

8. BIBLIOGRAPHY

- **Python and Django Documentation** - Comprehensive guides and tutorials for Python and Django development available at [Python Official Documentation](#) and [Django Official Documentation](#).
- **Bootstrap Documentation** - Official documentation for Bootstrap framework available at Bootstrap Documentation.
- **HTML/CSS/JavaScript Resources** - Various online resources for frontend development techniques, including:
 - [W3Schools](#)
 - [MDN Web Docs](#)
- **EY Instructions and Mentorship** - Guidelines and mentorship provided by EY during the internship program, including personalized feedback and best practices for project development.

Ms. Samskruthi B L

Professor

**Soundarya Institute of
Management and Science**

Prof. Vijay Kumar AS

HOD - BCA

**Soundarya Institute of
Management and Science**

Dr. Vasu BA

Principal

**Soundarya Institute
Management and Science**

Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)

Valued seal

INTERNSHIP REPORT

*A report submitted in partial fulfilment of the requirements for the Award of
Degree of*

BACHELOR OF COMPUTER APPLICATION

by

YASHASWINI G

UUCMS. No.: U03KU21S0006

Duration: 28th Feb, 2024 to 25th April, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE


Affiliated to Bangalore University, Jnana Bharathi,
Bengaluru, Karnataka 2023 – 2024


BACHELOR OF COMPUTER APPLICATIONS
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

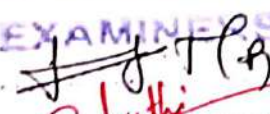
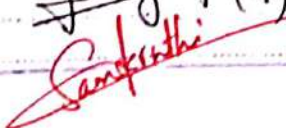


CERTIFICATE

This is to certify that the "Internship report" submitted by **Yashaswini G (UUCMS. No.: U03KU21S0006)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**


20/06/2024
Internship Coordinator
Prof. Anuradha S


Head of the Department
Head of the Department A
DEPT. OF COMPUTER SCIENCE
Prof. Vijay Kumar A S, M.Tech, Ph.D.
Soundarya Institute of Management and Science
Soundarya Nagar, Siderlahalli,
Nagarahalli Post, Bangalore - 560 073.

EXAMINERS
1. 
2. 



CERTIFICATE OF APPRECIATION

INTERNSHIP_170682655565b90dfb3572

PROUDLY PRESENTED TO

YASHASWINI G

STU65d45dad80f691708416429

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on Full Stack Web Development under the Next Gen Employability Program 2023-24.

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

ACKNOWLEDGEMENT

First I would like to thank Mr. Nagesh Singh, Executive Director, of **Edunet Foundation** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me **Edunet Foundation** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

YASHASWINI G (U03KU21S0006)

ABSTRACT

Full stack web development involves creating and managing both the front-end and back-end aspects of web applications. Full stack developers work with front-end technologies like HTML, CSS, JavaScript, and frameworks such as React or Angular to design user interfaces. On the back-end, they use languages and frameworks like Node.js, Python, Ruby, and databases such as MySQL and MongoDB to handle server logic and data management. This role requires a comprehensive understanding of web application architecture, security, and deployment, enabling developers to build robust and scalable web solutions.

Organisation Information:

Ernst & Young Global Delivery Services (EY-GDS) is a global entity within Ernst & Young (EY), a multinational professional services firm. EY-GDS is integral to EY's global delivery network, providing innovative and strategic support across a variety of service lines including Assurance, Tax, Consulting, and Strategy & Transactions. The mission of EY-GDS is to deliver high-quality, innovative solutions that help EY clients navigate complex business challenges, ensuring long-term success and value creation.

The mission of the Edunet Foundation is to empower students through education and skill development, ensuring they are prepared for successful careers and can contribute to the socio-economic development of their communities. The collaboration between EY-GDS and Edunet Foundation aims to leverage the strengths of both organizations to offer comprehensive internship programs for college students. Through this partnership, the Edunet Foundation and EY-GDS are committed to nurturing the next generation of skilled professionals, ready to meet the challenges of the evolving global job market.

Programs and opportunities:

EY-GDS and Edunet Foundation brings together the strengths of both organizations to offer comprehensive programs for college students. Key features include:

Integrated Internship Programs: Combining technical training from Edunet Foundation with practical experience at EY-GDS.

Mentorship and Guidance: Access to mentors from both organizations to provide holistic support.

Workshops and Seminars: Jointly conducted sessions on emerging trends, technologies, and professional development.

Methodologies:

Partnerships and Collaboration: Collaborating with industry partners like EY-GDS and educational institutions to design tailored internship programs.

Selection Process: Engaging in outreach through workshops and campus drives, selecting candidates based on academic performance and skill assessments.

Structured Internship Programs: Providing hands-on training through technical projects in emerging technologies and practical experiences.

Mentorship and Skill Development: Offering continuous support from industry mentors, skill development workshops, and certification programs.

Evaluation and Career Support: Regular progress reviews, final assessments, and career counseling to aid in job placements and career development.

Key parts of the report:

During my internship, I developed a notes-sharing web application using the Django framework. The application includes features like user registration, note upload/download, categorization by subjects, and search functionality. I designed the database schema, implemented user authentication, and created views and templates for user interactions. Challenges such as scalability and security were addressed through optimized queries and robust authentication methods. This project enhanced my skills in web development, database management, and user-centered design, providing a comprehensive learning experience in building functional and user-friendly web applications.

Benefits of the Company/Institution through our report:

Professional Development: Interns gain valuable industry experience and develop both technical and soft skills, preparing them for future career opportunities.

Mentorship: Access to guidance and mentorship from experienced EY professionals helps interns to learn best practices and receive career advice.

Global Exposure: Opportunities to work on diverse and international projects provide insights into global business operations and practices.

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1. Internship Objectives

- Internships are generally thought of to be reserved for college students looking to gain experience in a particular field. However, a wide array of people can benefit from Training Internships in order to receive real world experience and develop their skills.
- An objective for this position should emphasize the skills you already possess in the area and your interest in learning more.
- Internships are utilized in a number of different career fields, including architecture, engineering, healthcare, economics, advertising and many more.
- Some internship is used to allow individuals to perform scientific research while others are specifically designed to allow people to gain first-hand experience working.
- Utilizing internships is a great way to build your resume and develop skills that can be emphasized in your resume for future jobs. When you are applying for a Training Internship, make sure to highlight any special skills or talents that can make you stand apart from the rest of the applicants so that you have an improved chance of landing the position.

2. INTRODUCTION

A web-based notes sharing application using the Django framework is a platform that allows users to create, manage, and share notes online. Built with Django, a high-level Python web framework, the application ensures rapid development and clean, pragmatic design. Key features include user authentication, note creation and editing, and sharing capabilities with other users. The robust Django admin interface facilitates efficient management of user accounts and notes, while Django's security features help protect user data. This application leverages Django's powerful ORM to interact with the database seamlessly, providing a reliable and scalable solution for collaborative note-taking. The application is designed to offer a user-friendly interface where individuals can effortlessly organize their notes into categories or tags for easy retrieval. Users can choose to make their notes public or share them with specific individuals, fostering collaboration and knowledge sharing. The use of Django's templating engine ensures dynamic and responsive web pages, enhancing the user experience. Additionally, the application can incorporate real-time updates and notifications, using Django Channels, to keep users informed about changes to shared notes. With its modular structure, the application can be easily extended with additional features such as file attachments, markdown support, and integration with other services, making it a versatile tool for personal or academic use.

3. SOFTWARE REQUIREMENT SPECIFICATION

3.1 FUNCTIONAL REQUIREMENTS:

3.1.1 User Authentication: Registration: Users should be able to create an account using their email and password. Provide validation for email uniqueness and password strength. **Login:** Registered users should be able to log in using their email and password. Implement sessions to maintain user login state.

3.1.2 Notes Management: View Notes: Users should be able to view a list of all their notes and also implement pagination if there are many notes, allow users to view individual note details. **Search Notes:** Implement a search feature to allow users to find notes by title or content. Include filters for date range, tags, and other relevant criteria.

3.1.3 Notes Sharing and Access: Share Note: Allow users to share notes with others. Implement different sharing options (e.g., view-only, edit permissions) and send an email notification to the shared user if needed. **Access Control:** Implement access control to ensure only authorized users can view or edit shared notes. Owners of notes should be able to manage access permissions.

4. TECHNOLOGY

4.1 FRONTEND TECHNOLOGIES:

4.1.1 HTML (HyperText Markup Language):

HTML is the standard markup language used to create and structure content on the web. It defines the structure of web pages using elements represented by tags. These tags form the building blocks of web pages, allowing the inclusion of text, images, links, forms, and other media. Key elements include `<html>`, `<head>`, `<body>`, `<div>`, ``, `<a>`, ``, `<form>`, and `<table>`. HTML is the foundation of any web page and is essential for creating a well-structured and semantically correct document.

Purpose: Structure the content of web pages.

Usage: Define elements such as headings, paragraphs, lists, and forms for creating and managing notes.

4.1.2 CSS (Cascading Style Sheets):

CSS is used to style and layout web pages. It controls the visual presentation of HTML elements, including colors, fonts, spacing, and positioning. CSS enables the separation of content from design, making it easier to maintain and update the look of a website. Styles are applied using selectors and properties, such as color, font-size, margin, padding, and display. CSS also supports responsive design, allowing web pages to adapt to different screen sizes and devices through media queries.

Purpose: Style and layout of web pages.

Usage: Apply visual styles to HTML elements, ensuring a consistent and visually appealing design. Customize fonts, colors, spacing, and positioning of elements.

4.1.3 JavaScript:

JavaScript is a programming language that enables interactive and dynamic behavior on web pages. It allows developers to manipulate HTML and CSS, handle events, validate forms, create animations, and communicate with servers through AJAX.

JavaScript runs in the browser and is essential for modern web development, enabling features like real-time updates, form validation, interactive maps, and more. Popular libraries and frameworks, such as jQuery, React, Angular, and Vue.js, are built on top of JavaScript to simplify and enhance development.

Purpose: Add interactivity and dynamic behavior to web pages.

Usage: Implement features like form validation, search functionality, dynamic content updates, and real-time collaboration (e.g., using WebSockets).

4.1.4 Bootstrap:

Bootstrap is a popular front-end framework for developing responsive and mobile-first websites. It provides a collection of pre-designed components, such as buttons, forms, navbars, modals, and carousels, along with a grid system for layout. Bootstrap uses a combination of HTML, CSS, and JavaScript to create consistent and visually appealing designs. Its grid system allows for easy alignment and responsive design, ensuring that web pages look good on all devices. Bootstrap also includes built-in themes and customizable components, making it a powerful tool for quick and efficient web development.

Purpose: Framework for responsive and mobile-first web development.

Usage: Utilize pre-designed components (e.g., navbars, buttons, forms) and a responsive grid system to ensure the application looks good on various devices and screen sizes. Enhance consistency and speed up development with reusable CSS classes and JavaScript plugins.

4.2 BACKEND TECHNOLOGIES:

4.2.1 Python:

Python is a high-level, interpreted programming language known for its simplicity and readability. It supports multiple programming paradigms, including procedural, object-oriented, and functional programming. Python is widely used in web development, data analysis, artificial intelligence, machine learning, automation, and scientific computing. Its extensive standard library and rich ecosystem of frameworks (like Django and Flask for web development) and libraries (like NumPy, pandas, and TensorFlow for data science and AI) make it a versatile language for a variety of applications.

Purpose: General-purpose programming language.

Usage: Write the application logic, manage data processing, and handle backend tasks. Known for its readability and ease of use, which speeds up development.

4.2.2 Django Framework:

Django is a powerful and versatile web framework written in Python, renowned for its efficiency and emphasis on rapid development. It follows the Model-View-Template (MVT) architectural pattern, providing developers with a structured approach to building web applications. At its core, Django simplifies the complexities of web development by offering a rich set of features such as an object-relational mapping (ORM) system for interacting with databases, a built-in admin interface for easy content management, and robust security measures to protect against common web vulnerabilities.

Purpose: High-level web framework for Python.

Usage: MVT Architecture: Utilizes Model-View-Template architecture to separate concerns and streamline development.

5. DATABASE

5.1 SQL Database (e.g., PostgreSQL or MySQL):

SQL is the standard language for managing and manipulating relational databases. It is used to query, insert, update, and delete data stored in database tables. SQL allows for the creation and management of database schemas, ensuring data integrity and relationships between different data entities. Common SQL commands include SELECT, INSERT, UPDATE, DELETE, CREATE, ALTER, and DROP. SQL is used in various database systems like MySQL, PostgreSQL, SQLite, Oracle, and Microsoft SQL Server. It is essential for backend development, enabling efficient data storage, retrieval, and management in web applications and other software systems.

Together, Python, Bootstrap, and SQL form a powerful stack for web development. Python can be used for server-side scripting and data processing, Bootstrap for designing responsive and user-friendly interfaces, and SQL for managing the application's data.

Purpose: Store and manage application data.

Usage:

Data Storage: Store user information, notes, categories/tags, and sharing permissions.

Data Integrity: Ensure consistency and integrity of data through relational constraints (e.g., primary keys, foreign keys).

Querying: Efficiently retrieve, insert, update, and delete data using SQL queries.

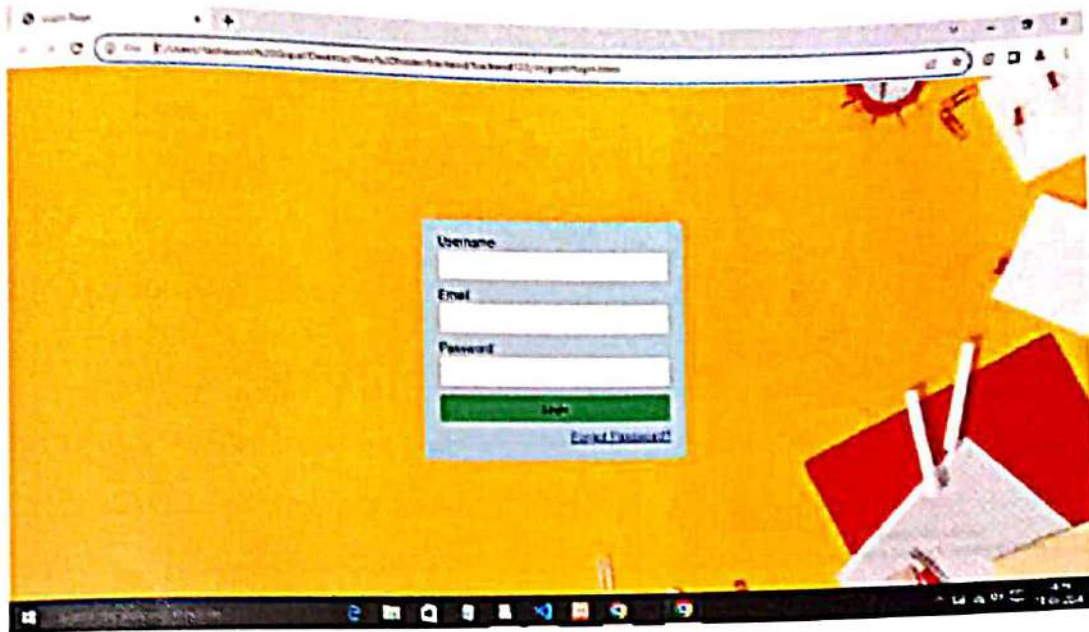
Scalability: Handle large volumes of data and high user loads.

Transactions: Support transactional operations to maintain data consistency.

Security: Provide access control mechanisms to secure data against unauthorized access.

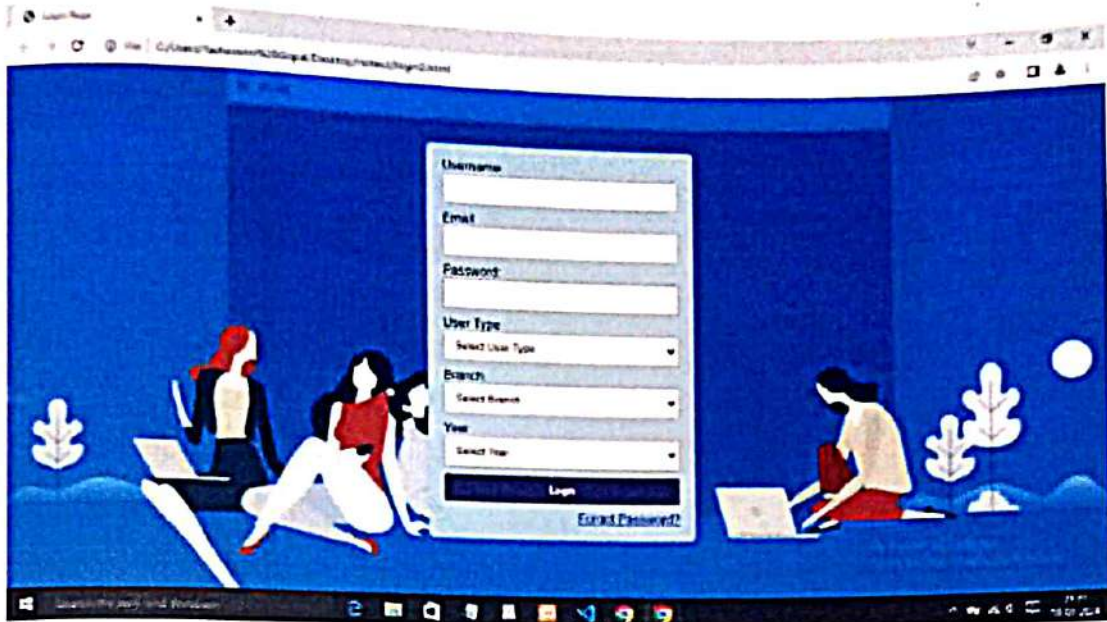
6. SCREENSHOTS

Figure 1:



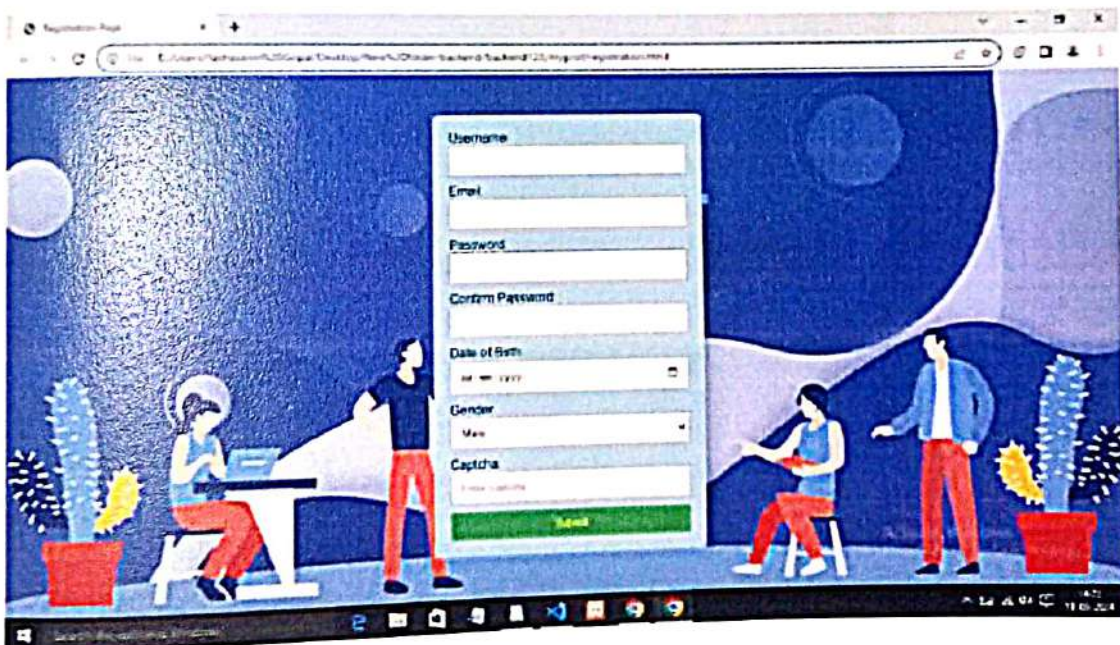
LOGIN PAGE 1

Figure 2:



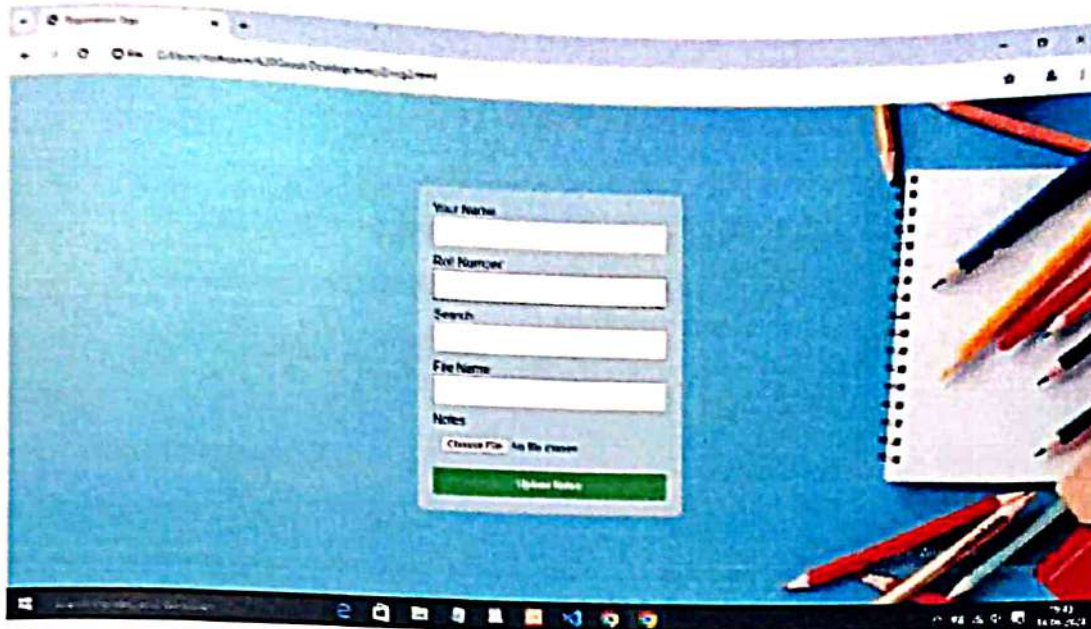
LOGIN PAGE 2

Figure 3:



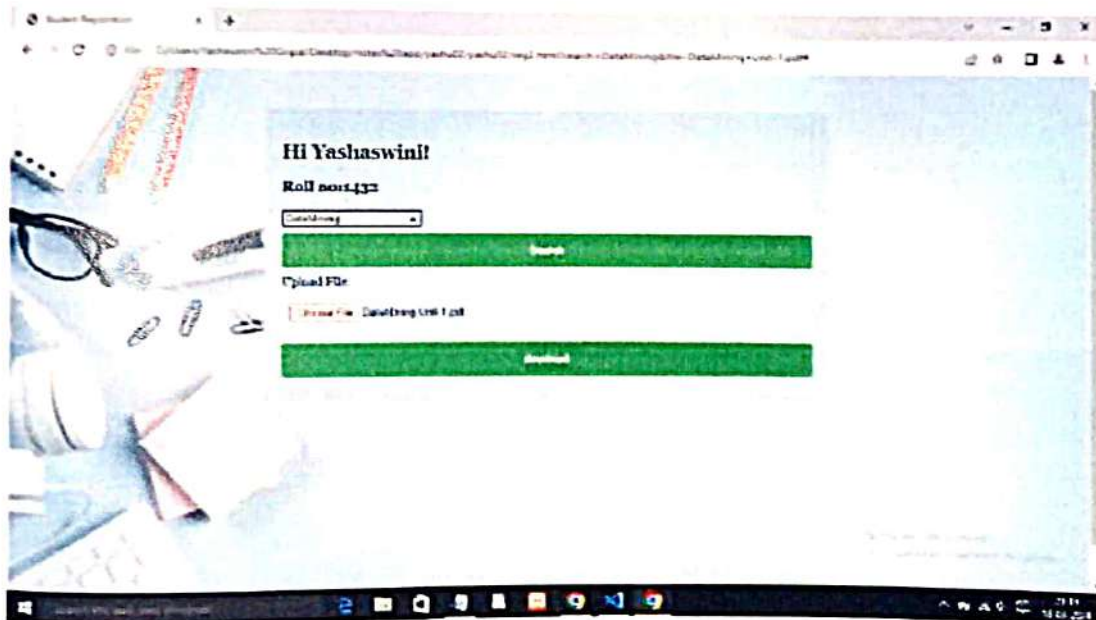
REGISTRATION PAGE 1

Figure 4:



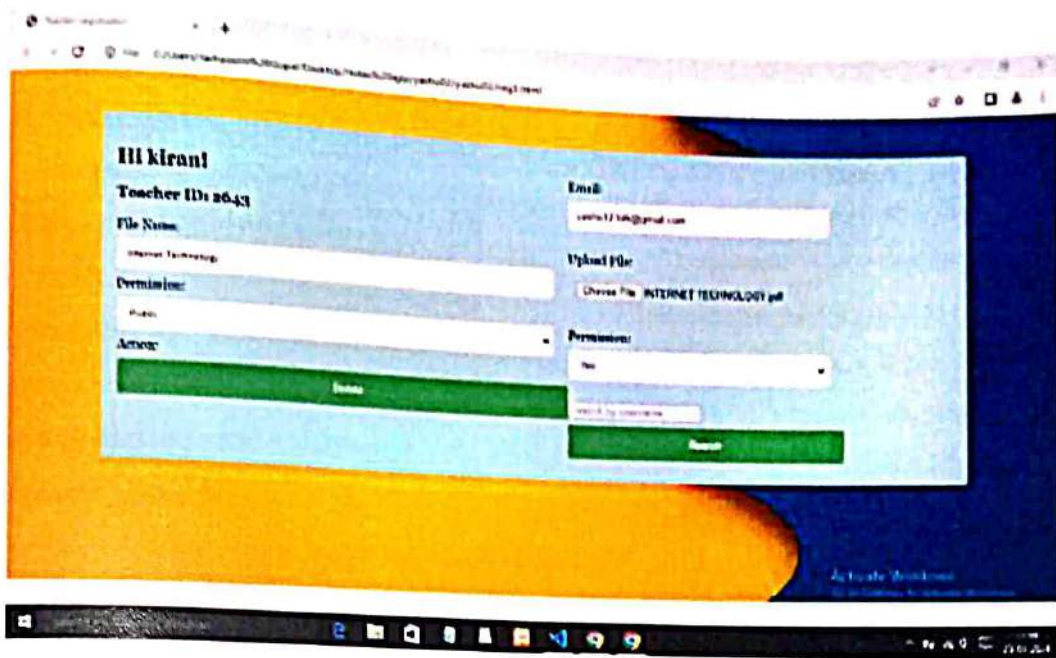
REGISTRATION PAGE 2

Figure 5:



STUDENT REGISTRATION PAGE

Figure 6:



TEACHER REGISTRATION PAGE

CONCLUSION

The Notes Sharing Web Application, developed using the Django framework, serves as a robust platform for users to create, manage, and share notes efficiently. Leveraging Django's powerful features like user authentication, ORM, and an admin interface, the application ensures a secure and scalable environment. The integration of frontend technologies such as HTML, CSS, JavaScript, and Bootstrap provides a responsive and user-friendly interface. Utilizing a SQL database ensures reliable data management and integrity. This project not only showcases the practical application of full-stack web development skills but also offers a valuable tool for collaborative and organized note-taking. The internship focused on developing a notes-sharing web application using the Django framework has been a highly educational and productive experience. This project successfully integrated key features such as user registration and authentication, note uploading and downloading, categorization, and search functionality. Throughout the development process, I gained significant hands-on experience with Django, enhancing my understanding of web application architecture, database management, and user interface design.

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The following books are referred during the analysis and execution phase of the project :

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3. Django Software Foundation. (2024). Django Documentation. Retrieved from <https://docs.djangoproject.com/en/stable/>

4. MySQL Documentation: <https://dev.mysql.com/doc/>

5. <https://www.w3schools.com/> : To learn tutorials and references on web development languages such as HTML, CSS, JavaScript, and SQL.

6. <https://www.freecodecamp.org/> : To seek free courses and certifications on web development, including hands-on projects and coding challenges.

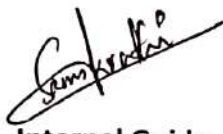
6. <https://www.freecodecamp.org/> : To seek free courses and certifications on web development, including hands-on projects and coding challenges.

Internship Day Book

Student Name and USN No: YASHASWINI G U03KU21S0006
 Company Name: EY GDS - AICTE Internship
 Address: Online intership

Sl. No.	Date	Activities / Work Done
1.	28-02-2024	<ul style="list-style-type: none"> Attended orientation session.
2.	29-02-2024	<ul style="list-style-type: none"> Discussed project scope, goals, and initial planning.
3.	01-03-2024	<ul style="list-style-type: none"> Set up development environment.
4.	02-03-2024	<ul style="list-style-type: none"> Installed Django, set up virtual environment, and created a new Django project.
5.	03-03-2024	<ul style="list-style-type: none"> Created initial project structure.
6.	04-03-2024	<ul style="list-style-type: none"> Developed initial Django app for user authentication and notes management.
7.	05-03-2024	<ul style="list-style-type: none"> Continued project setup.
8.	06-03-2024	<ul style="list-style-type: none"> Configured settings and initial URL routing for the Django project.
9.	07-03-2024	<ul style="list-style-type: none"> Documented weekly progress.
10.	08-03-2024	<ul style="list-style-type: none"> Documented the setup process and project structure.
11.	09-03-2024	<ul style="list-style-type: none"> Set up user authentication.
12.	10-03-2024	<ul style="list-style-type: none"> Implemented user registration, login, and logout functionality.
13.	11-03-2024	<ul style="list-style-type: none"> Enhanced user authentication.
14.	12-03-2024	<ul style="list-style-type: none"> Added email verification and password reset functionality.
15.	13-03-2024	<ul style="list-style-type: none"> Created basic notes model and performed migration.
16.	14-03-2024	<ul style="list-style-type: none"> Defined Note model with fields for title and content.
17.	15-03-2024	<ul style="list-style-type: none"> Attended the "Resume Resonance" masterclass.
18.	16-03-2024	<ul style="list-style-type: none"> Cleared doubts regarding weekly progress.
19.	17-03-2024	<ul style="list-style-type: none"> Developed notes creation and viewing functionality.
20.	18-03-2024	<ul style="list-style-type: none"> Implemented functionality to create and view notes.
21.	19-03-2024	<ul style="list-style-type: none"> Added notes editing and deletion functionality.
22.	20-03-2024	<ul style="list-style-type: none"> Implemented functionality to edit and delete notes.
23.	21-03-2024	<ul style="list-style-type: none"> Submitted the first milestone.
24.	22-03-2024	<ul style="list-style-type: none"> Designed Login page and Registration page.
25.	23-03-2024	<ul style="list-style-type: none"> Learned how to create a student login page.
26.	24-03-2024	<ul style="list-style-type: none"> Attended doubt clearing and mentoring sessions.
27.	25-03-2024	<ul style="list-style-type: none"> Attended the "Design thinking in real-world applications" masterclass.
28.	26-03-2024	<ul style="list-style-type: none"> Submitted the second milestone for student login and registration page update.
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34.	01-04-2024	<ul style="list-style-type: none"> Prepared the teacher login page for milestone submission.

35.	02-04-2024	<ul style="list-style-type: none"> Attended the "Managing code base with Github" masterclass.
36.	03-04-2024	<ul style="list-style-type: none"> Submitted the third milestone regarding the teacher login page.
37.	04-04-2024	<ul style="list-style-type: none"> Started merging all web pages for project completion.
38.	05-04-2024	<ul style="list-style-type: none"> Continued project documentation.
39.	06-04-2024	<ul style="list-style-type: none"> Conducted final tests in the staging environment.
40.	07-04-2024	<ul style="list-style-type: none"> Prepared for final project submission.
41.	08-04-2024	<ul style="list-style-type: none"> Attended the "DevOps: Code to production" masterclass.
42.	09-04-2024	<ul style="list-style-type: none"> Documented the complete project from start to end.
43.	10-04-2024	<ul style="list-style-type: none"> Modified and updated web pages by adding and deleting code.
44.	11-04-2024	<ul style="list-style-type: none"> Made final adjustments for project submission.
45.	12-04-2024	<ul style="list-style-type: none"> Merged all pages and reviewed them.
46.	13-04-2024	<ul style="list-style-type: none"> Created zip file for final milestone submission, including PPT.
47.	14-04-2024	<ul style="list-style-type: none"> Submitted the fourth milestone with the final project zip file.
48.	15-04-2024	<ul style="list-style-type: none"> Submitted the project presentation.
49.	16-04-2024	<ul style="list-style-type: none"> Completed the internship with final project and presentation submission.

for Prof Anuradha S


Internal Guide
 Designation of Guide
 College Name

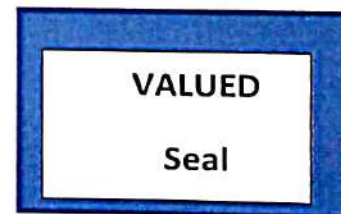


Head of the Department
 DEPT. OF COMPUTER SCIENCE
 Soundarya Institute of Management and Studies
 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 560 078



Principal
 PRINCIPAL
 Soundarya Institute of Management & Studies
 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 560 078

Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)



INTERNSHIP REPORT

*A report submitted in partial fulfilment of the requirements for the Award of
Degree of*

BACHELOR OF COMPUTER APPLICATION

by

YASHASWINI G

UUCMS. No.: U03KU21S0006

Duration: 28th Feb, 2024 to 25th April, 2024



SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE


Affiliated to Bangalore University, Jnana Bharathi,
Bengaluru, Karnataka 2023 – 2024


BACHELOR OF COMPUTER APPLICATIONS
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE

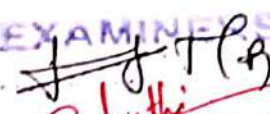
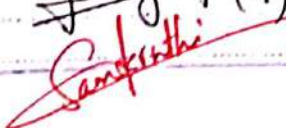


CERTIFICATE

This is to certify that the "Internship report" submitted by **Yashaswini G (UUCMS. No.: U03KU21S0006)** is work done by him/her and submitted during 2023-2024 academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**


20/06/2024
Internship Coordinator
Prof. Anuradha S


Head of the Department
Head of the Department A
DEPT. OF COMPUTER SCIENCE
Prof. Vijay Kumar A S, M.Tech, Ph.D.
Soundarya Institute of Management and Science
Soundarya Nagar, Siderlahalli,
Nagarahalli Post, Bangalore - 560 073.

EXAMINERS
1. 
2. 



CERTIFICATE OF APPRECIATION

INTERNSHIP_170682655565b90dfb3572

PROUDLY PRESENTED TO

YASHASWINI G

STU65d45dad80f691708416429

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on Full Stack Web Development under the Next Gen Employability Program 2023-24.

A handwritten signature in blue ink, appearing to read 'Nagesh Singh'.

Nagesh Singh
Executive Director
Edunet Foundation

A handwritten signature in blue ink, appearing to read 'Dr. Ramesh Unnikrishnan'.

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

ACKNOWLEDGEMENT

First I would like to thank Mr. Nagesh Singh, Executive Director, of **Edunet Foundation** for giving me the opportunity to do an internship within the organization.

I also would like all the people that worked along with me **Edunet Foundation** with their patience and openness they created an enjoyable working environment.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Director and Principal **Dr. Vasu BA** for the facilities provided to accomplish this internship.

I would like to thank my Head of the Department **Mr. Vijay Kumar A.S** for his constructive criticism throughout my internship.

I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

YASHASWINI G (U03KU21S0006)

ABSTRACT

Full stack web development involves creating and managing both the front-end and back-end aspects of web applications. Full stack developers work with front-end technologies like HTML, CSS, JavaScript, and frameworks such as React or Angular to design user interfaces. On the back-end, they use languages and frameworks like Node.js, Python, Ruby, and databases such as MySQL and MongoDB to handle server logic and data management. This role requires a comprehensive understanding of web application architecture, security, and deployment, enabling developers to build robust and scalable web solutions.

Organisation Information:

Ernst & Young Global Delivery Services (EY-GDS) is a global entity within Ernst & Young (EY), a multinational professional services firm. EY-GDS is integral to EY's global delivery network, providing innovative and strategic support across a variety of service lines including Assurance, Tax, Consulting, and Strategy & Transactions. The mission of EY-GDS is to deliver high-quality, innovative solutions that help EY clients navigate complex business challenges, ensuring long-term success and value creation.

The mission of the Edunet Foundation is to empower students through education and skill development, ensuring they are prepared for successful careers and can contribute to the socio-economic development of their communities. The collaboration between EY-GDS and Edunet Foundation aims to leverage the strengths of both organizations to offer comprehensive internship programs for college students. Through this partnership, the Edunet Foundation and EY-GDS are committed to nurturing the next generation of skilled professionals, ready to meet the challenges of the evolving global job market.

Programs and opportunities:

EY-GDS and Edunet Foundation brings together the strengths of both organizations to offer comprehensive programs for college students. Key features include:

Integrated Internship Programs: Combining technical training from Edunet Foundation with practical experience at EY-GDS.

Mentorship and Guidance: Access to mentors from both organizations to provide holistic support.

Workshops and Seminars: Jointly conducted sessions on emerging trends, technologies, and professional development.

Methodologies:

Partnerships and Collaboration: Collaborating with industry partners like EY-GDS and educational institutions to design tailored internship programs.

Selection Process: Engaging in outreach through workshops and campus drives, selecting candidates based on academic performance and skill assessments.

Structured Internship Programs: Providing hands-on training through technical projects in emerging technologies and practical experiences.

Mentorship and Skill Development: Offering continuous support from industry mentors, skill development workshops, and certification programs.

Evaluation and Career Support: Regular progress reviews, final assessments, and career counseling to aid in job placements and career development.

Key parts of the report:

During my internship, I developed a notes-sharing web application using the Django framework. The application includes features like user registration, note upload/download, categorization by subjects, and search functionality. I designed the database schema, implemented user authentication, and created views and templates for user interactions. Challenges such as scalability and security were addressed through optimized queries and robust authentication methods. This project enhanced my skills in web development, database management, and user-centered design, providing a comprehensive learning experience in building functional and user-friendly web applications.

Benefits of the Company/Institution through our report:

Professional Development: Interns gain valuable industry experience and develop both technical and soft skills, preparing them for future career opportunities.

Mentorship: Access to guidance and mentorship from experienced EY professionals helps interns to learn best practices and receive career advice.

Global Exposure: Opportunities to work on diverse and international projects provide insights into global business operations and practices.

2. INTRODUCTION

A web-based notes sharing application using the Django framework is a platform that allows users to create, manage, and share notes online. Built with Django, a high-level Python web framework, the application ensures rapid development and clean, pragmatic design. Key features include user authentication, note creation and editing, and sharing capabilities with other users. The robust Django admin interface facilitates efficient management of user accounts and notes, while Django's security features help protect user data. This application leverages Django's powerful ORM to interact with the database seamlessly, providing a reliable and scalable solution for collaborative note-taking. The application is designed to offer a user-friendly interface where individuals can effortlessly organize their notes into categories or tags for easy retrieval. Users can choose to make their notes public or share them with specific individuals, fostering collaboration and knowledge sharing. The use of Django's templating engine ensures dynamic and responsive web pages, enhancing the user experience. Additionally, the application can incorporate real-time updates and notifications, using Django Channels, to keep users informed about changes to shared notes. With its modular structure, the application can be easily extended with additional features such as file attachments, markdown support, and integration with other services, making it a versatile tool for personal or academic use.

4.2 BACKEND TECHNOLOGIES:

4.2.1 Python:

Python is a high-level, interpreted programming language known for its simplicity and readability. It supports multiple programming paradigms, including procedural, object-oriented, and functional programming. Python is widely used in web development, data analysis, artificial intelligence, machine learning, automation, and scientific computing. Its extensive standard library and rich ecosystem of frameworks (like Django and Flask for web development) and libraries (like NumPy, pandas, and TensorFlow for data science and AI) make it a versatile language for a variety of applications.

Purpose: General-purpose programming language.

Usage: Write the application logic, manage data processing, and handle backend tasks. Known for its readability and ease of use, which speeds up development.

4.2.2 Django Framework:

Django is a powerful and versatile web framework written in Python, renowned for its efficiency and emphasis on rapid development. It follows the Model-View-Template (MVT) architectural pattern, providing developers with a structured approach to building web applications. At its core, Django simplifies the complexities of web development by offering a rich set of features such as an object-relational mapping (ORM) system for interacting with databases, a built-in admin interface for easy content management, and robust security measures to protect against common web vulnerabilities.

Purpose: High-level web framework for Python.

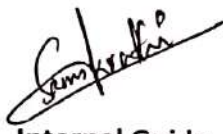
Usage: MVT Architecture: Utilizes Model-View-Template architecture to separate concerns and streamline development.

Internship Day Book

Student Name and USN No: YASHASWINI G U03KU21S0006
 Company Name: EY GDS - AICTE Internship
 Address: Online intership

Sl. No.	Date	Activities / Work Done
1.	28-02-2024	● Attended orientation session.
2.	29-02-2024	● Discussed project scope, goals, and initial planning.
3.	01-03-2024	● Set up development environment.
4.	02-03-2024	● Installed Django, set up virtual environment, and created a new Django project.
5.	03-03-2024	● Created initial project structure.
6.	04-03-2024	● Developed initial Django app for user authentication and notes management.
7.	05-03-2024	● Continued project setup.
8.	06-03-2024	● Configured settings and initial URL routing for the Django project.
9.	07-03-2024	● Documented weekly progress.
10.	08-03-2024	● Documented the setup process and project structure.
11.	09-03-2024	● Set up user authentication.
12.	10-03-2024	● Implemented user registration, login, and logout functionality.
13.	11-03-2024	● Enhanced user authentication.
14.	12-03-2024	● Added email verification and password reset functionality.
15.	13-03-2024	● Created basic notes model and performed migration.
16.	14-03-2024	● Defined Note model with fields for title and content.
17.	15-03-2024	● Attended the "Resume Resonance" masterclass.
18.	16-03-2024	● Cleared doubts regarding weekly progress.
19.	17-03-2024	● Developed notes creation and viewing functionality.
20.	18-03-2024	● Implemented functionality to create and view notes.
21.	19-03-2024	● Added notes editing and deletion functionality.
22.	20-03-2024	● Implemented functionality to edit and delete notes.
23.	21-03-2024	● Submitted the first milestone.
24.	22-03-2024	● Designed Login page and Registration page.
25.	23-03-2024	● Learned how to create a student login page.
26.	24-03-2024	● Attended doubt clearing and mentoring sessions.
27.	25-03-2024	● Attended the "Design thinking in real-world applications" masterclass.
28.	26-03-2024	● Submitted the second milestone for student login and registration page update.
29.	27-03-2024	● Learned how to create a teacher login page.
30.	28-03-2024	● Designed pages using CSS.
31.	29-03-2024	● Conducted testing and fixed identified bugs.
32.	30-03-2024	● Implemented search functionality and tagging system for notes.
33.	31-03-2024	● Gained experience working on the same web pages.
34.	01-04-2024	● Prepared the teacher login page for milestone submission.

35.	02-04-2024	<ul style="list-style-type: none"> Attended the "Managing code base with Github" masterclass.
36.	03-04-2024	<ul style="list-style-type: none"> Submitted the third milestone regarding the teacher login page.
37.	04-04-2024	<ul style="list-style-type: none"> Started merging all web pages for project completion.
38.	05-04-2024	<ul style="list-style-type: none"> Continued project documentation.
39.	06-04-2024	<ul style="list-style-type: none"> Conducted final tests in the staging environment.
40.	07-04-2024	<ul style="list-style-type: none"> Prepared for final project submission.
41.	08-04-2024	<ul style="list-style-type: none"> Attended the "DevOps: Code to production" masterclass.
42.	09-04-2024	<ul style="list-style-type: none"> Documented the complete project from start to end.
43.	10-04-2024	<ul style="list-style-type: none"> Modified and updated web pages by adding and deleting code.
44.	11-04-2024	<ul style="list-style-type: none"> Made final adjustments for project submission.
45.	12-04-2024	<ul style="list-style-type: none"> Merged all pages and reviewed them.
46.	13-04-2024	<ul style="list-style-type: none"> Created zip file for final milestone submission, including PPT.
47.	14-04-2024	<ul style="list-style-type: none"> Submitted the fourth milestone with the final project zip file.
48.	15-04-2024	<ul style="list-style-type: none"> Submitted the project presentation.
49.	16-04-2024	<ul style="list-style-type: none"> Completed the internship with final project and presentation submission.

for Prof Anuradha S


Internal Guide
 Designation of Guide
 College Name

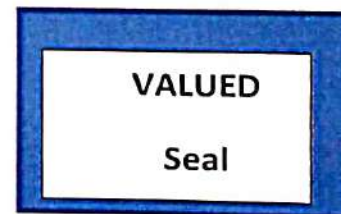


Head of the Department
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 Nagasandra Post, Bangalore - 560 078



Principal
 PRINCIPAL
 Soundarya Institute of Management & Studies
 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 560 078

Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)

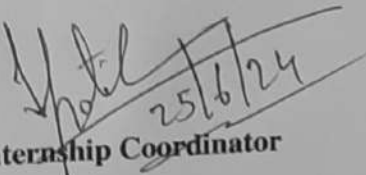


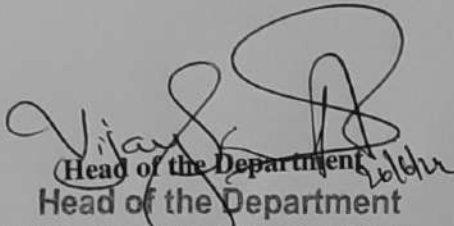
BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



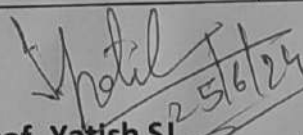
CERTIFICATE

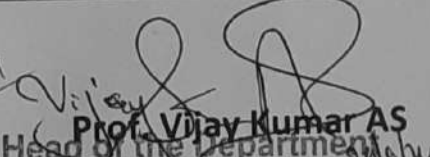
This is to certify that the "Internship report" submitted by **YASHASWINI.R (UUCMS. No.: U03KU21S0022)** is work done by him and submitted during 2023-2024 academic year in partial fulfillment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE, Bangalore.**

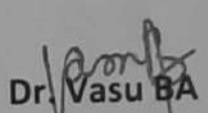

25/6/24
Internship Coordinator
Department of BCA
Prof. YATISH SJ


Head of the Department
Head of the Department
DEPT. OF COMPUTER SCIENCE
Prof. Vijay Kumar A S, M.Tech., [Ph.D.]
Soundarya Institute of Management and Science
Soundarya Nagar, Sidedaha,
Nagasandra Post, Bangalore - 560 073.

26	10/05/2024	Form creation for addUserForm.
27	11/05/2024	Saturday
28	12/05/2024	Sunday
29	13/05/2024	Error resolution for user login.
30	14/05/2024	Error resolution for forms.
31	15/05/2024	Creation of admin index page.
32	16/05/2024	Creation of admin navigation bar.
33	17/05/2024	Creation of addStaff'stForm.
34	18/05/2024	Saturday
35	19/05/2024	Sunday
36	20/05/2024	Creation of editstafftForm.
37	21/05/2024	Creation of staff views.
38	22/05/2024	Creation of staff_add Poller views.
39	23/05/2024	Creation of staff_add Poller_save views.
40	24/05/2024	Creation of manage_staff.
41	25/05/2024	Saturday
42	26/05/2024	Sunday
43	27/05/2024	Creation of manage_course.
44	28/05/2024	Creation of edit_staff and edit_staff_save.
45	29/05/2024	edit_User views.
46	30/05/2024	edit Polling's.
47	31/05/2024	staff_home and student_home


Prof. Yatish SJ
 Professor
 Soundarya Institute of Management and Science


Prof. Vijay Kumar AS
 Head of the Department
 DEPT. OF COMPUTER SCIENCE
 HOD - BCA
 Soundarya Institute of Management and Science


Dr. Vasu BA
 Principal
 PRINCIPAL
 Soundarya Institute of Management and Science

Soundarya Institute of Management and Science
 Soundarya Nagar, Siddahalli
 Nagasandra Post, Bangalore - 560 073.

BACHELOR OF COMPUTER APPLICATION
SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE



CERTIFICATE

This is to certify that the “**Internship report**” submitted by **Sangeetha M B (UUCMS. No.: U03KU21S0016)** is work done by him/her and submitted during **2023-2024** academic year in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF COMPUTER APPLICATION** from **SOUNDARYA INSTITUTE OF MANAGEMENT AND SCIENCE,** Bangalore.

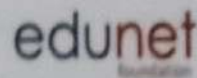
Sangeetha M B

Internship Coordinator
Prof. Nagasuma C V

Vijay Kumar A S M Tech

Head of the Department
Head of the Department
DEPT. OF COMPUTER SCIENCE
Department of BCA
Soundarya Institute of Management and Science
Prof. Vijay Kumar A S M Tech. [Ph.D]
Soundarya Nagar, Siddeswara,
Nagasandra Post, Bangalore - 560 073.

EXAMINERS
1. *Sangeetha M B*
2. *Sangeetha M B*



CERTIFICATE OF APPRECIATION

INTERNSHIP_1706026555622/90dfb35702

PROUDLY PRESENTED TO

SANGEETHA M B

STU65d2fab5085d61708325557

for successfully completing the 6 weeks of the EY Global Delivery Services led internship in collaboration with AICTE from 28 February 2024 to 25 April 2024 on **Full Stack Web Development** under the **Next Gen Employability Program 2023-24**.

Nagesh Singh
Executive Director
Edunet Foundation

Dr. Ramesh Unnikrishnan
Advisor-II,
AICTE

42.	09-04-2024	<ul style="list-style-type: none"> Submitted the fifth weekly progress report. Finalized all project documentation.
43.	10-04-2024	<ul style="list-style-type: none"> Prepared final presentation materials. Reviewed presentation checklist.
44.	11-04-2024	<ul style="list-style-type: none"> Conducted a final review of the project. Attended a mentorship session for last-minute advice.
45.	12-04-2024	<ul style="list-style-type: none"> Final practice run of the presentation. Received final feedback from mentors
46.	13-04-2024	<ul style="list-style-type: none"> Made any last-minute changes to the project. Rehearsed presentation delivery.
47.	14-04-2024	<ul style="list-style-type: none"> Finalized the presentation slides. Submitted the final project presentation for review.
48.	15-04-2024	<ul style="list-style-type: none"> Reflected on the overall internship experience. Completed the final weekly milestone and feedback form.
49.	17-04-2024	<ul style="list-style-type: none"> Submitted final internship report. Received certification of completion from EY, AICTE, and Edunet.

[Signature]
Internal Guide
Designation of Guide
College Name

[Signature]
Head of the Department
DEPT. OF COMPUTER SCIENCE
Soundarya Institute of Management and Science
 Soundarya Nagar, Sidedahalli,
 Nagasandra Post, Bangalore - 560 073.

[Signature]
PRINCIPAL
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Principal Name
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College Name

Examiner (This is to be signed by the faculty who will be there on the day of internship presentation – it is an internal faculty only with Date)

