FINAL SEMESTER INTERNSHIP REPORT IV B.TECH II SEMESTER (2024-2025) ON

FULL STACK WEBSITE DEVELOPMENT

An Internship Report Submitted to JNTU, Anantapuramu

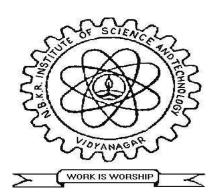
In partial fulfillment of the requirements for the award of the degree of

Bachelor of Technology

Computer Science & Engineering

By

Name of Student	S.Anjali
Roll Number	21KB1A05E8
Organization	EI Systems
Name of Supervisor	Mallika Srivastava



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

N.B.K.R. INSTITUTE OF SCIENCE & TECHNOLOGY

(Autonomous)

VIDYANAGAR - 524 413, TIRUPATI DIST, AP

Student's Declaration

I, Anjali Sanniboina, a student of Btech program, Roll No. 21KB1A05E8 of the Department of CSE,NBKRIST College do hereby declare that I have completed the mandatory internship in Eisystems Technologies under the faculty guideship of Mallika Srivastava, Department of CSE,NBKRIST

(Signature and Date)

CERTIFICATE OF INTERNSHIP



Certificate of Internship

This is to certify that

ANJALI SANNIBOINA

did his/her internship with us between 5 FEBRUARY TO 4 MAY OF 2024 (12 WEEKS)

As a part of internship, he/she completed training on FULLSTACK WEBSITE DEVELOPMENT followed by submitting a report on VIRTUAL KEYBOARD



Head, Internship & Operations Eisystems Services



Head, Training Delivery Eisystems Technologies



Date of Issue: 20-Jun-24 Certificate ID: EIS/AICT/24SP-0559

AICTE ORID : CORPORATE65a015a925f071704990121 Internship Name / Phase ID: EISYS-4/8/12/16 2024

Validate at robokwik.com/certificatevalidation

ACKNOWLEDGEMENT

The satisfaction that accompanies the successful completion of a project would be incomplete without the people who made it possible of their constant guidance and encouragement crowned our efforts with success.

I express my sincere gratitude to **Dr.A. Rajasekhar Reddy, Professor, Head of Department CSE**, for providing exceptional facilities for successful completion.

We convey our special thanks to **Dr. Y. Venkata Rami Reddy** respectable chairman of **N.B.K.R. Institute of Science and Technology**, for providing excellent infrastructure in our campus for the completion of the internship.

I convey my special thanks to **Sri N. Ram Kumar Reddy** respectable correspondent of **N.B.K.R. Institute of Science and Technology**, for providing excellent infrastructure in our campus for the completion of the internship

Iam grateful to **Dr. V. Vijaya Kumar Reddy, Director of N.B.K.R Institute of Science and Technology** for allowing us to avail all the facilities in the college for my internship.

I would like to convey my heartfull thanks to **Staff members**, **Lab technicians**, and our friends, who extended their cooperation in making this internship as a successful one.

I would like to thank one and all who have helped us directly and indirectly to complete this internship successfully.

S.ANJALI (21KB1A05E8)

ABSTRACT

The objective of this internship in full stack website development is to immerse interns in a dynamic and engaging learning environment, enabling them to gain hands-on experience and valuable insights across a range of web technologies. Our primary aim is to empower interns with the essential skills and knowledge required to effectively develop and manage both front-end and back-end components of web applications, with a specific emphasis on industry-standard frameworks and tools. Throughout the internship duration, interns will engage in a structured curriculum designed to provide comprehensive coverage of web development fundamentals and advanced concepts.

By actively participating in hands-on activities, practical exercises, and real-world projects, interns will cultivate a robust understanding of key principles, including user interface design, server-side programming, database management, API integration, and version control practices. As interns progress through the program, they will receive mentorship and guidance from experienced professionals in the field, enabling them to refine their technical abilities, enhance problem-solving skills, and develop a mindset geared towards innovation and continuous improvement.

Additionally, regular evaluations and feedback sessions will provide interns with valuable insights into their performance, allowing them to identify areas for growth and tailor their learning journey to align with their individual career aspirations. Ultimately, the overarching goal of this internship is to equip interns with the requisite knowledge, skills, and confidence to navigate the complexities of full stack web development effectively. By fostering a dynamic learning environment and providing hands-on experiences with leading web technologies, we aim to empower interns to emerge as proficient and versatile web developers, poised to make meaningful contributions to the rapidly evolving landscape of technology and digital innovation.

ORGANIZATION'S INFORMATION

The organization where I had the opportunity to undertake my Full Stack website development internship, EI Systems is a distinguished entity in the web technologies, particularly renowed for its expertise and innovations in many fields. Located in Uttar Pradesh. Catering to a wide range of businesses and industries.

VISION AND MISSION

Vision:

The company envisions being a frontunner in the web technologyrevolution, specifically by harnessing the power and versatility of Full Stack to transform and elevate business process across various sectors.

Mission:

Dedicated to delivering robust, innovative, and scalable solutions, the company's mission is to empower organizations by optimizing their operations throught efficient and effective integration.

CORE VALUES

Innovation:

Emphasizing the importance of continuos innovation and the adoption of emerging technologies to stay a head in the industry.

Excellence:

Commitment to delivering the highest quality in evry project ,ensuring client satisfaction through superior solutions

Integrity:

Upholding ethical practices and transparency in all business dealings.

Customer Focus:

Ensuring that the needs and expecations of clients are consistently met and exceeded.

ACHIEVEMENTS

EISystems Services is a leading Indian technology identity with operations across India. EISystems (EISys) offers trainings in Cybersecurity, Machine Learning, Automobiles, Internet of Things, Robotics and Socialmedia for enterprises and student community. Till date it has trained approximately 50000 students and impacted around 2 lakhs students through various outreach initiatives since their founding.

WEEKLY OVERVIEW OF INTERNSHI ACTIVITIES

Week 1: Introduction to Full Stack Development

Overview:

Introduce the concept of full stack development and the technologies involved.

Activities:

- Overview of front-end vs. back-end development.
- Introduction to popular tech stacks (e.g., MERN, LAMP).
- Hands-on tutorials on setting up a development environment (Node.js, npm, Git).

Week 2: HTML and CSS Fundamentals

Focus:

Learn the basics of web page structure and styling.

Activities:

- Hands-on exercises creating static web pages using HTML5.
- Introduction to CSS3 for styling and layout (Flexbox, Grid).
- Project: Build a simple static website.

Week 3: JavaScript Basics

Focus:

Understand JavaScript fundamentals for client-side scripting.

Activities:

- Learn core JavaScript concepts (variables, functions, loops, events).
- Hands-on tutorials with DOM manipulation.
- Project: Enhance the static website with JavaScript interactivity.

Week 4: Version Control with Git

Focus:

Learn the importance of version control in development.

Activities:

- Introduction to Git and GitHub for version control.
- Hands-on exercises: cloning repositories, making commits, branching, and merging.
- Project: Collaborate on a small group project using Git.

Week 5: Introduction to Front-End Frameworks

Focus:

Explore modern front-end frameworks for building dynamic applications.

Activities:

- Overview of frameworks (React, Vue.js, Angular).
- Introduction to React: components, state, and props.
- Project: Build a simple application using React.

Week 6: Back-End Development Basics

Focus:

Understand the server-side of web applications.

Activities:

- Introduction to Node.js and Express.js.
- Build a simple RESTful API with Express.
- Project: Create a basic server to handle CRUD operations.

Week 7: Databases and Data Management

Focus:

Learn about databases and how to integrate them with applications.

Activities:

- Introduction to SQL (PostgreSQL/MySQL) and NoSQL (MongoDB) databases.
- Hands-on setup of a database and connecting it to a server.
- Project: Implement data storage in your back-end application.

Week 8: User Authentication and Authorization

Focus:

Implement user management in your application.

Activities:

- Learn about authentication strategies (JWT, OAuth).
- Hands-on implementation of user sign-up and login.
- Project: Add authentication to your application.

Week 9: Building Full Stack Applications

Focus:

Integrate front-end and back-end components.

Activities:

- Connect the React front end to the Express back end.
- Hands-on project: Create a full stack application with CRUD functionality.
- Discussion on best practices in full stack development.

Week 10: API Development and Integration

Focus:

Learn how to consume and create APIs.

Activities:

- Overview of RESTful APIs and GraphQL.
- Hands-on exercise: Consume a public API in a front-end application.
- Project: Build and document your own RESTful API.

Week 11: Deployment and Hosting

Focus:

Learn how to deploy web applications.

Activities:

- Introduction to cloud hosting services (Heroku, AWS, Vercel).
- Hands-on tutorial: Deploy your application to a cloud platform.
- Discussion on continuous integration and delivery (CI/CD).

Week 12: Performance Optimization and Testing

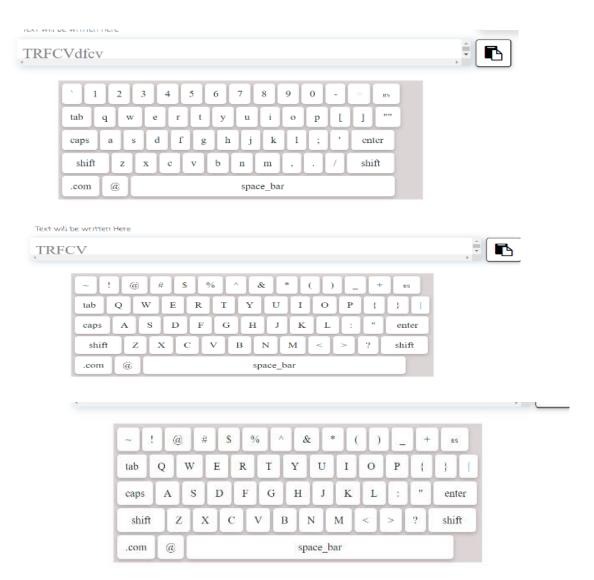
Focus

Improve application performance and reliability.

Activities:

- Learn about web performance optimization techniques.
- Introduction to testing frameworks (Jest, Mocha).
- Hands-on project: Write tests for your application and optimize performance.

OUTCOME



CONCLUSION

Reflecting on the Full Stack Web Development internship, it is evident that this experience has been a pivotal chapter in my professional journey. The internship served as an invaluable opportunity to bridge the gap between theoretical knowledge and practical application, greatly enhancing my skills and understanding of full stack development processes. The exposure to a professional environment, combined with the opportunity to work on diverse, real-world projects, proved to be essential in preparing me for a career in the technology sector.

The challenges encountered and overcome during this period not only honed my technical abilities but also contributed significantly to my personal and professional growth. From enhancing my communication and teamwork skills to developing a resilient and adaptable mindset, the internship has shaped me into a more well-rounded individual and professional.

Inspired by this experience, I have set forth clear goals and aspirations for my future. These goals reflect a commitment to continual learning and specialization in web development technologies. The relationships and professional network I developed during the internship are assets I cherish and look forward to nurturing as I advance in my career.

In conclusion, the Full Stack Web Development internship at [Company Name] has been an immensely rewarding and transformative experience. It has not only affirmed my passion for web development but also set me on a path of lifelong learning and professional growth in the dynamic world of technology. The skills, knowledge, and experiences gained during this period have laid a solid foundation for my future endeavors, positioning me well for success in the ever-evolving landscape of web development.

