D. Y. PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE

Affiliated to

SAVITRIBAI PHULE PUNE UNIVERSITY

Department Of Information Technology

Internship Report

On

Full Stack Development (MERN) at Step One Step Ahead

Submitted By

Exam Seat No	Name
TE22IT010	Nikhil Domade

Under the guidance of

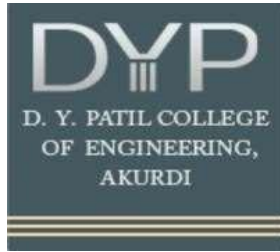Mrs .Latika Desai

Course Name: **Internship**
Course Code : 314455

Class-TE

2024-2025

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D. Y. PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE

Affiliated to

SAVITRIBAI PHULE PUNE UNIVERSITY

Department Of Information Technology

CERTIFICATE

This is to certify that Nikhil Domade (TE22IT010) of class TE have successfully completed their Internship work on "Full Stack Development Using (MERN) at Step One Step Ahead LLP" under the guidance of Mrs.Latika Desai for course Internship 314455 at D. Y. Patil College of Engineering in the partial fulfilment of the Graduate Degree course in TE at the Department of Information Technology, in the academic Year 2024-2025 Semester—II as prescribed by the Savitribai Phule Pune University.
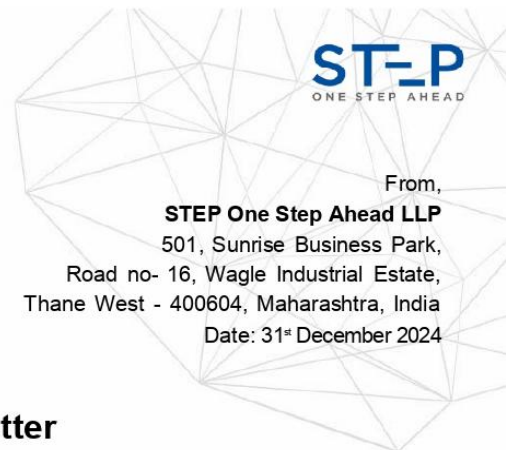
Date: 06/04/2025

Mrs. Latika Desai   **Mrs. Priyanka Gupta**
Guide   Internship Co-ordinator
                          Dr. Latika Desai
                          Academic Administrator

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Offer Letter :

ST⎓P
ONE STEP AHEAD

From,
STEP One Step Ahead LLP
501, Sunrise Business Park,
Road no- 16, Wagle Industrial Estate,
Thane West - 400604, Maharashtra, India
Date: 31ˢᵗ December 2024

Internship Letter

To,
Nikhil Domade
Rajyog Hostel, Near DY Patil College,
Akurdi, Pimpri-Chinchwad 411044

We are pleased to offer you an internship at STEP One Step Ahead LLP. You will be working as an Full Stack Intern for a period of a month. This is an opportunity with PPO, i.e. Permanent Placement Opportunity after evaluating your performance during the internship period.

Position: Full Stack Intern
Location: Thane, Mumbai

Your internship shall commence from 02ⁿᵈ January 2025. The terms and conditions of your internship with the Company are set forth below:

Subject to your acceptance of the terms and conditions contained herein, your project and responsibilities during the term will be determined by the supervisor assigned to you for the duration of the internship.

• Your timings will be from 09:30 am to 6:30 pm flexible up to 10:30 am to 07:30 pm, Monday to Saturday based on the tasks and assignments, and the end time may vary.
• You will sign a confidentiality agreement with the company before you commence your internship.
• Depending upon your internship performance, it can be construed as employment or an offer of employment with STEP One Step Ahead LLP.
• It's an unpaid internship. After completion of internship, you will get internship experience letter.

Please confirm your acceptance of the terms of this offer by 01ˢᵗ January 2025, at the end of the day. We look forward to having you on our team! If you have any questions, please feel free to reach out to us.

For STEP ONE STEP AHEAD LLP,

Nidhi Gogri
HR Recruiter

www.steponestepahead.com   STEP One Step Ahead, 501, Sunrise Business Park, Road no- 16, Wagle Industrial Estate, Thane West - 400604, Maharashtra, India

ABSTRACT

Step One Step Ahead LLP, established in 2020, is a technology-driven startup based in Thane, Maharashtra. The company specializes in **Robotic Process Automation (RPA)**, **software development**, **quality assurance (QA) analytics**, and the creation of intelligent bots for **manual inspection and process automation**. Alongside automation solutions, the company also delivers on-demand web and mobile applications tailored to diverse business needs.

Company Address: 501-502, 5th Floor, Sunrise Business Park, Road No. 16, Thane West, Maharashtra – 400604

During my internship at Step One Step Ahead LLP, I worked as a **Full Stack Developer**, contributing to the design and development of scalable, user-friendly web applications using **React, Node.js, Express, MongoDB, MySQL, HTML, CSS, and JavaScript**. A major part of my role involved frontend development for a **Hotel Management System** using **React with Redux**, along with implementing **dynamic data fetching**, **user authentication**, and **payment gateway integration**.

I also worked on a **MySQL-based login/signup system** and assisted in debugging and enhancing existing applications like a **Netflix and Spotify clone**.

This internship allowed me to gain **hands-on experience in modern web development**, strengthen my understanding of **full-stack integration**, and develop practical skills in **team collaboration, QA, and problem-solving** within a real-world project environment.

Keyword:

- Full Stack Development
- React.js
- Node.js
- Express.js
- MySQL
- MongoDB
- RESTful API
- Frontend Development
- Backend Integration
- Redux
- Web Application
- User Authentication
- Payment Gateway Integration
- UI/UX Design
- Project Debugging

ACKNOWLEDGEMENT

We have taken efforts in this Internship Project. However, it would not have been possible without the kind support and help of many individuals and organizations. We would like to extend our sincere thanks to all of them.

We are highly indebted to **Mrs. Latika Desai**, Head of the I.T. Department and our guide, for her guidance and constant supervision as well as for providing necessary information regarding the project and for her support in completing this Internship Project.
We would like to express our gratitude towards our parents for their kind co-operation and encouragement which helped us in the completion of this Internship.

Furthermore, we would also like to acknowledge with much appreciation the crucial role of the staff of **DYPCOE Akurdi**, who gave the permission to use all required equipment and necessary materials to complete our internship successfully.

We are also deeply grateful to the Principal of DYPCOE, **Dr. Mrs. P. Malathi**, and our parents for their financial and logistical support and for providing necessary guidance concerning the project's implementation.

Name of student

Exam Seat No	Name
TE22IT010	Nikhil Domade

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1. Introduction

This report outlines my internship experience at **Step One Step Ahead LLP**, a Thane-based software development company known for delivering innovative web and mobile solutions. I completed a one-month full-stack development internship from **2wst January 2025 to 2nd February 2025**. The internship was a valuable opportunity to gain real-world experience in full-stack development, including both frontend and backend technologies.

During my internship, I was primarily involved in the development of a full-stack web application. I contributed to building responsive user interfaces using **React.js**, implemented state management with **Redux**, and integrated dynamic navigation through **React Router**. On the backend, I used **Node.js** and **Express.js** to build RESTful APIs and worked with **MySQL** to manage the application database. Additionally, I implemented **user authentication**, used **EJS** for server-side rendering, and integrated real-time functionality to improve the user experience.

The internship helped me understand the complete software development life cycle, from design and planning to development and deployment. I actively participated in team discussions, sprint planning, and daily stand-up meetings, which improved my communication skills and taught me how to work effectively in a professional environment. I also worked closely with a Figma design provided by the company and transformed it into a responsive, interactive user interface, ensuring that the frontend closely matched the design expectations.

This experience enabled me to strengthen my core development skills, learn professional coding practices, debug real-time issues, and work on version control using Git. The internship has been instrumental in shaping my understanding of full-stack development and preparing me for future roles in the software industry.

2. Overall Knowledge Gained

During my internship at **Step One Step Ahead LLP**, I gained both technical and professional experience by actively participating in various development tasks and team activities. This internship helped me grow as a beginner full-stack developer and gave me exposure to real-world working environments.

Skills Developed:

- Learned how to build websites using React, HTML, CSS, and JavaScript
- Understood how to connect frontend and backend using Node.js and Express
- Learned to use MySQL and MongoDB for storing data
- Improved coding and debugging skills
- Gained confidence in working with real projects
- Learned how to work in a team
- Improved communication and time management

3. Problem Statements

1. **Debugging and Presenting Previous Projects**:-Fixed bugs and improved the responsiveness of Spotify and Netflix clone projects.
2. **Learning React.js** :-Learned basics of React like components, props, state, and JSX.
3. **Implementing a React-Based Mini Project** :-Built a small project using React to practice dynamic UI development.
4. **Creating a Login & Signup System** :-Created user login and signup system using Node.js, Express, MySQL, HTML, and CSS.
5. **Hotel Management System – Full Stack Project**:-Worked on a hotel booking app. Focused on frontend using React with features like booking and login.

3.1 Debugging and Presenting Previous Projects

Problem Statement:

I had to present my previous projects — **Netflix Clone** and **Spotify Clone** — but they were not working properly due to small errors and missing elements.

Objective:

The objective of this task was to **fix issues in previously made projects** (Netflix Clone and Spotify Clone) and prepare them for a proper presentation. This involved **debugging frontend code**, making the websites responsive, and ensuring they worked well on different devices and browsers. The goal was to improve code quality, understand real-world troubleshooting, and get ready to confidently explain the project.
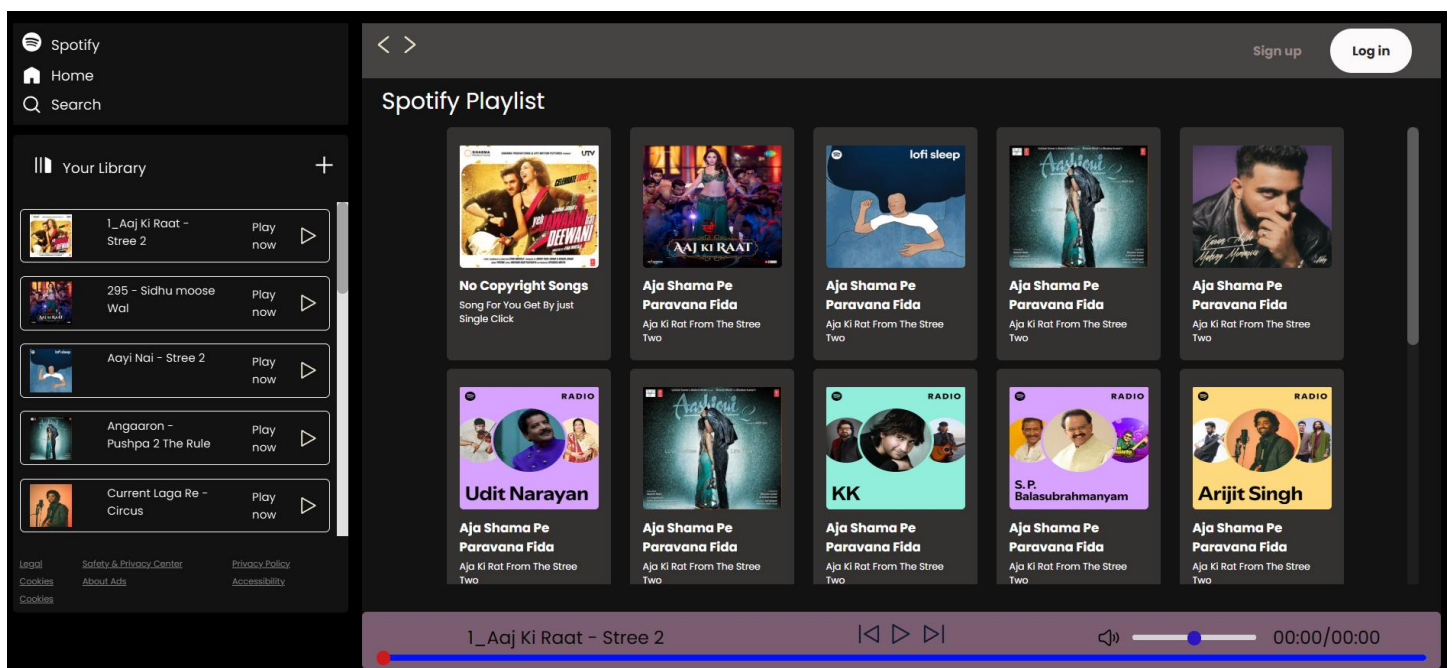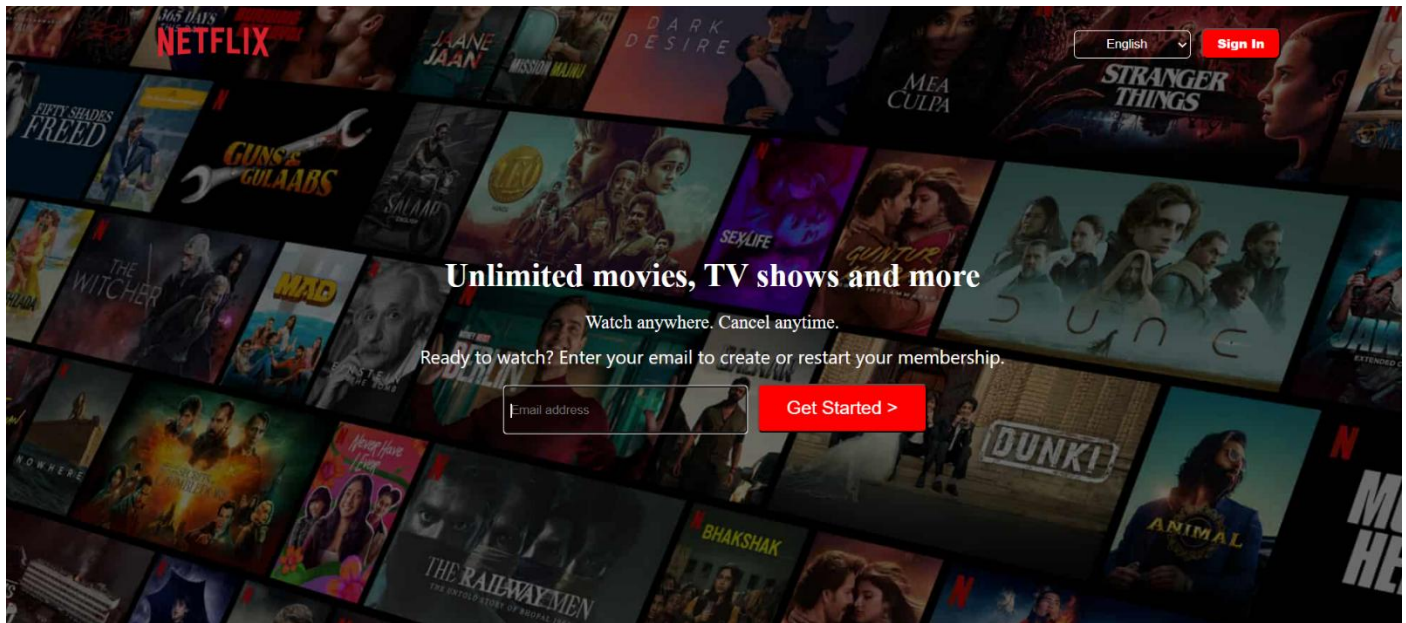
Methodology Used:

- Reviewed and debugged the existing code in HTML, CSS, and JavaScript.

- Identified issues like broken links, missing files, and incorrect syntax.

- Added proper comments to explain the functionality of the code.

- Ensured responsive design so that the websites looked good on different devices.

- Tested on multiple browsers to make sure they worked consistently**.**

Learning Outcomes:

- **Improved Debugging Skills:** Learned to identify and fix common coding issues in frontend projects.

- **Clean Coding Practices:** Understood the value of writing clean, well-organized, and commented code.

- **Responsiveness and Compatibility:** Realized how important it is to make websites responsive and test them on various screen sizes and browsers.

- **Problem-Solving Approach:** Observed that small issues, like missing files or typos, can break the entire project — attention to detail matters.

- **Confidence Boost:** Gained confidence in preparing a project for a demo and explaining it clearly.

- **Testing Mindset:** Learned that regular testing while coding helps catch errors early, saving time during final presentation.

Result:

Conclusion:-

This activity helped me learn how to fix problems in my code and present my projects properly. It made me more confident in my basic web development skills and taught me the importance of clean code and proper testing.

3.2. Building React Mini Project

Problem Statement:

I was asked to learn **React.js**, including its basic concepts like components, state, and Redux, within **3–4 days** during my internship. I had to practice daily and report my progress to **Girija Ma'am**. Since I was new to React, the main challenge was to understand and apply **these** concepts quickly while learning how to build real user interfaces.

Objective:

The objective of this task was to **learn and understand the basics of React.js** within a short time frame during the internship. This included exploring important concepts like **JSX, components, props, state, useEffect, and React Router**, and applying them through small practice projects. The goal was to build confidence in using React for creating dynamic and reusable user interfaces and to be able to contribute to real frontend development tasks effectively
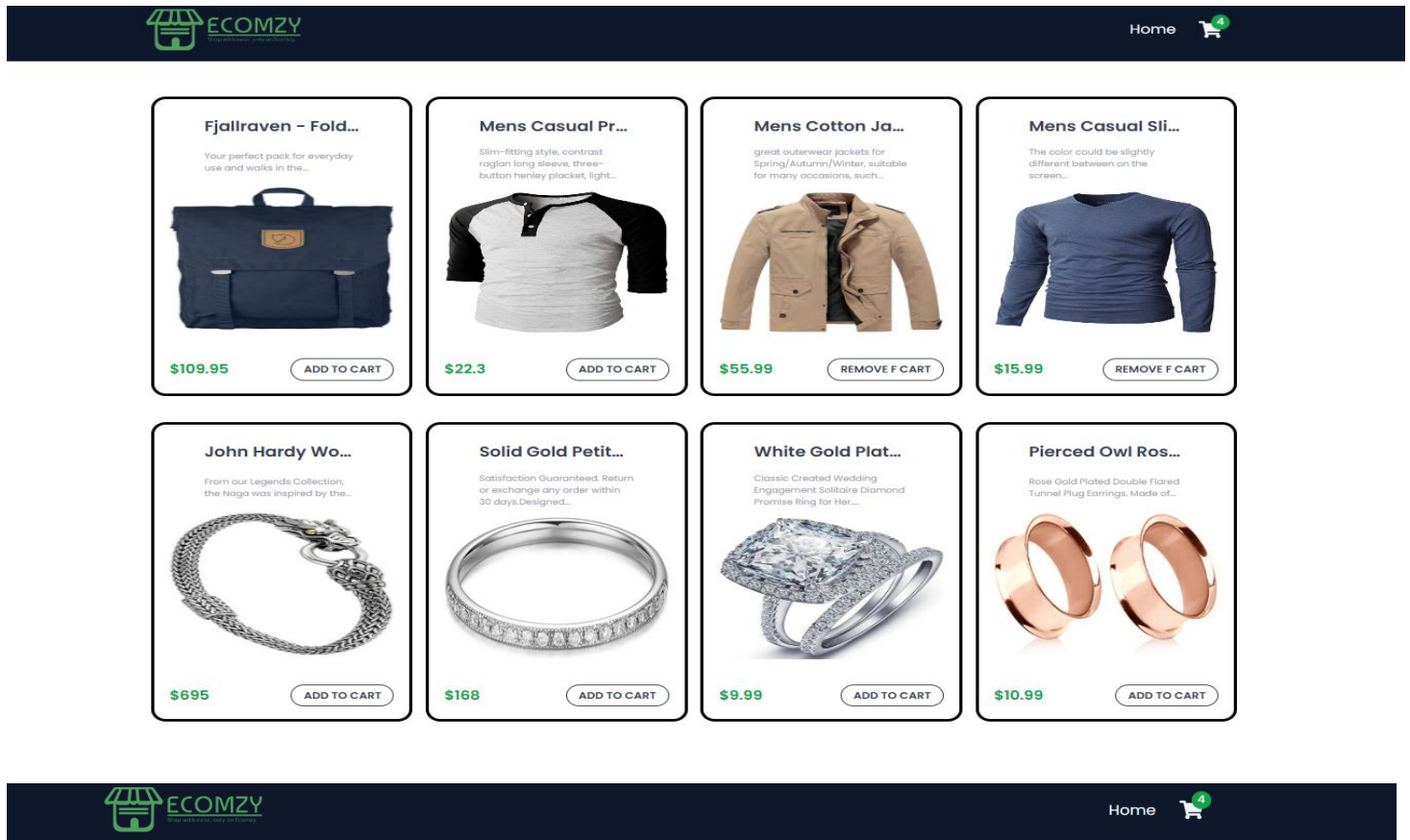
Methodology Used:

- Studied the basics of React, like **JSX**, **components**, **props**, and **state (useState)**.

- Practiced using **useEffect** and **React Router** for building dynamic pages.

- Created small practice projects to apply each new concept.

- Watched tutorials and referred to official React documentation.

- Took help from teammates and asked doubts whenever stuck.

Learning Outcomes:

- Learned how to build reusable components in React.
- Understood how to manage and update data using state.
- Practiced navigation between pages using React Router.
- Gained experience in creating a Single Page Application (SPA).
- Understood how React helps in making frontend development faster and cleaner.
- Felt more confident in writing clean and modular code.

- Realized the power of learning by doing small real-world tasks.

Result:

Conclusion:

Learning React in a short time boosted my frontend skills. It helped me understand how modern web apps are built and gave me the confidence to work on bigger React projects**.**

3.3. Creating a Login & Signup System

Problem Statement:

I had to create a working login and signup system using Node.js, Express, and MySQL to understand full-stack development. As a beginner, I needed to learn how frontend, backend, and database work together to store and verify user data.

Objective:

The objective of this project was to **build a working Login and Signup System** that allows users to **register and log in securely** using their name, email, and password. The goal was to understand how a **full-stack web application** works by connecting the **frontend (HTML/CSS/JS)**, **backend (Node.js & Express.js)**, and **database (MySQL)**.
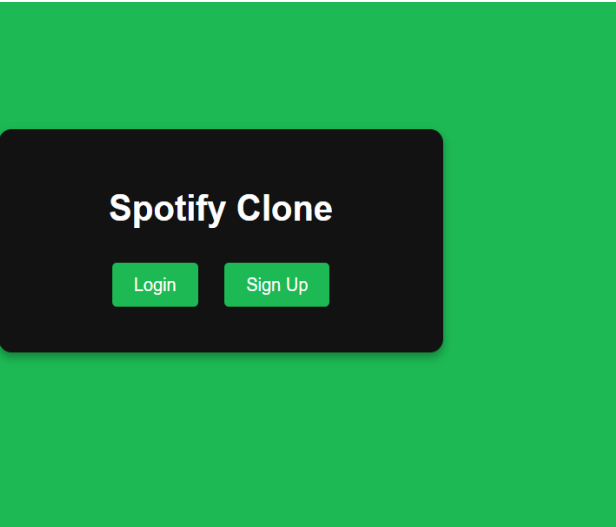
Methodology Used:

- Designed forms using **HTML, CSS, and JavaScript** for user input.

- Created **API routes** in Express to handle register and login requests.

- Connected the app to **MySQL** using the mysql package.

- Stored and checked user data like name, email, and password.

- Used **EJS templates** to display dynamic content based on the database.

- Tested the entire flow and added validation for correct inputs.

Learning Outcomes:

- Understood the **complete flow of user authentication**.

- Learned to write and run **SQL queries** for inserting and checking user data.
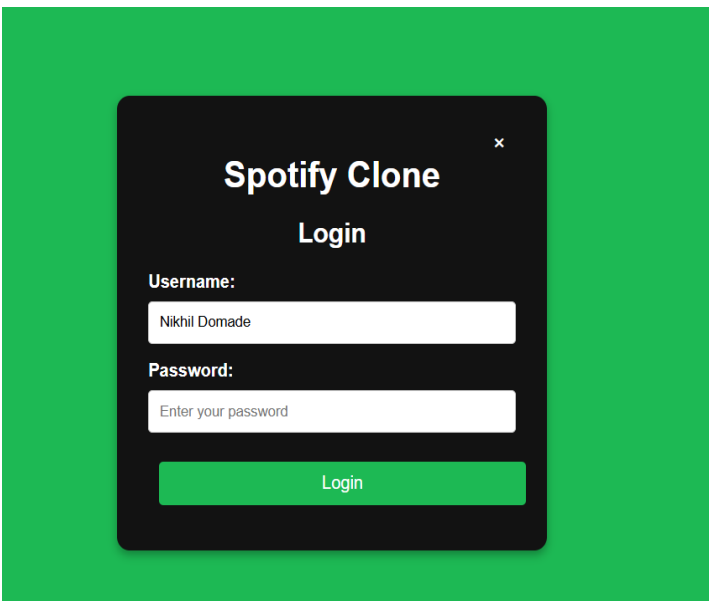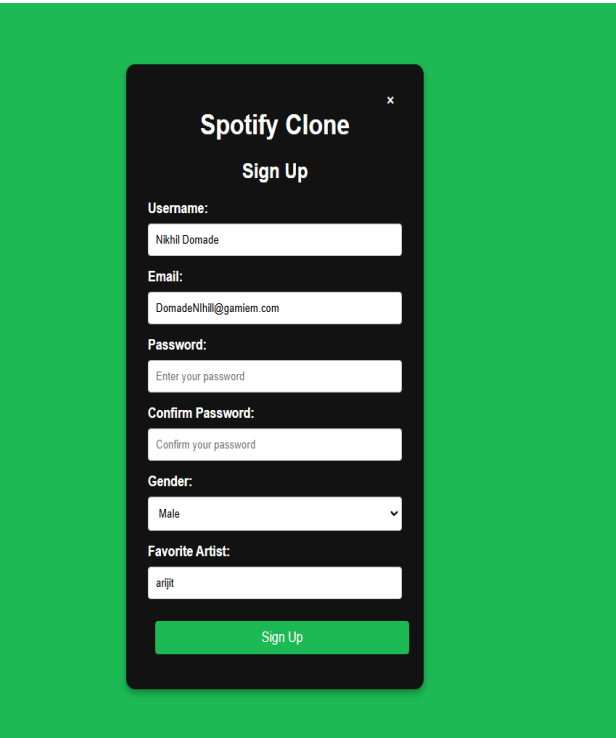
- Gained experience in building and connecting **frontend, backend, and database**.

- Learned how to **send data securely** and handle errors in a login system.

- Got familiar with **EJS** for rendering dynamic pages from the backend.

- Realized the importance of validating inputs and checking for existing users.

Result:

Conclusion:

This activity helped me understand the **core concepts of full-stack development**. I learned how to connect and test all parts of a web app—from the frontend form to the backend API and database. It gave me practical experience in building real-life features like login and signup systems.

3.4 Hotel Management System – Full Stack Project

Problem Statement:

We were asked to build a **Hotel Management System** where users could view hotels, check room availability, book rooms, and make secure online payments. The system needed to work from frontend to backend and store all data in a database.

Objective:

The main objective of this project was to design and develop a Hotel Management System that allows users to:

- View available hotels and rooms.
- Check room availability in real-time.
- Book rooms through a simple and secure process.
- Make online payments for confirmed bookings.
- Maintain user authentication and booking history

Methodology Used:

Frontend (React, Redux, EJS):

- Designed a responsive user interface based on a **Figma design**.
- Used **React** to build hotel listing pages, booking forms, and user dashboards.
- Applied **React Router** for smooth navigation between different pages.
- Used **Redux** to manage and share data like logged-in users and bookings across components.
- Used **EJS** to render dynamic content for certain backend pages.
- Focused mainly on **frontend development** and integrating the APIs properly.

Backend (Node.js, Express.js):

- Teammates created **REST APIs** using **Node.js** and **Express.js** to handle hotel data, bookings, and users.
- We connected these APIs to the frontend to show real-time hotel availability and bookings.

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Database (MySQL):

- Stored user details, hotel info, room availability, and booking records using **MySQL**.

- Created tables for **users**, **hotels**, **rooms**, **bookings**, and **payments**.

- Checked user login and fetched booking details from the database.

Other Features:

- Integrated a **payment gateway** to allow secure hotel booking payments.

- Used form validations to make sure all inputs were correct.

- Worked together as a team to divide frontend and backend tasks.

Learning Outcomes:

- Learned how to build and manage a **complete full-stack web application**.

- Understood how to use **React and Redux** for building and managing UI components and data flow.

- Gained hands-on experience in **fetching and displaying API data** in real-time.

- Learned the role of **EJS** in rendering dynamic content for backend views.

- Understood how **Node.js and Express.js** help build a working backend.

- Gained confidence in **connecting frontend with backend and database**.

- Learned how to **integrate online payments** securely using a payment gateway.

- Improved my **teamwork and project coordination** skills.

- Got practical experience in reading and following a **Figma design file** to build a real interface.

Conclusion:

This project gave me a full view of how a real-world hotel booking system works. As a beginner, I got to apply what I learned about **React, Node.js, Express, MySQL, and EJS**. I mostly worked on the frontend, which improved my skills in **React and UI design**. I also learned how to **collaborate with backend developers**, use APIs, and integrate important features

like payment. It was a great learning experience that made me more confident in full-stack development.

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4. **Project References:**

1. **React Shop App with Redux**
   GitHub Repository:
   https://github.com/nikhild1111/React/tree/main/13shopappredux

2. **Netflix Clone (Frontend Project)**
   GitHub Repository: https://github.com/nikhild1111/netflix1

3. **Spotify Clone (Backend Project)**
   GitHub Repository: https://github.com/nikhild1111/Spotify

5. Conclusion:

Throughout this journey, I gained practical and valuable experience in full-stack web development. Starting as a beginner, I learned and applied key technologies such as React.js, Node.js, Express.js, MySQL, EJS, and Redux. By working on real-world projects like a Hotel Management System, Login & Signup system, Shop App, Netflix Clone, and Spotify Clone, I improved both my frontend and backend skills.

I understood how different parts of a web application—frontend, backend, and database—work together. Debugging code, collaborating with teammates, integrating APIs, and following UI designs from Figma helped me become more confident and comfortable as a developer.

This hands-on experience not only boosted my technical knowledge but also improved my teamwork, problem-solving, and communication skills. Overall, this learning phase has been a great step toward my growth as a full-stack developer.

Completion Certificate:

From,
STEP One Step Ahead LLP
501, Sunrise Business Park,
Road no- 16, Wagle Industrial Estate,
Thane West - 400604, Maharashtra, India
Date: 05th February 2025

Internship Completion Letter

To,
Nikhil Domade
Rajyog Hostel, Near DY Patil College,
Akurdi, Pimpri-Chinchwad 411044

We are writing to confirm that you have successfully completed your internship with STEP ONE STEP AHEAD LLP from 02nd January 2025 to 02nd February 2025. We would like to extend our appreciation for your dedication, hard work, and contributions during your one-month internship period.

Throughout your time with us, you have demonstrated exceptional skills, enthusiasm, and a strong work ethic. Your willingness to learn and adapt to new challenges has been commendable and has made a positive impact on our team.

As you move forward, we hope that the experience gained during your internship will serve as a valuable foundation for your future endeavors. We believe that you have the potential to achieve great success in your chosen field, and we wish you all the best in your future endeavors.

Once again, congratulations on completing your internship, and we thank you for your valuable contributions

For STEP ONE STEP AHEAD LLP,

Nidhi Gogri
HR Executive

www.steponestepahead.com

STEP One Step Ahead, 501, Sunrise Business Park, Road no- 16,
Wagle Industrial Estate, Thane West - 400604, Maharashtra, India

Attendance Record

Date: 04 April 2025

"TO WHOM IT MAY CONCERN"

This is to certify that **Mr .Nikhil Domade** , a student of Third Year, Information Technology, studying at D. Y. Patil College of Engineering, Akurdi, has successfully completed his internship at :

Company Name: Step One Step Ahead LLP, Thane
Internship Duration: 20/12/2024 to 03/02/2025

As per the attendance records, his presence throughout the internship period was satisfactory, and he maintained regularity and punctuality in all assigned tasks. We appreciate his active participation and consistent learning attitude during the internship.

Girija Jadhav

Guide Name: Girija Jadhav
(Internship Guide)

501,502 - Sunrise Business Park, Road Number 16, ThaneWest,Maharashtra400604 **www.steponestepahead.com** | **blog/steponestepahead.com**

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