ASCENDION

Capstone Project

Personal BACKGROUND

(Name, Past Experience, Qualification, Career Summary)

Name : T. Srivalli

Past Experience : No experience

Qualification : Btech

Career Summary : To work in a dynamic environment that uses my skills and expertise in process of growth and development while allowing me to learn and enrich my competencies.

ASCENDION

Knowledge before Training

Before undergoing formal training, I have a strong foundation in various technical skills, including programming languages like C, Python, and Java, along with web technologies such as HTML and CSS. My understanding of database management systems and data structures further strengthened my problem-solving abilities. Additionally, I have a solid grasp of Android development, which complements my overall technical skill set. These skills, combined with my ability to quickly learn and adapt, have given me a robust base of knowledge to build upon.

ASCENDION

Key Takeaways/Learnings from the Program (HTD)

During my two-month training at Ascendion, I gained in-depth knowledge and practical experience in several key areas of modern web and mobile development. I learned how to build dynamic user interfaces using React and manage application state effectively with Redux. The training also introduced me to Node.js for backend development, allowing me to create robust, scalable server-side applications. I explored React Native for cross-platform mobile development, gaining insights into building apps that function seamlessly across both iOS and Android.

ASCENDION

Key Takeaways/Learnings from the Program (HTD)

In addition to technical skills, I was trained in testing methodologies, ensuring that I can write reliable, maintainable code by implementing unit and integration tests. Understanding the Software Development Life Cycle (SDLC) provided me with a clear picture of how software projects are managed from inception to deployment. The program also emphasized the importance of soft skills, such as communication, collaboration, and time management, which are critical for working effectively in a team and delivering successful projects. Overall, this program significantly enhanced both my technical and professional skills, preparing me to contribute effectively to development teams.

ASCENDION

Problem Statement of the Capstone Project

The problem statement of the Capstone Project is to develop a comprehensive service booking website that allows users to conveniently book services like cleaning, painting, plumbing, and electrician services. The website should function similarly to UrbanCompany, providing a streamlined experience for users to search for and book services from various categories.

The project involves creating a user-friendly, responsive, and efficient web application using React for the front-end, Node.js and Express for the backend, and MongoDB for storing and managing data related to users, services, and bookings.

ASCENDION

Problem Statement of the Capstone Project

Key features include:
1. Service Providers: After selecting a service category, the website should display available service providers near the user's location. It should include details like service provider ratings, average price, and service options.

2. Booking Process: Users should be able to schedule and book a service by providing the necessary details (e.g., location, date, and time) and completing the payment process. The system should ensure secure data handling during booking.

3. OTP Verification for Service Quality: Once the service is completed, the provider should upload proof images, and an OTP should be sent to the user for service verification. Upon OTP confirmation, the service request is closed in the backend.

4. Testing and Robustness: The website must be rigorously tested using **Jest** to ensure that all front-end components and functionalities work as expected. Testing is essential to ensure the reliability and functionality of critical parts of the application.

ASCENDION

Problem Statement of the Capstone Project

Constraints:

- The project must be completed within 35-40 hours, prioritizing essential features such as service categories, booking functionalities, and payment processing.
- Focus should be on implementing a simple yet efficient user experience without over-complicating features, while maintaining compatibility with modern web browsers and devices.

Deliverables:

- A fully functional, deployment-ready service booking website with responsive design.
- Source code for both front-end and back-end, with comprehensive documentation.
- A suite of Jest tests demonstrating the robustness and reliability of the application.

In summary, the project aims to provide students with hands-on experience in developing a real-world web application, incorporating full-stack technologies, database integration, testing, and soft skills necessary for web development in professional environments.

ASCENDION

List of tools used for Capstone

For the Capstone Project, the following tools were used:

1. Visual Studio Code: Used as the primary code editor for writing and managing the front-end code (React, Redux) and back-end code (Node.js, Express).

2. Postman: Utilized for testing and debugging the API endpoints, ensuring proper communication between the front-end and back-end during service booking and data handling.

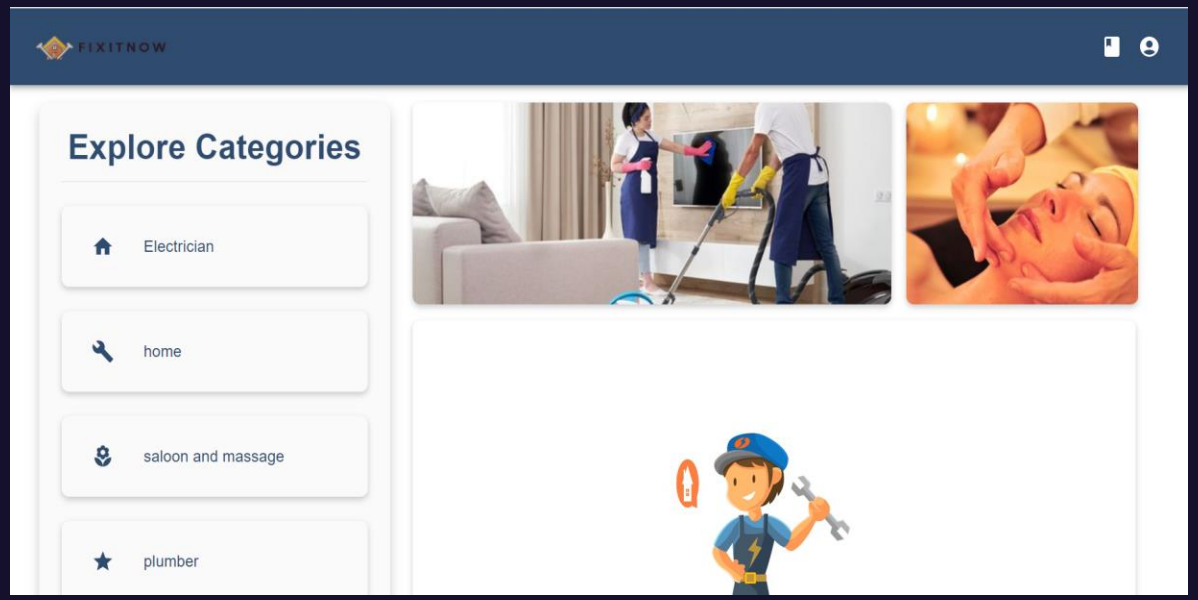
3. MongoDB Compass: A graphical user interface for MongoDB, used for interacting with the database, managing service and booking records, and visualizing data stored in MongoDB.

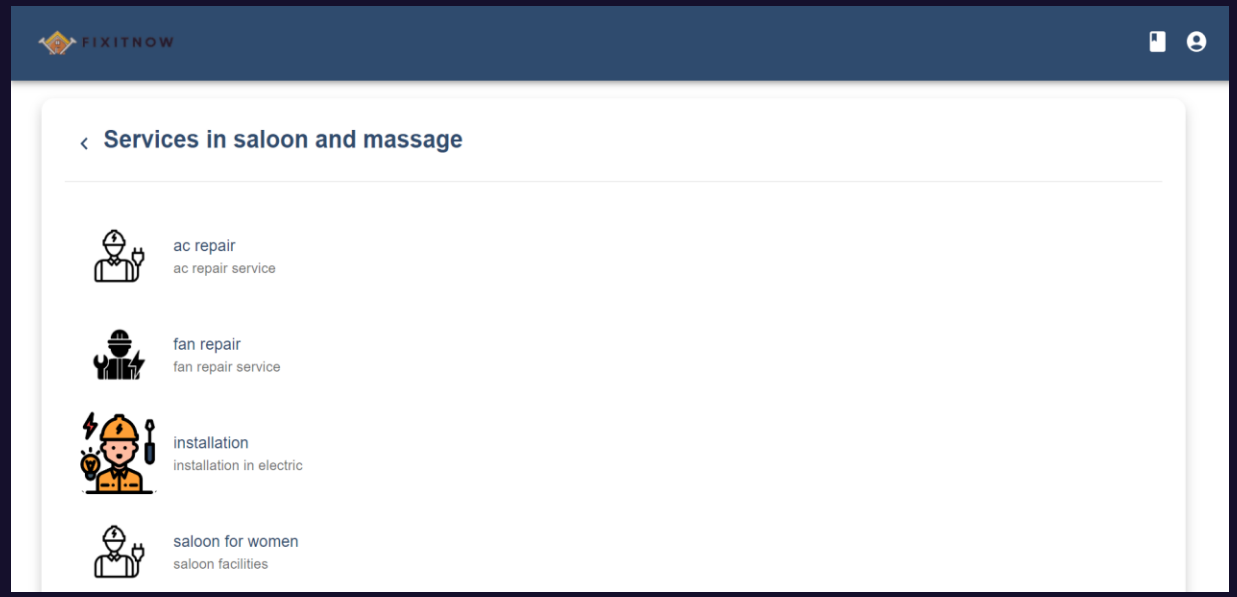
These tools helped streamline the development, testing, and management of the web application.

ASCENDION

Important areas of the Project with screenshots

Consumer Dashboard Page: On this page, all service categories are displayed, and when a user clicks on a specific category, the services related to that category will be shown.





ASCENDION

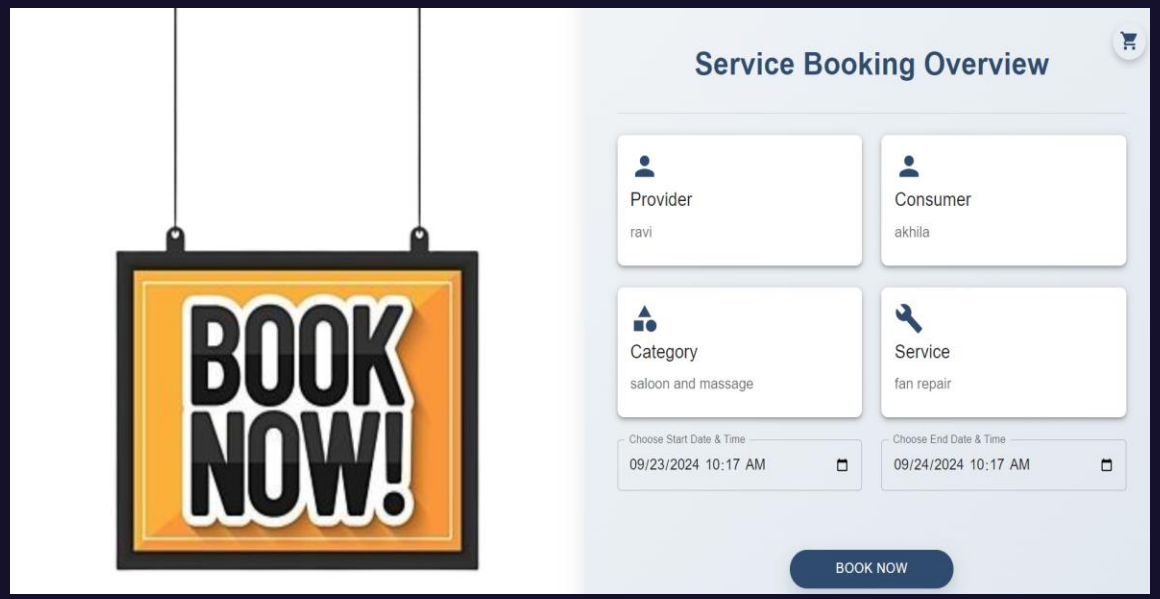
Important areas of the Project with screenshots

Providers Available for the Selected Service: When a specific service is selected, the corresponding available providers will be displayed, showing details such as name, contact number, price, and rating. Each provider will also have a "Reserve Provider" button for booking their services.

ASCENDION

Important areas of the Project with screenshots

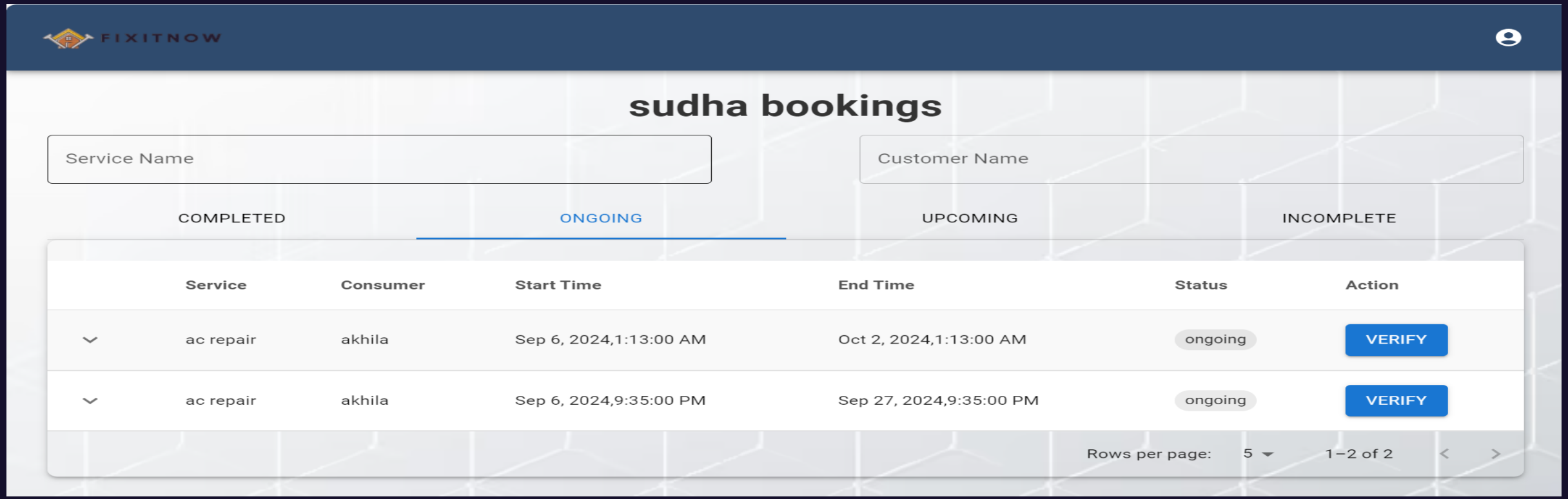
Booking Page: After clicking the "Reserve Provider" button, the booking page will appear where the consumer selects a time slot for the service. Once the "Book Now" button is clicked, the booking is added to the cart. If the consumer has not provided an address, they can add it in the cart and proceed with a cash-on-delivery (COD) payment.



ASCENDION

Important areas of the Project with screenshots

Provider Dashboard Page:
When a provider logs in, their dashboard will display all booking tasks categorized into four sections: Completed, Ongoing, Upcoming, and Incomplete. Each task will be shown in a table format, listing the service name, consumer name, and slot time. For ongoing tasks, a "Verify" button will be available, which redirects the provider to a verification form upon clicking.

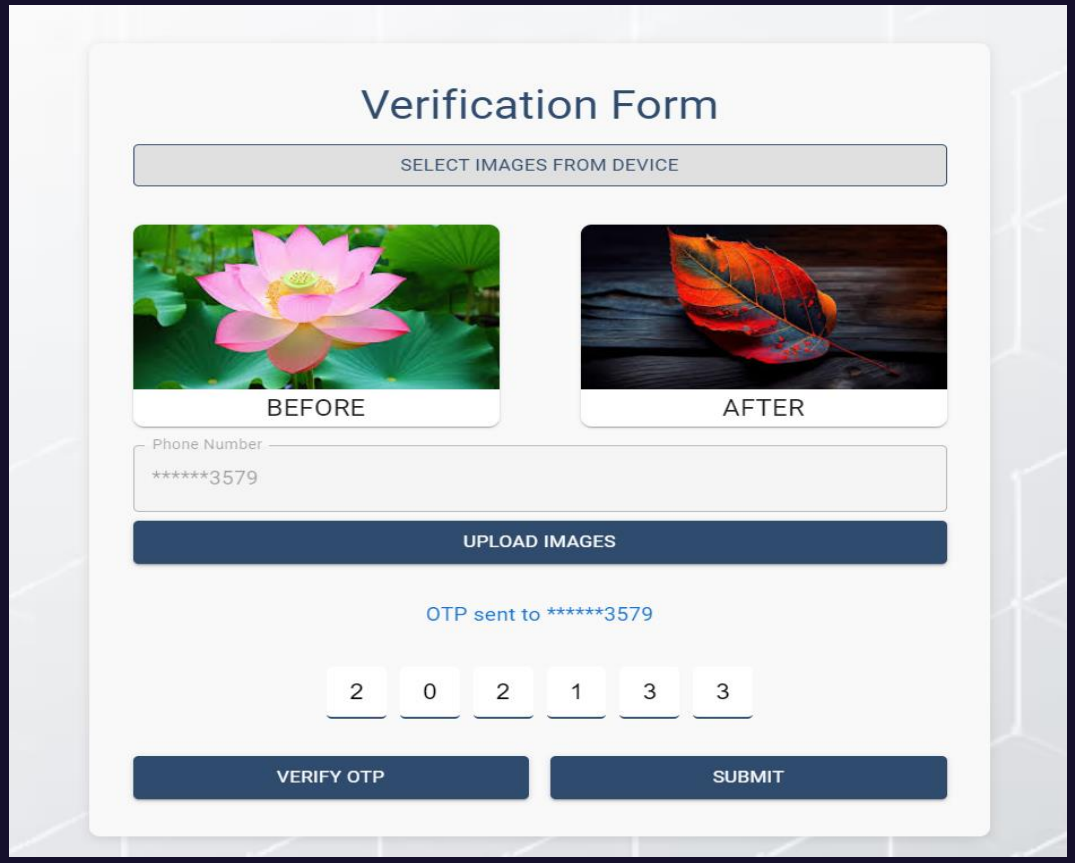


ASCENDION

Important areas of the Project with screenshots

Verification Page:

In this component, the provider is required to upload two images: one before the service and one after the service. Once the images are uploaded, an OTP is sent to the consumer's mobile. The provider must enter and verify the OTP. After successful verification, the ongoing task will be marked as completed.

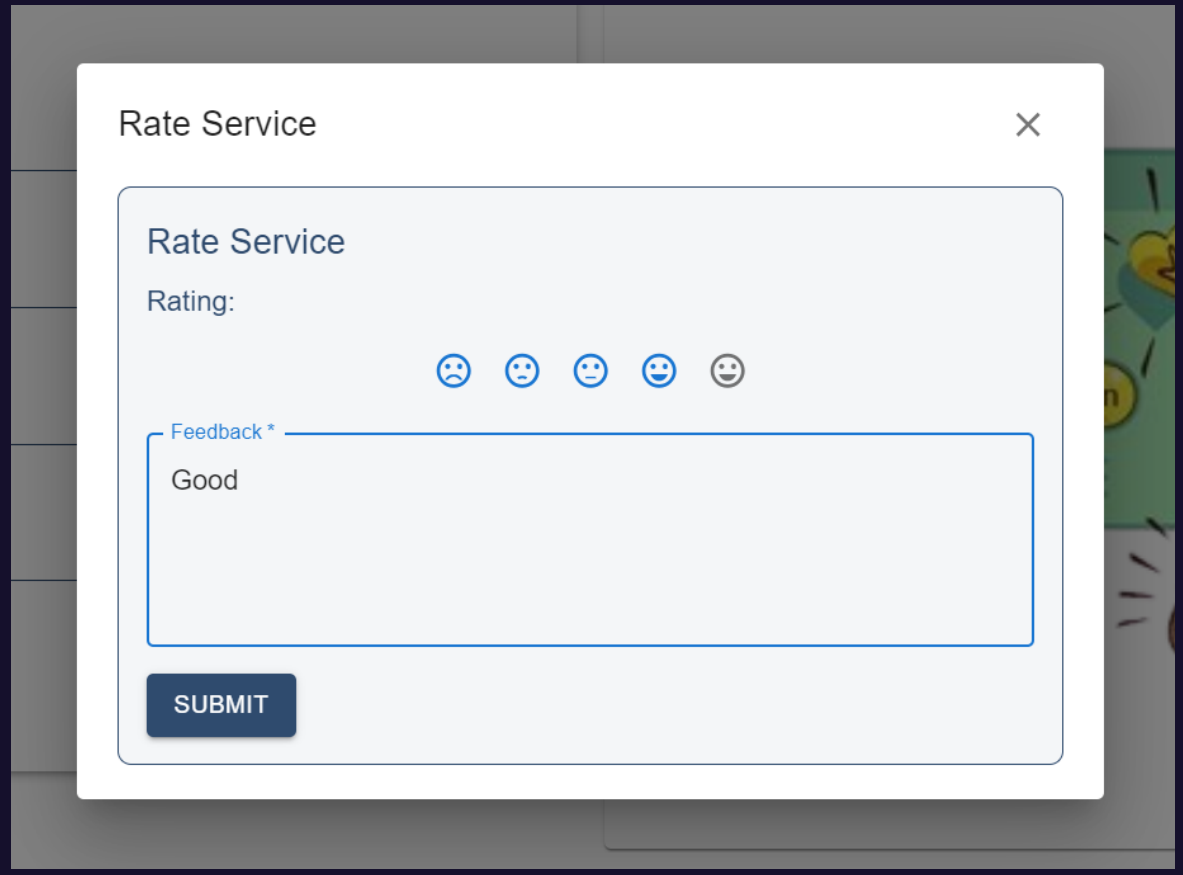


ASCENDION

Important areas of the Project with screenshots

Rating Component:

In this component, the consumer can provide a rating and feedback for a specific booking and service provider. The feedback link will be sent to the consumer's mobile along with the OTP during the verification process.



ASCENDION

Conclusion

The Capstone Project aims to develop a comprehensive and user-friendly service booking platform that allows consumers to seamlessly book various services, such as cleaning, plumbing, and electrical work, from trusted providers. By leveraging technologies like React for the front-end, Node.js and Express for the back-end, and MongoDB for data storage, the platform ensures efficient management of service bookings and provider interactions. Key features such as OTP-based service verification, provider dashboards, and consumer feedback mechanisms enhance the reliability and overall user experience. With robust testing using Jest, this project provides a practical solution for connecting consumers with service providers while offering real-world web development experience.


ASCENDION
Thank You