“Internship at Elecon Engineering Co. Ltd.”

A Project Report

Submitted By

Ayush R. Sarvaiya

In partial fulfillment for the award of the degree of

Bachelor of Technology

In

Computer Engineering Department

Birla Vishvakarma Mahavidyalaya Vallabh Vidyanagar

Acknowledgement

I, Ayush Sravaiya, performed this internship under the supervision of Mr. Satyam Raval at Tech Elecon Pvt. Ltd. It was a good learning and working experience for me at the site.

For an engineering student internship plays a significant role in improving practical knowledge and getting exposure to industries and companies.

I would like to express my deepest gratitude to all those who provided me with the opportunity to complete this internship and supported me throughout this experience. Also, for their warm welcome, collaboration, and flexibility in accommodating both in-person and remote work arrangements, allowing me to dive deep into HTML, CSS & JS development. Working alongside such dedicated professionals, whether face-to-face or virtually, has enriched my internship experience and broadened my proficiency in ReactJS.

Furthermore, I would like to acknowledge the contributions of our group members. We were able to complete the assigned tasks by collaborative working of each group member. I look forward to applying the knowledge and skills gained during my internship to future endeavors.

Group Members

1. Ayush Sarvaiya (Group Leader) BVM'CP

Tasks:

1. Regestration Page
2. Sign in Page
3. User Profile Page
4. Homepage
5. Services Page
6. Menu Page
7. Customer Review Page
8. Contact Us Page
9. About Us Page
10. Master Chefs Page
11. Reservation Page
12. Restaurant Images Page
13. Create User Page
14. Account Page
15. List Users Page

TO WHOM IT MAY CONCERN

This is to certify that **Ayush Rajeshkumar Sarvaiya**, a student of **Bachelor Of Technology** in **Computer Engineering** at **Birla Vishvakarma Mahavidyalaya**, has successfully completed his internship in the field of Front-End Devlopment (HTML, CSS & JS) from 01/06/2024 to 01/07/2024 under the guidance of Mr. Satyam Raval, Deputy General Manager at Tech Elecon Pvt. Ltd.

His internship activities include successful completion of the assigned project at the given period of time along with abiding by companies' rules and regulation.

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

We Wish his every success in his life and career.

For Tech Elecon Pvt. Ltd,

ABSTRACT

1. Introduction:

In the rapidly evolving landscape of online job searching, the demand for dynamic, intuitive, and engaging platforms has never been greater. HTML, CSS, and JavaScript, renowned for their flexibility, scalability, and rich user interface capabilities, emerge as game-changers in this domain. This abstract sets out to explore the transformative potential of these technologies in revolutionizing job portals.

With a focus on enhancing user experience, these technologies offer a paradigm shift in how the job application and hiring process is done. Through their structure and style, these technologies empower developers to create highly responsive and interactive interfaces, fostering an immersive job-seeking environment. By leveraging efficient state management and reusable components, online job portals can deliver personalized experiences tailored to individual user needs and preferences.

The aim of this exploration is twofold. Firstly, to delve into the technical intricacies of HTML, CSS, and JavaScript, and their applicability in the context of job portals. This includes an examination of key concepts such as semantic HTML, CSS styling, and dynamic JavaScript functionalities, along with practical examples showcasing their implementation in job-seeking contexts. Secondly, to analyze the broader implications of adopting these technologies in job portals, including their impact on job seeker engagement, retention, and overall satisfaction.

2. Implementation Details:

The proposed job portal aims to leverage the combined strengths of HTML, CSS, JavaScript, and supplementary modules to create a comprehensive and immersive job-seeking experience.

- **HTML, CSS, and JavaScript:** These foundational web technologies provide the structure, styling, and interactivity for the platform. Custom JavaScript functionalities enhance user experience and enable seamless interactions, ensuring a fluid job-seeking environment.
- **Homepage.html:** Serving as the main entry point, the homepage provides an overview of the platform, showcasing key features and facilitating easy navigation.
- **User_profile.html:** This file handles the display and management of individual user profiles, allowing users to view and edit their personal information.
- **User_list_section.html:** This section provides a comprehensive list of users, facilitating easy navigation and management for administrators.
- **Create_user.html:** This file enables the creation of new user accounts, ensuring a streamlined and user-friendly registration process.
- **User_account.html:** This file manages user account settings and preferences, allowing users to customize their experience on the platform.

By integrating these technologies and methodologies, the job portal aims to deliver a seamless, personalized, and engaging job-seeking experience. Through responsive design, intuitive navigation, and efficient form handling, the platform seeks to cater to the diverse needs of users while promoting accessibility and usability.

3.Test:

Testing the implementation involves several steps to ensure the platform's functionality, performance, and usability:

- **Code Validation:** Validate the HTML, CSS, and JavaScript code to ensure adherence to best practices and standards.
- **Unit Testing:** Test individual components and functions using frameworks like Jest or Mocha to ensure they work correctly in isolation.
- **Integration Testing:** Ensure that different parts of the application work together as expected, focusing on UI elements and JavaScript interactions.
- **End-to-End Testing:** Simulate real user interactions using tools like Cypress to validate entire workflows from start to finish.

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1. OVERVIEW OF THE COMPANY

- Tech Elecon is the IT division of the Elecon group of companies and has an experience of more than 25 years in the field of hardware, software and networking solutions. Situated in the heart of Vitthal Udyognagar an Industrial Estate and in the proximity of the educational town of Vallabh Vidyanagar, Tech Elecon is all set to reach new heights in the field of IT solutions.

- Tech Elecon ready with all sorts of solutions and we deliver any application that is web based and further our solutions are designed to adapt your business rather than your business adapting the software. Tech Elecon solutions are 100% fruitful and empower you to take control of your business online and in real time!

- Tech Elecon provides OEM level products, packaged products, and ready to install systems for wireless Data and Voice for industrial, and military, and government clients.

- TEPL is one of the competent solution providers in the field of Information Technology. Our technical expertise make us accomplished to provide perfect and amicable solutions to all our clients IT related requirements.

- The expert analysts and consultants at TEPL work to provide with a comprehensive look of the entire IT landscape and also detailed perspective on client's key areas of concern. These can be in the form of feasibility studies, evaluations, implementation, and maintenance of various IT solutions.

2. PROFILE OF PROJECT

2.1 Overview

- The Job Portal developed using React.js offers an intuitive and interactive interface for users to find the jobs from anywhere in the world and apply for it. Utilizing the power of React.js, the platform ensures seamless navigation and efficient data management, enhancing the overall application experience. Core functionalities such as user authentication, profile management, and course creation are seamlessly integrated. With features like user login, sign up, and profile editing, job seekers can personalize their experience.
- In this I have used React.js, a JavaScript library for frontend. I have also used traditional CSS.

2.2 Purpose of the project

- The job portal aims to provide a comprehensive platform for job seekers and employers, facilitating efficient job search and application processes. This project will enhance the job search experience while providing admins with the necessary tools to manage users and job listings effectively.

2.3 Objectives

- **Easy-to-Use Features**: The platform aims to have simple and easy-touse features so that users can easily navigate through the website. This includes buttons that are easy to understand, clear instructions, and a layout that makes it simple to find what you need.

- **Attractive Design:** The platform wants to have a design that looks good and is pleasant to use. This means using colors and images that are appealing, arranging things in a neat and organized way, and making sure everything is easy to read.
- **Personalized User Accounts**: When you sign up for an account, the platform wants to make sure it feels like your own space. This includes being able to customize your profile with a picture and information about yourself, and being able to track your progress as you learn.
- **Easy Navigation with Routing**: When you click on different pages or sections of the platform, it should take you there smoothly without any confusion. This is called routing, and it's important for making sure users can easily move around the website.

2.4 Scope of the project

- **Single Page Application Development with React:** Develop a Single Page Application (SPA) architecture using React for a job portal.
- **User Interface Design and Development:** Design visually appealing and intuitive user interfaces (UI) for all components of the. Implement UI components for, user profile management, job listing, and job description.
- **Dynamic Content Loading and Smooth Navigation**: Implement dynamic content loading to enhance performance and reduce page load times. Ensure smooth navigation transitions within the Single Page Application for a seamless user experience.
- **Testing and Quality Assurance:** Conduct rigorous testing and quality assurance processes to ensure the reliability and performance of the SPA. Implement automated testing procedures to streamline testing efforts and maintain code quality.

3. TOOLS AND TECHNOLOFY

3.1 HTML (Markup Language):

HTML is the standard markup language used to create the structure and content of web pages. It consists of a series of elements, represented by tags, which define the different parts of a web page such as headings, paragraphs, images, links, and more. HTML elements are organized in a hierarchical structure, with nested elements representing the relationship between different parts of the content. HTML provides semantic meaning to the content, making it accessible to both users and search engines.

3.2 CSS:

CSS is a style sheet language used to control the presentation and layout of HTML elements on a web page. It allows developers to define styles such as colors, fonts, spacing, and positioning, making it possible to create visually appealing and responsive designs. CSS operates by selecting HTML elements and applying styles to them using selectors and declaration blocks. CSS can be applied inline within HTML documents, embedded within <style> tags in the document's <head> section, or linked externally to the HTML document as a separate stylesheet.

3.3 JavaScript:

- JavaScript is a high-level, interpreted programming language primarily used for web development.

- **Dynamic:** JavaScript is dynamic, meaning it can adapt and change as the program runs. This makes it well-suited for creating interactive web pages.
- **Client-Side Scripting**: JavaScript is mainly used as a client-side scripting language in web browsers, allowing developers to create dynamic and interactive web pages by manipulating the HTML and CSS content.
- **Event-Driven:** JavaScript is event-driven, meaning it can respond to user actions such as mouse clicks, keyboard inputs, and form submissions. This enables developers to create responsive and interactive user interfaces.
- **Libraries and Frameworks:** JavaScript has a rich ecosystem of libraries and frameworks, such as React, Angular, and Vue.js, which streamline the development process and provide additional features and functionalities for building web applications.

3.4 GitHub:

GitHub is a web-based platform and version control system that allows developers to collaborate on projects, host code repositories, and manage software development workflows. Here's a brief overview:

- **Version Control**
- **Code Hosting**
- **Collaboration**
- **Community and Open Source**
- **Integration and Automation**
- **Documentation and Support**

3.5 . FontAwesome:

FontAwesome is a popular icon library that provides a vast collection of icons for web applications. Integrating FontAwesome into a React project allows developers to enhance the visual appeal and usability of their applications by incorporating a variety of icons easily. These icons cover a wide range of use cases, including common actions, file types, social media logos, and more, making them highly versatile.

FontAwesome icons are vector-based, ensuring they remain sharp and clear at any size, and can be customized with CSS to fit the desired color, size, and style. This flexibility allows for consistent branding and design throughout the application. In React applications, FontAwesome can be used to create intuitive and accessible user interfaces, helping users to navigate the application and understand functionalities quickly. Its extensive icon set and ease of use make FontAwesome an essential tool for enhancing the user experience in web development projects.

4. SYSTEM ANALYSIS

4.1 System Features

4.1.1 Front-End Development:

- **HTML (HyperText Markup Language):** HTML is the standard markup language used for creating web pages and web applications. It provides the structure of the web pages, allowing the integration of various multimedia elements, links, forms, and text.
- **CSS (Cascading Style Sheets):** CSS is used for describing the presentation of a document written in HTML. It enhances the visual appeal of the website by allowing customization of colors, fonts, spacing, and layout.
- **JavaScript:** JavaScript is a programming language that enables interactive web pages. It allows the creation of dynamic and responsive interfaces, providing a better user experience by handling events, validating forms, and manipulating the DOM (Document Object Model).

4.1.2 Dynamic Content and Interactions:

- **JavaScript and DOM Manipulation:** JavaScript interacts with the HTML DOM to update the content dynamically without reloading the entire page. This results in a smooth and responsive user experience. For example, updating user profile information or displaying a list of users dynamically based on the user's interaction.

4.1.3 Personalization and User Experience:

- **User Profile Customization:** The system allows users to create and manage their profiles, providing personalized experiences. Users can update their information, view their account details, and manage their settings.
- **Responsive Design:** The application uses responsive web design techniques to ensure a consistent user experience across various devices, including desktops, tablets, and smartphones. CSS media queries and flexible grid layouts are employed to achieve this.

4.1.4 Accessibility and Usability:

- **HTML, CSS, JavaScript:** Adhering to web standards and best practices ensures that the platform is accessible and usable for all users. This includes using semantic HTML elements, ensuring proper contrast and readability, and providing keyboard navigation support.
- **ARIA (Accessible Rich Internet Applications) Attributes:** ARIA attributes are used to enhance accessibility for users with disabilities, ensuring that screen readers can interpret and interact with the web content effectively.

4.2 Feasibility Study

4.2.1 Technical Feasibility

- **Technology Stack Compatibility:** The chosen technologies (HTML, CSS, JavaScript) are well-established and widely used, ensuring compatibility and stability. These technologies form the foundation for a robust and scalable web application.

- **Development Resources:** Extensive documentation and a large developer community exist for HTML, CSS, and JavaScript. This readily available support simplifies development and troubleshooting processes. Additionally, the abundance of reusable components and libraries can significantly accelerate development.
- **Scalability:** The component-based architecture of the application promotes modular development. This allows for easier scaling of the platform's functionalities as the user base and requirements grow.

4.2.2 Operational Feasibility

- **User Engagement:** The dynamic and interactive nature of the application can significantly enhance user engagement compared to static web pages. This fosters a more immersive and enjoyable user experience, encouraging users to spend more time on the platform.
- **Maintenance and Updates:** The modular nature of the application facilitates easier maintenance and updates. Individual components can be addressed without affecting the entire system, making it easier to implement changes and improvements over time.
- **Performance:** JavaScript's ability to manipulate the DOM efficiently ensures high performance by minimizing direct manipulations of the actual web page's DOM. This translates to smoother user interactions and a more responsive platform.

4.2.3 Economic Feasibility

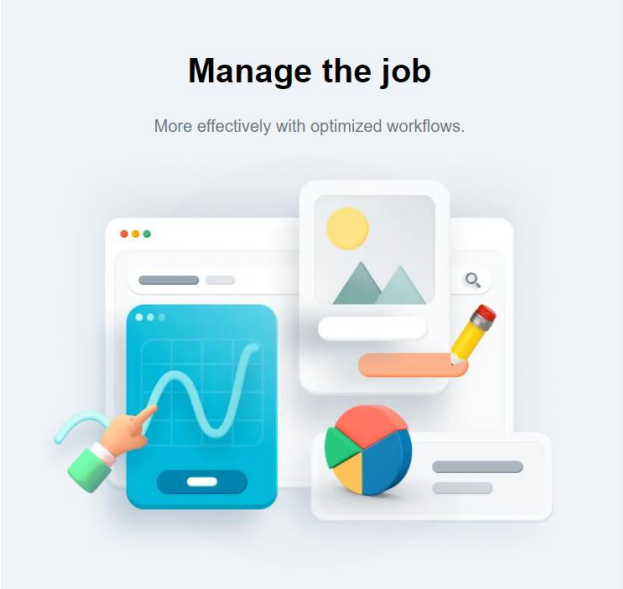
- **Development Costs:** The project leverages open-source technologies like React.js, Tailwind CSS, Formik, and Yup. This significantly reduces software licensing costs compared to using proprietary solutions. Furthermore, the availability of pre-built

components and libraries has the potential to save development time, leading to lower overall development costs.

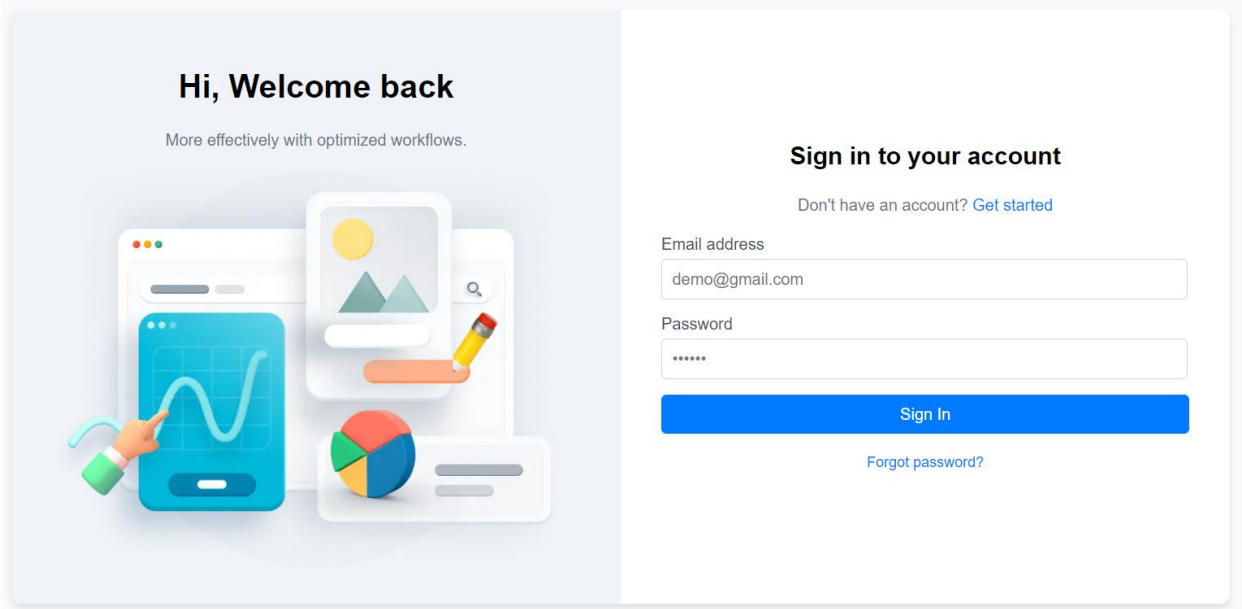
- **Operational Costs:** Cloud services designed for modern web applications can be leveraged to manage hosting and deployment costs effectively. The modular and maintainable codebase, facilitated by React and Tailwind CSS, should also lead to lower maintenance costs in the long run.
- **Return on Investment (ROI):** Increased user engagement and satisfaction can translate to higher user retention rates. A retained user base has the potential to generate revenue through various models, such as subscriptions, course fees, or premium features. The platform's scalability ensures it can grow with the user base without requiring significant overhauls, leading to long-term cost savings and a strong ROI.

5. IMPLEMENTATION

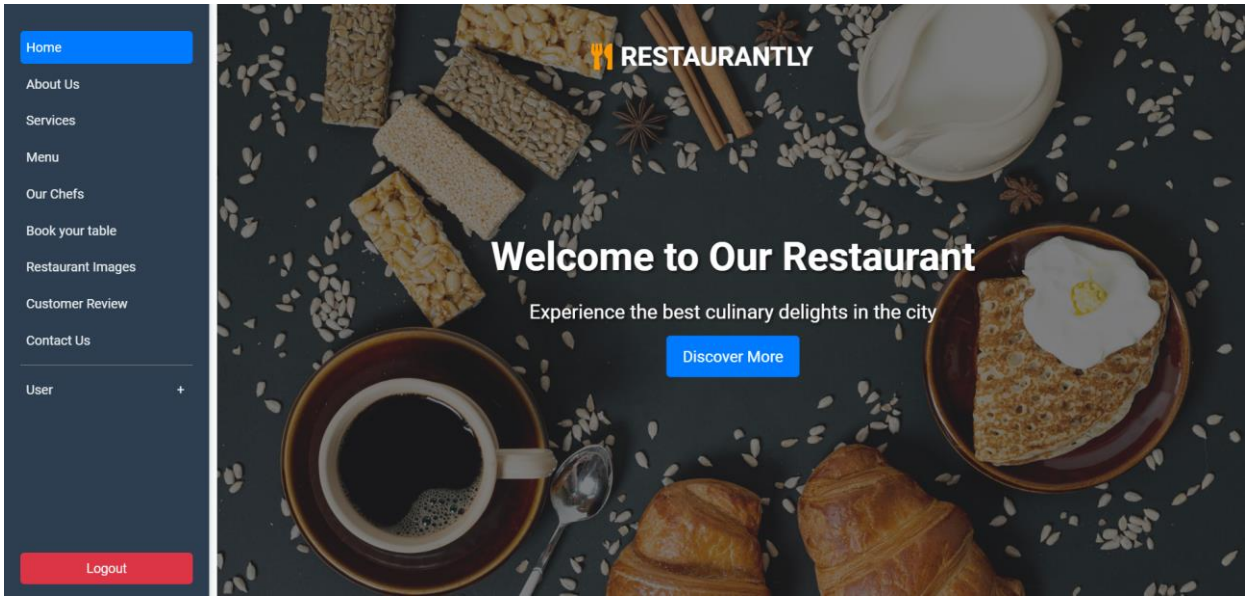
- **Regestration Page :**



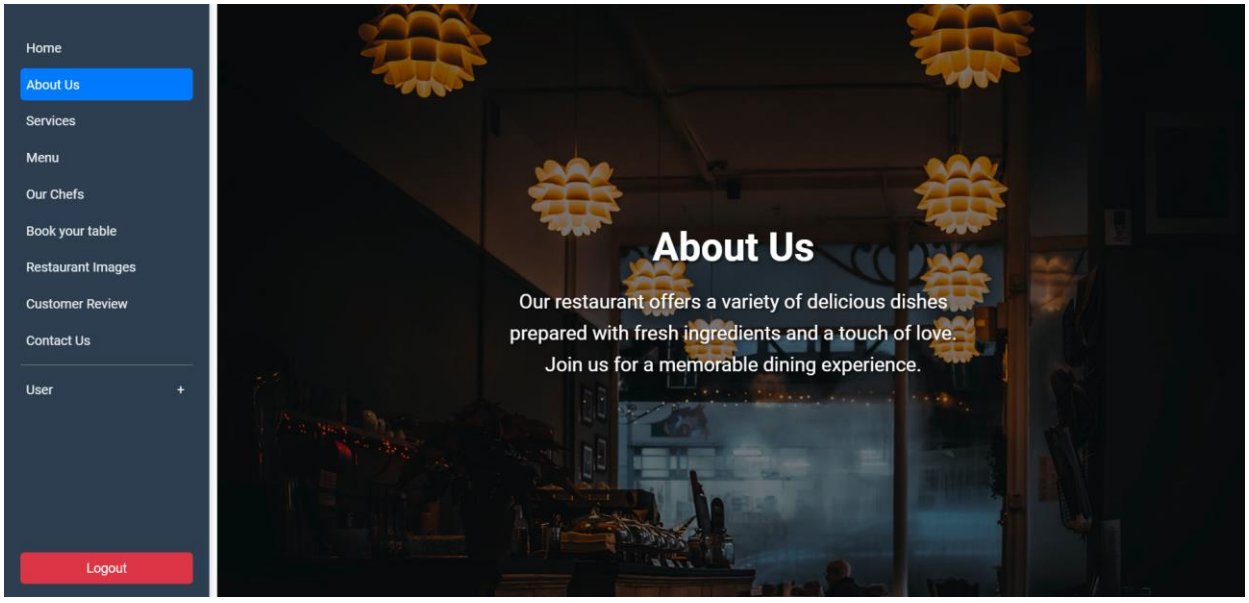
- **Sign in Page:**



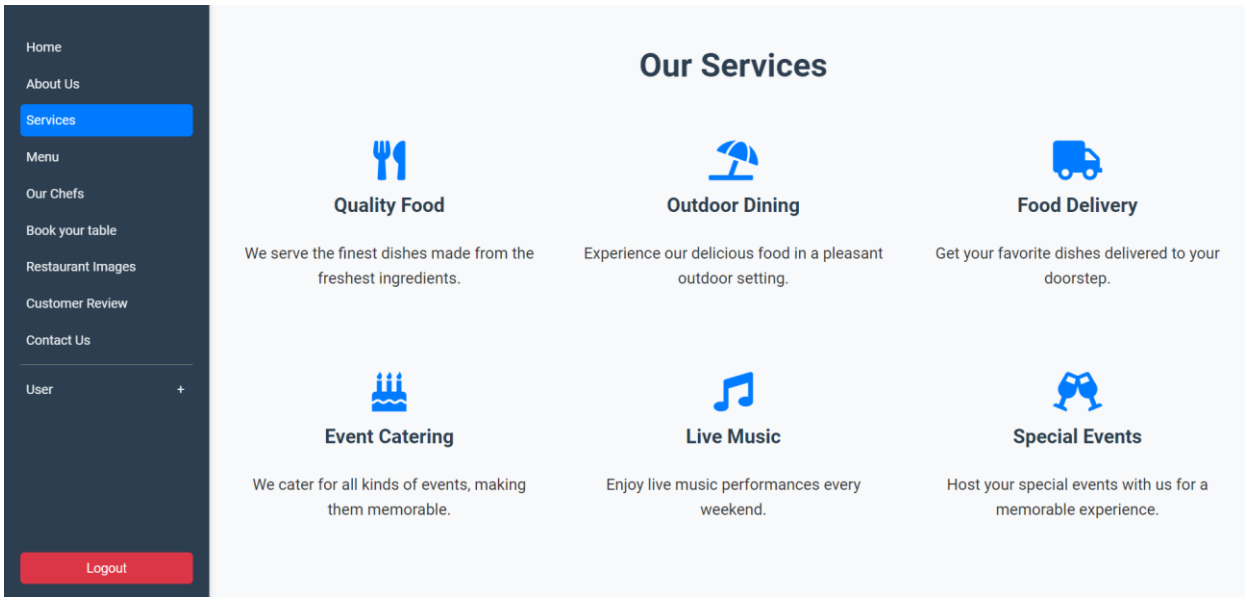
- **Home Page :**



- **About Us :**



- **Services :**



- **Master Chefs:**

- **Our Menu :**

Our Menu

Grilled Pasta

Delicious grilled Pasta served with fresh vegetables.

Vegetarian Pasta

Freshly made pasta with a mix of seasonal vegetables.

Seafood Platter

A variety of seafood served with dipping sauces.

Classic Burger

Our signature burger with juicy beef patty, cheese, and fresh toppings.

Fresh Salad

Healthy salad with mixed greens, cherry tomatoes, and balsamic vinaigrette.

Sushi Platter

An assortment of fresh sushi rolls with soy sauce and wasabi.

Vegetarian Pasta

Freshly made pasta with a mix of seasonal vegetables.

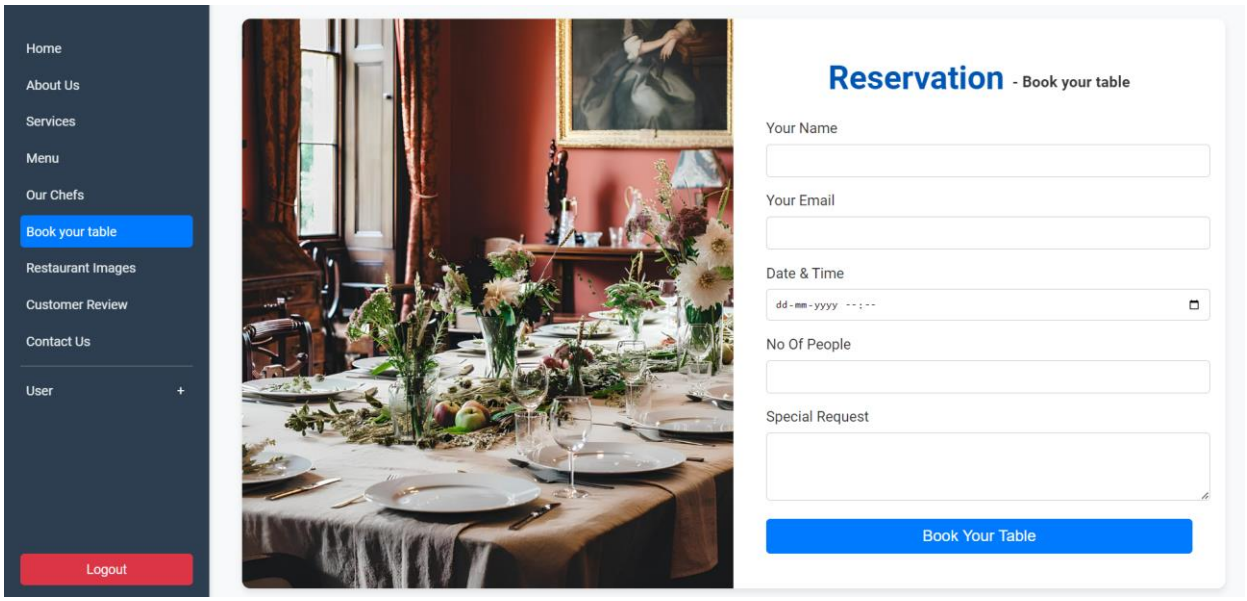
Seafood Platter

A variety of seafood served with dipping sauces.

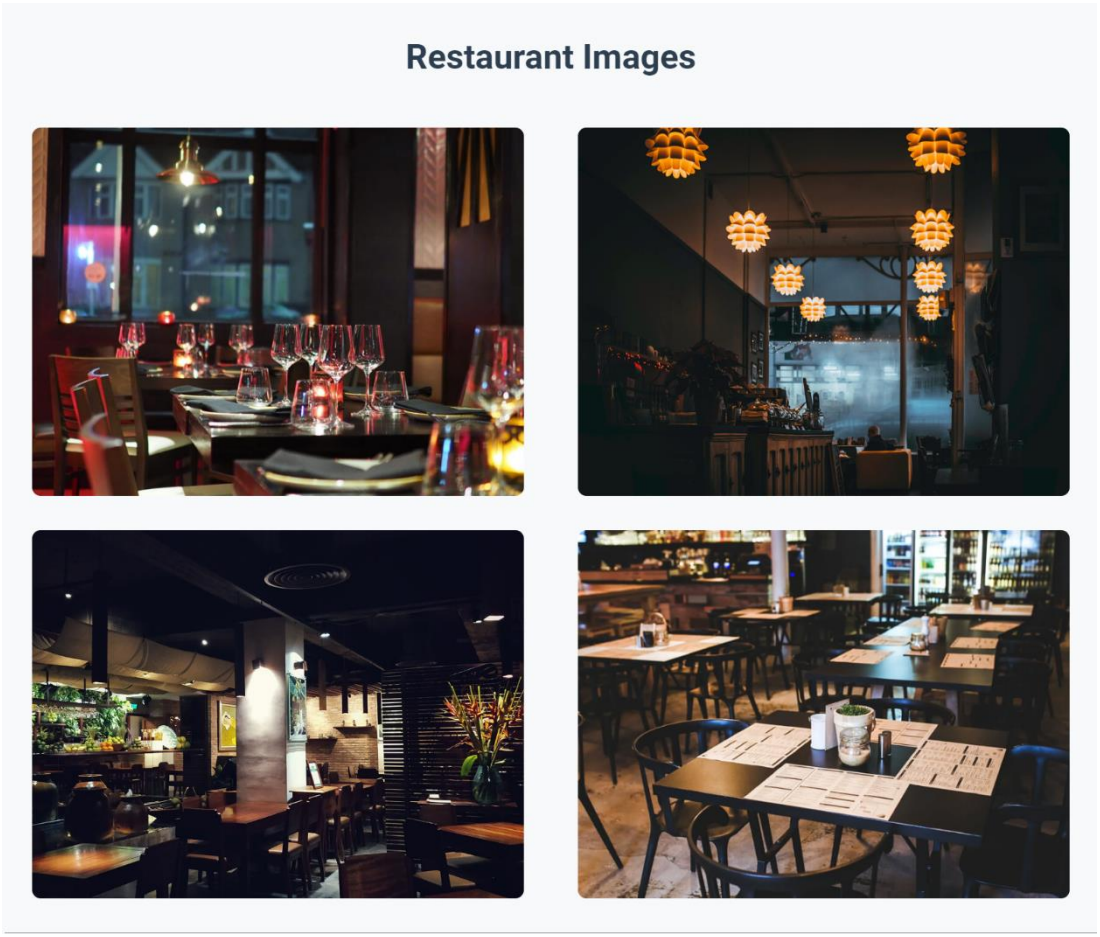
Grilled Pasta

Delicious grilled Pasta served with fresh vegetables.

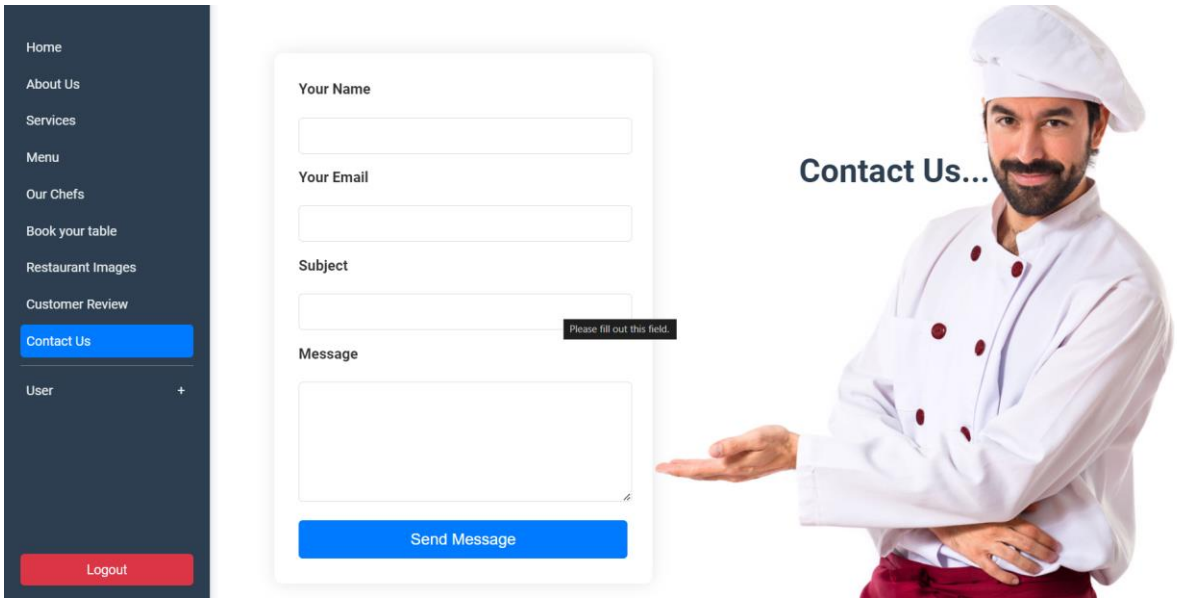
- **Reservation Table:**



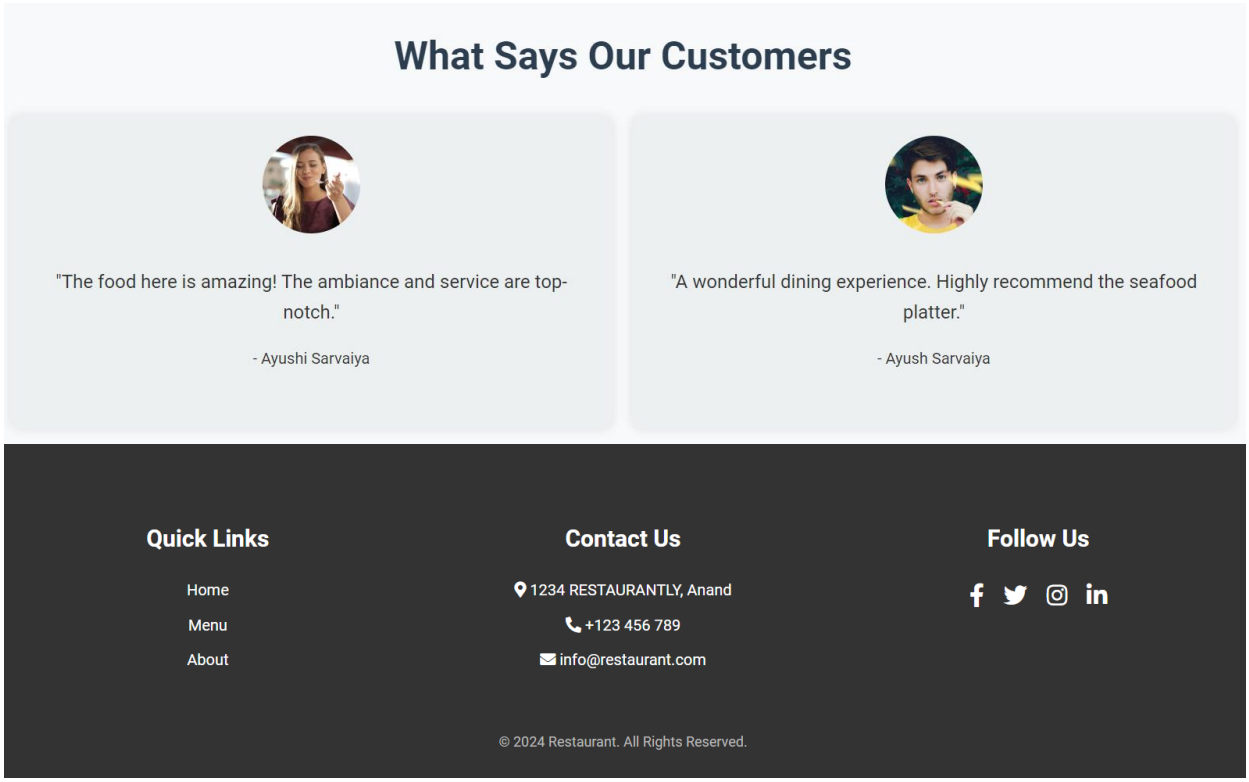
- **Restaurant Images:**



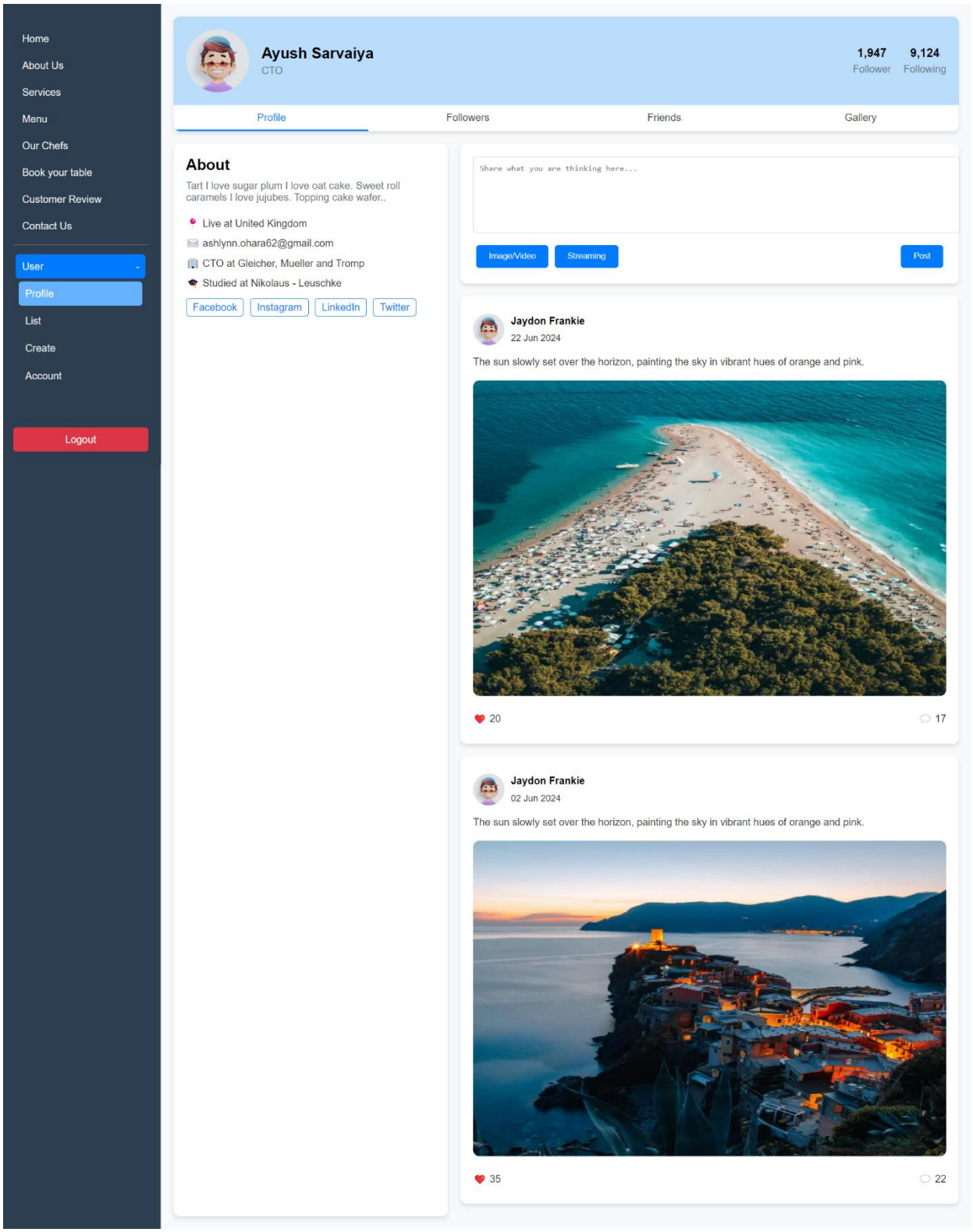
- **Contact Us :**



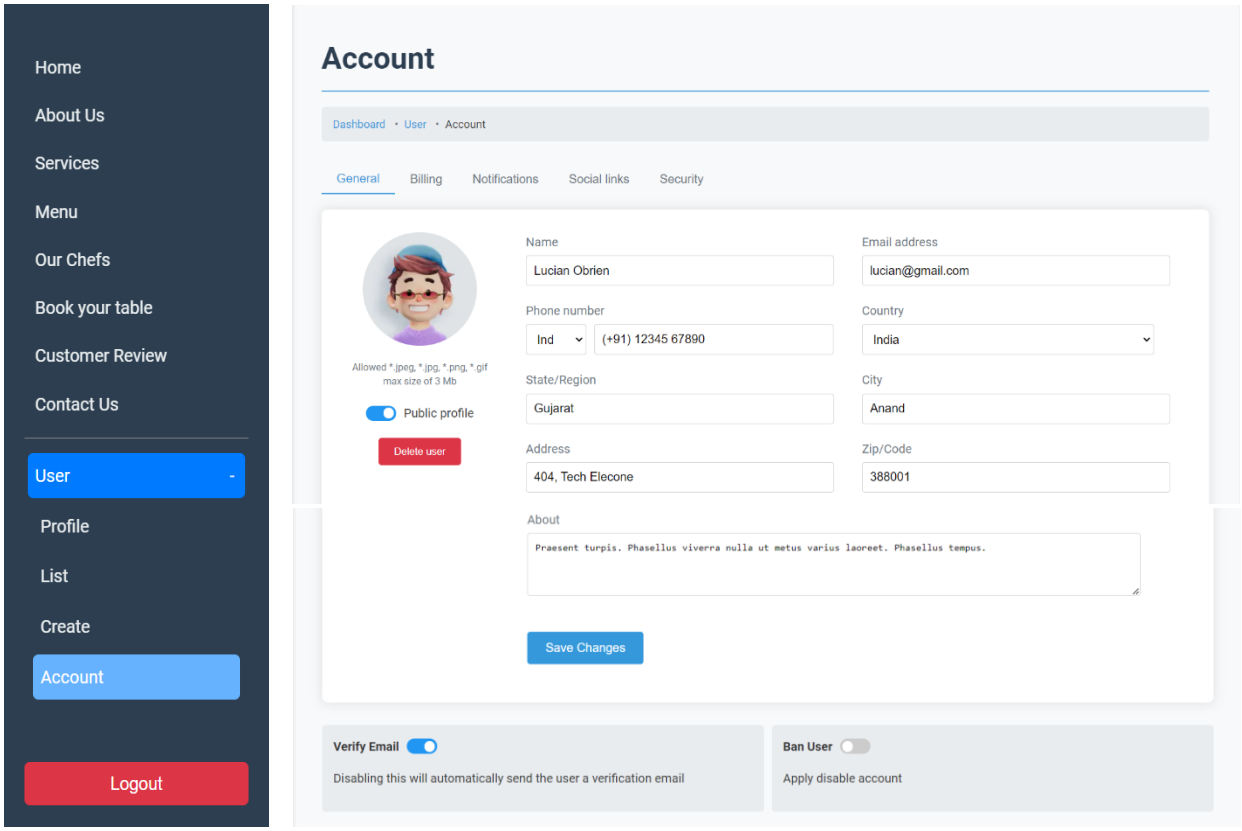
- **Customer Reviews & Footer:**



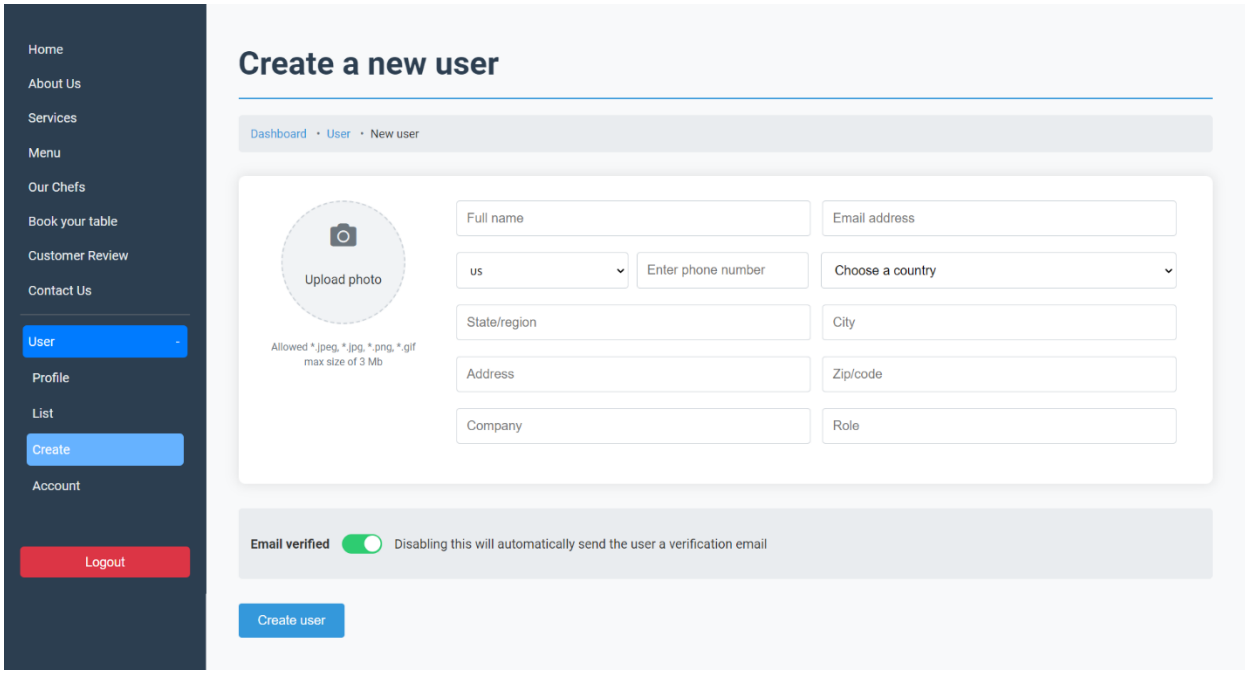
- **User Profile :**



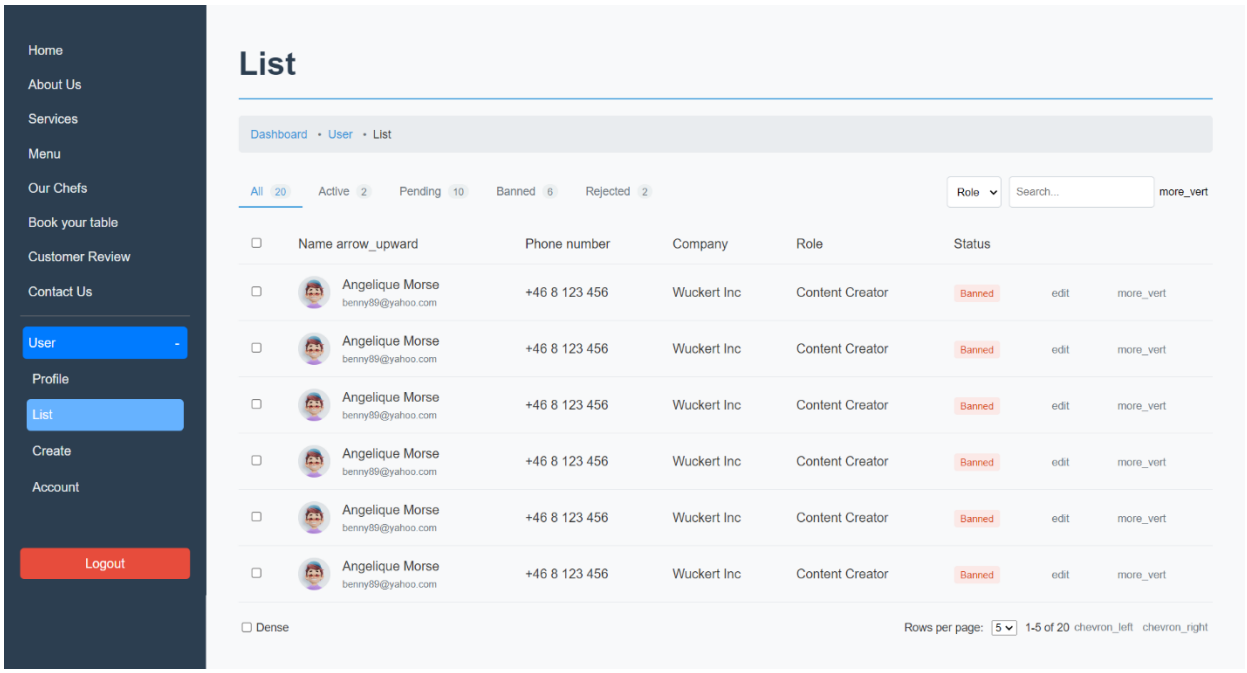
- User Account :



- **Create User :**



- **User List :**


Home
About Us
Services
Menu
Our Chefs
Book your table
Customer Review
Contact Us
User
Profile
List
Create
Account
Logout
List
Dashboard • User • List
All 20
Active 2
Pending 10
Banned 6
Rejected 2
Role
Search...
more_vert
Name arrow_upward
Phone number
Company
Role
Status
Angelique Morse
benny89@yahoo.com
+46 8 123 456
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Content Creator
Banned
edit
more_vert
Dense
Rows per page: 5
1-5 of 20
chevron_left
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6. TESTING

Testing a web application built with HTML, CSS, and JavaScript involves several steps to ensure its functionality, performance, and usability. Here's a detailed breakdown of the testing process for this project:

7.1 Code Validation:

Before any functional testing, validate the HTML, CSS, and JavaScript code to ensure it follows best practices and standards:

- **HTML Validation**: Use the W3C Markup Validation Service to check for any syntax errors or warnings in your HTML files.
- **CSS Validation**: Use the W3C CSS Validation Service to validate your CSS code.
- **JavaScript Validation**: Use tools like ESLint to identify and fix any issues in your JavaScript code.

7.2 Unit Testing:

Unit testing involves testing individual components or functions to ensure they work correctly in isolation.

- **JavaScript Functions:** Write unit tests for key JavaScript functions using frameworks like Jasmine
- **Form Validation:** Ensure that any form validation logic works correctly, handling valid and invalid inputs as expected.

7.3 Integration Testing:

Integration testing focuses on ensuring that different parts of the application work together as expected.

- **User Interface (UI) Elements:** Test the integration of HTML and CSS to ensure that all UI elements are displayed correctly and styles are applied as intended.
- **JavaScript Interactions:** Verify that interactive elements, such as buttons and forms, trigger the correct JavaScript functions and behaviors.

7.4 End-to-End (E2E) Testing:

End-to-end testing simulates real user interactions to validate entire workflows from start to finish.

- **User Flows:** Use tools like Selenium or Cypress to automate the testing of user flows. For example, test the process of creating a new user, editing user details, and viewing user profiles.
- **Browser Compatibility:** Test the application across different browsers (Chrome, Firefox, Safari, Edge) and devices (desktop, tablet, mobile) to ensure consistent behavior and appearance.

7. REFERENCE

9.1 Technologies and Documentation Links:

- **HTML (Markup Language):** https://www.w3schools.com/html/
- **CSS:** https://www.w3schools.com/css/
- **JavaScript:** https://www.javascript.com/
- **GitHub:** https://github.com/
- **Font Awesome:** https://fontawesome.com/

8. CONCLUSION

Building a Restaurant Website with user management using HTML, CSS, and JavaScript is an excellent choice for creating a dynamic, user-friendly application. This approach offers several key benefits that make it well-suited for managing user profiles, listing users, creating new user accounts, and displaying user account details. Here's a simple breakdown of why this technology stack is a good fit for such an application:

1. Fast and Responsive:

HTML, CSS, and JavaScript ensure the application is fast and responsive. Users can quickly navigate between different sections like "User List," "Profile Details," "Create User," and "Edit Profile" without the need for full page reloads.

2. Smooth User Experience:

With JavaScript and DOM manipulation, you can create a seamless user experience. Users can interact with the application in real-time, such as updating profile information or dynamically viewing a list of users.

3. Reusable Components:

The use of modular HTML and CSS allows you to create reusable components. For example, you can build a user card component once and use it across different sections like "User List" and "User Account..

4. Easy to Maintain:

The structured approach of HTML and CSS combined with the flexibility of JavaScript makes the application easy to maintain and update. Adding new features or making changes can be done efficiently without affecting the entire application.

Final Thoughts :

Creating a Restaurant Website with user management application using HTML, CSS, and JavaScript provides a fast, interactive, and easy-to-maintain solution. This setup is ideal for displaying user profiles, listing users, creating new accounts, and managing user details. The technologies used ensure a responsive and engaging user experience, making the platform effective and user-friendly.