

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnana Sangama, Belagavi-590018



INTERNSHIP REPORT (21INT68)

Submitted in Partial fulfillment of the requirements for
the Degree of Bachelor of Engineering in
Full Stack Web Development in MERN
By

Siddhartha Pandit

Under the Guidance of,

Richa Jha

Webstack Academy



DEPARTMENT OF

COMPUTER SCIENCE AND ENGINEERING

**CMR INSTITUTE OF TECHNOLOGY#132, AECS LAYOUT, IT
PARK ROAD, KUNDALAHALLI, BANGALORE-560037**

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



CERTIFICATE

This is to certify that **Siddhartha Pandit (1CR21CS179)**, bonafide student of CMR Institute of Technology has undergone internship in partial fulfillment for the award of **Bachelor of Engineering in Computer Science** of the Visvesvaraya Technological University, Belagavi during the year **2023- 2024**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report. This Internship Report has been approved as it satisfies the academic requirements in respect of the internship prescribed for the said degree.

Richa Jha
Instructor

Dr. Shreekanth M Prabhu

Head
Dept. of CSE, CMRIT



CERTIFICATE OF INTERNSHIP

THIS CERTIFICATE IS PROUDLY PRESENTED TO

Siddhartha Pandit

For Successfully Completing Internship on

FULL STACK WEB DEVELOPMENT IN MERN

This Internship Provided Hands-on Exposure on

- Foundational Programming With HTML, CSS, Java Script, React
- SDLC Based Project Building Using MERN Stack

16th AUG 2023 - 16th OCT 2023

A handwritten signature in blue ink, appearing to read 'Mubeen Jukaku'.

Mubeen Jukaku
Technology Head, WSA

CERTIFICATE ID

WMSI23_001

A handwritten signature in blue ink, appearing to read 'B. Jayakumar'.

Jayakumar Balasubramanian
Director, WSA

www.webstackacademy.com

Acknowledgement

The time I spent in Webstack Academy as an intern from 16th Aug 2023 to 16th Oct 2023 was a rich experience and it helped me improve my understanding of Full Stack Development. I would like to express my sincere and immense gratitude to everyone who made it possible for us to do this internship.

My sincere thanks to Webstack Academy for providing an opportunity to do internship under such an establishment. I would like to thank Richa Jha for providing the internship offer.

I would like to thank **Dr. Sanjay Jain**, Principal, CMRIT, Bangalore for enabling us to do the internship. I would like to thank **Dr. Shreekant M Prabhu, HoD**, Department of Computer Science and Engineering who shared his opinion and experience through which we received the required information crucial for the internship. I consider it a privilege and honor to express my sincere gratitude to internship coordinators **Richa Jha**, WebStack Academy for valuable guidance throughout the tenure of this internship.

Finally, I would like to thank all my family members and friends whose encouragement and support was invaluable.

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INTRODUCTION

Embarking on a Two-month online internship at Webstack Innovations has been an invaluable journey focused on honing my skills in web development. Spanning from August 16th to October 16th, the program provided a well-structured learning path, presenting weekly task assignments that collectively offered a comprehensive grasp of web development concepts. These carefully curated tasks systematically covered various facets of the field, allowing for a gradual and holistic immersion into the world of web development.

Despite the virtual nature of the internship, emphasis was placed on flexibility and the recognition of the importance of remote collaboration and communication in the contemporary work landscape. The program effectively mitigated the absence of physical presence through well-organized virtual interactions, mentorship sessions, and collaborative online tools, fostering a cohesive and engaging learning atmosphere.

Engaging with diverse web development concepts, ranging from front-end design principles to back-end functionalities, provided me with hands-on experience and the opportunity to bridge theoretical knowledge with practical application. This immersive internship experience has been instrumental in enhancing my coding skills and refining my problem-solving abilities. Through this report, I aspire to articulate the multifaceted learning experiences, challenges encountered, and achievements gained throughout this one-month internship, reflecting on each weekly task and the overall impact on my skill set, perspective, and future aspirations in the dynamic field of web development

COMPANY PROFILE

2.1 Profile



Webstack Academy (WSA) is one of the best online course providers for Full Stack Web Developer Courses on MERN Stack. Our Best Online Full Stack Developer Course in MERN with Placements is built based on **JavaScript everywhere** paradigm. The front end course gives extensive focus on building elegant UI using React.js by leveraging HTML5, CSS3, JavaScript, jQuery and Bootstrap. The back-end course enables you to build lightweight and scalable web applications using Node.js and Express.js framework.

2.2 About the Company Values

WebStack Academy is driven by a set of core values that define our identity and guide our actions. We are dedicated to empowering engineers and individuals, fostering innovation, and providing high-quality education across multidisciplinary fields. Our commitment to global impact fuels our mission to make life easier for people worldwide through technological advancements. We embrace continuous improvement, adapting and evolving our platform to ensure learners receive the most up-to-date and relevant education. At WebStack Academy, our values are the foundation of our culture, driving us to create positive change and maintain the highest standards of excellence in everything we do.

2.3 Company Vision:

WebStack Academy, founded by visionary leaders committed to global progress, stands at the forefront of simplifying life through innovation, technology, and education across multidisciplinary fields. Our founders are driven by a relentless pursuit of excellence, ensuring that our endeavors consistently uphold the highest standards of quality. Through a combination of cutting-edge technology and comprehensive education, WebStack Academy aims to make a lasting impact on a global scale, bringing about positive change and fostering advancements in various domains. Our commitment to innovation and education serves as the cornerstone of our mission to make life easier for individuals worldwide.

Chapter 3 ABOUT THE COMPANY

3.1 About Company

Interning at WebStack Academy has been a transformative experience in my journey towards becoming a proficient web developer. The comprehensive Full Stack Developer Course in MERN with Placements provided a holistic understanding of MongoDB, Express.js, React.js, and Node.js. The emphasis on crafting elegant UIs using React.js and the practical insights gained in constructing scalable web applications with Node.js and Express.js have significantly enhanced my skill set. The dynamic course structure, combining Live Virtual Classes with online interventions, offered an engaging learning experience. The 70% hands-on approach allowed me to apply theoretical knowledge in real-world scenarios, fostering a deep understanding of MERN stack development. What sets WSA apart is its commitment to excellence, professionalism, and the dedication to building strong Core Software Foundations, making it an outstanding platform for aspiring software developers. My internship at WSA has been a growth-oriented journey, preparing me for a promising career in web development.

3.2 Reasons to choose

Interning at WebStack Academy has been an enlightening experience, immersing me in an industry-aligned curriculum designed to exceed theoretical expectations and cater to the dynamic demands of the field. The promise of placements is not just a commitment but a reality, evident in the vast network of 300+ companies actively seeking WebStack Academy-trained Full Stack Web Developers. The leadership, composed of EdTech veterans boasting over 18 years of experience, instills a profound understanding of industry expectations and trends. What truly distinguishes WSA is the breadth of placement opportunities, spanning MNCs to startups, with a remarkable 80% being repeat recruiters – a testament to the trust cultivated over the years. The focus on efficient skill-building processes, reducing post-hiring training time by a significant 50%, equips interns like myself to make meaningful contributions right from day one. Opting for WebStack Academy for the development of a food delivery app in MERN stack is not merely an educational endeavor; it's a transformative journey guided by a comprehensive curriculum, robust placement support, and the invaluable insights of industry veterans. I'm enthusiastic about bringing the app to life with the prowess of MERN stack development and am thrilled to contribute to this dynamic and empowering environment.

Chapter 4

SCOPE OF THE PROJECT

The project at hand aims to revolutionize the food delivery experience by developing a sophisticated platform using the MERN stack (MongoDB, Express.js, React.js, Node.js). This endeavor envisions a comprehensive solution that not only streamlines the ordering process for customers but also provides restaurant owners with effective tools for managing their establishments.

Key Objectives:

User-Centric Interface:

The project will prioritize the creation of a user-centric interface utilizing React.js, ensuring an intuitive and engaging experience for customers. The interface will facilitate easy navigation, showcasing interactive menus and simplifying the order placement process.

Real-Time Order Tracking:

Implementing a real-time order tracking feature will be a pivotal aspect of the project. This functionality will empower customers to track their orders seamlessly, fostering transparency and improving their overall satisfaction with the service.

Efficient Backend Operations:

Leveraging Node.js and Express.js, the project will focus on building a robust backend infrastructure. This includes optimizing order processing, implementing effective inventory management, and ensuring secure user authentication for a responsive and reliable system.

Seamless Payment Integration:

The integration of secure and widely accepted payment gateways is crucial to the project's success. This feature will enable smooth and secure transactions for customers, while ensuring timely disbursements to restaurant owners.

Restaurant Management Dashboard:

The project will include the development of a feature-rich dashboard for restaurant owners. This tool will empower them to manage menus, update item availability, and monitor incoming orders efficiently, thereby enhancing the overall operational efficiency of their establishments.

Responsive Design Across Devices:

A responsive design approach will be adopted to ensure compatibility across various devices, including desktops, tablets, and mobile phones. This design strategy aims to provide a consistent and enjoyable user experience for a diverse range of users.

Data Security and Privacy Measures:

The project will implement rigorous security measures to protect user data and uphold privacy standards. This will involve encrypted payment transactions, secure login protocols, and adherence to pertinent data protection regulations.

Scalability for Future Enhancements:

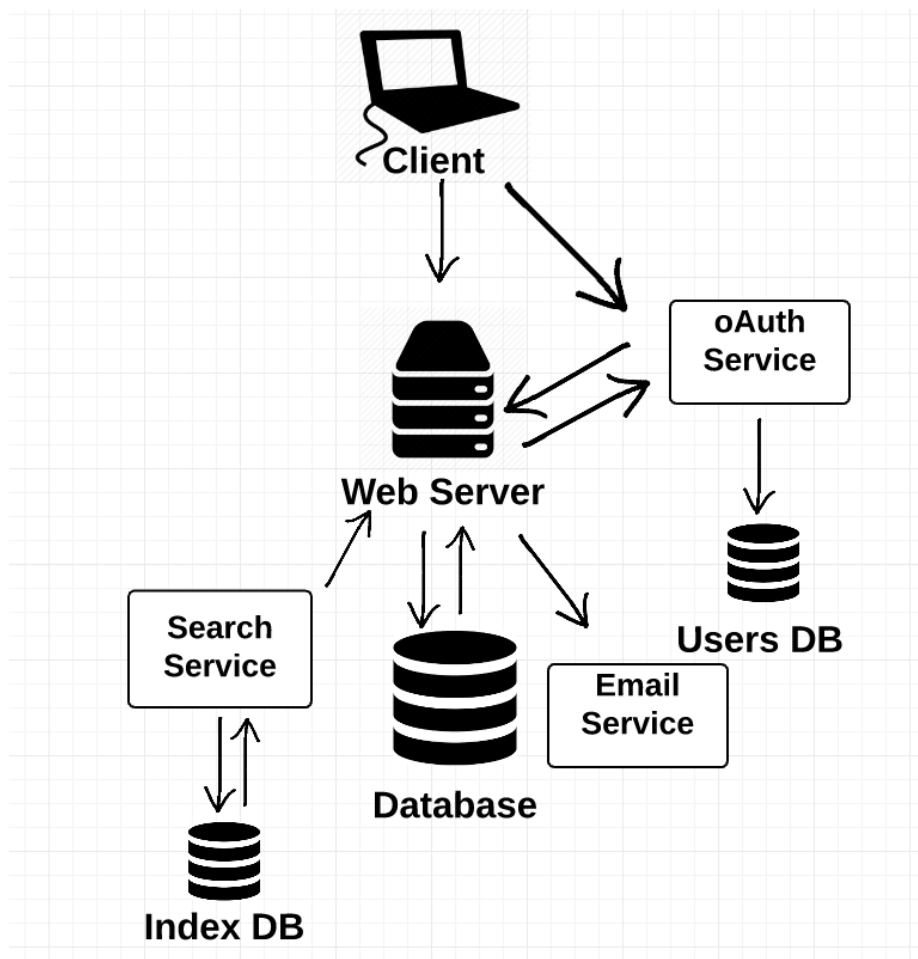
The project will be developed with scalability in mind, allowing for seamless integration of future features and enhancements. This forward-thinking approach ensures that the platform can adapt to evolving user needs and technological advancements.

CHAPTER 5

Food Delivery app using MERN stack

The purpose of this project is to develop a food delivery app using the MERN (MongoDB, Express, React, Node.js) stack. The app allows users to order food items. The app is designed to be user- friendly, with a clean and modern interface.

Architecture:



The food delivery app is built using the MERN stack. The app consists of several components, including the home page, My Orders page, Cart page, Login and Logout page. The Home page displays the list of restaurants, and includes a search bar and filter options. The Menu page displays the list of items in the menu, and allows the user to add items to their cart. The Cart page displays the list of items in the user's cart, and allows the user to place an order. The Confirm Order page displays the details of the user's order with its delivery address. After confirming the order, it will redirect to Payment Page and then to the Order History Page where users can see their order history.

FULL STACK WEB DEVELOPMENT IN MERN

- The architecture of our website follows client-server architecture, and it is build using MERN stack for robust and scalable solution.
- Utilizes ReactJs for the interaction with user.
- The app is powered by Node.js as backend and mongoDB for database
- Use Stripe for payment integration and mail trap to send and receive the mail.

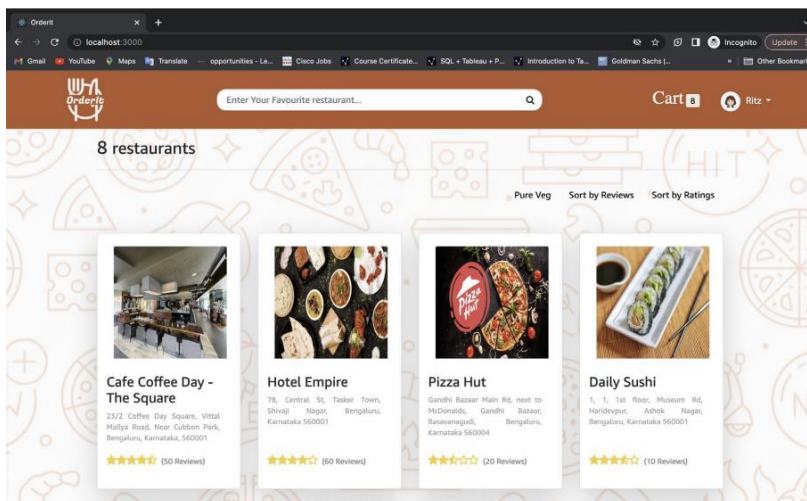
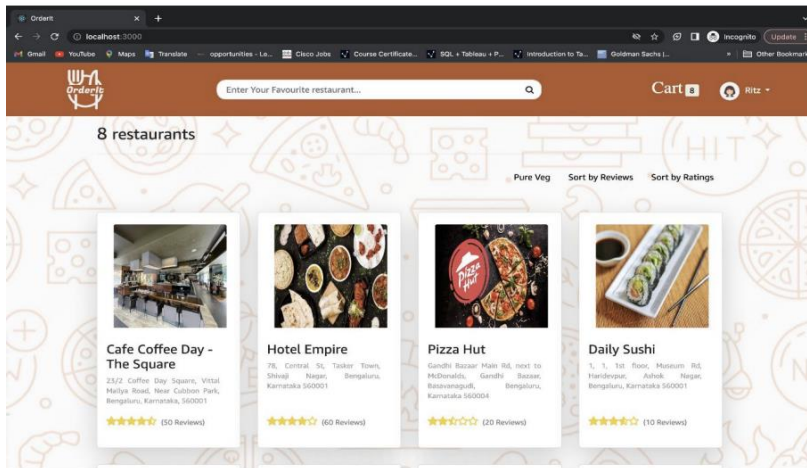
Features:

- User Authentication: Allow users to sign up, log in, and manage their profiles i.e., update users profile and password.
- Browse Restaurants: Display a list of restaurants with address and ratings including search and filtering options.
- View Menus: Show restaurant's menu with dish details, prices, and images.
- Cart Management: Enable users to add/remove items, adjust quantities, and view their cart. Order Placement: Allow users to place orders, and provide delivery addresses.
- Payment Integration: Integrate a payment gateway for secure transactions. Order History: Show users their past orders and order status.
- Responsive Design: Ensure the website works well on different devices and screen sizes.

Project Requirement

- The website was developed using ReactJS on the frontend and Node.js and MongoDB on the backend.
- The website uses a variety of ReactJS components to build the user interface.
- The website uses the Express.js framework to handle routing and API requests.
- The website uses the MongoDB database to store user data and restaurant data.

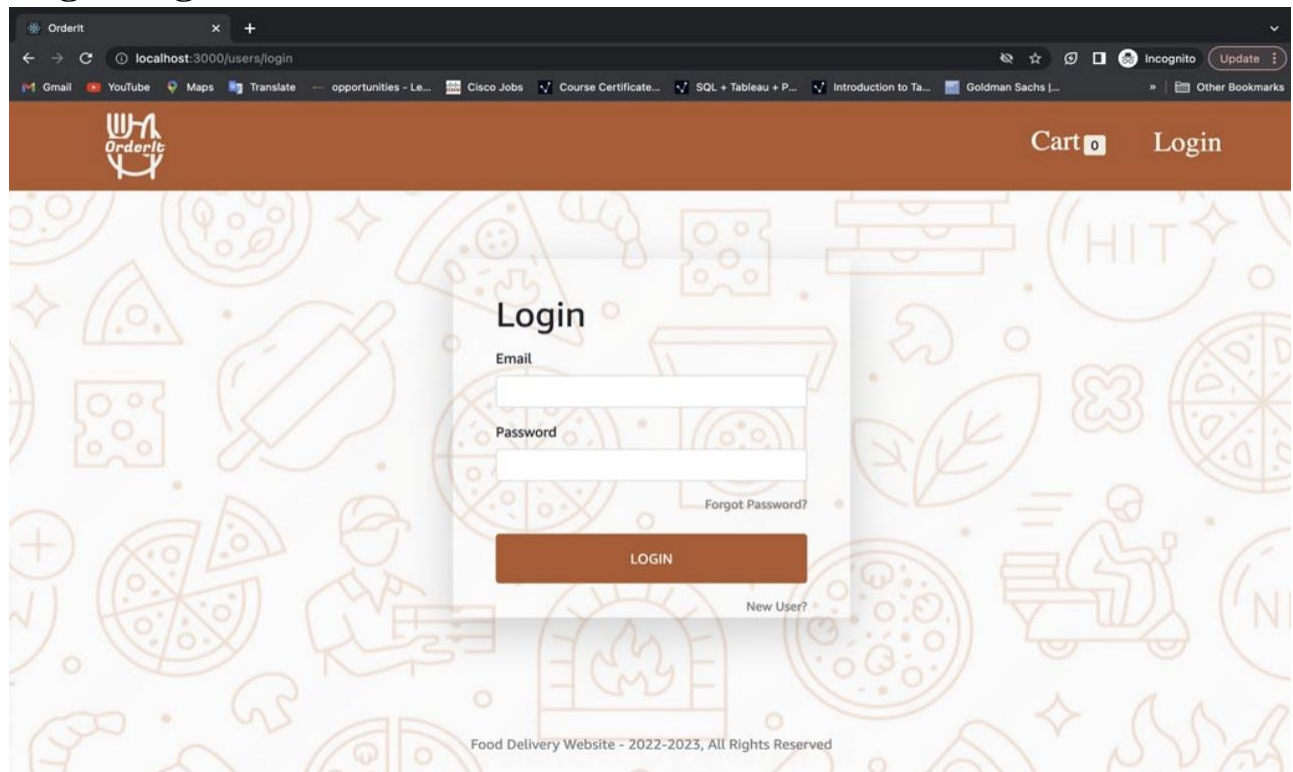
Home Page



The home page serves as the welcoming hub for users. It features:

- A search bar with location and cuisine filters for easy restaurant discovery.
- A carousel showcasing popular restaurants or enticing dishes.
- A grid displaying featured restaurants with star ratings and brief descriptions.
- Quick access to user account and other functionalities.
- I implemented the search bar integration with APIs for location services and restaurant databases. I also designed and constructed the carousel feature, ensuring smooth image transitions and captivating visuals.

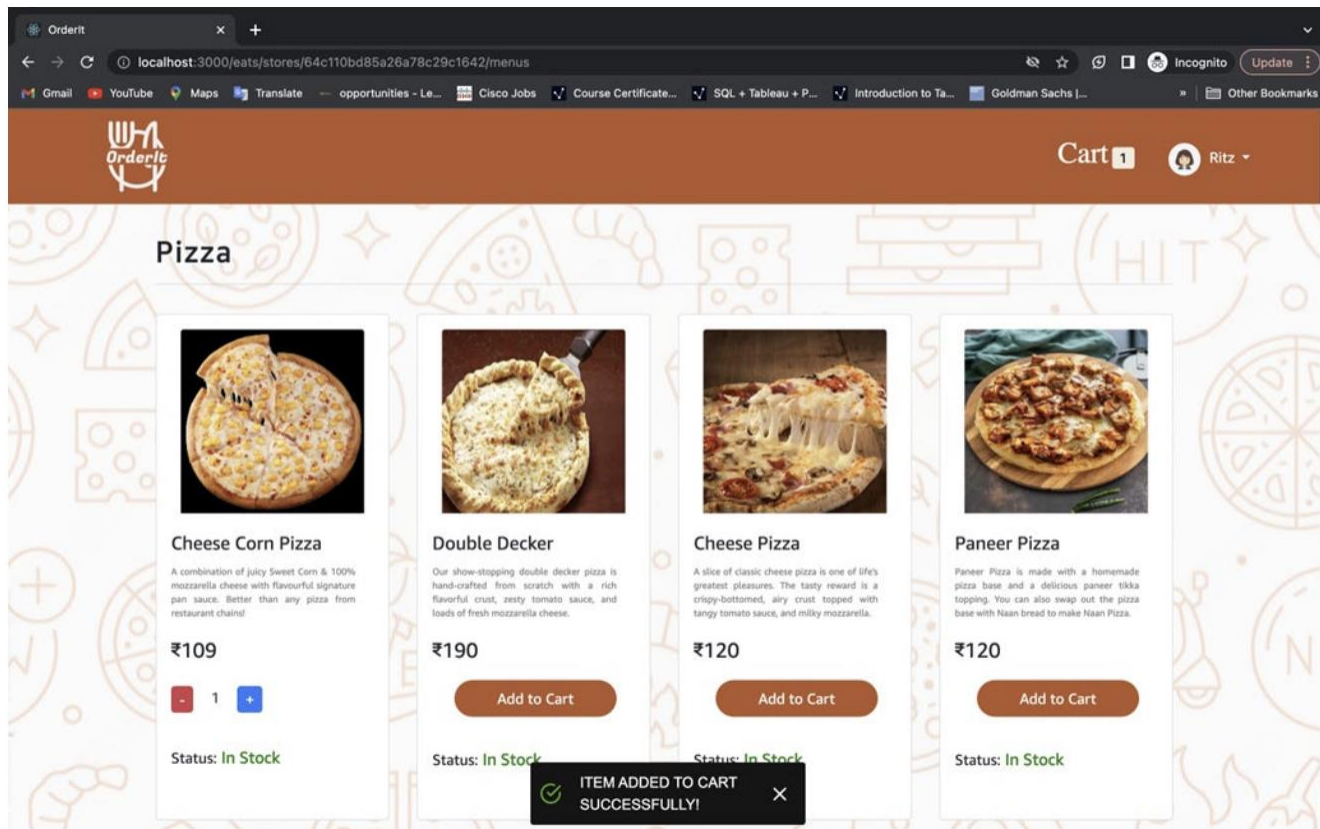
Login Page



Functionality: This page allows users to securely log in or register new accounts. It features:

- Login fields for username/email and password.
- Secure registration form with email verification.
- I implemented the login and registration functionalities using Stripe Connect, prioritizing user data security and seamless authentication. I also styled the forms for a user-friendly and visually appealing experience.

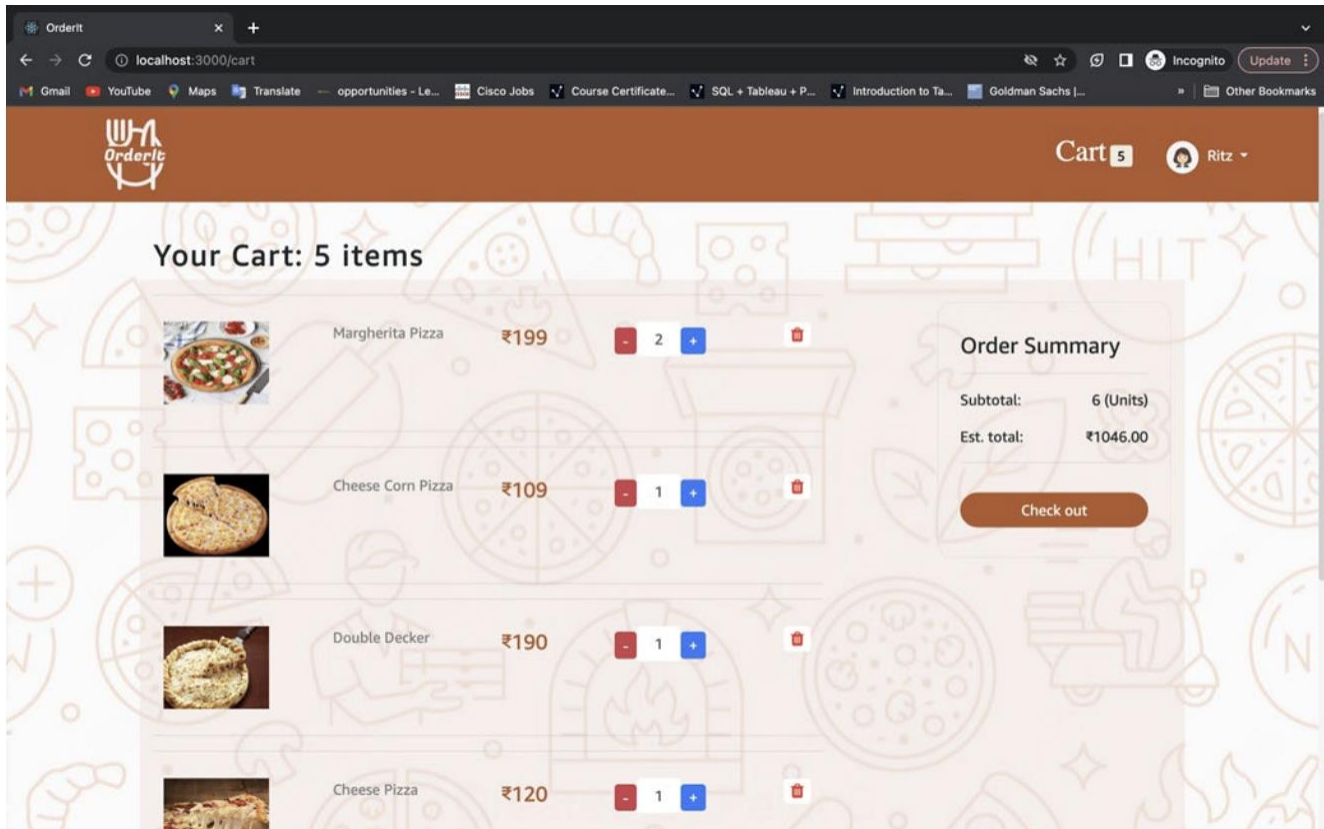
Main Page



Functionality: Each restaurant has a dedicated menu page showcasing available dishes. It features:

- High-quality images of each dish.
- Detailed descriptions with ingredients and dietary information.
- Clear price points and quantity selection options.
- Add-to-cart button for easy order customization.
- I developed the UI components for displaying dish information and images. I also implemented the add-to-cart functionality, ensuring accurate quantity selection and data transfer to the cart page.

Cart Page



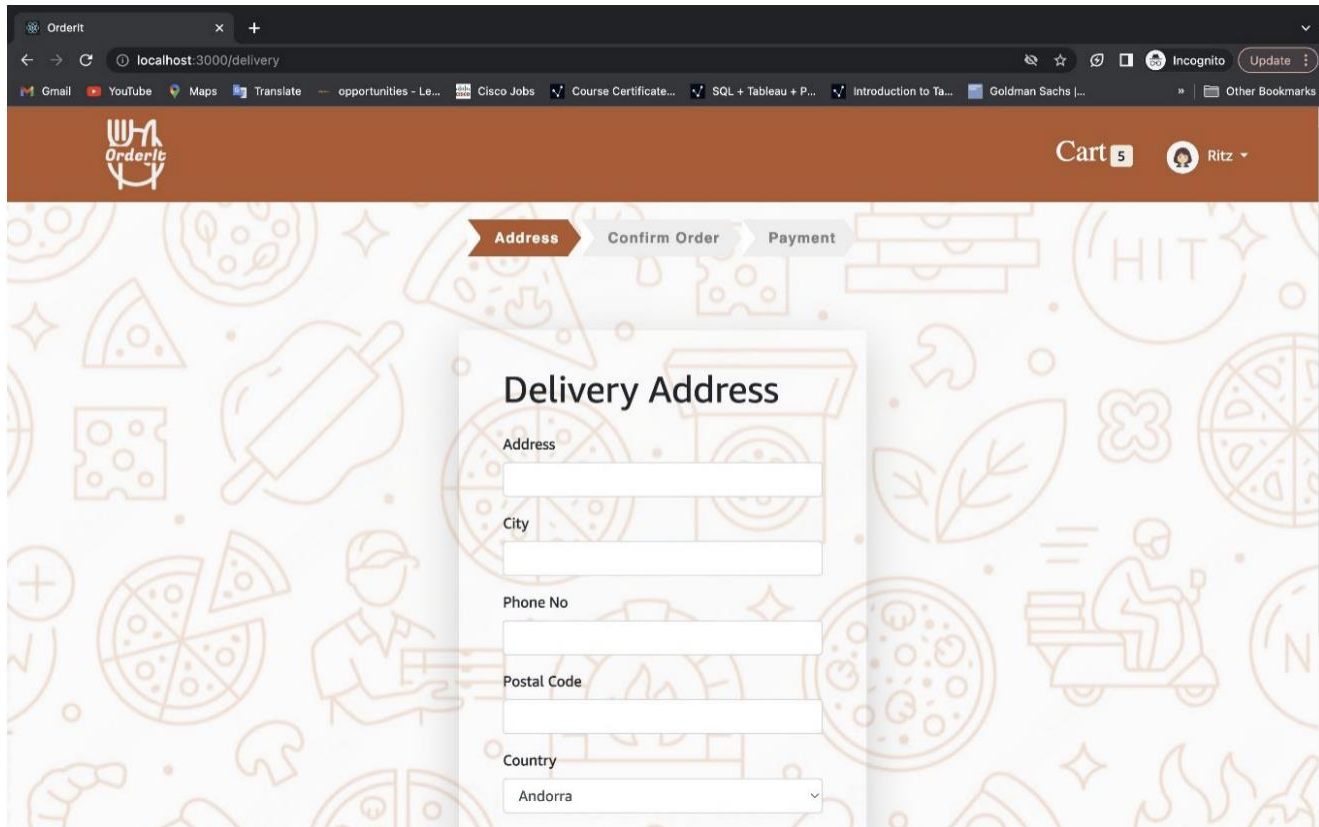
Functionality: This page allows users to review and manage their chosen items before placing an order. It features:

- A list of added dishes with names, images, and quantities.
- Option to modify quantities or remove items.
- Subtotal and total price calculations.

Proceed to checkout button for order confirmation.

I built the dynamic cart table to reflect changes in order selections. I also implemented the subtotal and total calculation logic, ensuring accurate pricing calculations.

Checkout Page

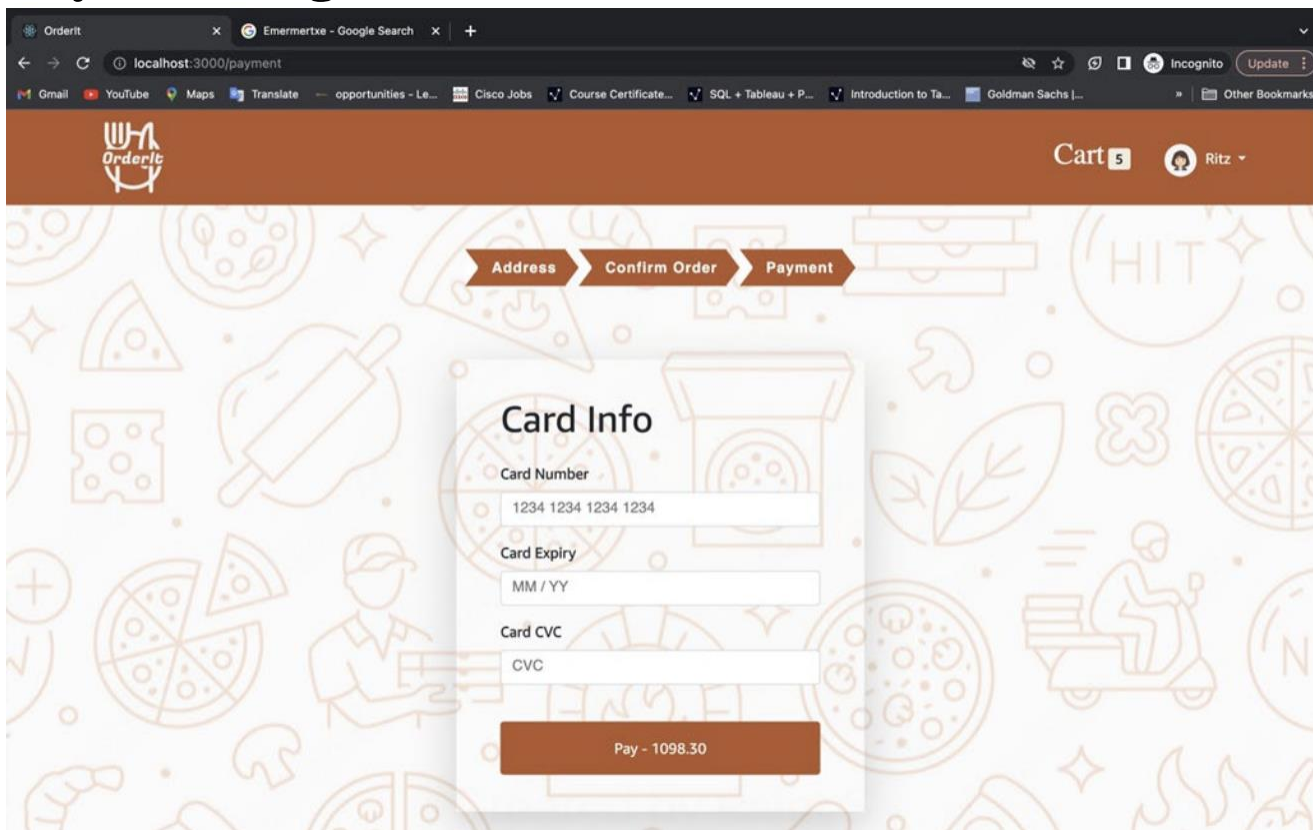


The screenshot shows a web browser window with the URL `localhost:3000/delivery`. The browser's address bar and tabs are visible at the top. The website's header is orange, featuring the 'Orderit' logo on the left, a 'Cart 5' icon in the center, and a user profile 'Ritz' on the right. Below the header, there are three navigation tabs: 'Address' (highlighted in orange), 'Confirm Order', and 'Payment'. The main content area has a light beige background with a repeating pattern of food-related icons (pizza, cheese, rolling pin, etc.). In the center, there is a white card titled 'Delivery Address' with the following form fields: 'Address' (text input), 'City' (text input), 'Phone No' (text input), 'Postal Code' (text input), and 'Country' (a dropdown menu currently showing 'Andorra').

Functionality: This page facilitates secure and efficient order placement. It features:

- User address selection or entry for delivery.
- Payment method selection with Stripe integration.
- Order summary with final cost and chosen items.
- Confirm order button to finalize the transaction.
- I spearheaded the integration of Stripe's payment gateway, allowing secure credit card processing and ensuring user data privacy. I also designed the order summary layout for clear communication of final order details.

Payment Page



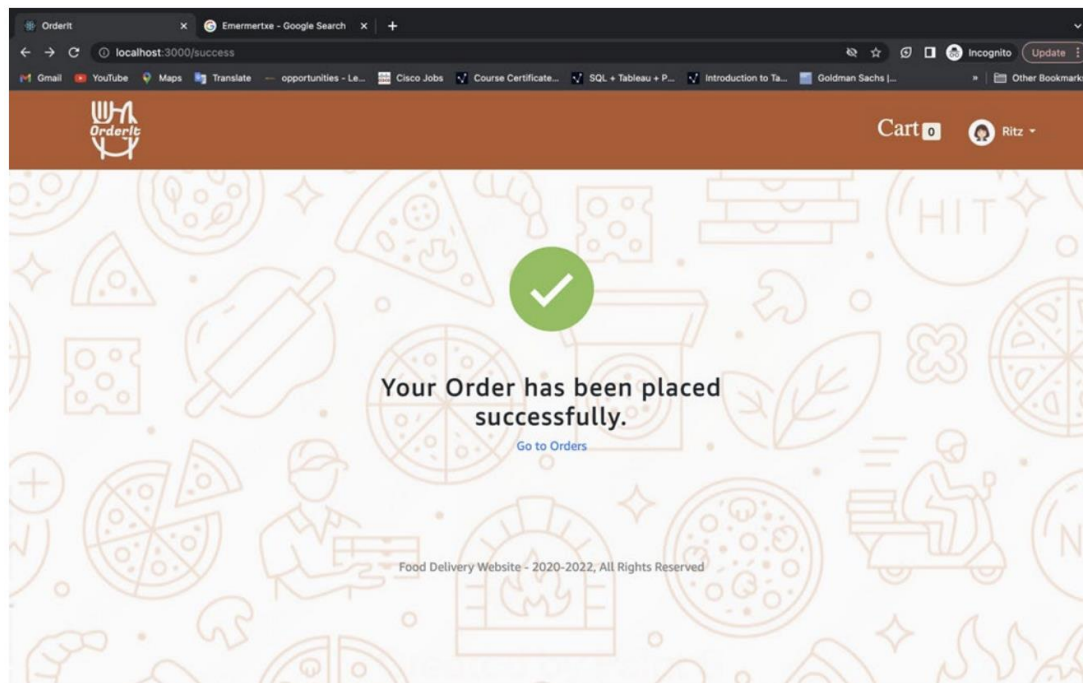
The screenshot displays a web browser window with the URL `localhost:3000/payment`. The page has a brown header with the 'Orderit' logo on the left and 'Cart 5' and a user profile 'Ritz' on the right. Below the header, there are three navigation tabs: 'Address', 'Confirm Order', and 'Payment'. The 'Payment' tab is active. The main content area has a light beige background with a pattern of food-related icons. In the center, there is a white card titled 'Card Info' with the following fields:

- Card Number:
- Card Expiry:
- Card CVC:

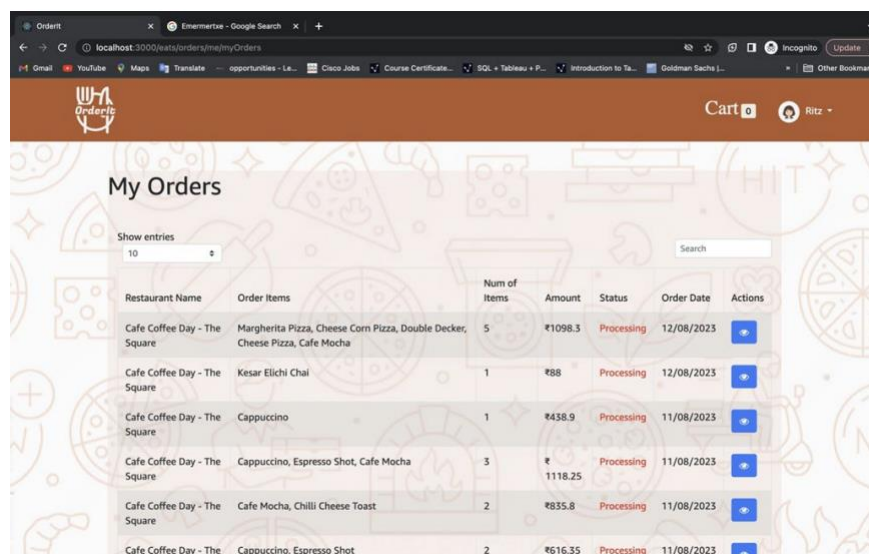
At the bottom of the card, there is a brown button labeled 'Pay - 1098.30'.

During my internship at WSA Academy, I had the exciting opportunity to contribute to the development of a food delivery app using the MERN stack. My responsibilities included implementing user authentication, integrating the Stripe payment gateway, and ensuring a responsive design for optimal user experience. Crafting key pages such as Browse Restaurants, View Menus, Cart Management, and Payment Integration, I gained hands-on experience in creating a seamless and user-friendly application. This internship not only enhanced my technical skills but also provided valuable insights into the intricacies of real-world software development. I am grateful for the guidance and mentorship received at WSA Academy, and I look forward to applying these skills in future projects.

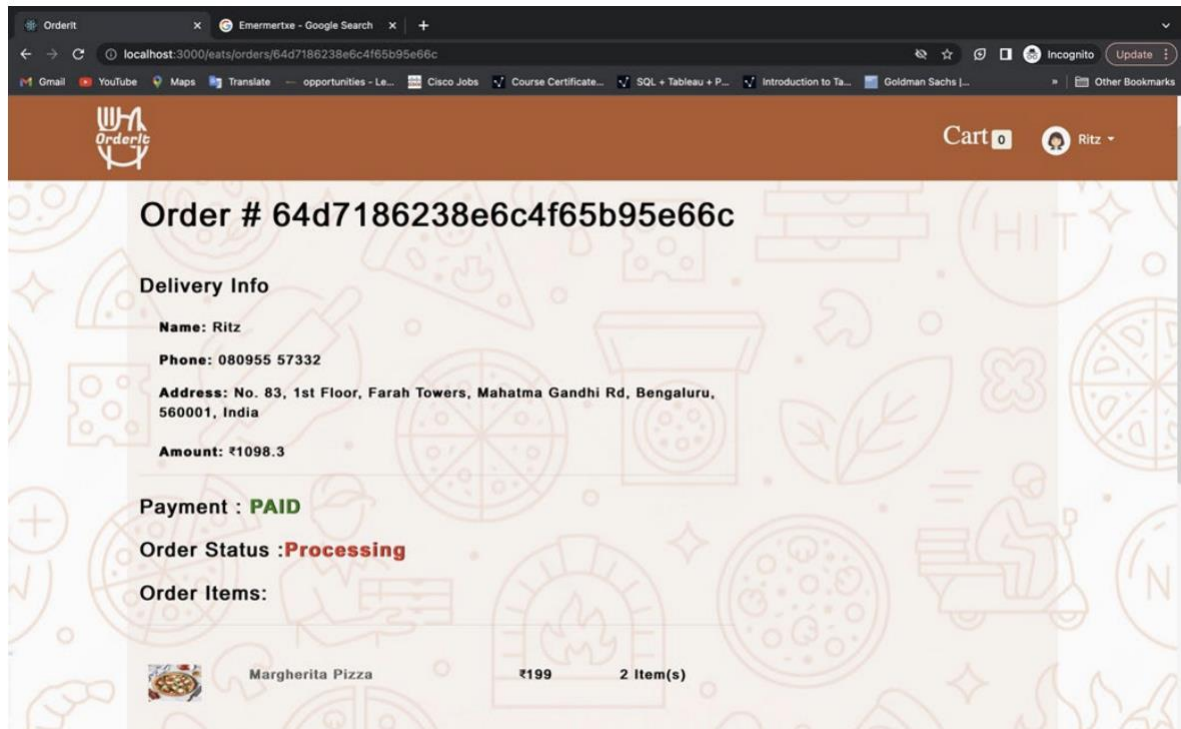
Other Pages



Order confirmed



Order History



Order Detail Page

CONCLUSION

In conclusion, my internship experience at WSA Academy has been both enriching and rewarding. Working on the development of a food delivery app using the MERN stack provided me with practical insights into the world of full-stack web development. The integration of user authentication and the seamless incorporation of the Stripe payment gateway underscored the importance of security and user-friendly transactions. Crafting key pages, such as Browse Restaurants and Cart Management, honed my skills in creating intuitive interfaces. The emphasis on responsive design further highlighted the significance of accessibility across various devices. This internship not only deepened my technical proficiency but also fostered a deeper understanding of collaborative development processes. I am grateful for the guidance of the experienced team at WSA Academy, and I am confident that the skills acquired during this internship will be invaluable in my future endeavors.

REFERENCES

WebStack Academy. (n.d.). WebStack Academy - Learn Full Stack Development. <https://www.webstackacademy.com/>