

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnana Sangama, Belagavi-590018



INTERNSHIP REPORT (21INT68)

Submitted in Partial fulfillment of the Requirements for the VI Semester of the Degree of

**Bachelor of Engineering in
Computer Science & Engineering**

By

SIDDHARTHA PANDIT (1CR21CS179)

Under the Guidance of,

Mrs. Rajeshwari R

Assistant Professor, Dept. of CSE



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CMR INSTITUTE OF TECHNOLOGY

Affiliated to VTU, Approved by AICTE, Accredited by NBA and NAAC with “A++” Grade

ITPL MAIN ROAD, BROOKFIELD, BENGALURU-560037, KARNATAKA, INDIA

2023-24

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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.

Signature of Guide

Mrs. Rajeshwari R

Assistant Professor

Dept. of CSE, CMRIT

Signature of HOD

Dr. P. Kavitha

Associate Professor & HoD

Dept. of CSE, CMRIT

External Viva

Name of the Examiners

1.

2.

Signature with date

DECLARATION

I, **Mr. SIDDHARTHA PANDIT, USN 1CR21CS179**, bonafide student of CMR Institute of Technology, Bengaluru, affiliated to Visvesvaraya Technological University, Belagavi., hereby declare that the internship work entitled **“Full stack Web Development in MERN”** has been carried out by me during intervening period of IV and V semester of degree of Bachelor of Engineering in Computer Science and Engineering at CMR Institute of Technology, Bengaluru during the academic year 2023-24 under the esteemed guidance of Richa Jha, Internship Coordinator Webstack Academy, Bengaluru . The report is original, and it has not been submitted in part or full for any other degree in any University.

Place: Bengaluru

Date: 07/03/2024

NAME: SIDDHARTHA PANDIT

USN: 1CR21CS179

SIGNATURE:



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

Any work of significance requires a great deal of effort and time put into it. But a factor of even greater importance is efficient guidance and encouragement. In spite of all my dedicated work, this internship would not have been possible without continuous help and guidance provided by people who gave their unending support right from when this idea was conceived.

I would like to thank to **Dr. Sanjay Jain**, Principal, CMRIT, Bangalore, for his constant co-operation and support throughout this Internship tenure.

I would like to thank **Dr. Kavitha P, Associate Professor & Head, Department of Computer Science and Engineering, CMRIT** for his constant guidance and support during this Internship period.

I would like to thank my guide, **Prof Rajeshwari R**, Asst. Professor, Department of Computer Science and Engineering, CMRIT for his constant guidance that helped me in completing the Internship work successfully.

I would like to thank **Richa Jha** and Webstack Academy for their constant guidance that helped me successfully complete the internship work.

Lastly, I would like to thank Friends who have always supported me in every path of the Internship work.

SIDDHARTHA PANDIT
(1CR21CS179)

ABSTRACT

This abstract underscores the critical role of wireframing and prototyping in the development of a food delivery website using the MERN stack with Stripe payment integration. Wireframes serve as architectural blueprints, ensuring a user-centric design approach by outlining the website's structure and functionality. They facilitate effective communication among stakeholders, streamlining development and minimizing iterations.

Prototyping is highlighted as essential for refining user experience and validating design decisions. Through interactive mockups, developers can simulate website functionality, conduct user testing, and gather early feedback. This iterative approach ensures the final product meets user expectations and operational requirements.

The abstract discusses various tools and methodologies available for wireframing and prototyping, tailored to diverse project needs. Agile methodologies are emphasized for their role in continuous testing and refinement, aiming to enhance usability and functionality.

In conclusion, wireframing and prototyping are vital for creating an intuitive, user-friendly food delivery website. These techniques optimize customer service and operational workflows, enhancing overall user experience and satisfaction.

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CHAPTER 1

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.

CHAPTER 2

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

At WebStack Academy, we empower engineers and individuals through high-quality education. Our commitment to global impact drives us to make life easier worldwide by embracing innovation and continuous improvement. Our values are the foundation of our culture, fostering positive change and excellence.

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.

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 Reason to choose

Interning at WebStack Academy has been an enlightening experience, immersing me in an industry-aligned curriculum that surpasses theoretical expectations and addresses the dynamic demands of the field. The academy's commitment to placements is evident in its vast network of 300+ companies seeking WebStack-trained Full Stack Web Developers. Led by EdTech veterans with over 18 years of experience, the academy instills a deep understanding of industry trends and expectations. What sets WSA apart is the extensive range of placement opportunities, from MNCs to startups, with 80% being repeat recruiters, reflecting the trust built over the years. The academy's focus on efficient skill-building reduces post-hiring training time by 50%, enabling interns like myself to contribute meaningfully from day one. Choosing WebStack Academy for developing a food delivery app in the MERN stack is a transformative journey.

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 WEBSITE 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:

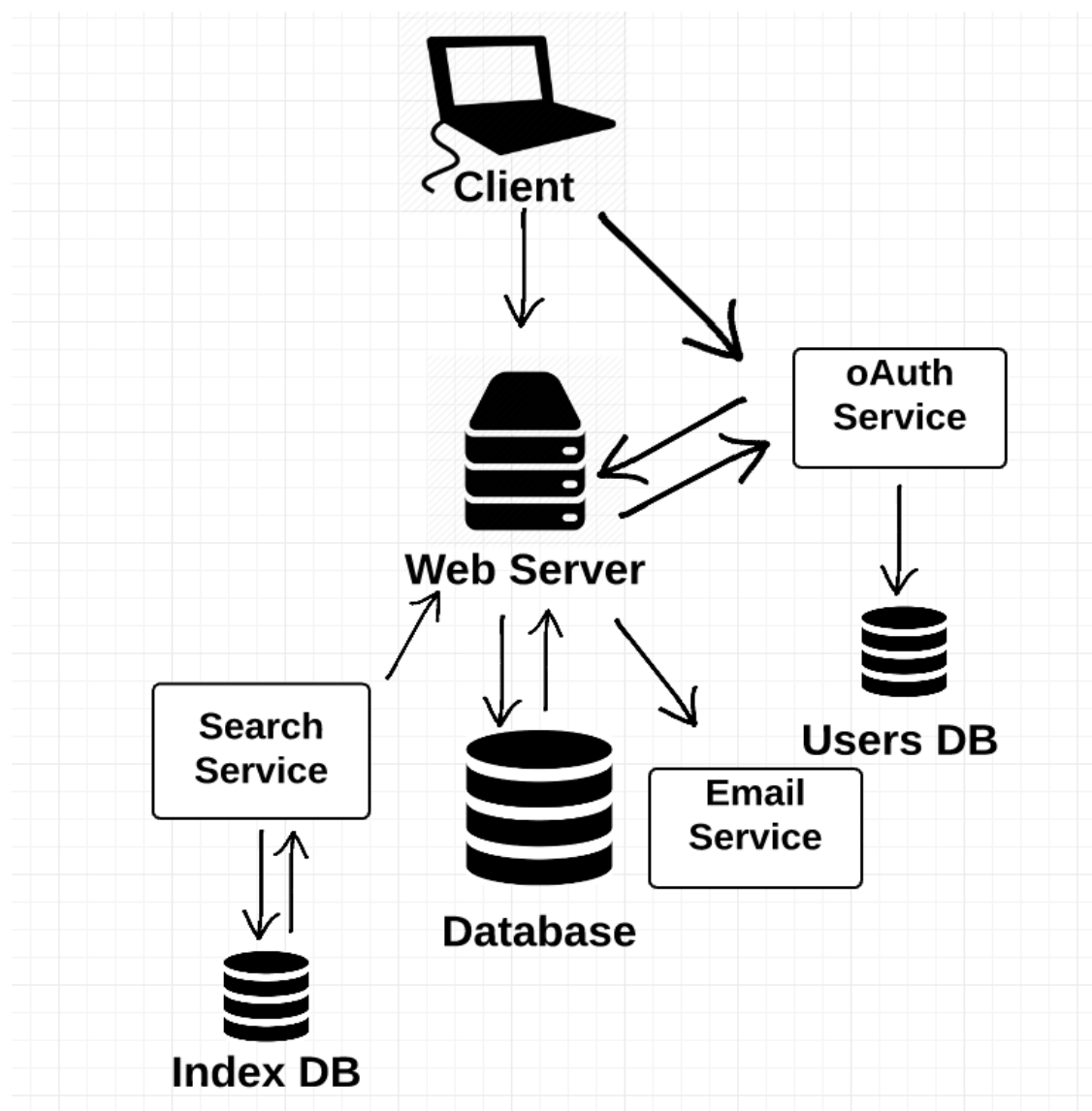


Fig 5.1 Architecture

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.

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.

Full Stack Web Development in MERN

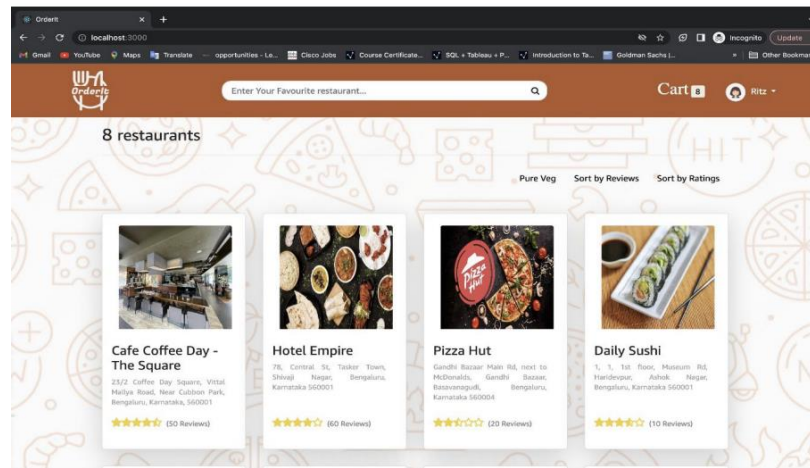


Fig 5.2 Home Page

The home page welcomes users with a search bar featuring location and cuisine filters, a carousel showcasing popular dishes, and a grid displaying featured restaurants with ratings and descriptions. Users can easily access their accounts and other features. I integrated the search bar with location and restaurant APIs and designed the carousel for smooth image transitions and attractive visuals.

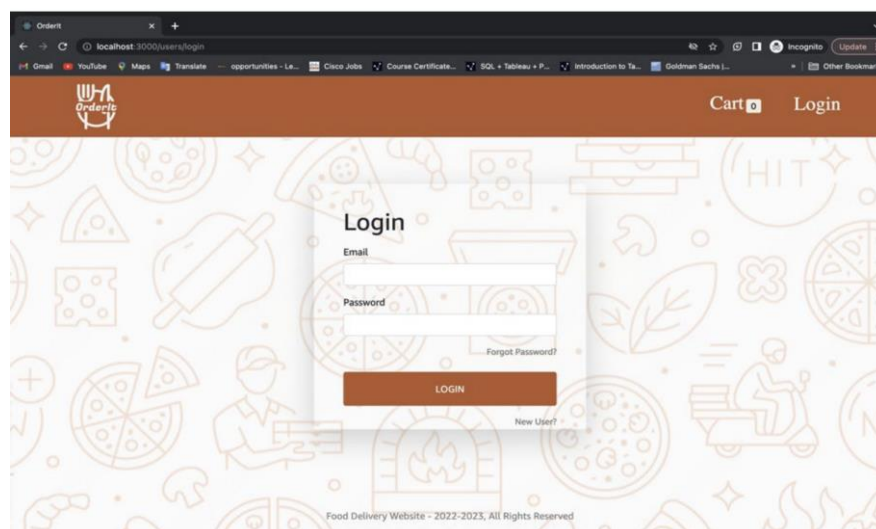


Fig 5.3 Login Page

Full Stack Web Development in MERN

This page allows users to log in or register new accounts securely. It has login fields for username/email and password, and a secure registration form with email verification

The screenshot shows a web browser window with the URL `localhost:3000/delivery`. The page has a brown header with the 'OrderIt' logo on the left and 'Cart 5' and 'Ritz' on the right. Below the header, there are three tabs: 'Address' (selected), 'Confirm Order', and 'Payment'. The main content area has a background pattern of food icons. A white form titled 'Delivery Address' is centered, containing input fields for 'Address', 'City', 'Phone No', 'Postal Code', and 'Country' (with 'Andorra' selected in a dropdown menu).

Fig 5.4 Checkout Page

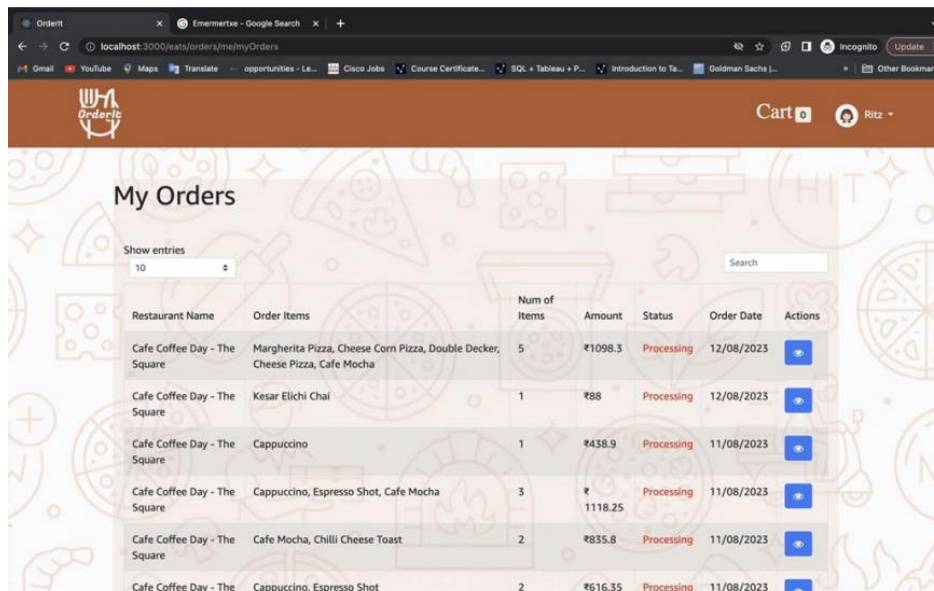
This page allows secure order placement. Users can enter their delivery address, choose a payment method with Stripe, view an order summary, and confirm the order. I integrated Stripe for secure payments and designed the order summary layout for clarity.

The screenshot shows a web browser window with the URL `localhost:3000/payment`. The page has the same brown header as the checkout page. The tabs are 'Address', 'Confirm Order', and 'Payment' (selected). The background pattern is the same food icons. A white form titled 'Card Info' is centered, containing input fields for 'Card Number' (with '1234 1234 1234 1234' entered), 'Card Expiry' (with 'MM / YY' entered), and 'Card CVC' (with 'CVC' entered). At the bottom of the form is a brown button labeled 'Pay - 1098.30'.

Fig 5.5 Payment Page

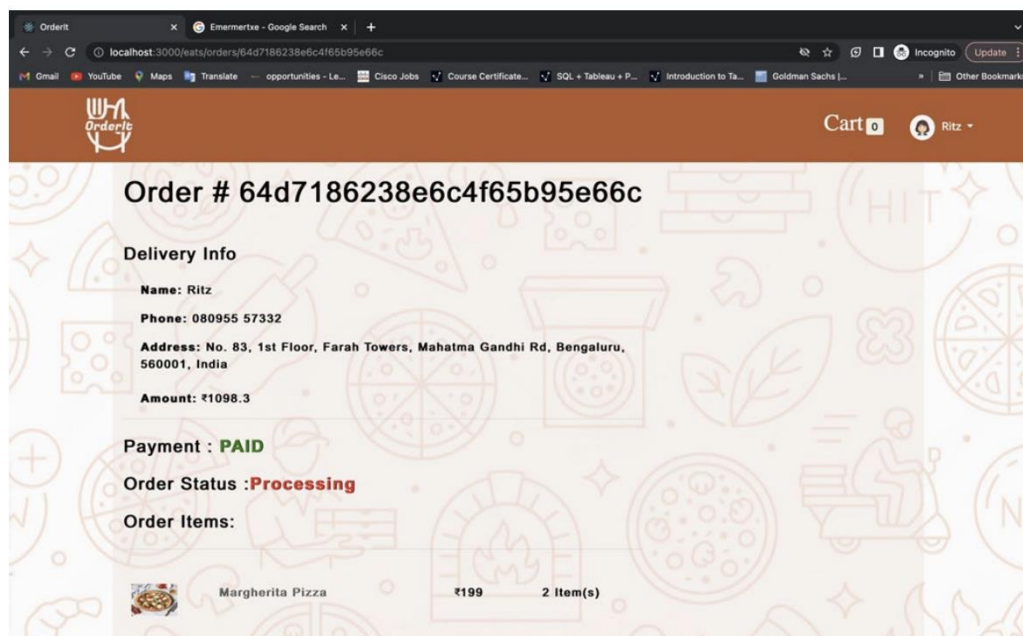
Full Stack Web Development in MERN

During my WSA Academy internship, I developed a MERN food delivery app, focusing on authentication, Stripe integration, and responsive design.



Restaurant Name	Order Items	Num of Items	Amount	Status	Order Date	Actions
Cafe Coffee Day - The Square	Margherita Pizza, Cheese Corn Pizza, Double Decker, Cheese Pizza, Cafe Mocha	5	₹1098.3	Processing	12/08/2023	
Cafe Coffee Day - The Square	Kesar Elichi Chai	1	₹88	Processing	12/08/2023	
Cafe Coffee Day - The Square	Cappuccino	1	₹438.9	Processing	11/08/2023	
Cafe Coffee Day - The Square	Cappuccino, Espresso Shot, Cafe Mocha	3	₹1118.25	Processing	11/08/2023	
Cafe Coffee Day - The Square	Cafe Mocha, Chilli Cheese Toast	2	₹835.8	Processing	11/08/2023	
Cafe Coffee Day - The Square	Cappuccino, Espresso Shot	2	₹616.35	Processing	11/08/2023	

Fig 5.6 Order History




Order # 64d7186238e6c4f65b95e66c	
Delivery Info	
Name: Ritz	
Phone: 080955 57332	
Address: No. 83, 1st Floor, Farah Towers, Mahatma Gandhi Rd, Bengaluru, 560001, India	
Amount: ₹1098.3	
Payment : PAID	
Order Status : Processing	
Order Items:	
	Margherita Pizza ₹199 2 Item(s)

Fig 5.7 Order Detail Page

CHAPTER 6

CONCLUSION

In conclusion, my internship experience at WSA Academy has been both enriching and re-warding. Working on the development of a food delivery app using the MERN stack pro-vided me with practical insights into the world of full-stack web development. The integra-tion 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 in-terfaces. The emphasis on responsive design further highlighted the significance of accessi-bility 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

1. <https://www.webstackacademy.com/>
2. <https://react.dev/>
3. <https://www.geeksforgeeks.org/mern-stack/?ref=shm>
4. <https://www.youtube.com/watch?v=j942wKiXFu8&list=PL4cUxeGkcC9gZD-Tvwfod2gaISzfRiP9d>
5. <https://www.youtube.com/playlist?list=PLUVqY59GNZQMcLXlrBo4T557kWjbKHMLS&si=KA1XJPjC2uIIQ6db>