

**An Industrial Training Report on**  
**CLOUD RASOI – A WEB APPLICATION**

Submitted for partial fulfilment of award of

**BACHELOR OF TECHNOLOGY**

Degree in  
Information Technology

By  
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**DR. A. P. J. ABDUL KALAM TECHNICAL UNIVERSITY,**  
**LUCKNOW, INDIA**  
**December, 2024**

Report on



A Web Application

# CLOUD RASOI

*“Ghar Jaisa Khana, Cloud Rasoi Se Hi Mangwana”*

## ACKNOWLEDGEMENT

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I would like to express my deepest gratitude to all those who have helped me throughout my internship on Data Science in AI and ML. First and foremost, I extend my sincere thanks to **Dr. Shankar Thawkar**, **Mr. Ajay Parashar**, and **Mrs. Deepti Mittal** for their invaluable guidance, encouragement, and support during the course of this internship. Their expertise and insights were instrumental in shaping my understanding of the subject.

I would also like to thank **Infoseeds Pvt Ltd** for providing this remarkable learning platform, which allowed me to expand my knowledge in the ever-evolving field of Web Development.

Lastly, I am thankful to all my peers and colleagues who have contributed in some way to making this internship a fruitful learning experience.

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**PROFICIENCY CERTIFICATE**

Certified that Ms/Miss/Mr. Harsk Tripathi

S/o/D/o Shri Rajendra Kumar Tripathi Student

of Hindustan College of Science and Technology, Mathura has

undergone practical Training from 27 June 24 To 10 Aug 24

Under summer training program. During training his/her performance &

conduct was found to be good.

Tools :- React Js , Node Js, MySQL

 **Rookie Developers**

  
Training Co-Ordinator

Date: 27 Aug 24



---

Corporate Office : Aggarwal City Mall, Pitampura, Delhi, India.  
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Global Presence: United States, Australia, Agra (India)

About Us:, founded in 1996, is a pioneering leader in delivering innovative technological solutions across government and private sectors. With nearly three decades of experience, we have consistently excelled in implementing cutting-edge web applications, providing robust technology infrastructure, and offering comprehensive IT support services.

Our Services:

- **Web Application Development:** We specialize in creating customized web applications tailored to meet the specific needs of our clients
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- **Global Footprint:** With branches in the United States, Australia, Delhi, and Agra, BCS Infallible Technology has established a strong global presence. Our international operations enable us to serve clients across different regions, ensuring the delivery of world-class services with a local touch.
- **Our Mission:** To empower organizations with innovative technology solutions that drive growth, efficiency, and transformation. We are committed to delivering excellence through our deep industry knowledge, technical expertise, and unwavering dedication to customer satisfaction.
- **Our Vision:** To be a global leader in technology solutions, recognized for our ability to solve complex challenges and deliver impactful results for our clients across sectors.

**Resume Submission:** The resume needs to be submitted initially along with proficient skills.

**Online Test:** Then there will be an online test conducted which evaluates few of the technical aspects.

**Telephonic Interview:** Also, there will be a telephonic interview covering few of the core topics.

**Appointment Offer:** After the above processes, we will receive an email that declares the joining date and time along with work profile.

**Joining:** Later the joining is made under the roof of Gaurav Varshney sir, with lot of energy and positiveness.

**Face-To-Face Learning:** There was daily offline training sessions held to evaluate the understanding of the trainee.

**Elevating Core Java Concepts:** The basics core java concepts such as Class, Objects, Polymorphism, Inheritance, Encapsulation, Abstraction and Constructors.

**Gather Setup:** The primary mode of communication has always been on gather that effectively allows the team to communicate their views forward.

**Team Lead Assignment:** The team lead also called the Scrum master is assigned for a week and is changed with every end of week.

**Ticket Assignment at Jeera:** The task is assigned by the team lead with generation of Jeera Tickets on daily basis that need to mark as done by the end of day.

**Meeting Culture:** There are 4 meeting slots everyday i.e. 12pm,3pm,6pm AND 9pm where regular updates of the work is reported to the Team lead.

**Project Evaluation:** The project is evaluated every week under the guidance of some new expert who shares their valuable view on improvising the project.

**Project Submission:** After the implementation of all the modules of the project with backend services and attractive frontend the project is submitted with proper project report that gives detailed aspects of all the major to minor description about the project

### 1.1 Background

**Cloud Rasoi** - Bridging the Gap Between Customers and Local Tiffin Services, Cloud Kitchens

In today's fast-paced world, the demand for convenient, high-quality, and diverse food options is at an all-time high. Traditional dining establishments are increasingly being supplemented by innovative food delivery solutions that cater to the evolving preferences of consumers. "Cloud Rasoi" emerges as a pioneering online food delivery app designed to bridge the gap between customers and local tiffin services and cloud kitchens, revolutionizing the way people access and enjoy their meals. Cloud Rasoi addresses the growing need for a platform that offers not only convenience but also a wide variety of meal choices tailored to individual dietary preferences and lifestyles. By connecting customers with local tiffin services and cloud kitchens, Cloud Rasoi provides an array of freshly prepared, nutritious meals that cater to diverse tastes and nutritional requirements. Whether one is seeking traditional home-cooked meals, healthy diet plans, or gourmet cuisine, Cloud Rasoi ensures that quality and satisfaction are always at the forefront.

Cloud Rasoi is more than just a food delivery app; it is a platform that redefines convenience and quality in the food service industry. By seamlessly connecting customers with local culinary talents, Cloud Rasoi ensures that every meal is a delightful and satisfying experience. The app is poised to set new standards in the food delivery market, emphasizing customer satisfaction, operational excellence, and sustainable growth.

In conclusion, Cloud Rasoi represents a significant leap forward in online food delivery, offering a comprehensive and customer-centric solution that meets the modern consumer's demands for variety, quality, and convenience. Through continuous innovation and strategic partnerships, Cloud Rasoi aims to become the go-to platform for all food delivery needs, enriching the culinary landscape and enhancing the dining experience for all.

## 1.2 Modules

**Vendor Management:** The Vendor Management module is designed to streamline interactions between the cloud kitchen and its suppliers. This module allows for efficient tracking of vendor information of Tiffin Service providers and Bulk Food provider. It enables seamless communication, ensuring that ingredients and supplies are consistently available, reducing downtime, and ensuring smooth kitchen operations.

**Customer Management:** The Customer Management module focuses on enhancing customer relationships by managing orders and preferences. This module stores customer profiles and provides personalized service options to improve customer satisfaction. The module's integration with other systems helps in delivering timely.

**Confectioners (Caterers) Management:** This module deals with the catering services (Halwai) provided for the customer. In this module, customers are provided with the list of caterers and their respective phone numbers. They can contact them directly according to their need or requirement.

**Delivery Management Module:** The Delivery Management module handles the logistics of getting orders from the kitchen to the customers. It integrates with the vendor management module to enhance the functionality of the overall module. It includes the list of delivery partners which is available at the vendor side and they can contact them according to their availability.

Each module is designed to work cohesively with the others, providing a comprehensive solution for managing the operations of a web application, ensuring high-quality service from supply chain management to customer delivery.

## CHAPTER -2

### LEARNING OBJECTIVES

---

#### 2.1 Short-Term Learning Objectives:

1. Mastery of Project-Specific Technologies:
  - Gain hands-on experience with [specific technologies or tools], such as React for front-end development and CSS for UI styling along with usage of backend technologies such as Nodejs, Express, MySQL.
  - Develop proficiency in implementing responsive and visually appealing UI components.
2. Understanding of Core Concepts:
  - Deepen understanding of [related concepts], such as component-based architecture, state management, or design principles in web development.
  - Apply theoretical knowledge in a practical setting by building a fully functional project.

#### 2.2 Long-Term Learning Objectives:

1. Career Development and Professional Growth:
  - Develop a portfolio piece that can be showcased to potential employers or clients.
  - Enhance problem-solving and debugging skills that are transferable to a wide range of software development tasks.
2. Continual Learning and Adaptability:
  - Cultivate a habit of continuous learning by staying updated with the latest trends and best practices in web development.
  - Foster adaptability to quickly learn and apply new technologies or methodologies in future projects.
3. Team Management:

- o The recent training has significantly enhanced our team management skills, equipping me with advanced strategies for leading and motivating teams effectively. We have learned how to better handle diverse team dynamics and streamline communication.

#### 4. Fostering Communication:

- o The training, which included regular presentations, has greatly improved my communication skills. I've become more adept at articulating ideas. .

#### 3.1 Hardware Requirements on Developer Side:

- Minimum i3 Processor
- Minimum 4GB Memory (RAM)
- 1TB Storage for program files o User Side:
- Minimum i3 Processor or Latest OS
- Minimum 4GB RAM
- Reliable Internet or Wi-Fi Connection o Cloud Side:
- Compute Resources (CPU, RAM, VMs)
- Storage (Files and Database)
- AWS (Linux)

#### 3.2 Software Requirements on Developer Side:

- Nodejs
- Reactjs
- Code Editor
- Operating System
- Git
- Web Browser Compatibility
- Java Script Support
- Network Connectivity o Cloud Side:
- Operating System
- Nodejs
- Database
- MySQL

## CHAPTER -4

### TECHNOLOGY USED

---



- **React.js:** React is a popular JavaScript library for building user interfaces, primarily for single-page applications. It allows developers to create reusable UI components, manage state efficiently, and render changes dynamically using a virtual DOM. React's declarative syntax makes it easy to design complex interfaces, while its ecosystem supports robust development with tools like React Router and Redux. It's widely adopted for its performance, scalability, and developer-friendly features.
- **Nodejs:** Node.js is a runtime environment that allows JavaScript to be executed server-side, outside of a web browser. Built on Chrome's V8 JavaScript engine, it enables developers to build scalable, highperformance applications, especially for real-time and dataintensive tasks.
- **Express:** Express is a minimal and flexible Node.js web application framework that provides a robust set of features for building web and mobile applications. It simplifies the process of handling HTTP requests, routing, and middleware integration, making server-side development more efficient.



- **Postman:** Postman is a popular API testing and development tool that simplifies the process of sending HTTP requests and analysing responses. It provides an intuitive interface to create, save, and organize API requests, making it easier to test RESTful APIs during development.
- **MySQL:** MySQL is an open-source relational database management system (RDBMS) that uses Structured Query Language (SQL) for managing and querying data. It is widely used for storing and organizing data in web applications, thanks to its reliability, scalability, and support for ACID (Atomicity, Consistency, Isolation, Durability) transactions.
- **GitHub:** GitHub is a cloud-based platform that hosts Git repositories, providing version control and collaborative tools for software development. It allows developers to manage code, track changes, and collaborate with others through features like pull requests, branches, and issues.
- **Jira:** Jira is a project management tool developed by Atlassian, widely used for tracking tasks, bugs, and project progress, particularly in agile software development. It allows teams to create and manage issues, plan sprints, and visualize workflows through customizable boards like Kanban and Scrum.
- **Gather:** The Gather app has been instrumental in streamlining my project management and team collaboration. Its intuitive interface and real-time communication features have significantly enhanced our workflow.
- **Axios:** Axios has proven to be a robust tool for handling HTTP requests in my projects. Its simplicity and flexibility make it easy to send and receive data from APIs, while its built-in promise support ensures smooth handling of asynchronous operations.

## CHAPTER -5

### FEASIBILITY STUDY

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#### 5.1 Time Feasibility:

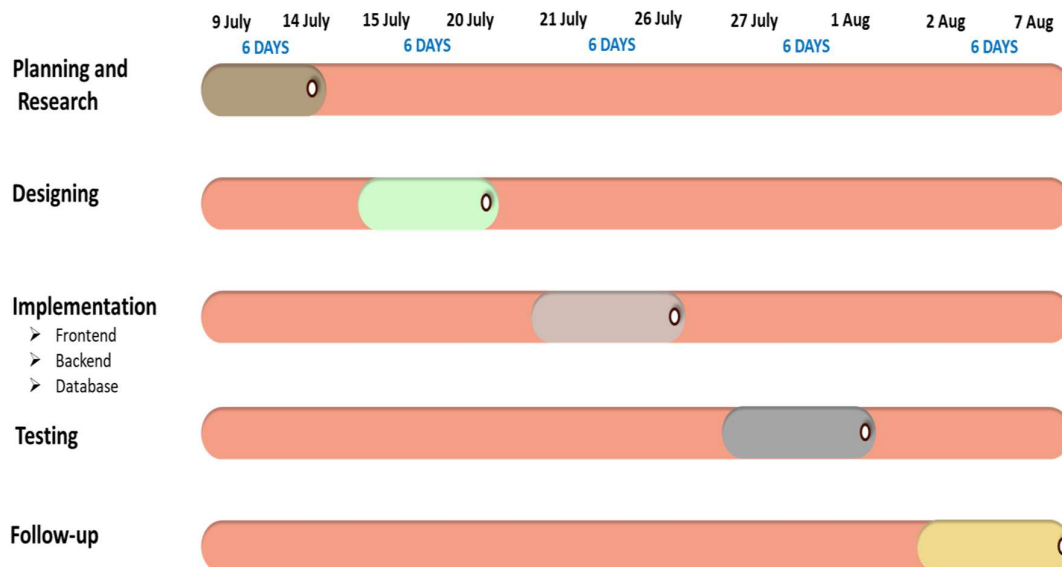


Figure.1 Time Feasibility Diagram

#### 5.2 Cost Feasibility:

- Initial Setup Costs:
  - Kitchen Space: Renting or purchasing a suitable kitchen space, which varies depending on location.
  - Equipment: Purchasing kitchen equipment (ovens, fryers, refrigerators, etc.), packaging materials, and technology infrastructure (POS systems, delivery management software).

- Licenses and Permits: Obtaining health and safety certifications, business licenses, and food handling permits.
- Branding and Marketing: Costs for branding, logo design, and initial marketing campaigns.
- Operational Costs:
  - Staffing: Hiring chefs, kitchen staff, and delivery personnel.
  - Utilities: Ongoing expenses for electricity, water, gas, and internet.
  - Raw Materials: Cost of ingredients, packaging, and other consumables.
  - Technology and Software: Subscription fees for software tools (inventory management, order processing, etc.).
  - Maintenance and Upgrades: Regular maintenance of kitchen equipment and potential upgrades.
- Variable Costs:
  - Marketing and Advertising: Ongoing digital marketing, promotions, and customer acquisition strategies.

## CHAPTER -6

### SYSTEM DESIGN

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#### 6.1. Architecture Overview

- Frontend: React.js
- Backend: Node.js with Express.js
- Database: MySQL
- Scalability: Microservices architecture for different modules

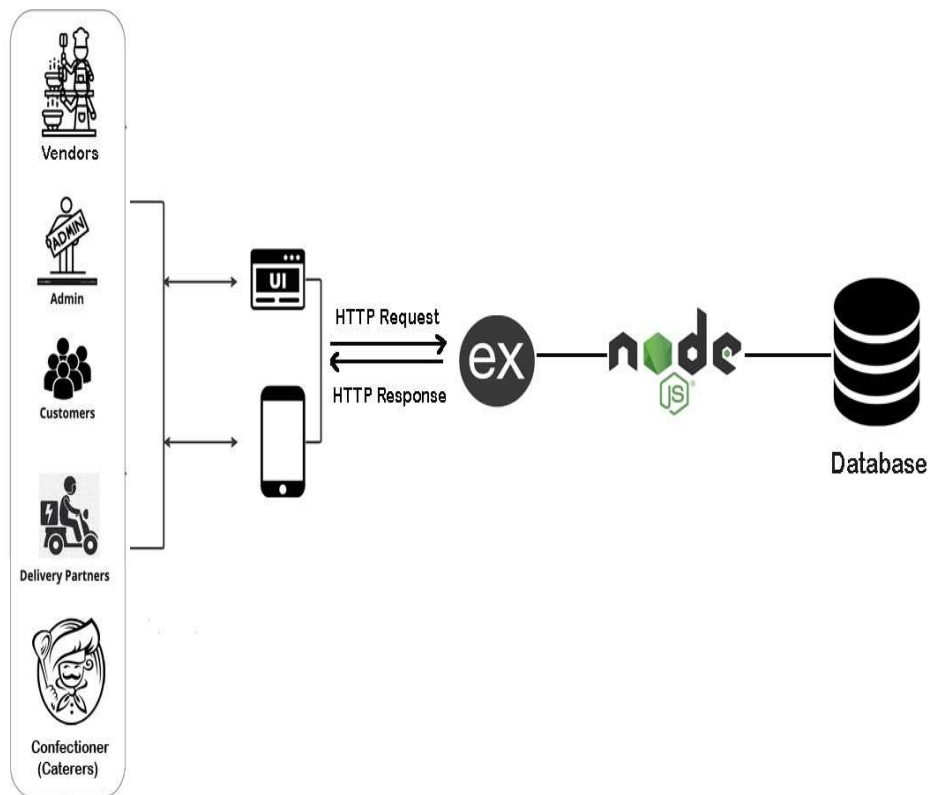


Figure.2 Architecture Design

## 6.2. Entities and Their Relationships

- Customer: Users who place orders.
- Vendor: Providers who prepare the food items.
- Delivery Partner: Individuals responsible for delivering the food.

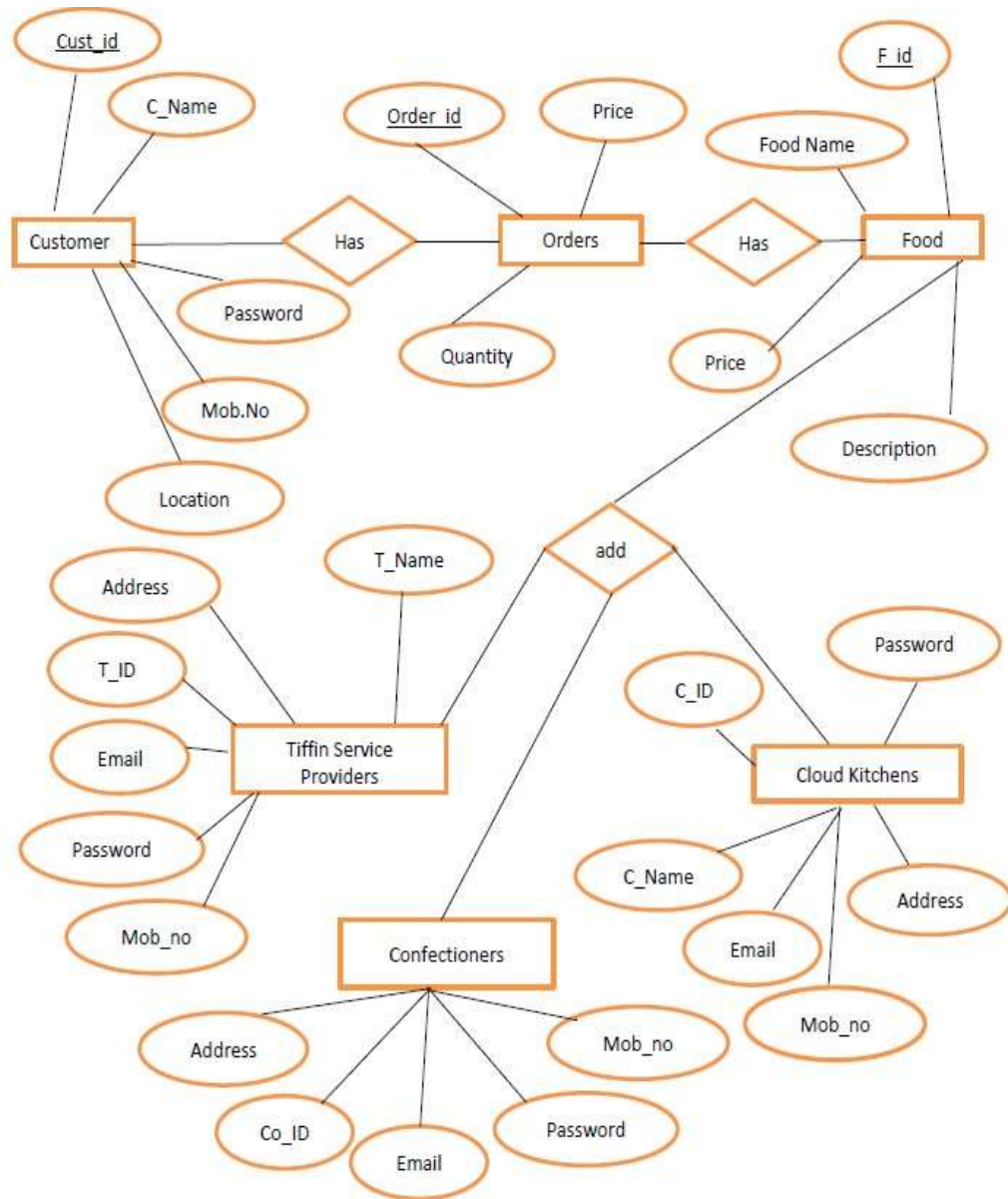


Figure.3 ER Diagram

## 6.3. Core Components

### a. User Authentication and Authorization

- Registration/Login: Separate modules for customers, vendors, and delivery partners.
- Role-Based Access Control: Different levels of access based on user roles.

### b. Vendor Module

- Vendor Dashboard: Allows vendors to manage their profile, add/edit food items, set prices, and view orders.
- Order Management: Vendors can see incoming orders, update order status (e.g., preparing, ready, etc.), and track deliveries.

### c. Customer Module

- Search & Browse: Customers can browse vendors and food items based on categories, cuisine, ratings, etc.
- Order Placement: Customers can select items, customize orders, and make payments.
- Order Tracking: Real-time tracking of orders from preparation to delivery.

### d. Delivery Partner Module

- Delivery Dashboard: Allows delivery partners to view available delivery tasks, accept tasks, and update delivery status.

### e. Admin Panel

- User Management: Admins can manage customers, vendors, and delivery partners.

- Analytics and Reporting: Overview of orders, revenue, and performance metrics.
- Dispute Resolution: Manage complaints and resolve disputes between customers, vendors, and delivery partners.

#### 15.4. Database Design

- Users Table: Stores common fields like user\_id, name, email, password, and role-specific details.
- Vendors Table: vendor\_id, vendor\_name, address, menu\_items, ratings, etc.
- Customers Table: customer\_id, name, address, order\_history, etc.
- Delivery Partners Table: delivery\_partner\_id, name, vehicle\_details, ratings, etc.
- Orders Table: order\_id, customer\_id, vendor\_id, delivery\_partner\_id, status, total\_amount, etc.
- Menu Items Table: item\_id, vendor\_id, item\_name, price, description, etc.

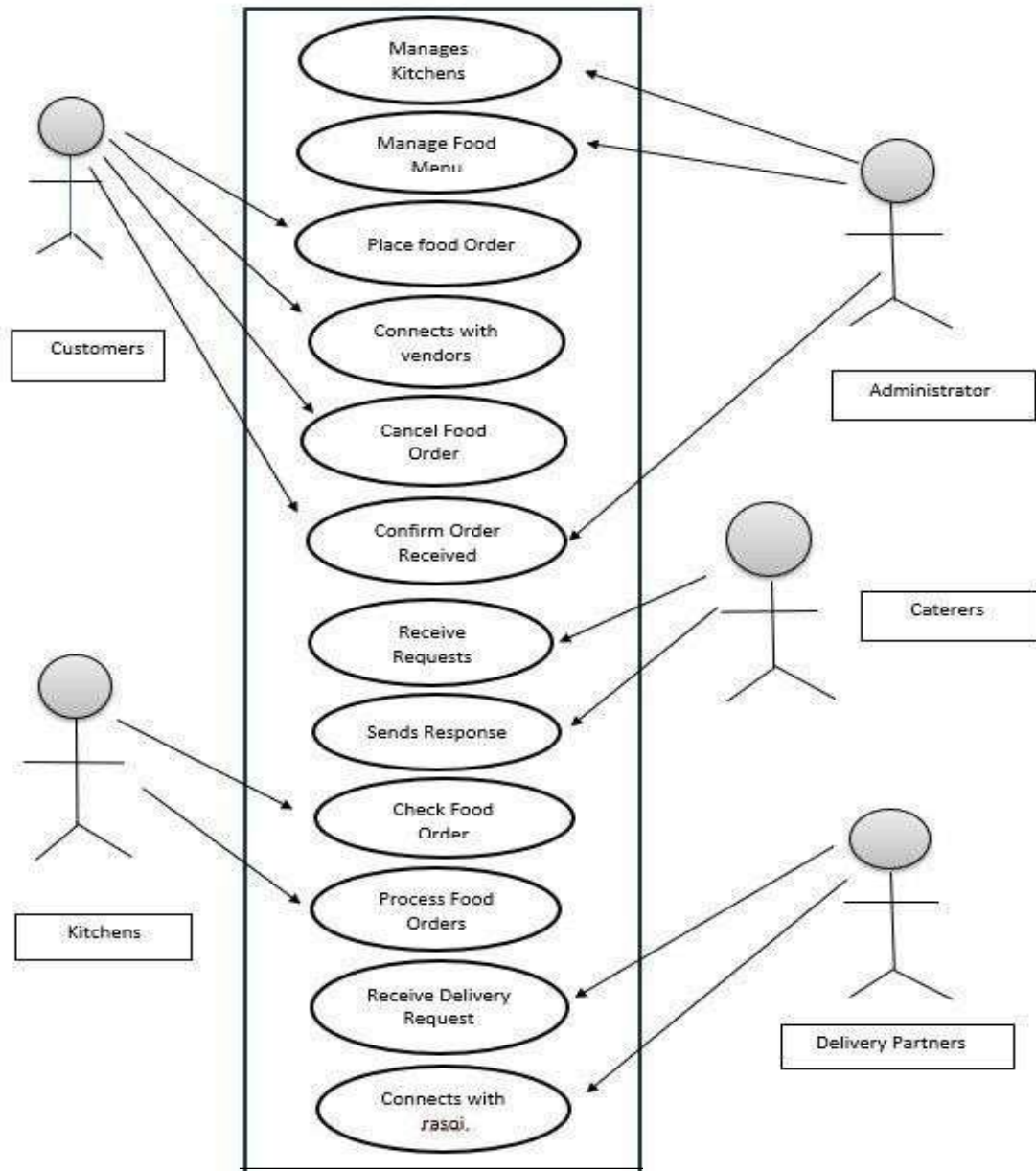


Figure.4 Use Case Diagram



# CHAPTER -7

## TESTING

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### 7.1. Manual Testing

**7.1.1 Overview:** Manual testing involves human testers manually executing test cases without the use of automation tools. This method is essential for understanding the user experience and catching issues that automation might miss.

#### 7.1.2. Manual Testing Process:

1. Requirement Analysis: Understand application requirements.
2. Test Planning: Define objectives, scope, and strategy.
3. Test Case Development: Write detailed test cases.
4. Test Environment Setup: Prepare the necessary hardware and software.
5. Test Execution: Execute test cases and record results.
6. Defect Logging: Log any defects found during testing.
7. Test Closure: Finalize testing and produce test reports.

### 7.2. Automatic Testing

**7.2.1. Overview:** Automatic testing involves using automated tools and scripts to perform tests on the application. This method is efficient for repetitive tasks and regression testing.

#### 7.2.2 Example Automated Tests:

- Unit Test:
  - Verify that a function returns the correct output for a given input.
- Integration Test:

- Verify that the API endpoint correctly handles a request and returns the expected response.
- End-to-End Test: ◦ Simulate a user logging in, navigating to a specific page, and performing an action like adding an item to the cart.

### **7.3. Black-Box Testing**

**7.3.1. Overview:** Black-box testing examines the functionality of the application without peering into its internal structures or workings. The tester inputs data and examines the output without knowing how and where the data is processed.

Black-Box Testing is a software testing methodology where the tester evaluates the functionality of an application without having any knowledge of its internal code or logic. The focus is on assessing the software's outputs based on various inputs and ensuring that it meets the specified requirements and behaves as expected. Test cases are designed based on the application's functional specifications, user requirements, and expected outcomes, rather than its internal structure. This approach allows testers to validate the end-to-end functionality of the system, including user interfaces, APIs, and integration points.

#### **7.3.2. Characteristics of Black-Box Testing:**

- Focuses on input-output.
- Does not require knowledge of internal code structure.
- Based on requirements and functionality.

### **7.4. White-Box Testing**

**7.4.1. Overview:** White-box testing is a software testing method where the tester has complete knowledge of the internal code and architecture of the application.

This approach focuses on validating the internal logic, structure, and functionality of the software by examining its code and design. Tests are designed to ensure that every possible path through the code is executed, including all branches, conditions, and paths. Techniques such as statement coverage, branch coverage, and path coverage are used to identify logical errors and verify that the code behaves as intended. White-box testing helps in early detection of issues and vulnerabilities within the code but requires a deep understanding of the codebase and can be complex to implement

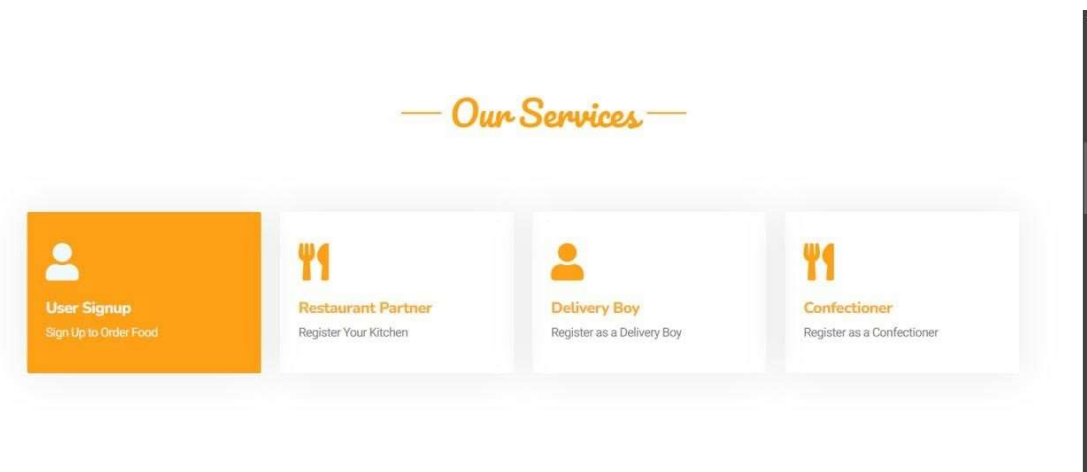
#### **7.4.2. Characteristics of White-Box Testing:**

- Focuses on code structure.
- Requires knowledge of internal code.
- Ensures code coverage, paths, branches, conditions, and loops are tested.

## CHAPTER -8

### SNAPSHOTS

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## Welcome to Cloud Rasoi

As we know, the traditional food service industry is facing significant challenges in adapting to modern consumer demands for convenience, speed, and variety.

The rise of online food delivery platforms has highlighted inefficiencies and limitations in traditional restaurant models. So the potential solution for the same is CLOUD RASOI.

[READ MORE](#)

### Company

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- › [Admin Dashboard](#)
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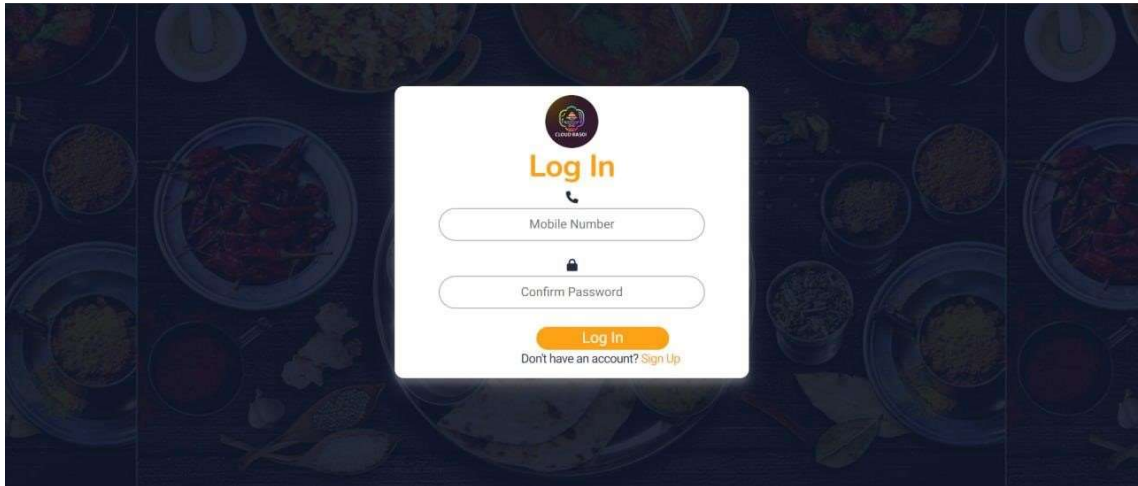
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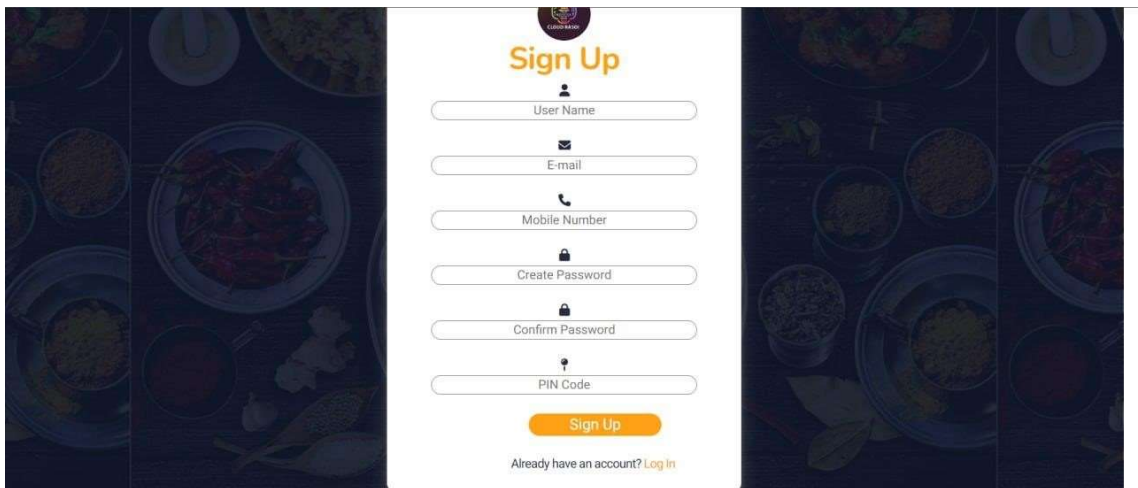
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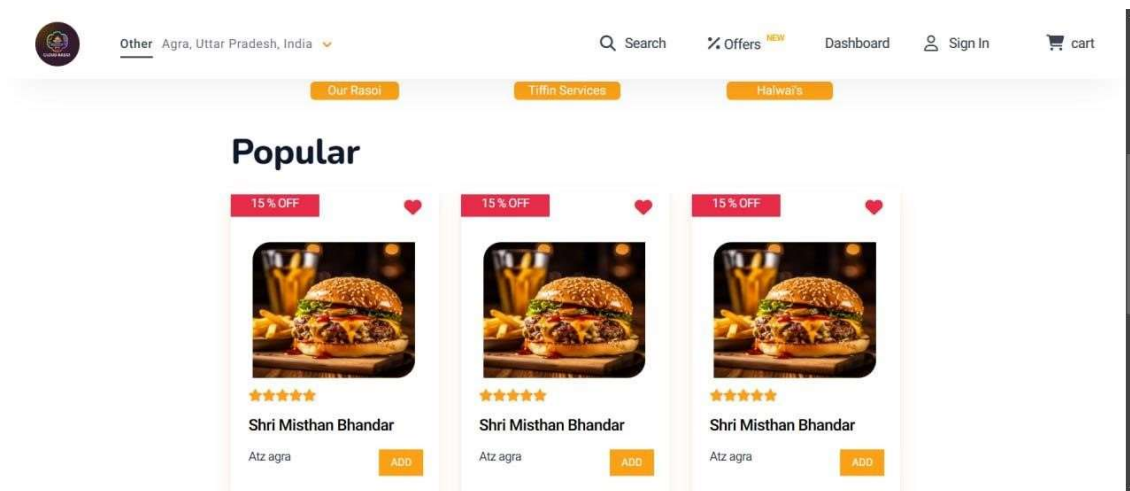
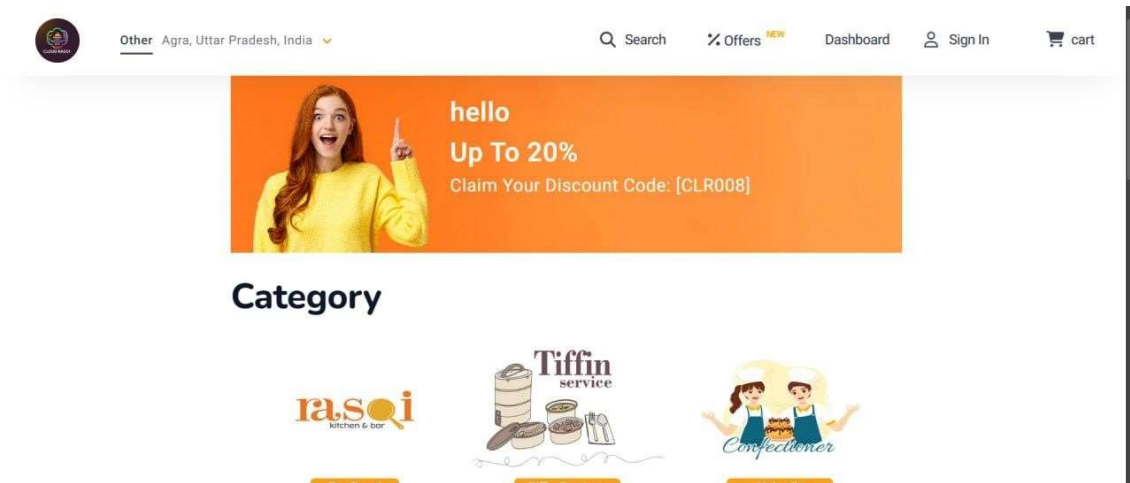
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Search

Shri Veena sweets

Traditional Sweets

Bhagwan talkies

Raja ki rasoi

South indian

Nagla padi

## Our Rasoi

Taste the delectable classics, delectable food to make your day.

FilterSort ByFast DeliveryRatings 4.0+Pure VegOffersRs. 300-Rs. 400Less than Rs. 300

### Rasoi's to Explore




## Menu

- Chole

11.00 kg


₹ 10000.00



ADD
- Paneer


2.00 kg




₹ 600.00



ADD






Other Agra, Uttar Pradesh, India


 Search
  Offers NEW
[Dashboard](#)
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 cart


Filter
 Sort By
 Fast Delivery
 Ratings 4.0+
 Pure Veg
 Offers
 Rs. 300-Rs. 400
 Less than Rs. 300


### Our Tiffin Plans





**Anupama Tiffin Service**  
 30-35mins  
 kamla Nagar, Agra




**Narayan Tiffin Service**  
 40-45mins  
 Dayal Bagh, Agra



**Durga Tiffin Service**  
 40-45mins  
 Nagla Padi, Agra



**Naresh Tiffin Service**  
 45-50mins  
 New Agra, Agra


Other Agra, Uttar Pradesh, India

 Search
  Offers NEW
[Dashboard](#)
[Sign In](#)
 cart

# Catering Services

(Caterer's/Halwai)

— Caterer's/Halwai —

## Most Popular Caterer's



Other Agra, Uttar Pradesh, India

Search

Offers

Dashboard

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cart

## Most Popular Caterer's



Home Catering Services Agra

harsh

hii i am harsh  
[Learn more](#)



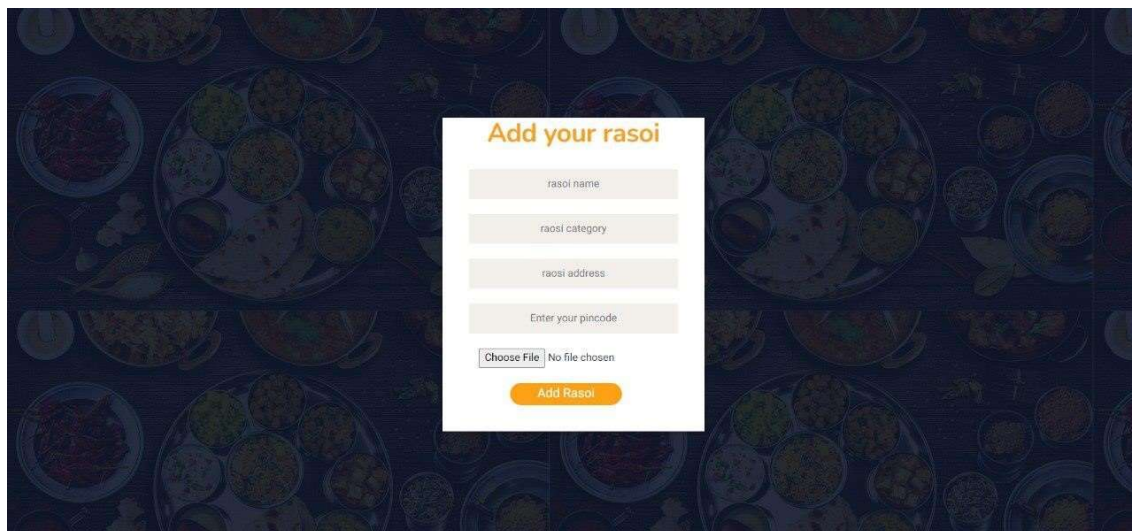
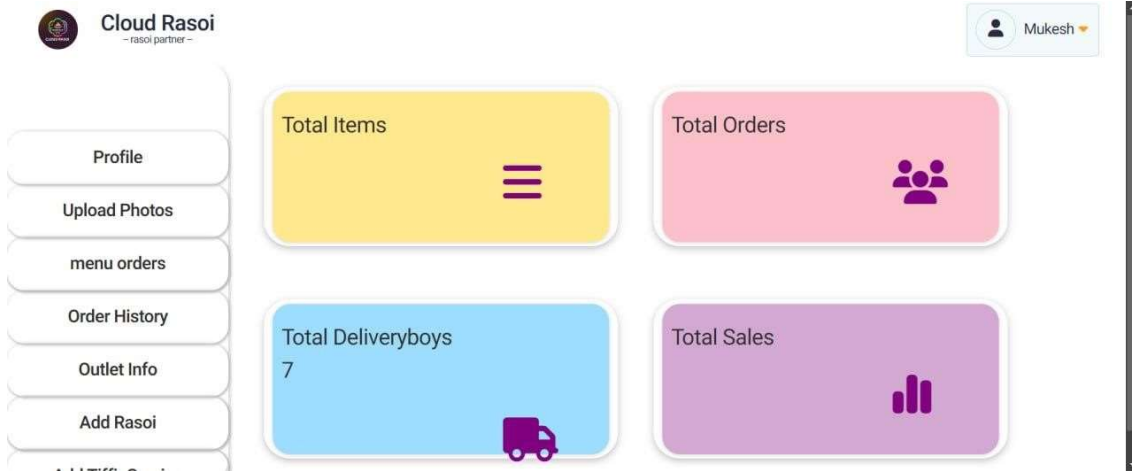
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Cloud Rasoi Restaurant Partner Dashboard

Login

Register



Other

Agra, Uttar Pradesh, India

Search


Offers

Dashboard

Sign In

Cart

Res ID: 8512448



Sri Dauji Chatpata

Kamla nagar agra

+91 876543238

Registered

Menu

Upload Image

Choose File

No file chosen

Item name

Item name

Item Quantity

Quantity (kg)

Item price

Price

Add Food Item

Tiffin Menu Form

Plan Name

Menu Item Name

Item Description

Time for Tiffin Plan

Price

Submit

Delivery Boy Details

Hey you, enter your details to create your account

Submit Details

Caterer Information

Personal Information

Additional Information

Choose File

No file chosen

Save

Delivery Boy Information



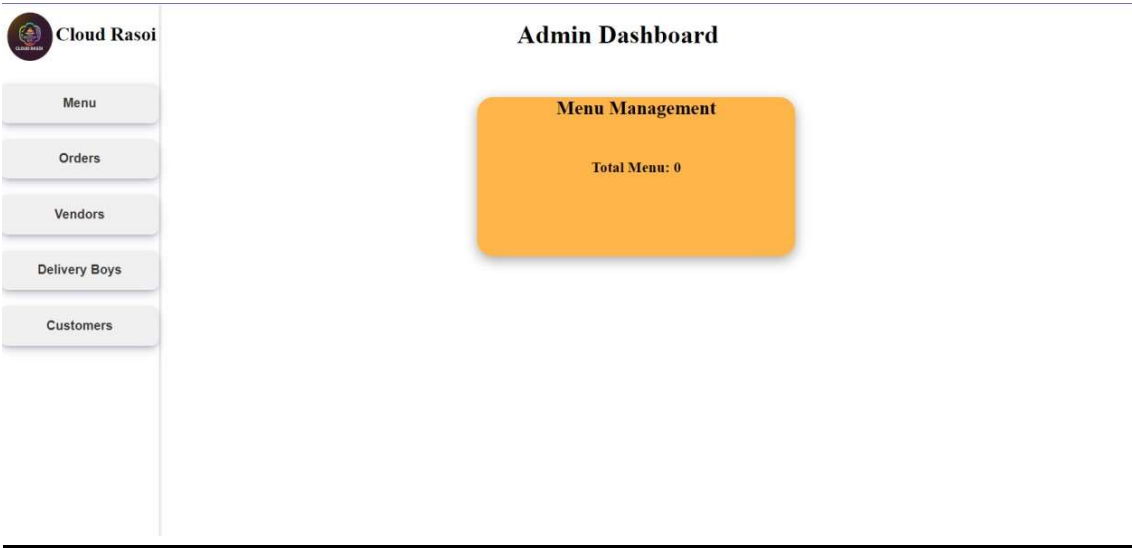
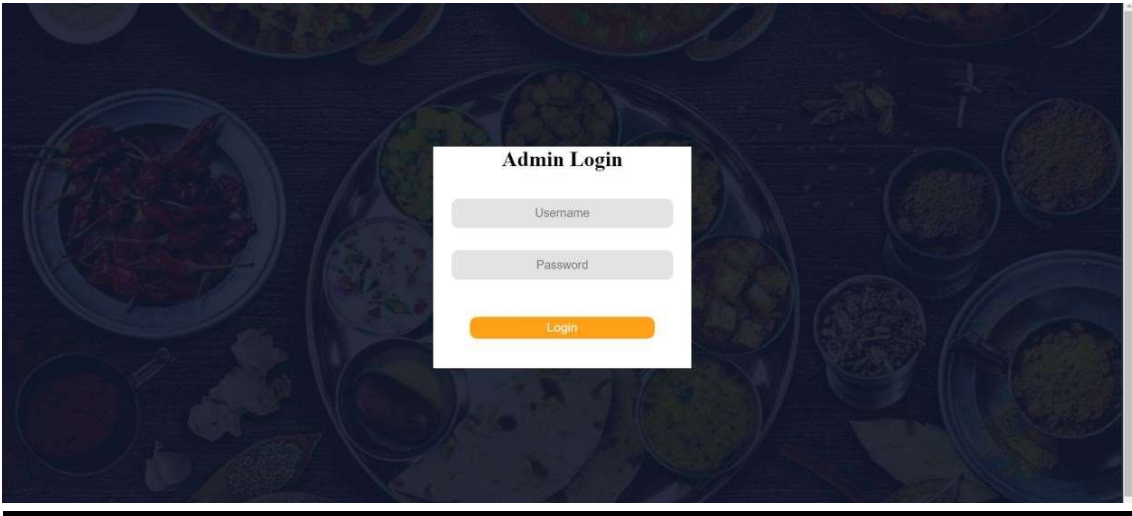
Name: AADIL


Mobile Number: 8445996869

Vehicle Number: UP80U5743

License Number: Up20bk20

Pincode: 282007



 Cloud Rasoi

Menu

Orders

Vendors


Delivery Boys

Customers

### Admin Dashboard

#### Delivery Boys Management

Total Delivery Person: 0

 Cloud Rasoi

Menu

Orders

Vendors

Delivery Boys

Customers

### Admin Dashboard

#### Vendors Management

Total Vendors: 0



Cloud Rasoi

Menu

Orders

Vendors

Delivery Boys

Customers

## Admin Dashboard

### Orders Management

Total Requests: 0



Cloud Rasoi

Menu

Orders

Vendors

Delivery Boys

Customers

## Admin Dashboard

### Customers Management

Total Customers: 0



#### 9.1. Present Use of Cloud Rasoi

1. **Convenient Meal Access:** Cloud Rasoi provides users with an easy-to-use platform for accessing freshly prepared meals from local tiffin services and cloud kitchens, catering to diverse tastes and dietary preferences.
2. **Support for Local Vendors:** It bridges the gap between customers and local food providers, offering small-scale businesses a broader reach and consistent demand for their services.
3. **Personalized Meal Options:** By focusing on customizable meal plans, the platform addresses unique dietary needs, including vegan, gluten-free, and high-protein options, ensuring inclusivity.
4. **Streamlined Operations:** The integration of advanced technologies like React.js, Node.js, and MySQL ensures a seamless user experience and efficient backend processes.
5. **Enhanced Customer Satisfaction:** Features like user feedback and vendor ratings maintain service quality, enhancing trust and satisfaction among users.

#### 9.2. Future Use of Cloud Rasoi

1. **AI-Driven Recommendations:** Implementing AI algorithms to suggest meals based on user preferences, order history, and dietary needs, making the experience more personalized and engaging.

2. Geographic Expansion: Expanding the platform to new regions and cities to connect more customers with diverse local food options, fostering a broader community.
3. Sustainability Features: Introducing eco-friendly packaging options and promoting sustainable practices among vendors to contribute to environmental preservation.
4. Health and Wellness Integration: Adding features like calorie tracking, meal planning for specific health goals, and partnerships with nutritionists to cater to health-conscious users.
5. Real-Time Analytics for Vendors: Providing vendors with detailed analytics to help them optimize their menu offerings, manage inventory, and enhance overall operational efficiency.

## CHAPTER -10

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