SMART BRIDGE EXTERNSHIP MODERN WEB APPLICATION DEVELOPMENT WITH SPRING BOOT

Project: Food Ordering System

Team members: -

- Somesh Gurram (20BCB0059)
- AKULA ROHITH (20MIS0374)
- VINAY RAJ LIKITH (20BCE2613)
- CHEKURI KARTHIK VARMA (20BCB0043)

1. Introduction

1.1 Overview

An online meal ordering system is one of the suggested projects for this business. This system would allow customers to make orders for a variety of foods and drinks from local restaurants and hotels via the internet while remaining in the comfort of their own homes or other locations. And then the order is brought to the place that was specified. In today's world, life is hectic for everyone, regardless of whether they live in the city or the country. People living in urban regions, and especially in large cities, are so preoccupied with the activities of their daily lives that they do not have sufficient time to eat their meals in a healthy manner. This is especially true in metropolitan settings. These days, women are not inferior to males in any aspect of society. Therefore, in large cities even spouses have careers; therefore, the majority of small families in these places find a way to get their meals from someplace else since they just do not have the time to prepare it themselves. Not only is this the case, but if we speak about children growing up in the present period, we find that the majority of them choose just fast food or anything purchased outside the home. On the other hand, they disregard cooking their own food. Despite the fact that it is still a relatively novel concept, the system for ordering meals has become one of the industries with the highest rate of expansion. Within the scope of this project, we have designed something like to the aforementioned option in order to profit from it and better serve the country. These days, individuals are more likely to eat their meals inside of restaurants than they were in the past.

The clients that use the internet meal ordering system aren't anything special they're just the typical hectic members of society. This makes the method convenient for such customers. It is superior to the manual hotel or mess system as well as the traditional queueing method in that it eliminates the disadvantages of both. The ready-made meals are improved with the help of this technology.

1.2 Purpose

This project's goal is to make it easier for consumers to place their food orders as well as for business owners to run their establishments. It is possible for users of the system to place easy orders for meals from their chosen restaurants by using the capabilities of Node.js and Spring Boot. This eliminates the need for users to make orders manually and reduces the amount of time that users must wait. The system is beneficial to restaurant owners as well since it offers them an intuitive user interface that allows them to manage their menu, keep track of their orders, and increase the efficiency of their operations.

2. Literature Survey

2.1 Existing Problem

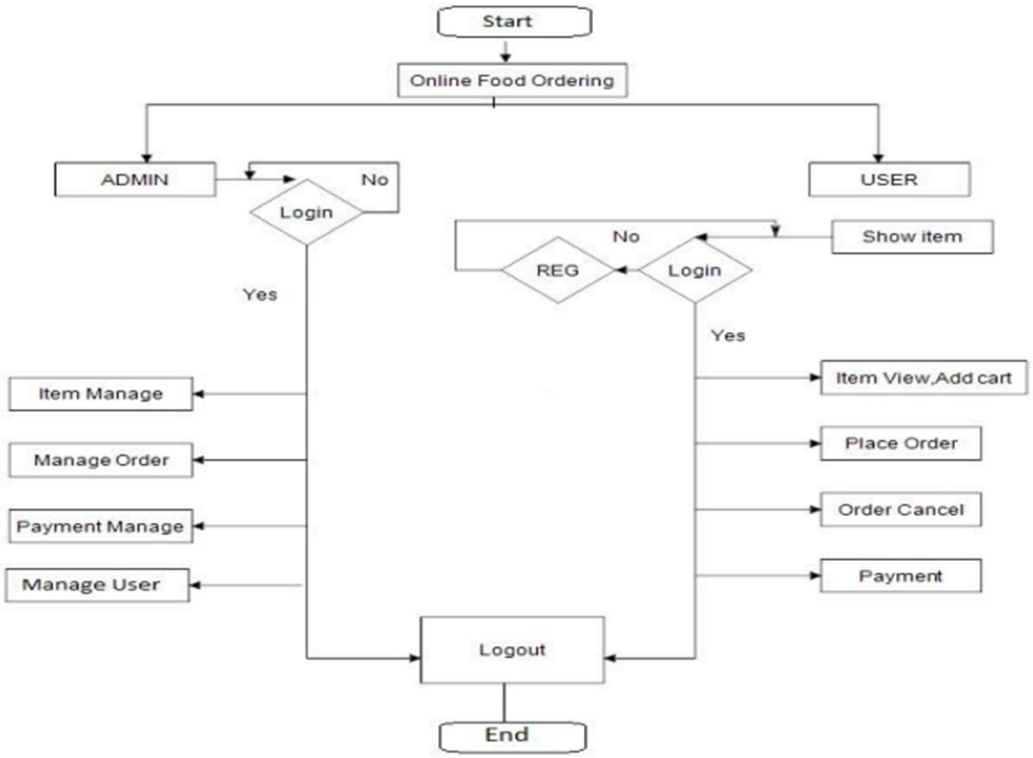
In the conventional method of placing an order for meals, the order is often placed manually via the use of phone calls or in-person visits. This method may be cumbersome, time-consuming, and prone to errors for consumers as well as proprietors of restaurants to use. In addition, manually maintaining menus, monitoring orders, and processing payments might result in inefficiencies and errors across the whole process.

2.2 Proposed Solution

This project provides a web-based Food Ordering System that can be implemented using Node.js and Spring Boot. The goal of this project is to solve the current challenges. The method of placing food orders is simplified and made more efficient thanks to the utilisation of these frameworks by the system. Customers have the ability to peruse menus, submit orders, and make payments online, while proprietors of restaurants have the ability to easily manage their menus, keep track of orders, and process payments.

3. Theoretical Analysis

3.1 Block Diagram



3.2 Hardware and software requirements

1-Java Development Kit (JDK): JDK is required to compile and run Java applications, providing the necessary tools and libraries. Download and install the latest JDK version from Oracle's website.

- Download JDK: https://www.oracle.com/java/technologies/javase-jdk11-downloads.html

2-Integrated Development Environment (IDE): An IDE offers a comprehensive development environment for writing, debugging, and managingcode. IntelliJ IDEA, Eclipse, or Visual Studio Code are popular choices for Javadevelopment.

- IntelliJ IDEA: https://www.jetbrains.com/idea/download/
- Eclipse: https://www.eclipse.org/downloads/
- Visual Studio Code: https://code.visualstudio.com/download

3-Spring Boot: Spring Boot simplifies Java application development by

providing predefined configurations, automatic dependency management, and a streamlined development experience. Use Spring Initializr or Spring Tools for your IDE to create a Spring Boot project.

- Spring Initializr (Online): https://start.spring.io/

- Spring Tools 4 for Eclipse: https://spring.io/tools

- Spring Tools for Visual Studio Code: Install via Extensions in Visual Studio Code

4-MySQL Database: MySQL is a popular relational database management system. Install MySQL Community Server and optionally MySQL Workbench, a graphical tool for managing MySQL databases.

- MySQL Community Server: https://dev.mysql.com/downloads/installer/

- MySQL Workbench: https://dev.mysql.com/downloads/workbench/

5-MySQL Connector/J: MySQL Connector/J is the official JDBC driver for connecting Java applications to MySQL databases. Include this dependency in your project to enable connectivity and interaction with MySQL.

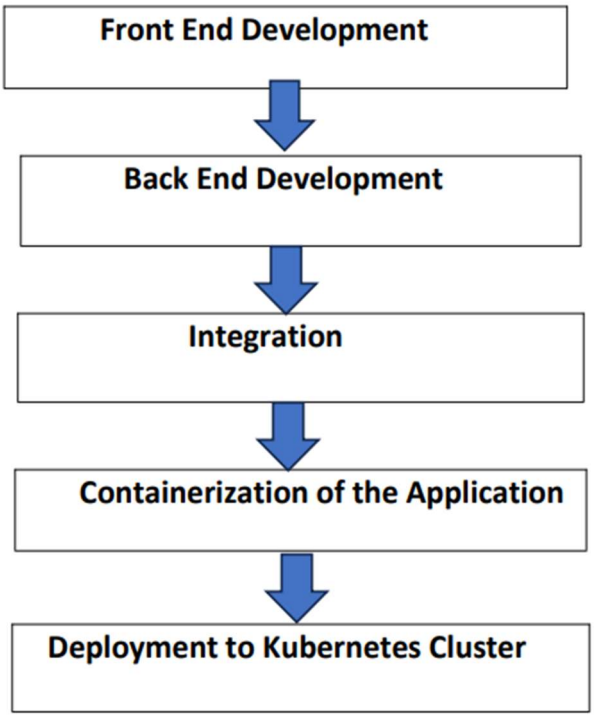
- Maven Repository: https://mvnrepository.com/artifact/mysql/mysql-connector-java

4. Experimental Investigations

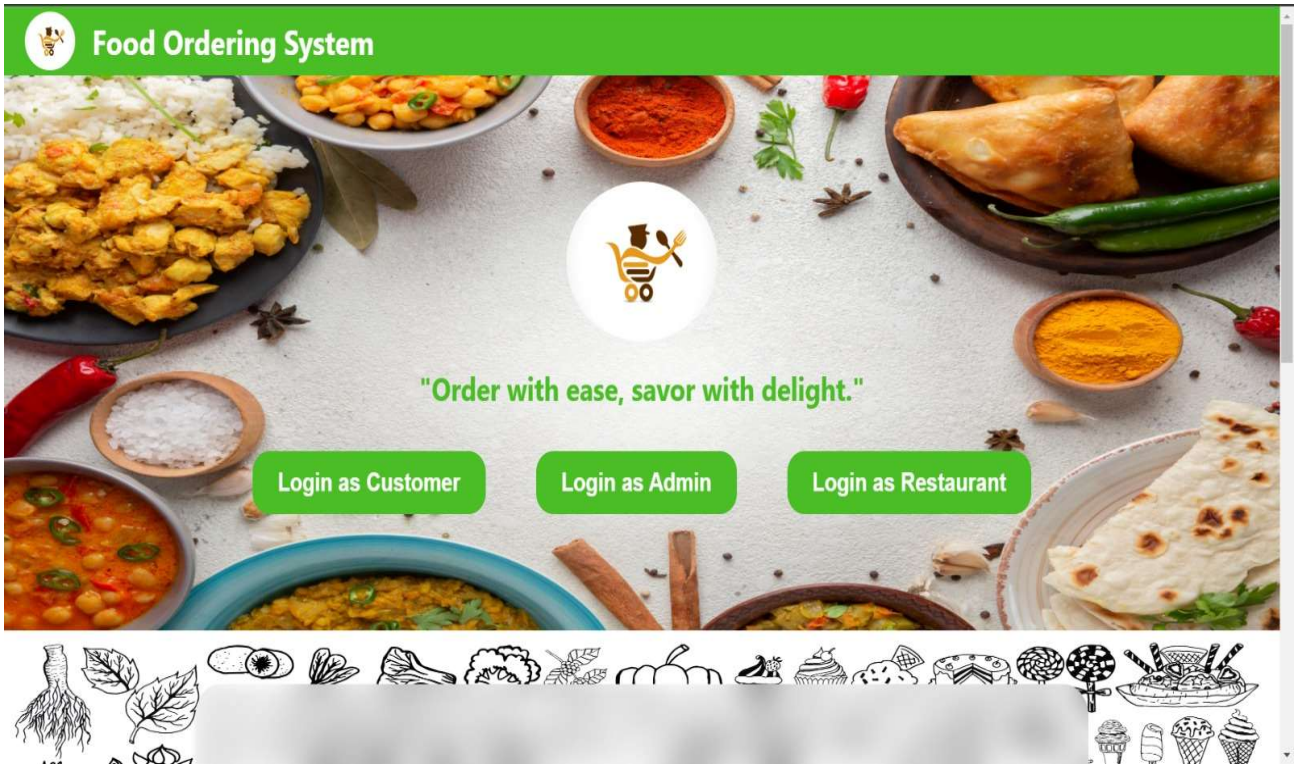
During the development of the Food Ordering System, several investigations and analyses were conducted. These include:

- Performance testing to ensure the system can handle concurrent userrequests efficiently.
- Integration testing to verify the seamless communication between thefront-end and back-end components.
- Usability testing to evaluate the user-friendliness and intuitiveness of thesystem's interface.
- Security testing to identify and address vulnerabilities related to userauthentication, data protection, and payment processing.

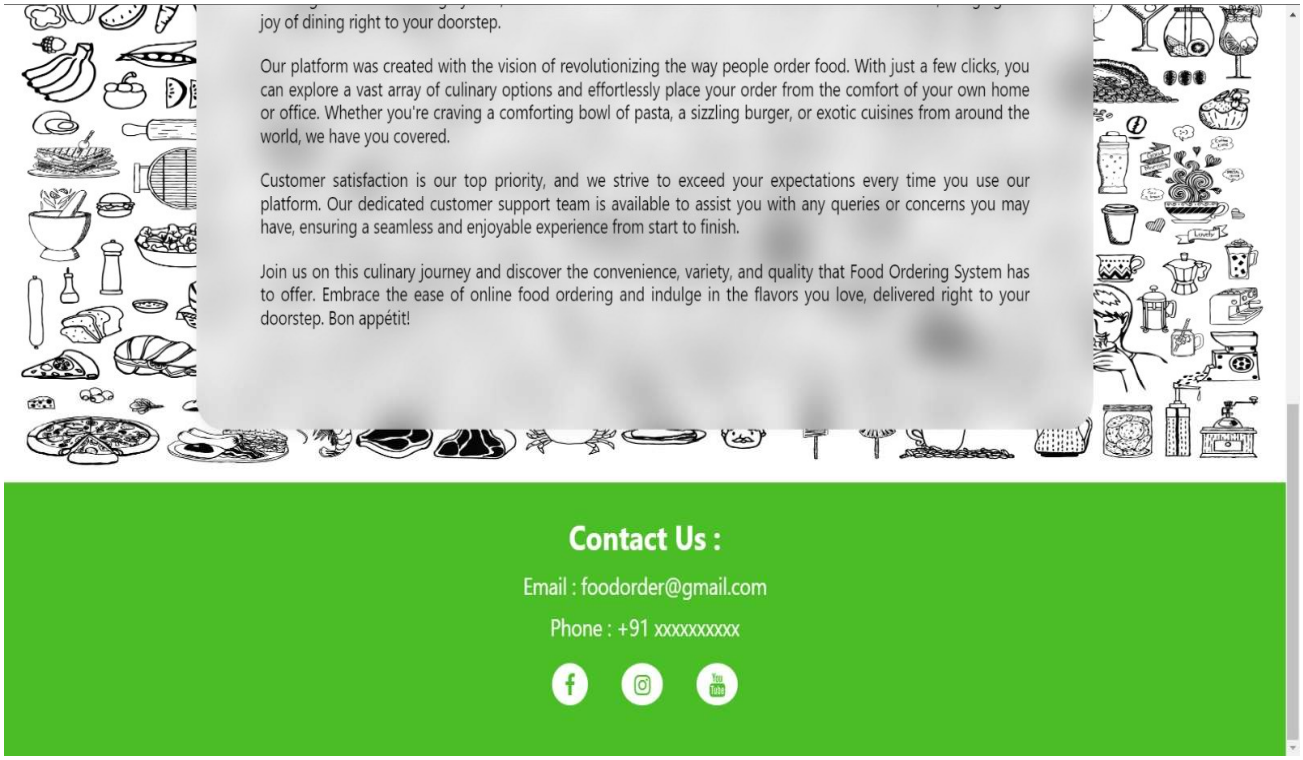
5. Flowchart

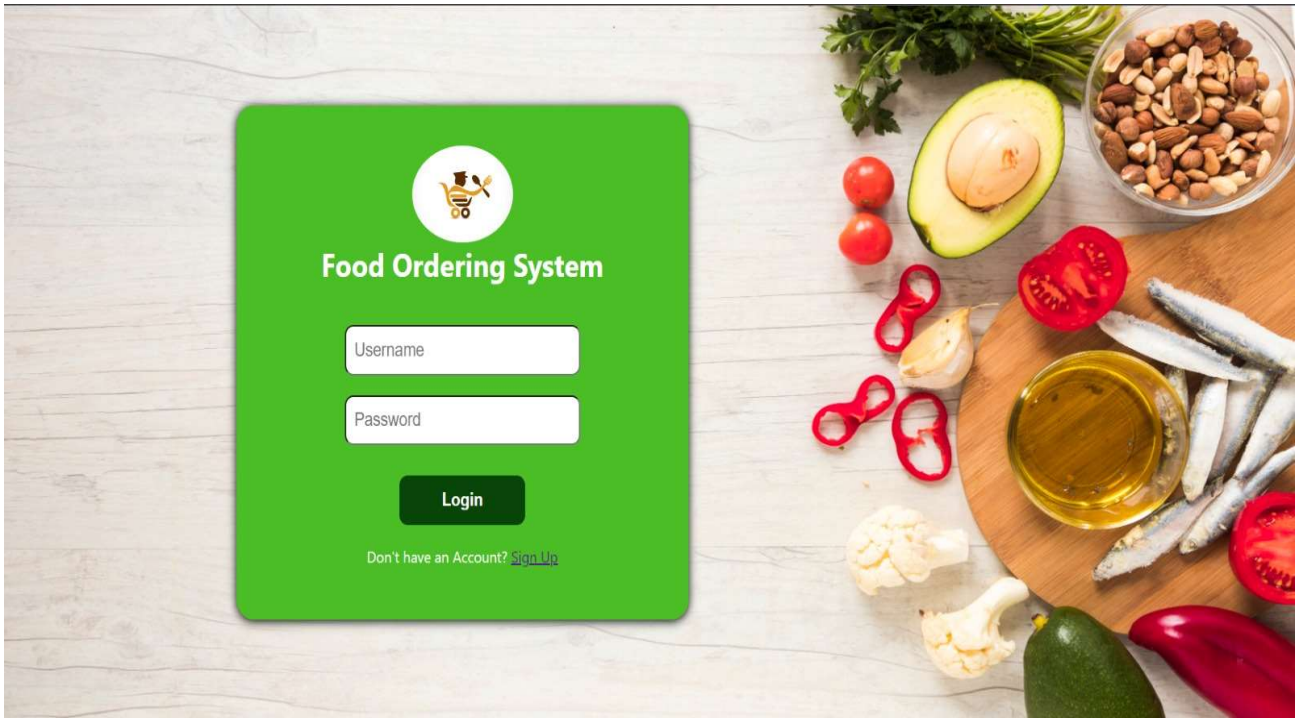


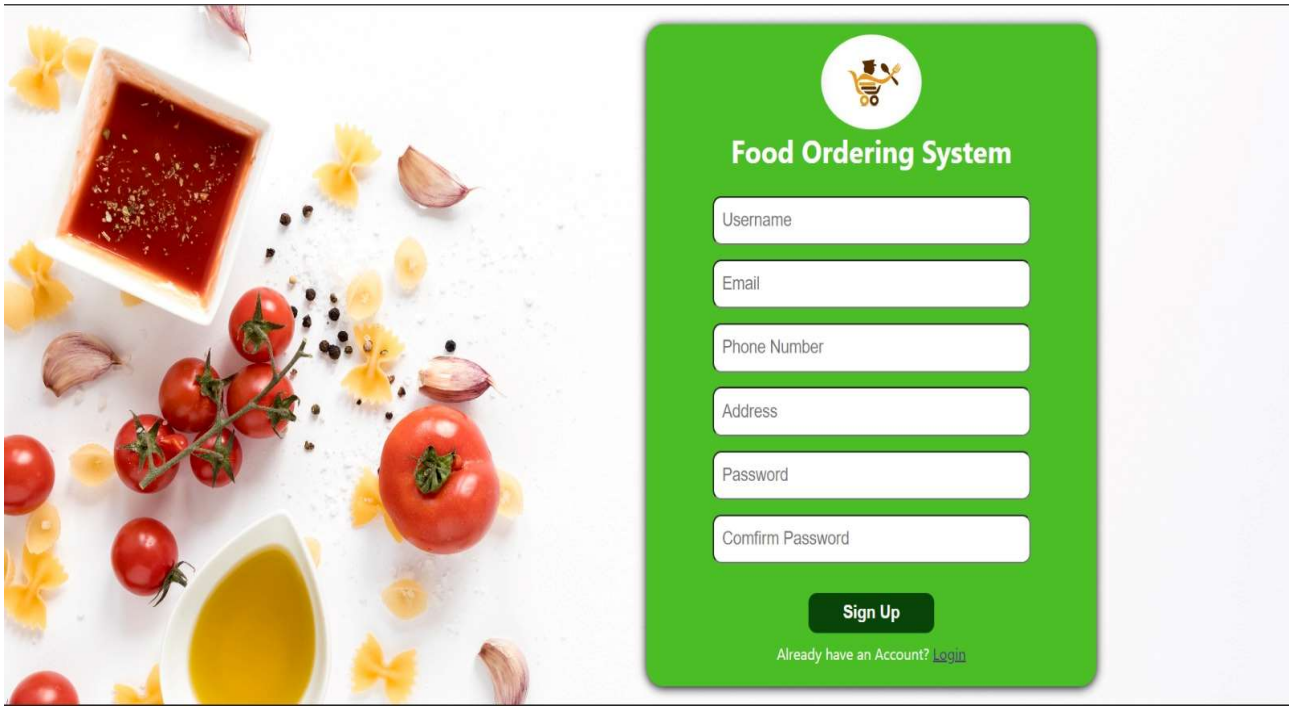
6. Result

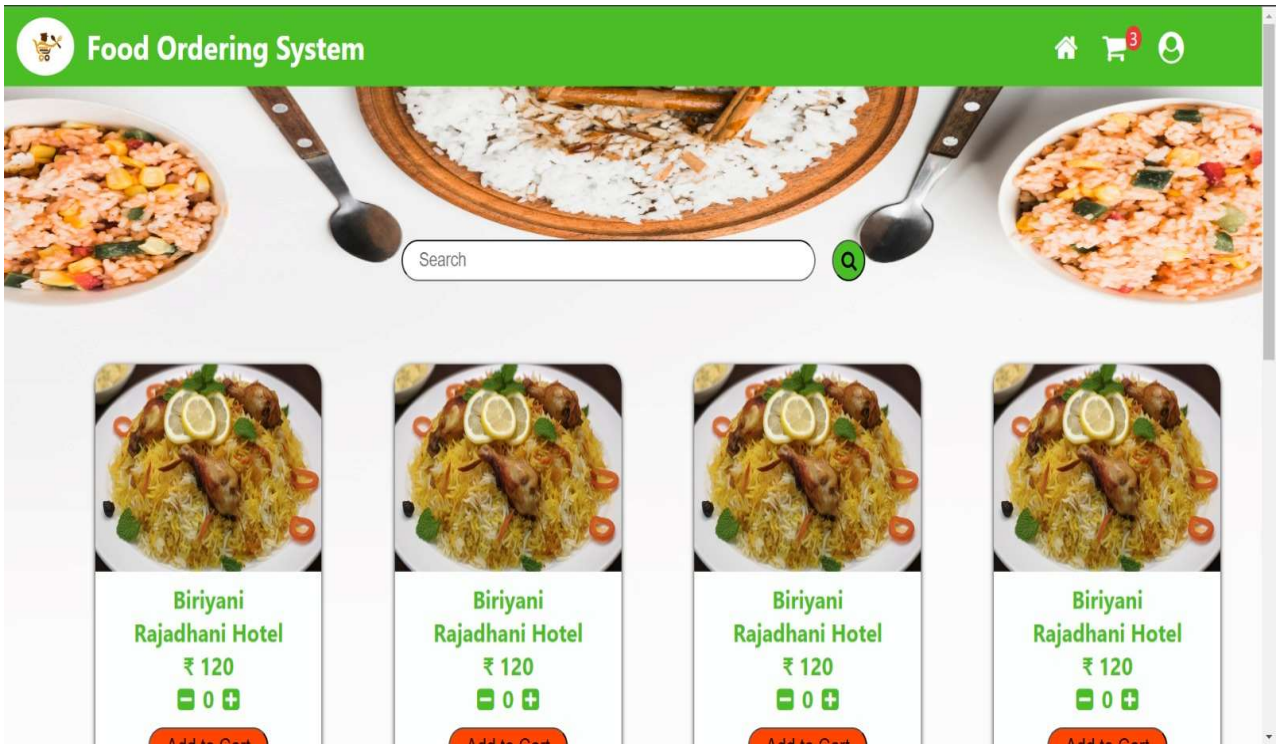


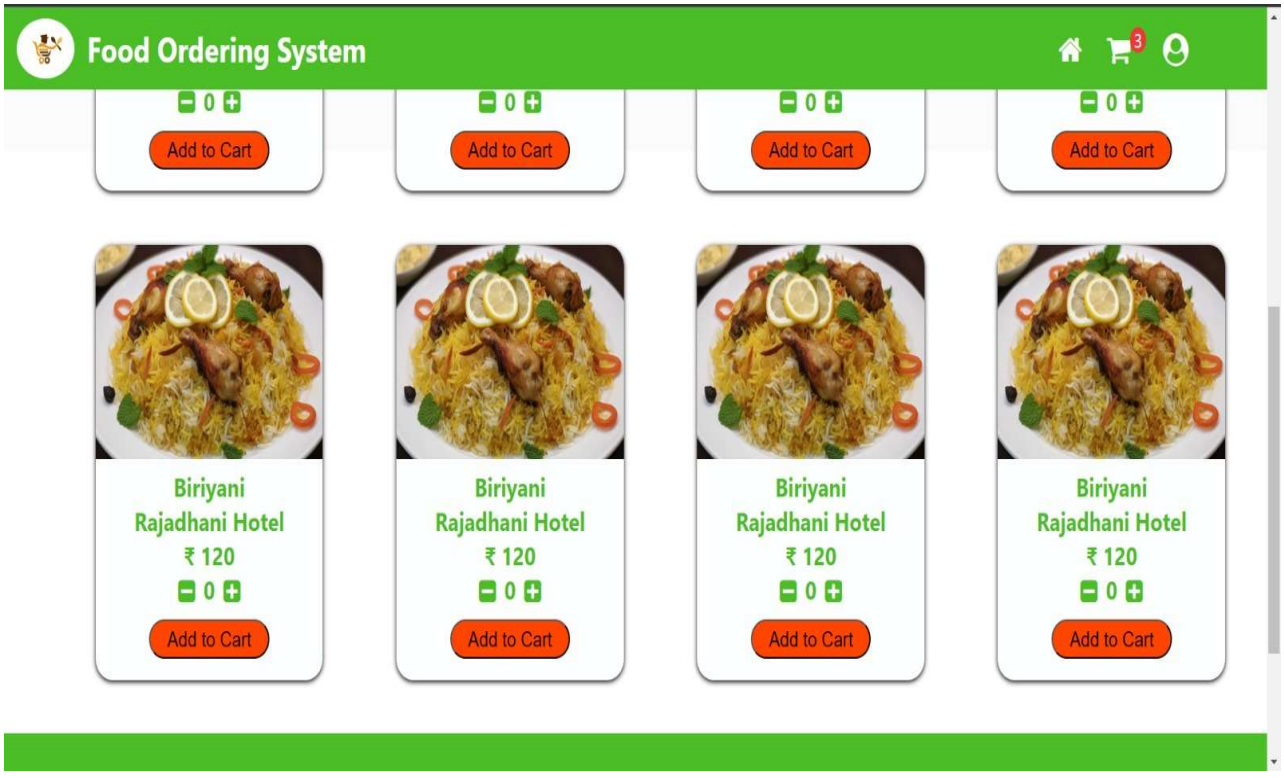

About Us
Welcome to Food Ordering System! We are your ultimate destination for convenient and delicious online food ordering. At Food Ordering System, we strive to connect food lovers with their favorite restaurants, bringing the joy of dining right to your doorstep.
Our platform was created with the vision of revolutionizing the way people order food. With just a few clicks, you can explore a vast array of culinary options and effortlessly place your order from the comfort of your own home or office. Whether you're craving a comforting bowl of pasta, a sizzling burger, or exotic cuisines from around the world, we have you covered.
Customer satisfaction is our top priority, and we strive to exceed your expectations every time you use our platform. Our dedicated customer support team is available to assist you with any queries or concerns you may have, ensuring a seamless and enjoyable experience from start to finish.
Join us on this culinary journey and discover the convenience, variety, and quality that Food Ordering System has to offer. Embrace the ease of online food ordering and indulge in the flavors you love, delivered right to your doorstep. Bon appétit!

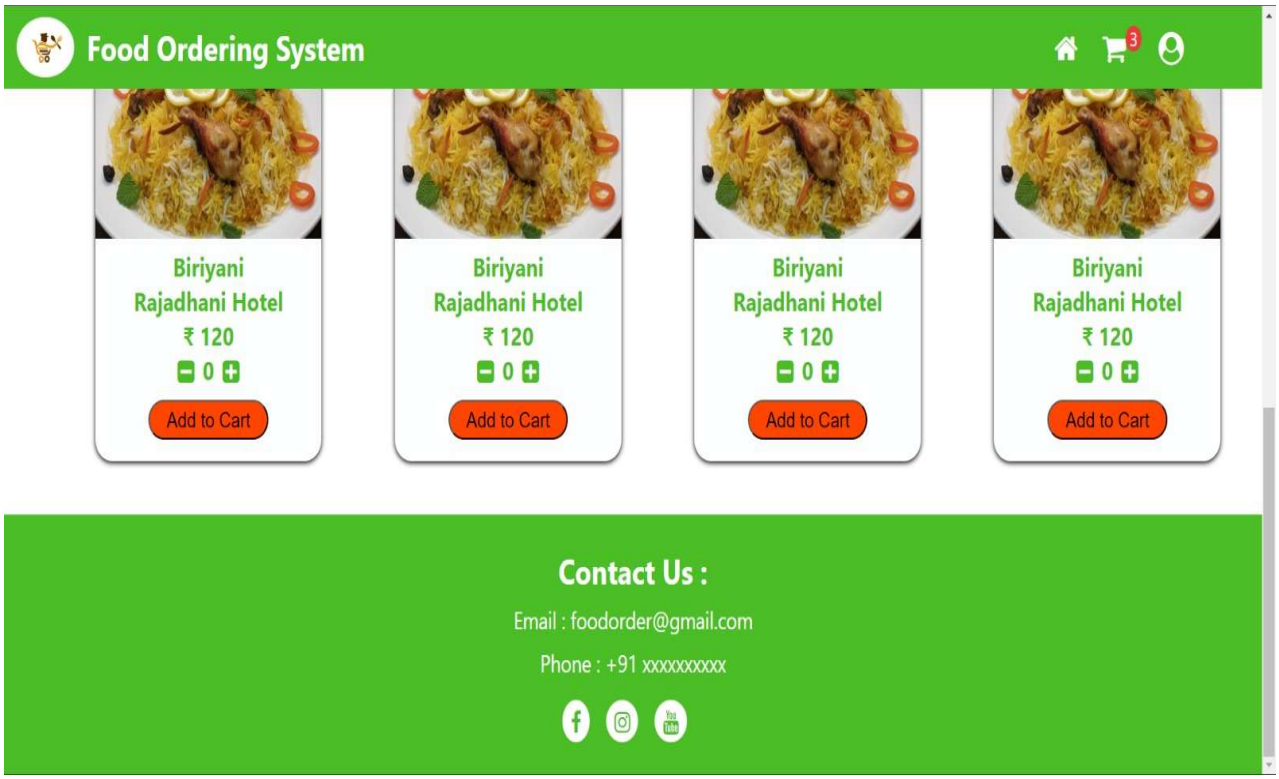

joy of dining right to your doorstep.
Our platform was created with the vision of revolutionizing the way people order food. With just a few clicks, you can explore a vast array of culinary options and effortlessly place your order from the comfort of your own home or office. Whether you're craving a comforting bowl of pasta, a sizzling burger, or exotic cuisines from around the world, we have you covered.
Customer satisfaction is our top priority, and we strive to exceed your expectations every time you use our platform. Our dedicated customer support team is available to assist you with any queries or concerns you may have, ensuring a seamless and enjoyable experience from start to finish.
Join us on this culinary journey and discover the convenience, variety, and quality that Food Ordering System has to offer. Embrace the ease of online food ordering and indulge in the flavors you love, delivered right to your doorstep. Bon appétit!
Contact Us :
Email : foodorder@gmail.com
Phone : +91 xxxxxxxxxx

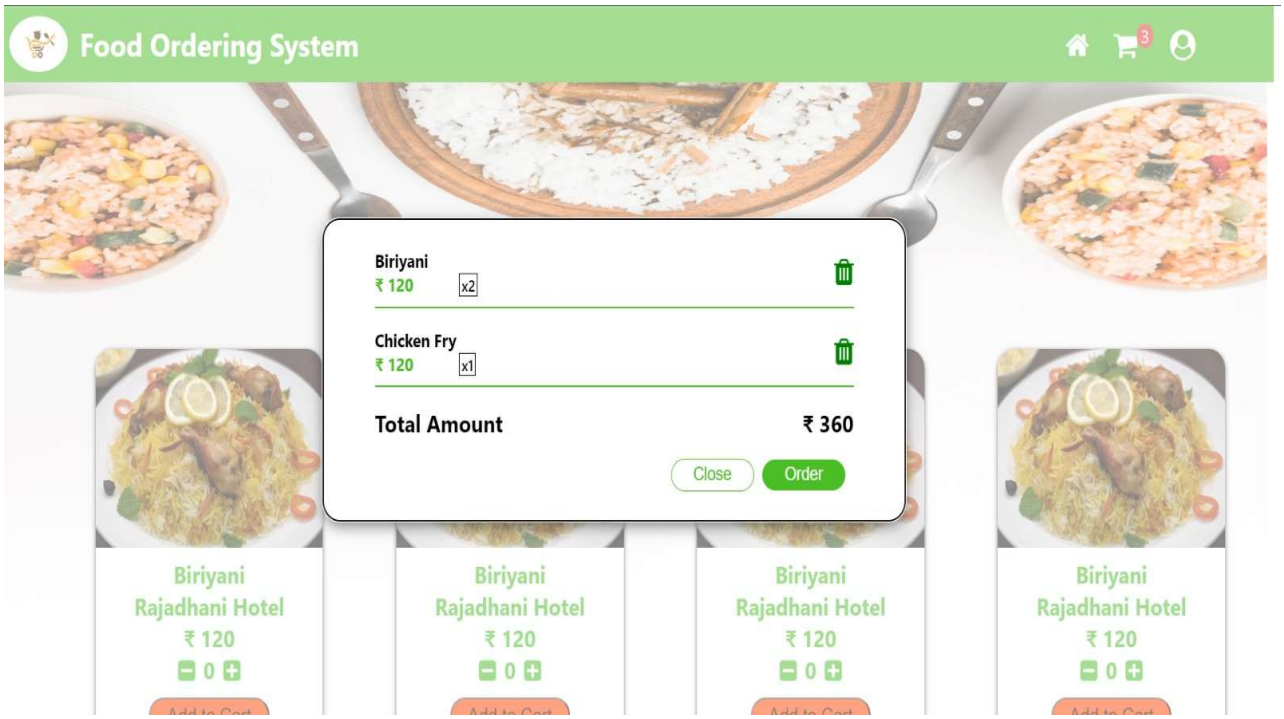

Food Ordering System
Username
Password
Login
Don't have an Account? Sign Up

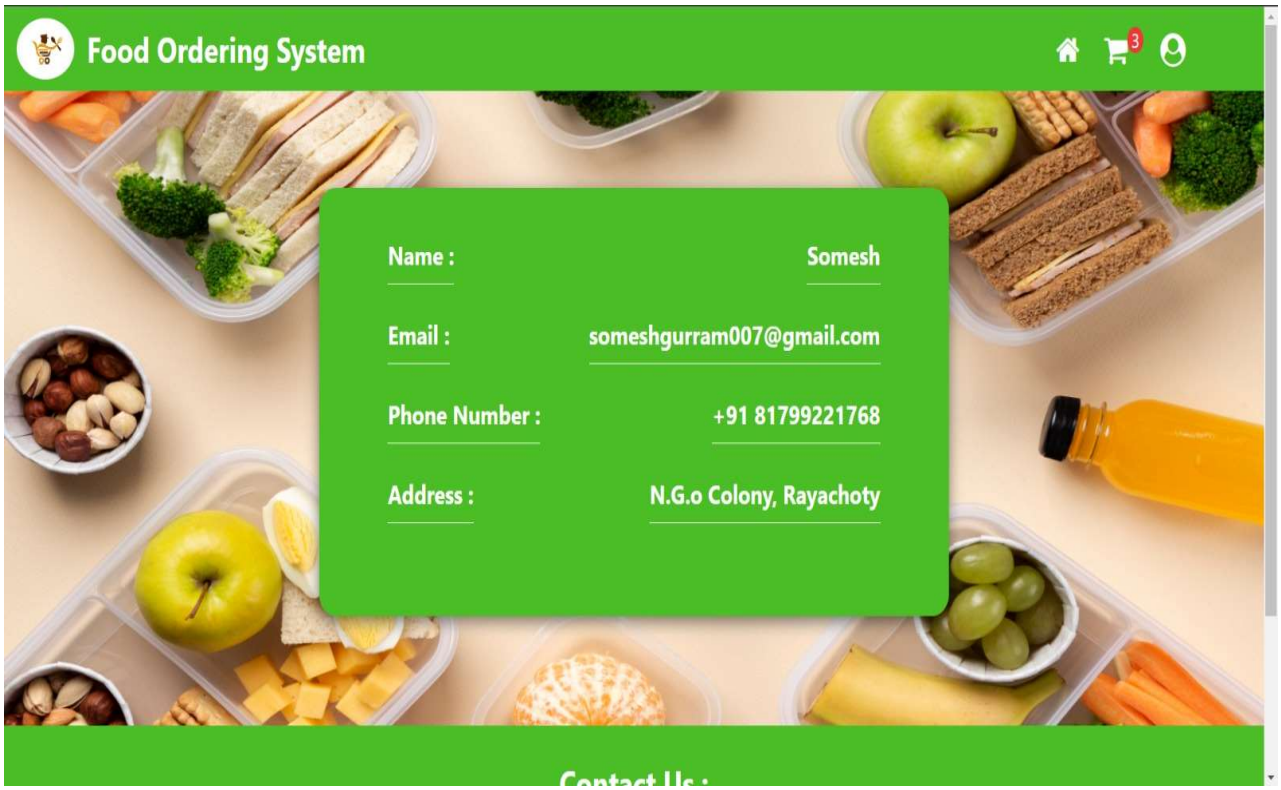

Food Ordering System
Username
Email
Phone Number
Address
Password
Comfirm Password
Sign Up
Already have an Account? Login

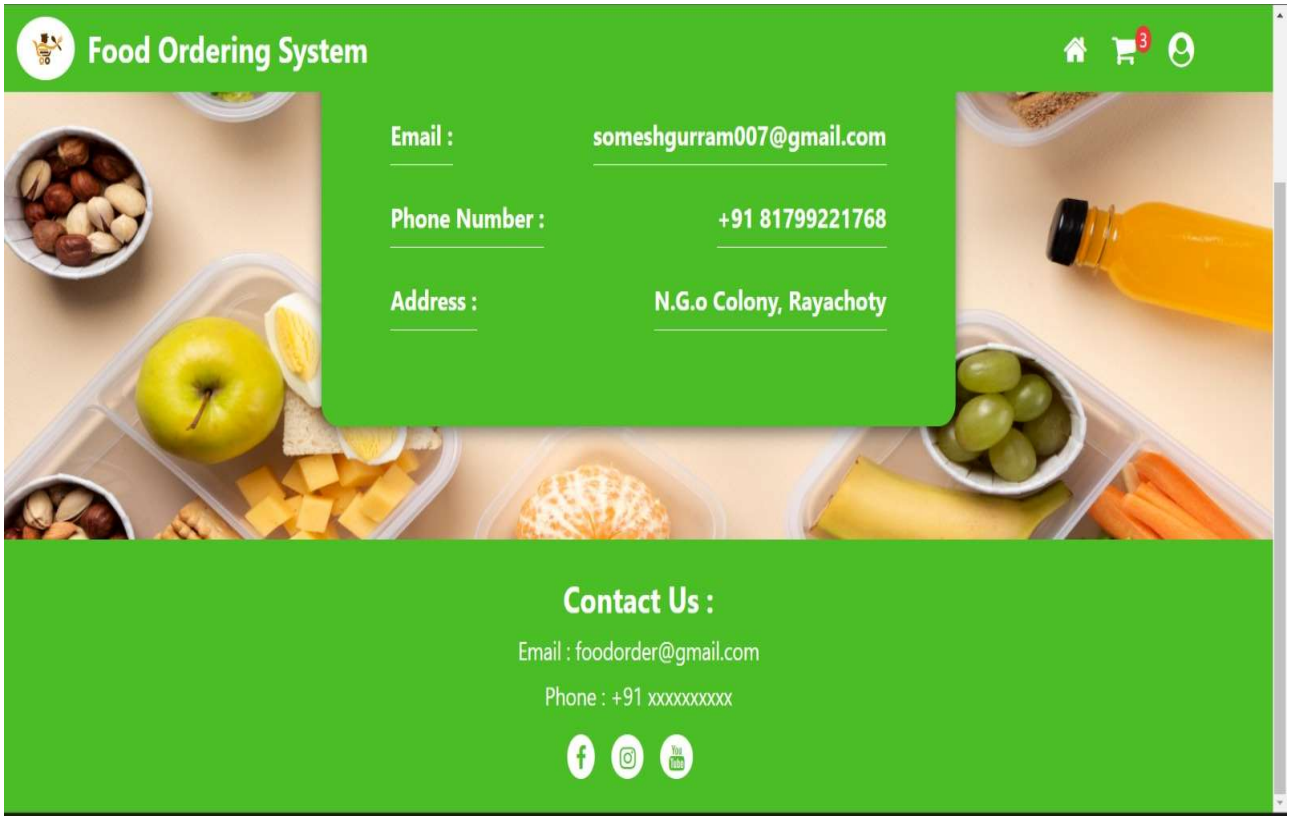

Food Ordering System
3
Search
Biriyani
Rajadhani Hotel
₹ 120
0
Biriyani
Rajadhani Hotel
₹ 120
0
Biriyani
Rajadhani Hotel
₹ 120
0
Biriyani
Rajadhani Hotel
₹ 120
0

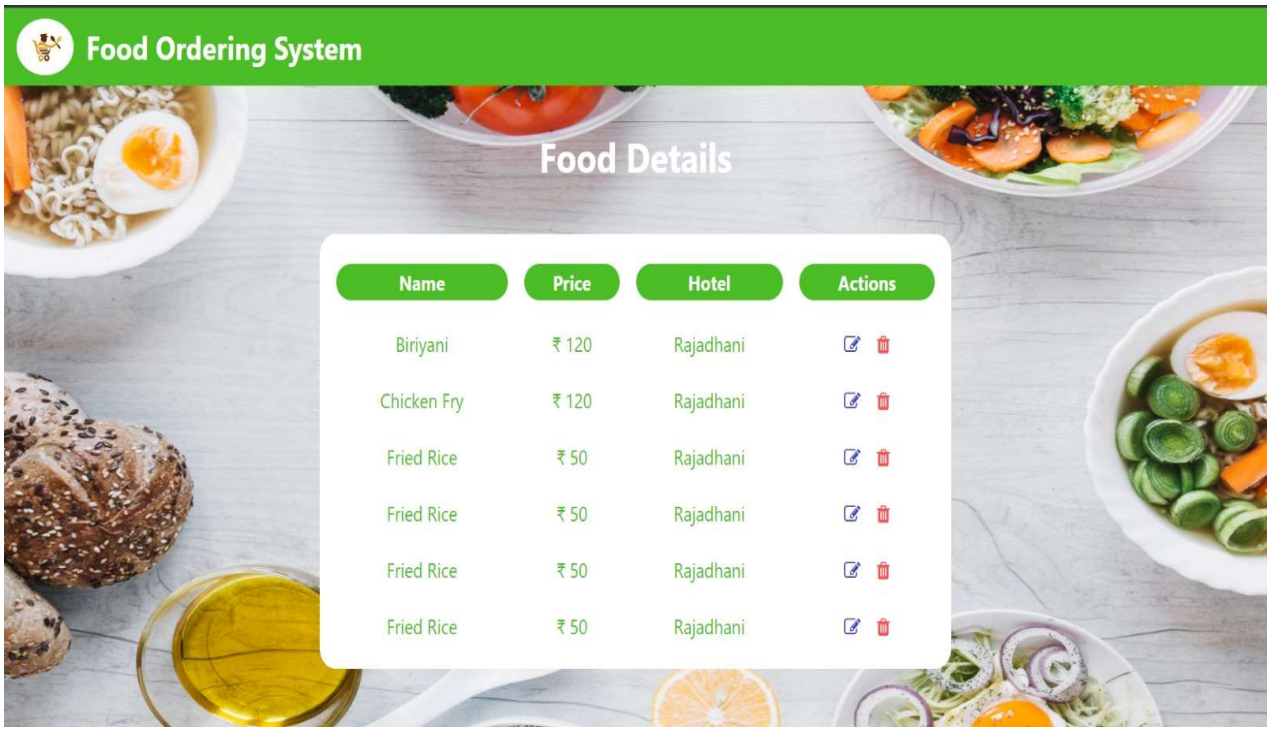

Food Ordering System
3
0
Add to Cart
0
Add to Cart
0
Add to Cart
0
Add to Cart
Biriyani
Rajadhani Hotel
₹ 120
0
Add to Cart
Biriyani
Rajadhani Hotel
₹ 120
0
Add to Cart
Biriyani
Rajadhani Hotel
₹ 120
0
Add to Cart
Biriyani
Rajadhani Hotel
₹ 120
0
Add to Cart


Food Ordering System
3
Biriyani
Rajadhani Hotel
₹ 120
0
Add to Cart
Biriyani
Rajadhani Hotel
₹ 120
0
Add to Cart
Biriyani
Rajadhani Hotel
₹ 120
0
Add to Cart
Biriyani
Rajadhani Hotel
₹ 120
0
Add to Cart
Contact Us :
Email : foodorder@gmail.com
Phone : +91 xxxxxxxxxx


Food Ordering System
3
Biriyani
₹ 120
x2
Chicken Fry
₹ 120
x1
Total Amount
₹ 360
Close
Order
Biriyani
Rajadhani Hotel
₹ 120
0
Biriyani
Rajadhani Hotel
₹ 120
0
Biriyani
Rajadhani Hotel
₹ 120
0
Biriyani
Rajadhani Hotel
₹ 120
0


Food Ordering System
3
Name :
Somesh
Email :
someshgurram007@gmail.com
Phone Number :
+91 81799221768
Address :
N.G.o Colony, Rayachoty


Food Ordering System
3
Email :
someshgurram007@gmail.com
Phone Number :
+91 81799221768
Address :
N.G.o Colony, Rayachoty
Contact Us :
Email : foodorder@gmail.com
Phone : +91 xxxxxxxxxx



7. Advantages & Disadvantages

Advantages

- Improved convenience for customers, enabling them to browse menus and place orders online.
- Streamlined order management for restaurant owners, allowing them to track orders and process payments efficiently.
- Automated payment processing, reducing the need for manual cash handling.
- Enhanced scalability, as the system can handle a large number of concurrent users.
- Real-time order tracking and updates for customers, improving transparency and customer satisfaction.

Disadvantages

- Dependence on internet connectivity for users to access and utilize the system.
- Initial development and setup costs associated with building and deploying the system.
- Potential security risks related to user authentication, data protection, and payment processing.

8. Applications

The Food Ordering System can be applied in various food-related establishments, including:

- Restaurants
- Cafes
- Fast food chains
- Food delivery services

9. Conclusion

The Food Ordering System developed using Node.js and Spring Boot provides an efficient and convenient solution for customers to order food and for restaurant owners to manage their operations. By automating the food ordering process, the system improves overall efficiency, customer experience, and order accuracy. However, it is important to address security considerations and ensure reliable internet connectivity for optimal system performance.

10. Future Scope

The Food Ordering System can be further enhanced and expanded in the following ways:

- Integration with third-party delivery services for seamless food delivery.
- Implementation of personalized recommendations based on customer preferences and order history.
- Addition of customer reviews and ratings for menu items and restaurants.
- Integration with loyalty programs to incentivize customer engagementand repeat orders