

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

**FATIMA JINNAH WOMEN UNIVERSITY,  
RAWALPINDI**



**SOFTWARE CONSTRUCTION AND DEVELOPMENT  
(BSE-402)**

**END SEMESTER PROJECT REPORT SUBMITTED TO  
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**DEPARTMENT OF SOFTWARE ENGINEERING  
SECTION B**

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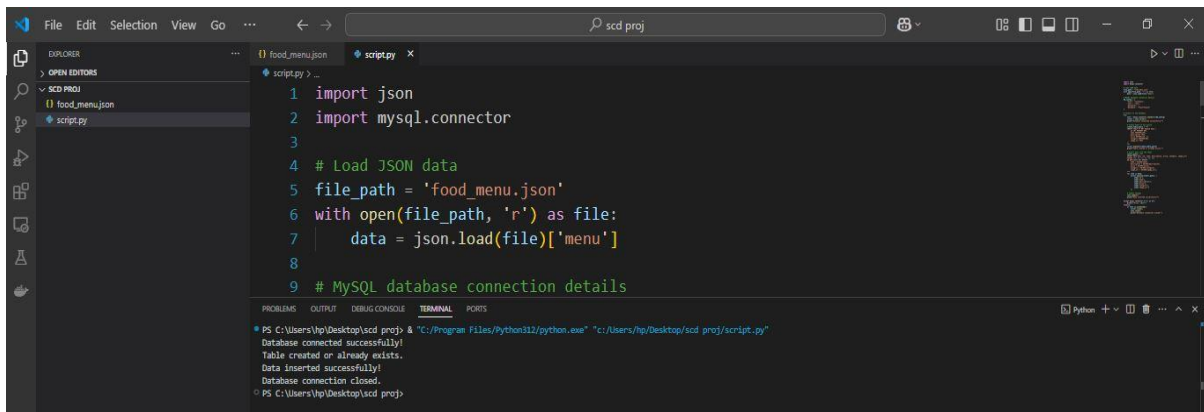
**RAWALPINDI, PAKISTAN**

**DECEMBER 29, 2024**

# Flavor Fiesta - A Food Ordering Website

## Introduction

Flavor Fiesta is a full-stack food ordering website designed to simplify and enhance the online food ordering experience. The front-end, built with HTML, CSS, and JavaScript, provides an intuitive and engaging user interface. The back-end, powered by Spring Boot, ensures efficient processing and management of user requests and data. This report highlights the project's development process, technologies used, key features, and challenges faced.



The screenshot shows the Eclipse IDE interface. The Explorer view on the left shows a project named 'scd proj' with two files: 'food\_menu.json' and 'script.py'. The script.py file is open in the editor, showing the following code:

```
1 import json
2 import mysql.connector
3
4 # Load JSON data
5 file_path = 'food_menu.json'
6 with open(file_path, 'r') as file:
7     data = json.load(file)['menu']
8
9 # MySQL database connection details
```

The terminal view at the bottom shows the output of the script execution:

```
PS C:\Users\hp\Desktop\scd proj> "C:\Program Files\Python311\python.exe" "C:\Users\hp\Desktop\scd proj\script.py"
Database connected successfully!
Table created or already exists.
Data inserted successfully!
Database connection closed.
PS C:\Users\hp\Desktop\scd proj>
```

## Project Objectives

- Create a visually appealing, user-friendly platform for food ordering.
- Implement a scalable back-end to handle dynamic user interactions.
- Ensure seamless integration between the front-end and back-end.
- Showcase the website's development journey and key functionalities.

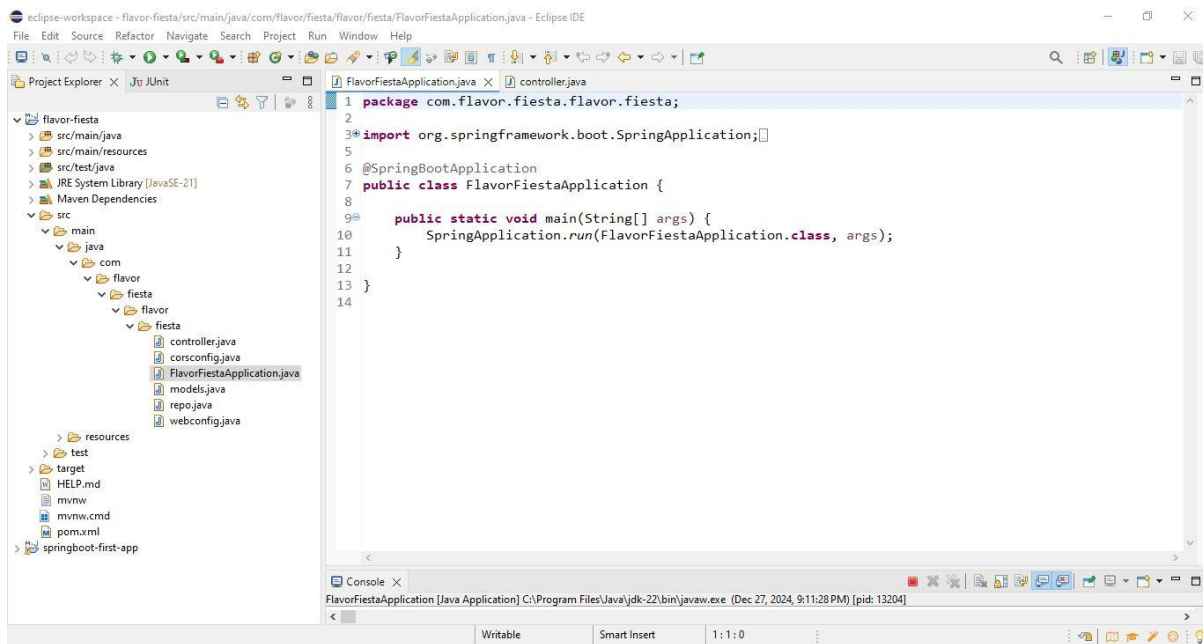
## Technologies Used

### 1. Front-end:

- **HTML:** Defines the structure and layout of the website.
- **CSS:** Enhances aesthetics and ensures responsiveness.
- **JavaScript:** Adds interactivity and dynamic behaviors.

### 2. Back-end:

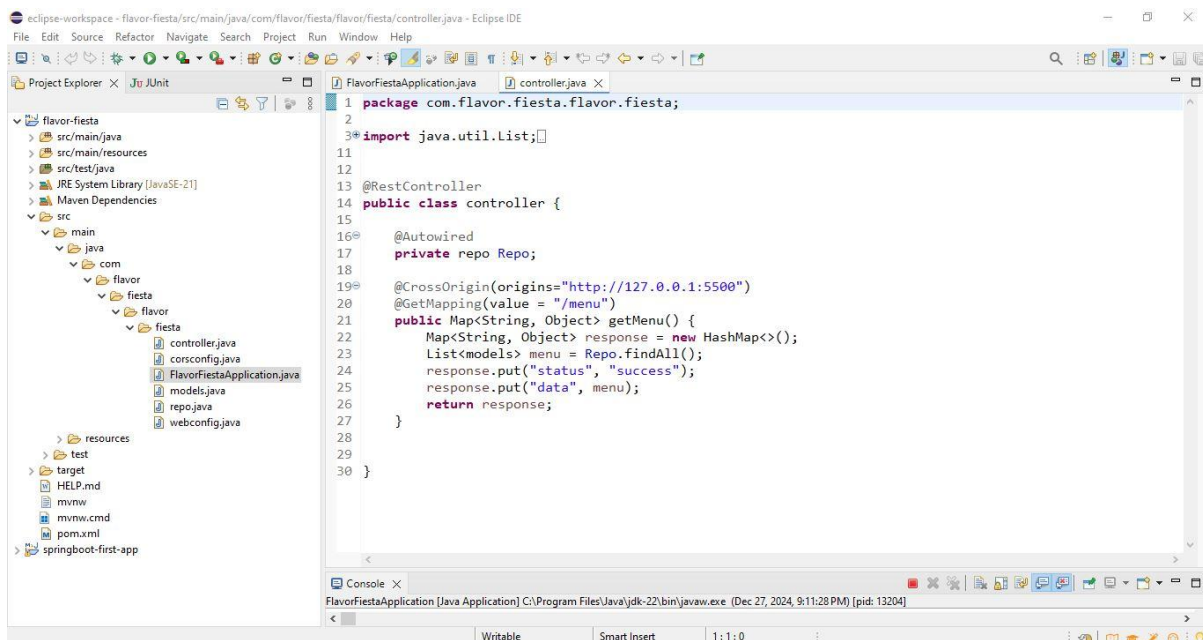
- **Spring Boot:** Manages server-side logic and RESTful APIs.
- **Eclipse IDE:** Streamlines back-end development and debugging.



### 3. Tools:

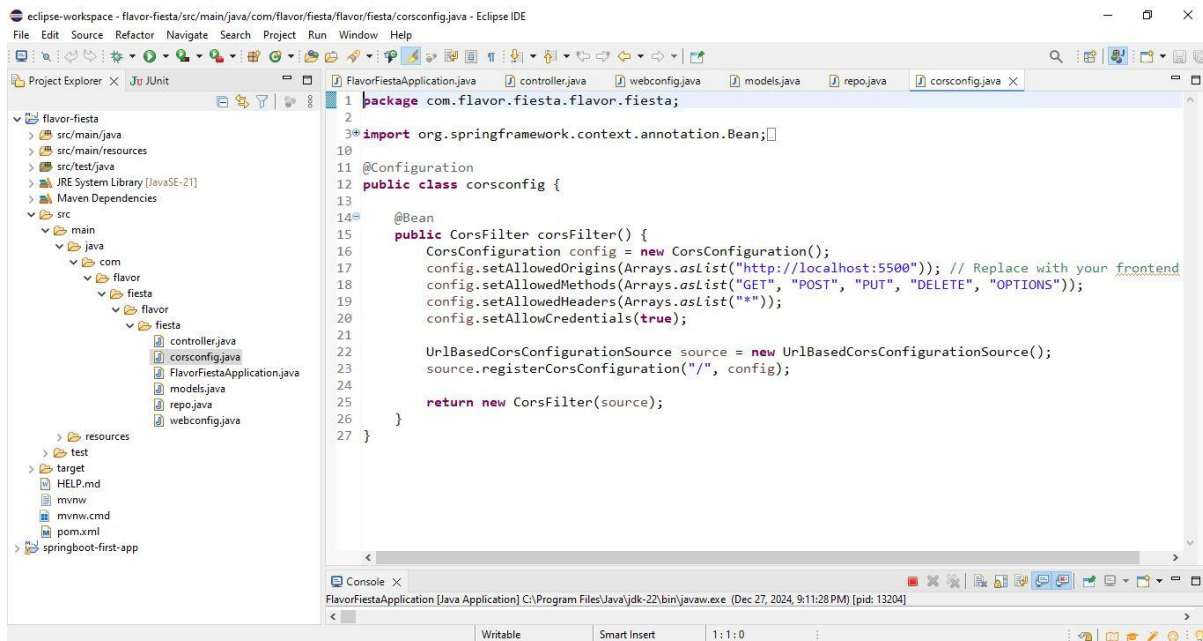
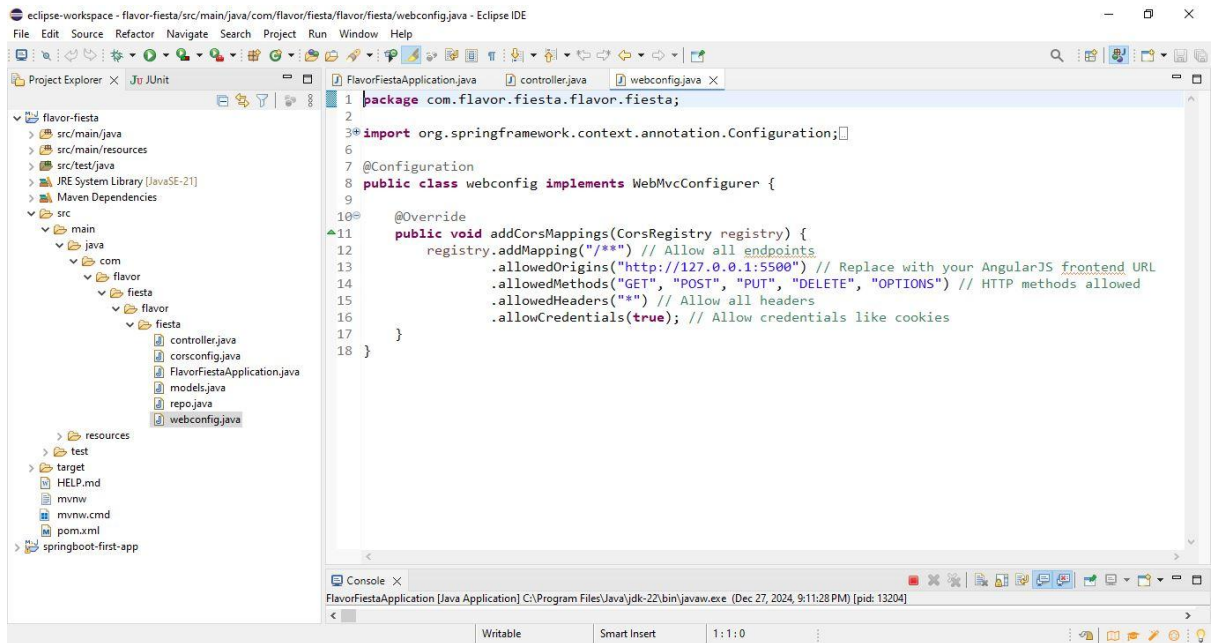
- **Visual Studio Code:** Front-end development environment.
- **MySQL:** Database for storing user and order information (if applicable).

### *Database schema or configuration view*



## Project Architecture

- **Front-end:** The front-end delivers a responsive and engaging interface for users to browse menus, add items to the cart, and place orders.
- **Back-end:** The back-end processes user inputs, handles authentication, and manages data through RESTful APIs.
- **Integration:** The front-end communicates with the back-end using API calls, ensuring real-time data synchronization.



## Key Features

## 1. User Interface:

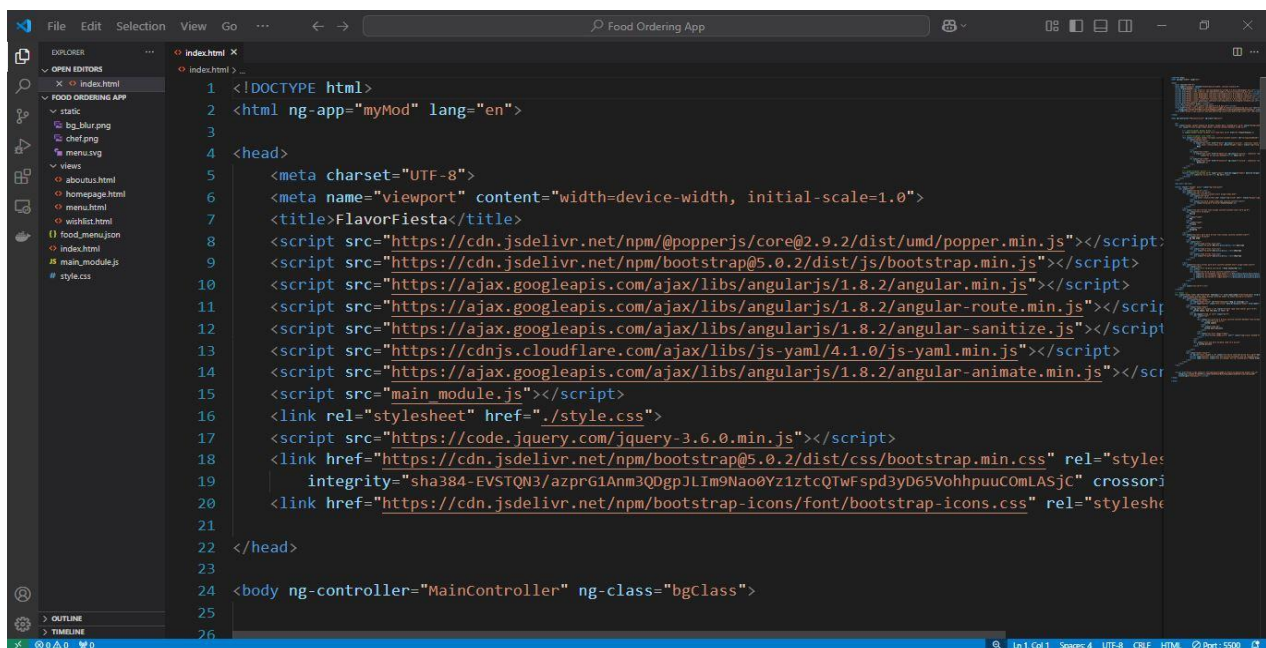
- Attractive homepage with intuitive navigation.
- Search functionality for quick access to food items.
- A cart system to manage selected orders before checkout.

## 2. Back-end Functionalities:

- Secure user authentication.
- Order processing and database storage.
- Real-time order tracking and status updates.

## 3. Responsive Design:

Optimized layouts for various screen sizes, including desktops, tablets, and mobile phones.



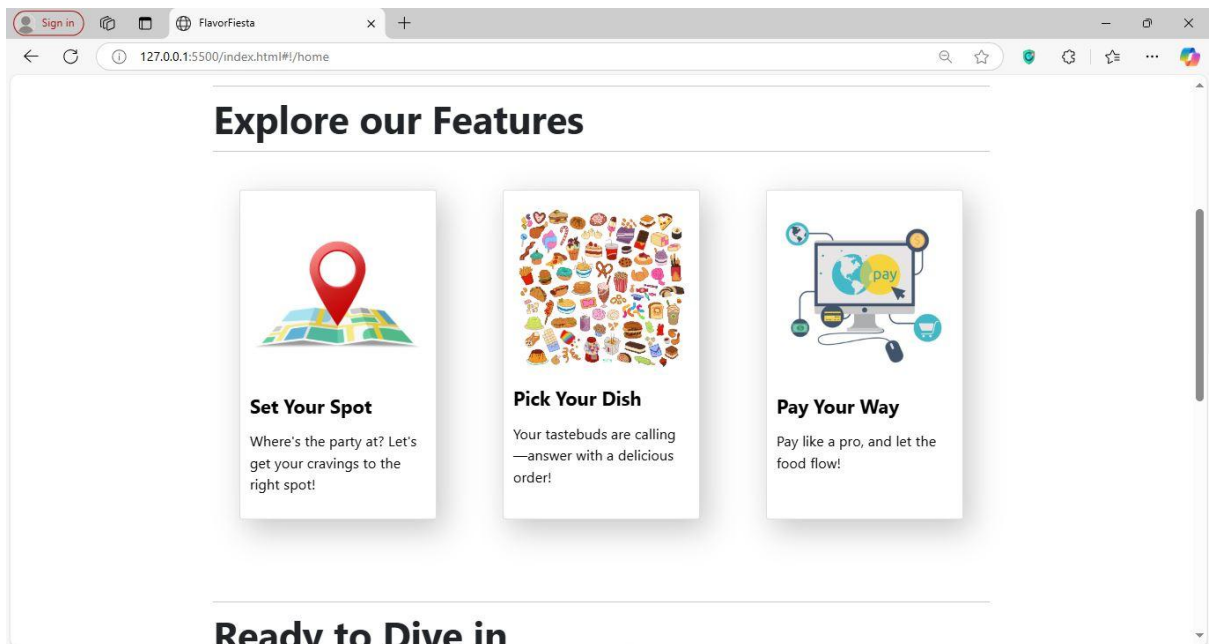
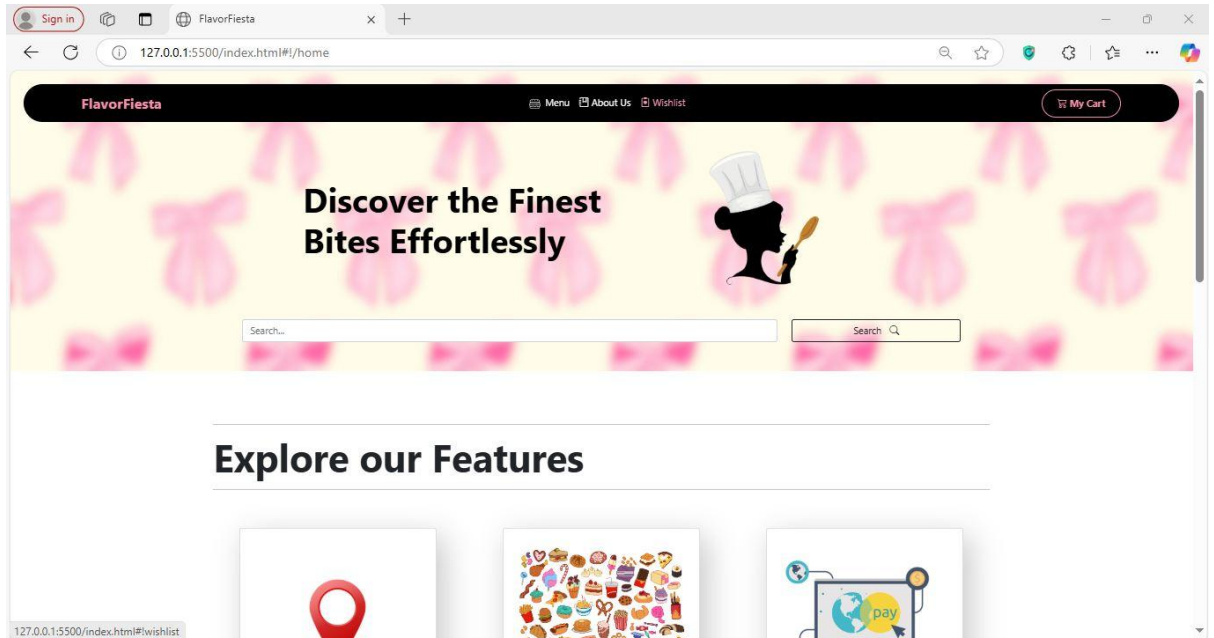
```
1 <!DOCTYPE html>
2 <html ng-app="myMod" lang="en">
3
4 <head>
5     <meta charset="UTF-8">
6     <meta name="viewport" content="width=device-width, initial-scale=1.0">
7     <title>FlavorFiesta</title>
8     <script src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.9.2/dist/umd/popper.min.js"></script>
9     <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.min.js"></script>
10    <script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>
11    <script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular-route.min.js"></script>
12    <script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular-sanitize.js"></script>
13    <script src="https://cdnjs.cloudflare.com/ajax/libs/js-yaml/4.1.0/js-yaml.min.js"></script>
14    <script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular-animate.min.js"></script>
15    <script src="main_module.js"></script>
16    <link rel="stylesheet" href="./style.css">
17    <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
18    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css" rel="stylesheet"
19          integrity="sha384-EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTwFspd3yD65VohhpuuCOmLASjc" crossorigin="anonymous">
20    <link href="https://cdn.jsdelivr.net/npm/bootstrap-icons/font/bootstrap-icons.css" rel="stylesheet">
21
22 </head>
23
24 <body ng-controller="MainController" ng-class="bgClass">
25
26
```

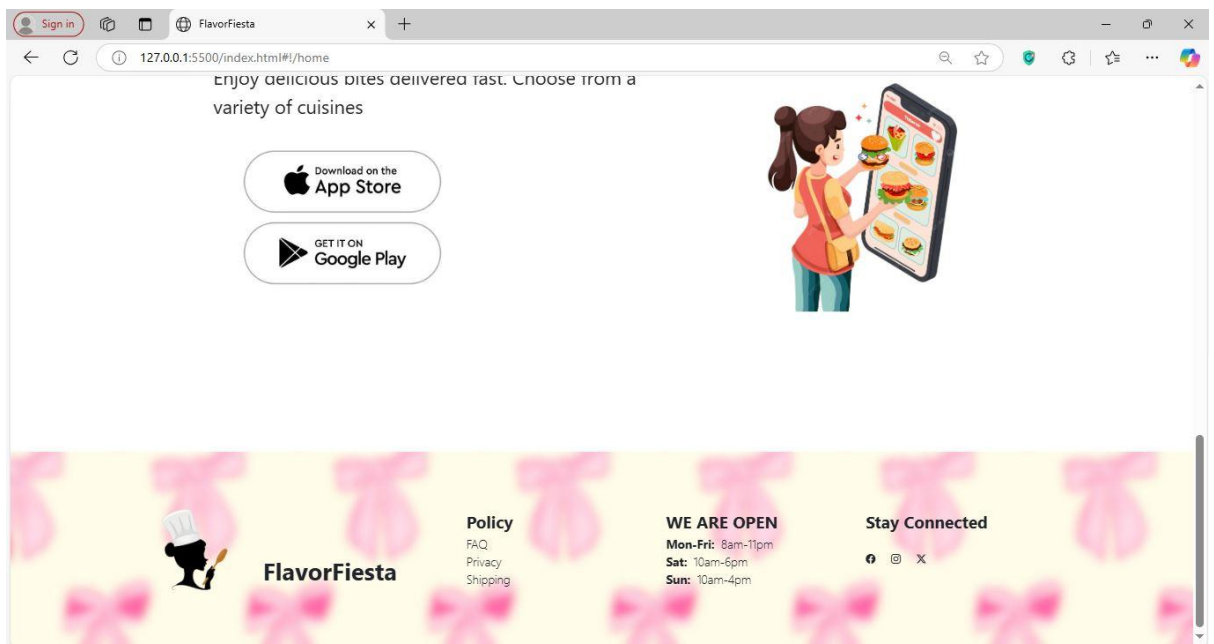
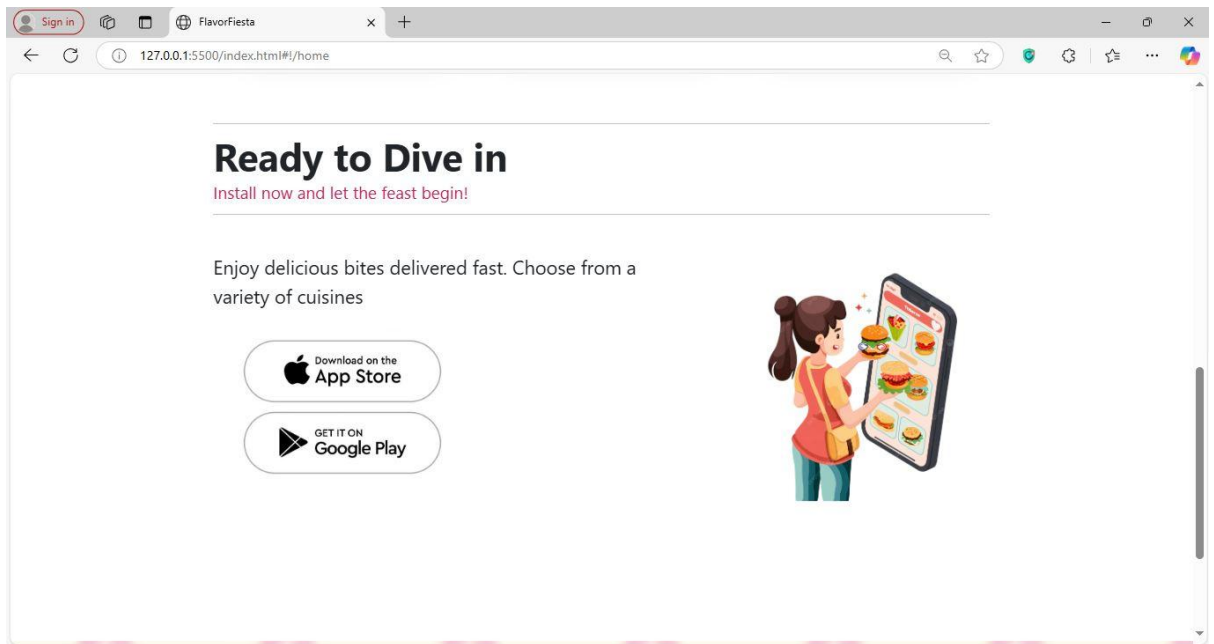
## Development Process

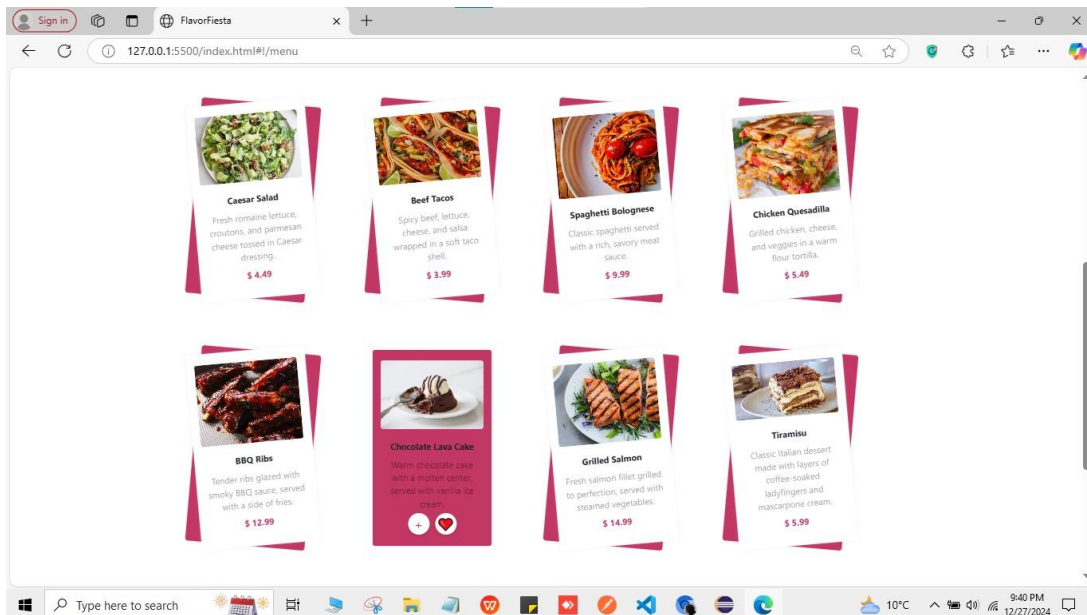
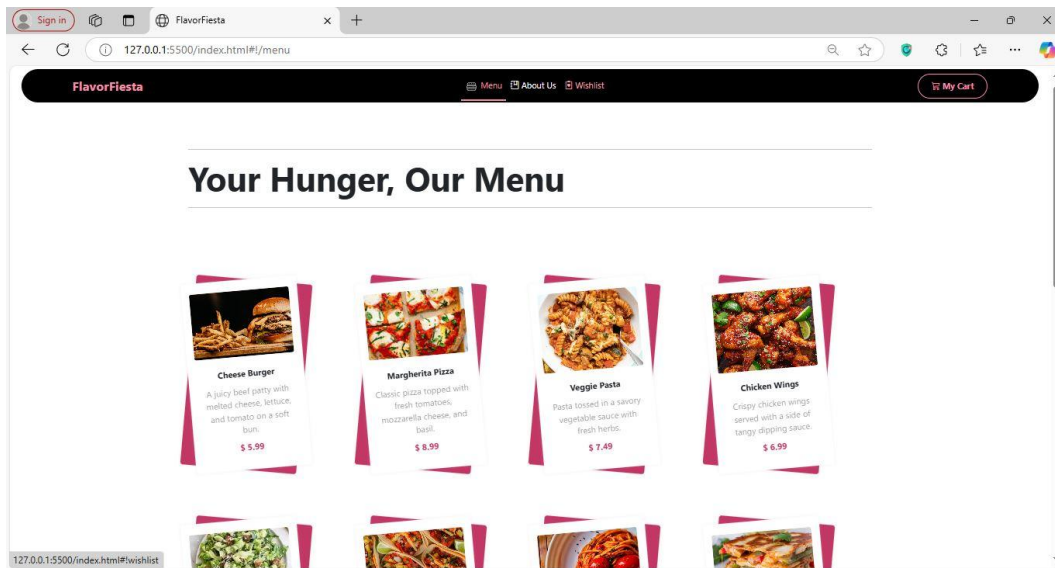
- **Front-end Development:** The front-end development process involved crafting a clean, responsive layout and adding interactive elements with JavaScript. Regular testing ensured functionality and design consistency.



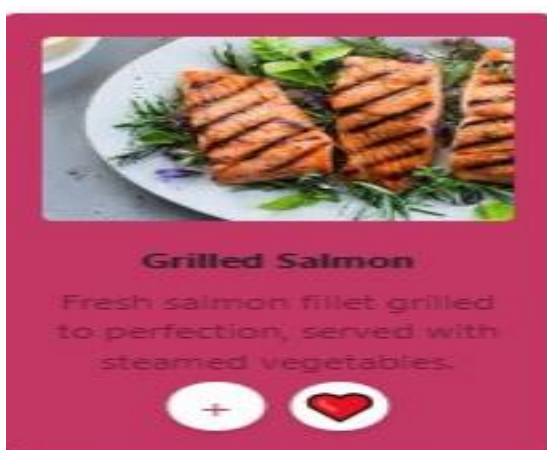
- **Back-end Development:** The back-end was developed using Spring Boot to handle data requests, manage user sessions, and process orders efficiently.
- **Website Features:** The final website integrates all components, offering a smooth user experience from browsing to checkout.



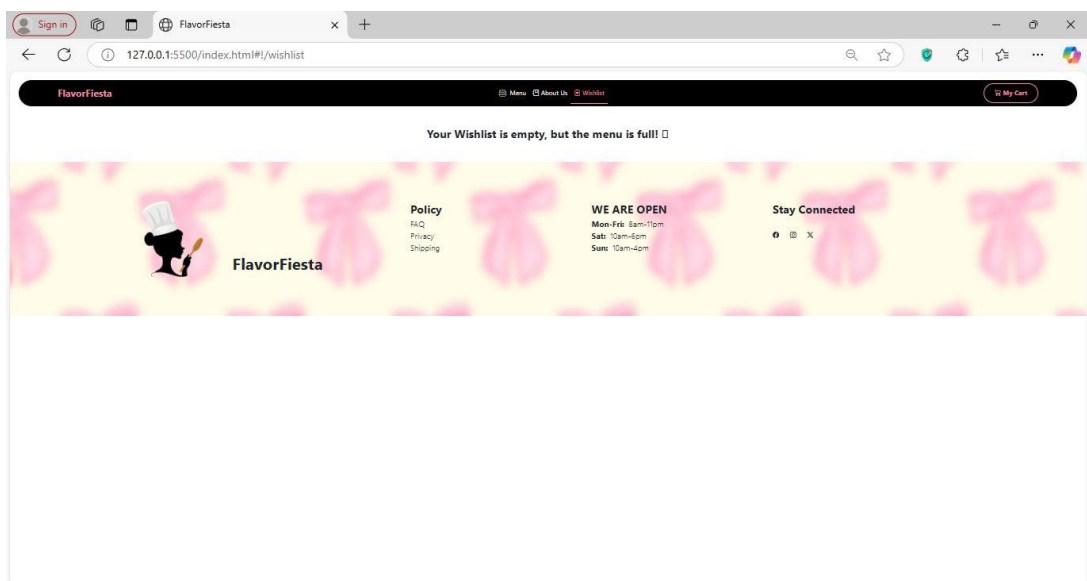
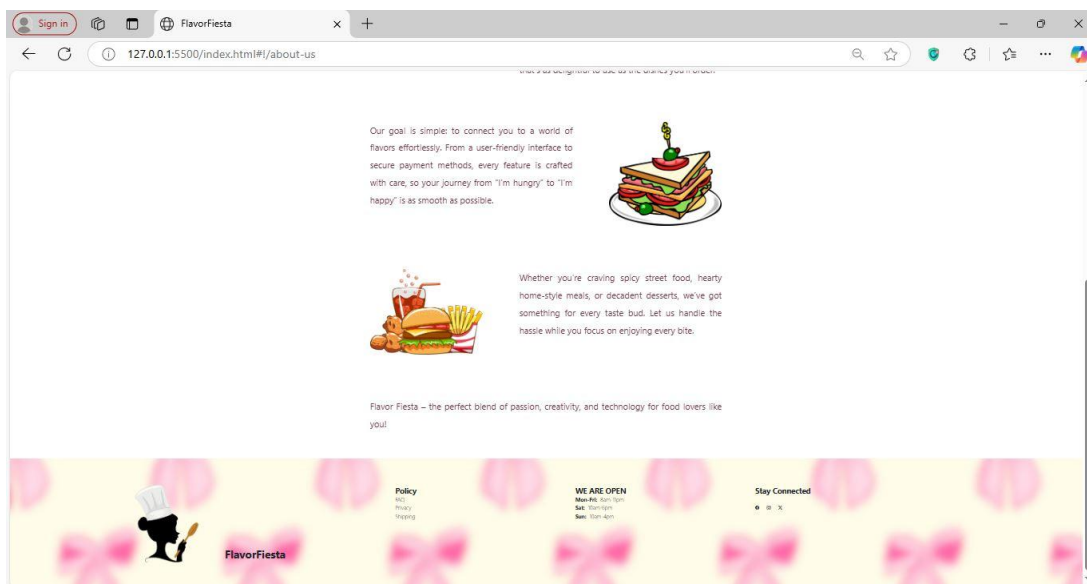
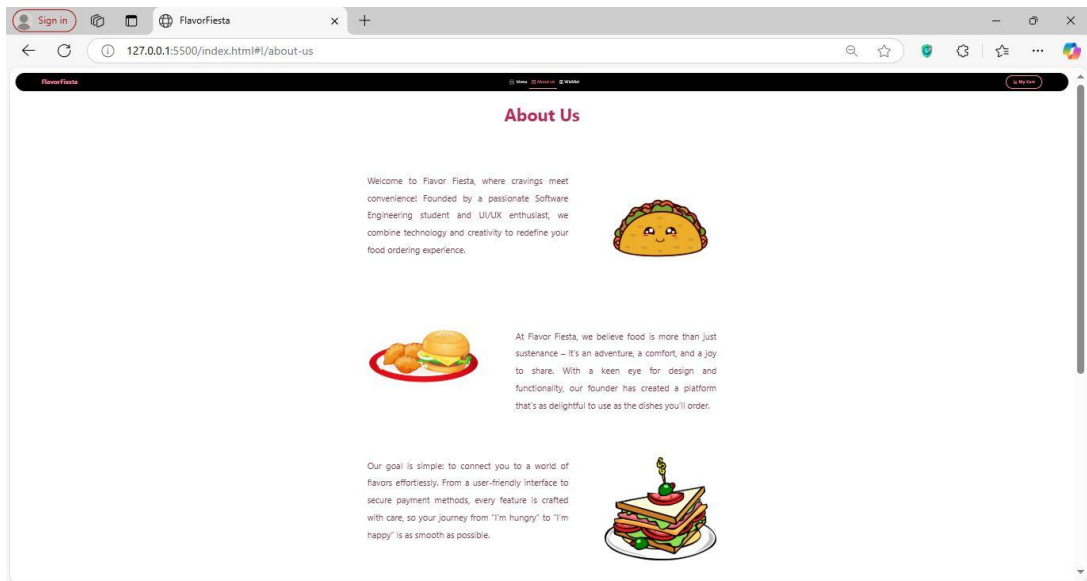


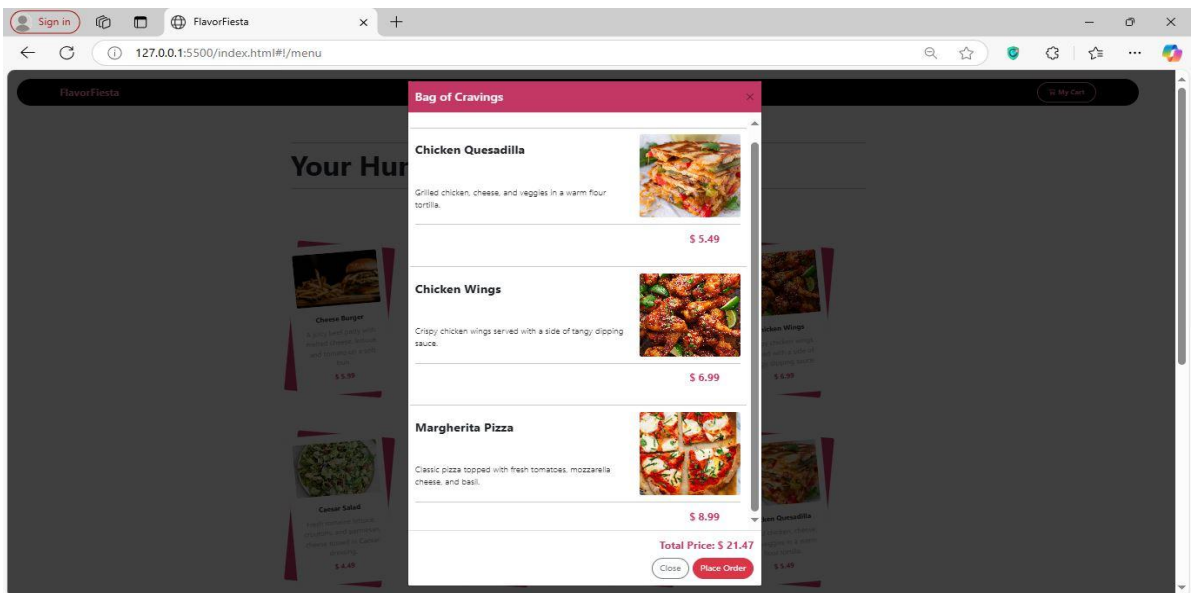
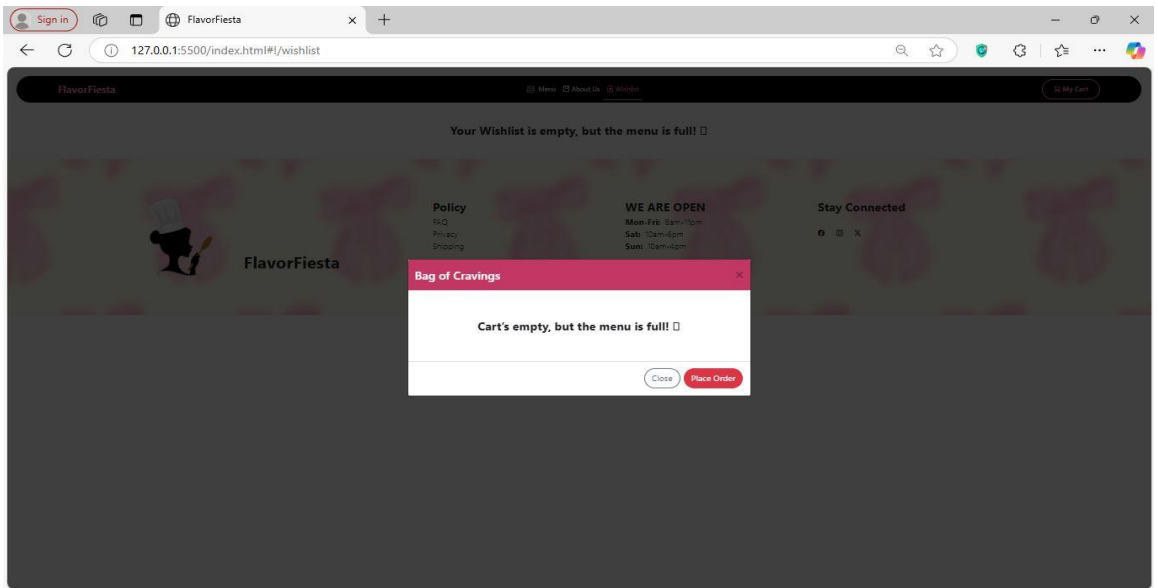


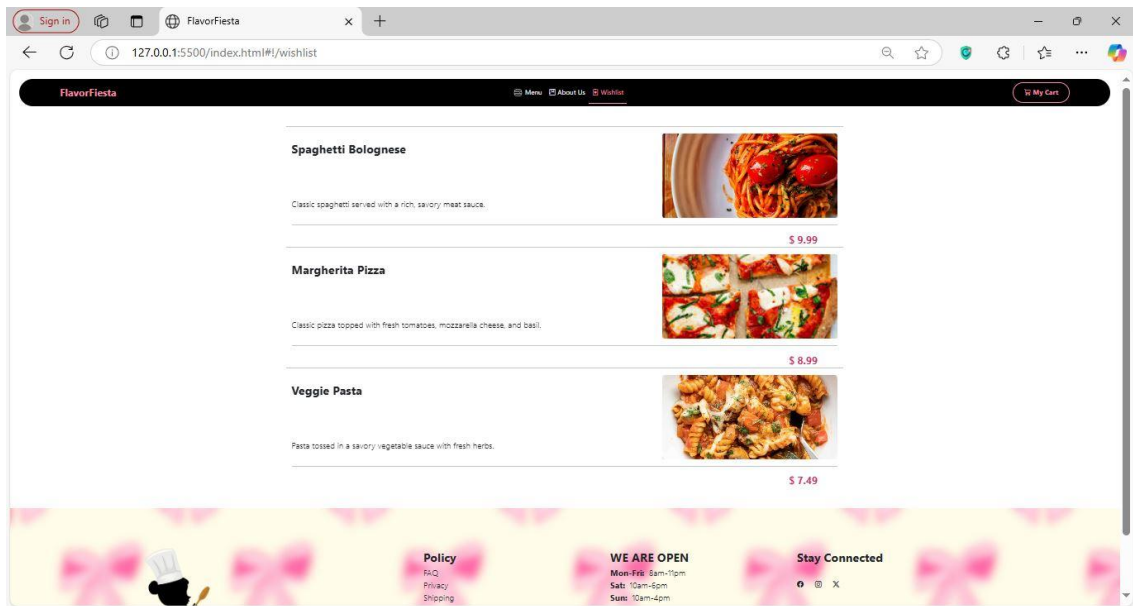
Heart icon is for add to wishlist and + button is for add item to cart











## Challenges and Solutions

### 1. Integration Issues:

- **Challenge:** Ensuring smooth data exchange between the front-end and back-end.
- **Solution:** Used well-documented REST APIs for seamless communication.

### 2. Responsive Design:

- **Challenge:** Adapting the layout for various devices.
- **Solution:** Applied CSS media queries and rigorous testing on multiple screen sizes.

## Conclusion

Flavor Fiesta represents the successful integration of front-end and back-end technologies to deliver a comprehensive food ordering solution. The project showcases skills in modern web development, including responsive design, API integration, and user experience optimization. The screenshots illustrate each stage of development and highlight the website's core functionalities.