RIPHAH INTERNATIONAL UNIVERSITY

Advance Computer Programming
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Restaurant Management System (Flavors Fusion)

Project Team

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Artifact # 1
Project Proposal

Project Proposal

Project Title:
Restaurant Management System (Flavors Fusion)

Introduction:
This project aims to develop a feature-rich restaurant management system using the MERN stack. The system will enable customers to explore menus, place online orders, and make reservations effortlessly. Additionally, it will provide restaurant owners with efficient tools to manage menus, track orders, and handle customer reservations. The restaurant serves a variety of cuisines, ensuring a diverse and inclusive dining experience.

Problem Statement:
Many restaurants struggle with outdated management systems, leading to inefficiencies in order processing, table reservations, and customer engagement. Customers often face issues such as unclear menu options, slow service, and difficulty tracking their orders. A modernized web-based solution is required to enhance the overall restaurant experience for both owners and customers.

Proposed Solution:
This project will develop a dynamic restaurant management system using the MERN stack.

- A well-designed menu interface with high-quality images and detailed descriptions of various cuisines.
- An interactive ordering system for dine-in, takeout, and delivery options.
- A reservation system to allow customers to book tables online.
- A comprehensive order management system for restaurant staff.

Scope of the Project:
The restaurant management system will focus on:

- A responsive front-end built with React.js for seamless user interaction.
- A robust back-end using Node.js and Express.js for API handling.
- A secure MongoDB database for storing menus, orders, and user data.
- Full CRUD functionality for managing restaurant operations.

Modules Description:

1. **User Module:** Customers can sign up, log in, update profiles, place orders, and book tables.
2. **Menu Module:** Admins can add, update, and remove food items categorized by different cuisines.
3. **Order Management Module:** Enables customers to track their orders while allowing restaurant staff to manage order status and fulfillment.

4. **Reservation Module:** Provides customers with a hassle-free table booking system with real-time availability updates.
5. **Admin Dashboard:** Offers restaurant owners insights into sales, orders, and customer preferences.

Conclusion:

This restaurant management system will enhance customer convenience while streamlining restaurant operations, making it a valuable digital solution for modern dining establishments. The inclusion of diverse cuisines ensures a rich and inclusive experience for customers.