PROPOSAL

Project Title: *Fast-Food*

Course Title: Software Construction & Development

Department: Computing (*Software Engineering*)

Submitted To: Islam Abbasi

Submitted By:

56154	Umer Farooq
55330	Haider Nawaz Thabal

Introduction

The fast-food industry increasingly relies on technology to provide quick, reliable, and user-friendly services to customers. However, traditional manual order-taking, inefficient rider tracking, and limited customer communication create bottlenecks in service delivery.

The proposed *Fast-Food System* focuses on the digital renewal of restaurant operations, enabling customers to place orders, track deliveries, and communicate seamlessly with staff. Core features include **real-time order tracking, automated order management, rider location updates, in-app chat, employee management, and secure payment processing**.

This project aims to eliminate inefficiencies in location tracking, order dispatch, and customer interaction, while ensuring accuracy, speed, and transparency. By integrating automation and centralized management, the system will improve customer experience, streamline staff responsibilities, and boost overall operational efficiency.

Ultimately, the system envisions a **modernized food delivery ecosystem** that enhances service quality, reduces delays, and provides a scalable digital solution adaptable to multiple restaurant branches.

Stakeholders

Stakeholder	Role in the System
Customer	Browses menu, places orders, tracks delivery, gives feedback.
Delivery Rider	Receives delivery requests, updates live location, delivers food.
Branch Manager	Staff roles, order processing, and inventory.
Restaurant Staff	Handles food preparation, packaging, and dispatching orders.
System Administrator	Maintains technical performance, database, and manages user access/security.
Help Center Staff	Provides customer support through live chat, calls, and issue resolution.

Functional Requirement

- ## CUSTOMER

FR No.	Requirement
FR-1.1	The system shall allow customers to sign up and log in using phone number verification.
FR-1.2	The system shall allow customers to browse food menus and add items to the cart.
FR-1.3	The system shall allow customers to confirm, cancel, or request refunds for orders.
FR-1.4	The system shall enable customers to add or update delivery addresses manually or via GPS.
FR-1.5	The system shall allow customers to rate food, delivery, and service after order completion.
FR-1.6	The system shall allow customers to view order history and reorder previous meals.

- **DELIVERY-RIDER**

FR No.	Requirement
FR-2.1	The system shall provide real-time rider tracking and delivery status updates.
FR-2.2	The system shall allow riders to update order delivery status (picked up, en route, delivered)
FR-2.3	The system shall allow riders to communicate with customers through chat or call.
FR-2.4	The system shall allow riders to report delivery issues (e.g., customer unavailable, wrong address)
FR-2.5	The system shall log rider performance metrics (time efficiency, completed orders).

- **BRANCH MANAGER**

FR No.	Requirement
FR-3.1	The system shall allow managers to manage staff attendance, roles, and performance
FR-3.2	The system shall provide branch-specific performance dashboards for managers.
FR-3.3	The system shall allow managers to monitor order volume and sales reports.
FR-3.4	The system shall notify managers of low inventory or stock shortages.
FR-3.5	The system shall allow managers to assign deliveries to specific riders.

- ## **RESTAURANT STAFF**

FR No.	Requirement
FR-4.1	The system shall allow staff to view and prepare incoming orders.
FR-4.2	The system shall allow staff to update order status (in preparation, ready for pickup).
FR-4.3	The system shall notify staff of new incoming orders in real time.
FR-4.4	The system shall allow staff to manage packaging and mark orders as dispatched.
FR-4.5	The system shall log staff performance (time to prepare orders, errors).
FR-4.6	The system shall allow staff to view daily task lists and assigned roles.

- ## **SYSTEM ADMINISTRATOR**

FR No.	Requirement
FR-5.1	The system shall ensure secure login through two-step verification.
FR-5.2	The system shall allow administrators to monitor and control data access for different roles.
FR-5.3	The system shall allow administrators to add or remove user accounts (managers, staff, riders).
FR-5.4	The system shall maintain logs of system errors and crashes.
FR-5.5	The system shall allow administrators to manage payment gateways and ensure transaction security.
FR-5.6	The system shall allow administrators to configure system-wide settings (languages, notifications).

• HELP CENTER STAFF

FR No.	Requirement
FR-6.1	The system shall support in-app communication through chat, calls, and location sharing.
FR-6.2	The system shall maintain logs of customer complaints and feedback for future improvements.
FR-6.3	The system shall allow help center staff to resolve refund or order issues.
FR-6.4	The system shall allow help center staff to view customer order details for support.