

Software Requirements Specification (Mini)

Project: Online Food Delivery & Restaurant Management System

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1. Introduction

1.1 Purpose

This document provides a concise Software Requirements Specification for the Online Food Delivery & Restaurant Management System. It defines the system's main functions, constraints, and performance & security requirements.

1.2 Scope

The system enables customers to browse restaurants, place orders, pay online, track deliveries in real-time, and rate restaurants. Restaurants manage menus and process orders; delivery personnel update delivery statuses. The system will support concurrency, order history, and secure payments.

1.3 Definitions & Acronyms

- **Customer:** App user placing orders.
- **Restaurant:** Vendor managing menu & orders.
- **Delivery Personnel (Driver):** Individual delivering orders.
- **Payment Gateway:** External payment processor.
- **Order:** Customer's placed purchase record.

2. Overall Description

2.1 Product Perspective

A multi-tenant web/mobile platform. Backend exposes REST APIs; frontend apps for Customer, Restaurant, and Driver interact with backend. Payment processing done via third-party gateway.

2.2 User Classes and Characteristics

- **End Customer:** registers, places orders.
- **Restaurant Admin:** manages menu, accepts orders.
- **Delivery Personnel:** receives assignments and updates status.
- **System Admin:** manages users, reports.

2.3 Operating Environment

- Cloud-hosted backend (Linux), HTTPS endpoints, mobile/web frontends.
- Database for users, orders, menus.

2.4 Constraints

- Must integrate with third-party payment gateway.
- Must follow local regulations for data retention & privacy.

3. Functional Requirements (summary)

(Select/numbering for SRS)

- **FR1 — User Authentication:** register/login, password reset.
- **FR2 — Restaurant & Menu Management:** create/edit menu items.
- **FR3 — Order Management:** create orders, accept/reject, update status.
- **FR4 — Payment Processing:** integrate with Payment Gateway, process authorizations/refunds.
- **FR5 — Delivery Management:** assign drivers, track location, update status.
- **FR6 — Notifications:** order and status notifications (push/SMS/email).
- **FR7 — Rating & Review:** customers rate orders and restaurants.
- **FR8 — Order History & Receipts:** view/download order receipts.

4. Non-Functional Requirements

- **NFR1 — Security:** TLS, hashed passwords, PCI compliance for payments.
- **NFR2 — Performance:** pages load < 2s, payment response < 3s.
- **NFR3 — Scalability:** support concurrent users and spikes.
- **NFR4 — Availability:** 99.9% uptime for ordering service.
- **NFR5 — Maintainability:** modular microservices & documented APIs.
- **NFR6 — Usability:** intuitive UI/UX for all user classes.