Software Requirements Specification (SRS)

Online Food Delivery & Table Reservation System

Abhishek Ramesh Patil – 2023BCSE07AED446

(IEEE 830 Style)

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1. Introduction

1.1 Purpose

This Software Requirements Specification (SRS) document describes the functional and non-functional requirements of the "Online Food Delivery and Table Reservation System". It serves as a reference for stakeholders, developers, testers, and project managers to understand system behavior, constraints, and expectations.

1.2 Document Conventions

• IEEE-style section numbering is used
• Functional requirements are labeled as **FR-#**
• Non-functional requirements are labeled as **NFR-#**
• The word *shall* indicate a mandatory requirement

1.3 Intended Audience and Reading Suggestions

This document is intended for:

• Project stakeholders and clients
• Software developers and designers
• Project evaluators and faculties
• Deployment and maintenance teams

Readers may focus on sections relevant to their role.

1.4 Project Scope

The system is a Online **food delivery and table management system** that allows customers to browse menus, order food, make online payments, and reserve restaurant tables. Administrators can manage menus, view and process orders, and update order statuses.

1.5 References

• IEEE Std 830-1998 – Software Requirements Specification
• IEEE Std 1016-2009 – Software Design Description

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2. Overall Description

2.1 Product Perspective

The application is a web-based and mobile-responsive system consisting of:

• Customer interface
• Admin dashboard
• Backend services
• Payment gateway integration

2.2 Product Functions

Major functions include:

• User registration and login
• Menu browsing and food ordering
• Online payment processing
• Table reservation management
• Order status tracking
• Admin order and menu management

2.3 User Classes and Characteristics

• **Customer** – Browses menu, places orders, makes payments, and reserves tables
• **Admin** – Manages menu, views orders, updates order status, and manages reservations

2.4 Operating Environment

• Web browser (Chrome, Edge, Firefox)
• Mobile-responsive UI
• Backend server with relational database

2.5 Design and Implementation Constraints

• Secure payment gateway integration
• HTTPS communication required
• Role-based access control

2.6 User Documentation

• User guide for customers
• Admin dashboard manual

2.7 Assumptions and Dependencies

• Internet connectivity is available
• Payment gateway services are operational

3. System Features (Functional Requirements)

FR-1 User Registration and Login

• The system shall allow users to register using email or phone number.
• The system shall allow users to log in securely.

FR-2 Menu Browsing

• The system shall display food categories and menu items.
• The system shall show price, description, and availability of items.

FR-3 Food Ordering

• The system shall allow users to add items to a cart.
• The system shall allow users to place food orders.

FR-4 Payment Processing

• The system shall support online payment methods.
• The system shall confirm payment status after transaction.

FR-5 Order Tracking

• The system shall allow users to track order status.
• The system shall notify users when order status changes.

FR-6 Table Reservation

• The system shall allow users to reserve tables by date and time.
• The system shall confirm or reject reservations.

FR-7 Admin Order Management

• The admin shall view all customer orders.
• The admin shall update order status (Preparing, dispatched, Delivered).

FR-8 Admin Menu Management

• The admin shall add, update, or remove menu items.

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4. External Interface Requirements

4.1 User Interfaces

• Customer web interface
• Admin dashboard

4.2 Hardware Interfaces

• Mobile phones, tablets, laptops, desktops

4.3 Software Interfaces

• Payment gateway API
• Database management system

4.4 Communication Interfaces

• Secure HTTP (HTTPS)

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5. Non-Functional Requirements

NFR-1 Performance

• The system shall load pages within 3 seconds under normal load.

NFR-2 Security

• User data and payments shall be encrypted.

NFR-3 Reliability

• The system shall maintain consistent order processing.

NFR-4 Usability

• The system shall have a user-friendly interface.

NFR-5 Scalability

• The system shall support increasing number of users.
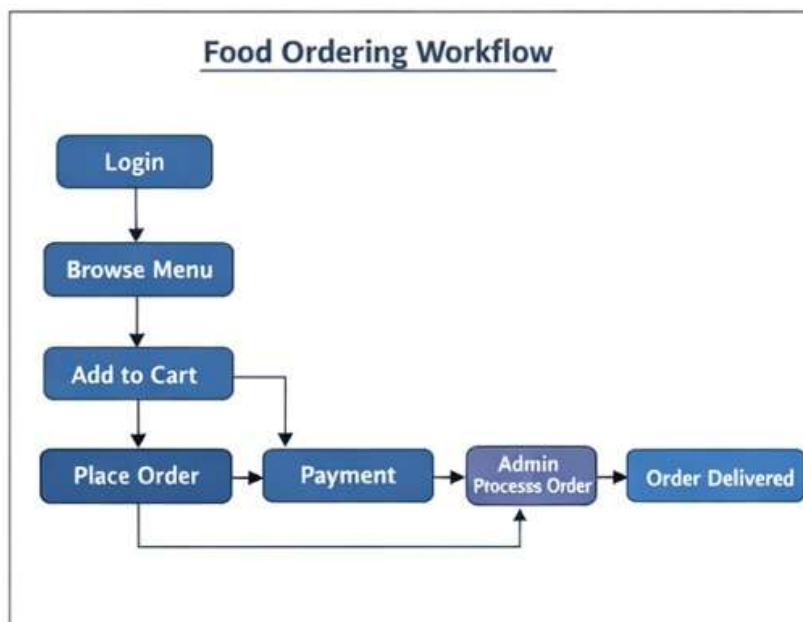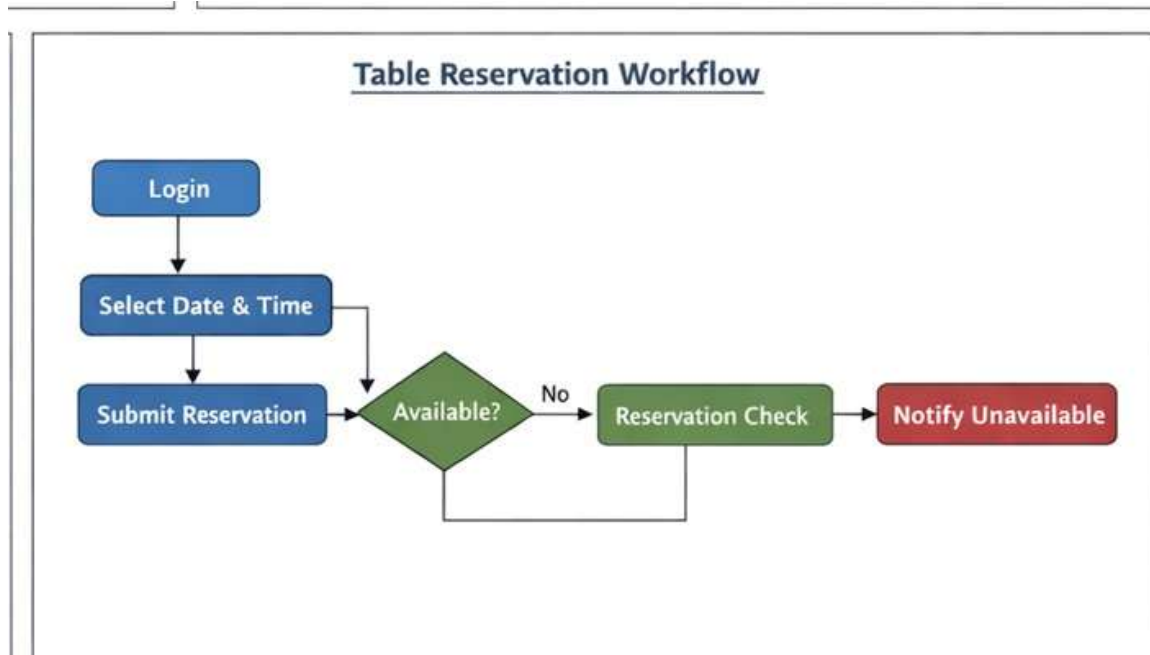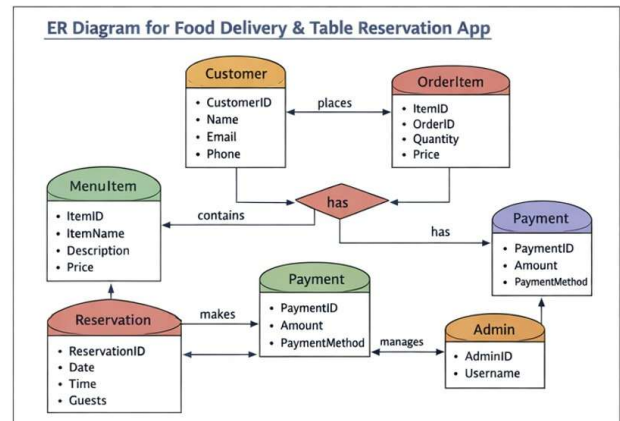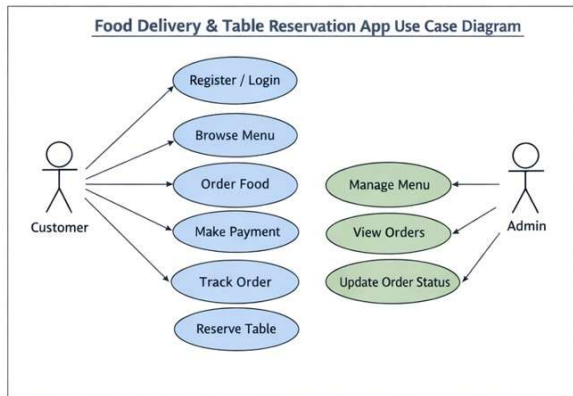
NFR-6 Maintainability

• The system shall follow modular and clean code practices.

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6. System Architecture Overview

The system follows a layered architecture:

• Presentation Layer (UI)
• Application Layer (Business Logic)
• Data Layer (Database)
• Integration Layer (Payment & Notifications)

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7. System Models

Food Delivery & Table Reservation App Use Case Diagram

ER Diagram for Food Delivery & Table Reservation App

Table Reservation Workflow

Food Ordering Workflow

8. Validation and Acceptance Criteria

• All functional requirements must pass test cases
• Successful payment and order flow verification
• Admin order management validation

9. Appendices

Appendix A – Glossary

• **Admin** – Restaurant management user
• **Customer** – End user ordering food

Appendix B – Sample Data

• Sample menu items and orders

Appendix C – Future Enhancements

• Mobile app version
• Loyalty and discount system