SOFTWARE REQUIREMENTS SPECIFICATION

for

ONLINE FOOD ORDERING SYSTEM

Version 1.0

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1 Introduction

1.1 Purpose

The purpose of this Software Requirements Specification (SRS) is to describe the functional and nonfunctional requirements of the Online Food Ordering System. The system enables customers to browse restaurants, select food items, place orders online, and receive food at their location.

1.2 Intended Audience and Reading Suggestions

This document is intended for developers, project managers, testers, system analysts, and end-users. Readers are advised to go through the document sequentially to gain a complete understanding of system requirements.

1.3 Project Scope

The Online Food Ordering System provides a platform for customers to order food from nearby restaurants. It includes features such as restaurant browsing, menu selection, order placement, online payment, order tracking, and order history management.

2 Overall Description

2.1 Product Perspective

The Online Food Ordering System is a web-based application that acts as an intermediary between customers and restaurants. It integrates user management, restaurant management, payment processing, and order tracking modules.

2.1.1 Use Case Diagram

The use case diagram illustrates the interactions between different users and the Online Food Ordering System. It shows how customers, restaurant admins, delivery personnel, and system administrators interact with system functionalities.

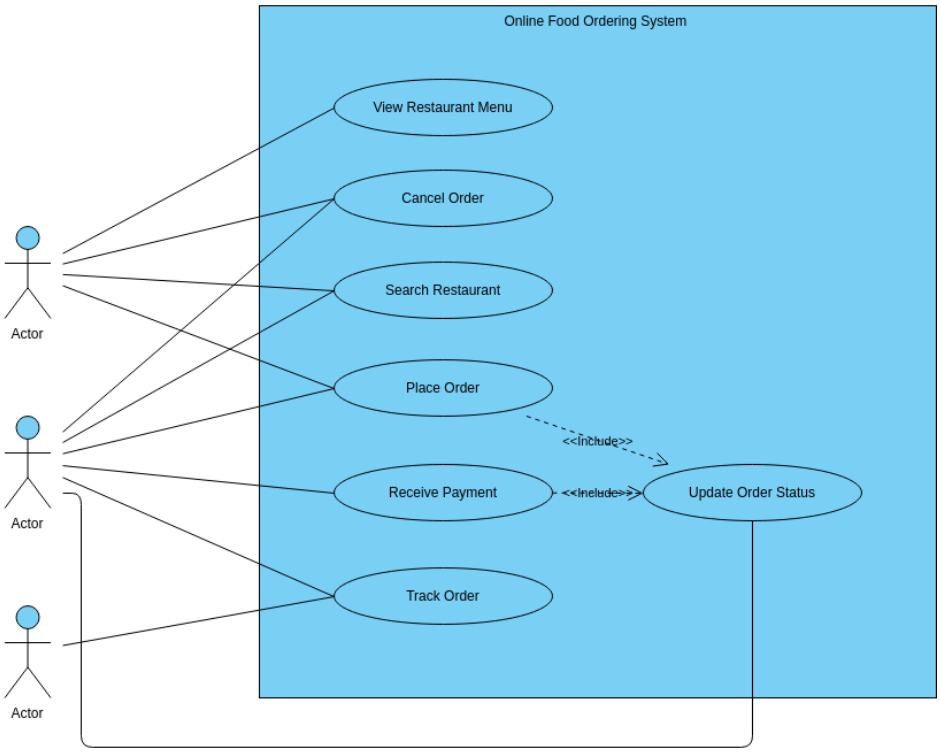

Figure 2.1: Use Case Diagram of Online Food Ordering System

2.2 User Classes and Characteristics

The system has the following user categories:

- **Customer:** Users who browse menus, place orders, and track deliveries.
- **Restaurant Admin:** Users who manage restaurant details, menus, and order status.
- **Delivery Personnel:** Users responsible for delivering orders to customers.
- **System Admin:** Users who manage users, restaurants, and system settings.

2.3 Product Functions

The major functions of the Online Food Ordering System include:

- User registration and login
- Restaurant and menu browsing
- Online food ordering
- Secure payment processing
- Order tracking and notifications
- Order history management

2.4 Operating Environment

The system will operate on web browsers such as Chrome, Firefox, Safari, and Edge. It will be accessible on both desktop and mobile devices.

2.5 Design and Implementation Constraints

The system will be developed using modern web technologies. The frontend will be built using React.js or Angular, the backend using Node.js or Django, and the database using MySQL or MongoDB.

3 System Features

3.1 Description and Priority

1. **User Authentication (High Priority):** Enables secure user login and registration.
2. **Restaurant Listing (High Priority):** Displays available restaurants and menus.
3. **Food Ordering (High Priority):** Allows customers to place food orders.
4. **Payment Gateway (High Priority):** Supports online payment methods.
5. **Order Tracking (Medium Priority):** Tracks order status in real-time.
6. **Order History (Low Priority):** Displays past orders of customers.

3.2 Functional Requirements

- The system shall allow users to create and manage accounts.
- The system shall allow customers to browse restaurant menus.
- The system shall allow customers to add food items to a cart.
- The system shall support online payment methods.
- The system shall notify users about order status updates.
- The system shall allow restaurants to manage menus and orders.

4 Other Nonfunctional Requirements

4.1 Performance Requirements

The system should support up to 5,000 concurrent users. Page load time should not exceed 3 seconds under normal conditions.

4.2 Security Requirements

User data shall be protected using encryption. Secure authentication mechanisms and role-based access control shall be implemented.

4.3 Software Quality Attributes

The system should be reliable, scalable, and user-friendly. It should maintain high availability and support easy maintenance.

4.4 Business Rules

Only registered restaurants can list food items. Orders can be canceled only before food preparation begins.

5 Other Requirements

The system shall support multiple payment options and provide customer support features.

6 Appendices

6.1 Appendix A: Glossary

- **API:** Application Programming Interface
- **UI:** User Interface
- **Admin:** User responsible for managing the system

6.2 Appendix B: Analysis Models

This section includes use case diagrams, class diagrams, and collaboration diagrams related to the Online Food Ordering System.

6.2.1 Collaboration Diagram

The collaboration diagram shows the interaction between system components involved in processing a food order.

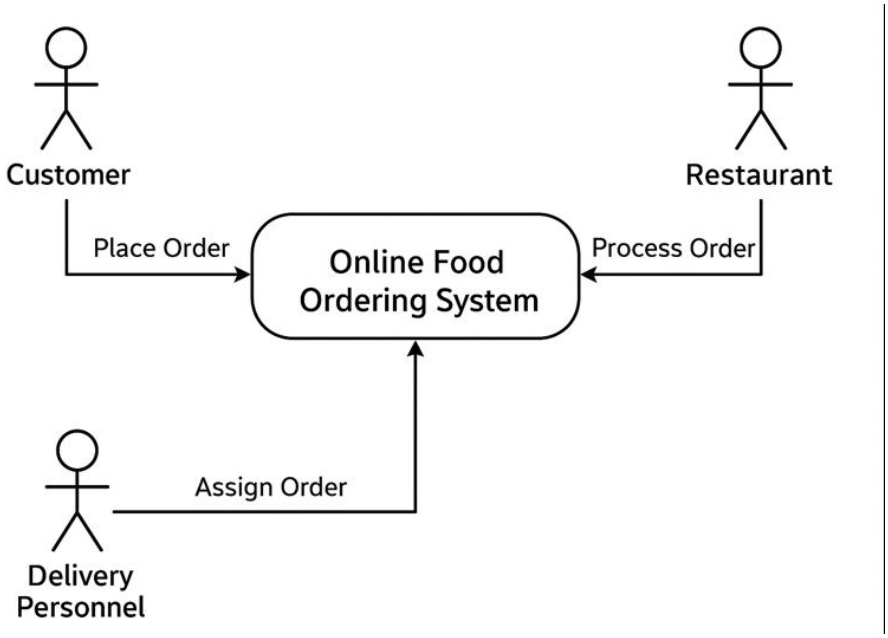

Figure 6.1: Collaboration Diagram of Online Food Ordering System

6.3 Appendix C: To Be Determined List

- Final payment gateway selection
- Integration with third-party delivery services

6.4 Class Diagram

A class diagram represents the structure of the system by showing system classes, their attributes, methods, and relationships.

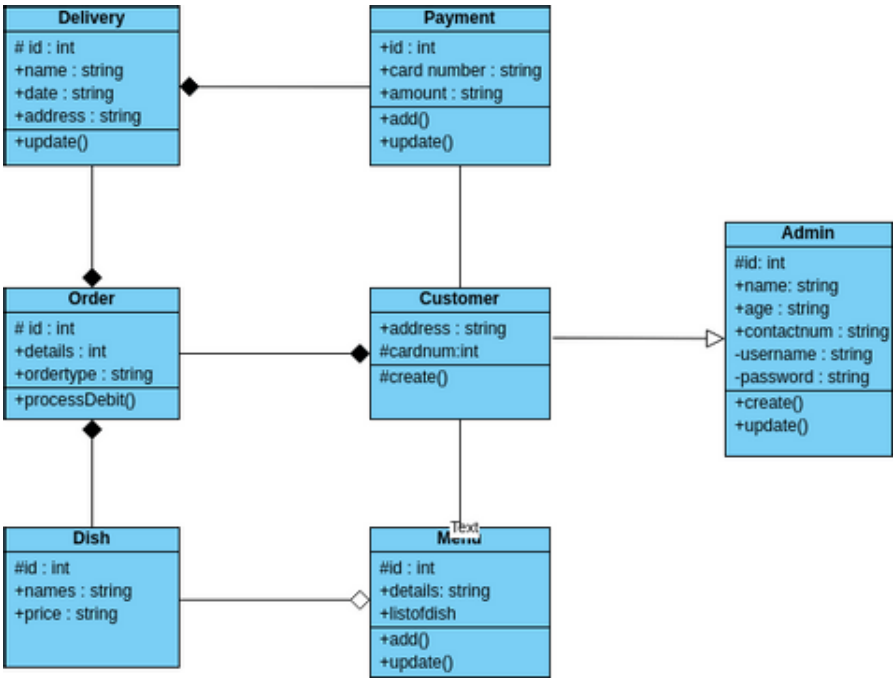

Figure 6.2: Class Diagram