Software Requirements Specification

Project Title: Online Food Ordering System

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1. Introduction

1.1 Purpose

The purpose of this Software Requirements Specification (SRS) document is to define the requirements for an Online Food Ordering System that enables customers to browse a digital menu, place orders, and track deliveries, while providing administrators with tools to manage menu items, orders, and users efficiently.

1.2 Project Scope

The system provides a platform for customers to browse food menus, add items to cart, place orders, and track delivery. Admin users can manage products, orders, and users via a backend panel.

1.3 Definitions

Online Food Ordering System is a comprehensive web-based application designed to manage the food ordering service for users. The system includes the following core components:

- User: A customer placing orders.
- Admin: A system manager.
- Pizza/Menu Item: Food available for order
- Cart: Temporary item holder before placing an order.
- Order: A collection of items placed by a user for delivery.

2. Overall Description

2.1 Product Perspective

The Online Food Ordering System is a comprehensive system designed to operate food ordering service within an area of a country. It replaces the complexity of offline food services by providing features like ordering foods from home.

2.2 Product Functions

The Online Food Ordering System shall provide the following major functions:

1. **User Management**
    - Registration, authentication, and authorization of users

- Role-based access control for different user types
- Profile management

- Browsing menu by categories
- Placing orders with necessary delivery information

2. **Admin Management**

    - Admin dashboard for managing items, orders categories and users

2.3 User Classes and Characteristics

The system shall support the following user classes:

1. **Administrator**
    - Technical skills: High
    - Functions: User management, access control, manage orders
    - Access level: Full access to all system functions
2. **User**

    - Guest: Browse food items

    - Registered User: Place and manage orders

2.4 Operating Environment

- Server: Apache with PHP 7.2+

- Database: MySQL

- Browser: Chrome, Firefox, Edge

3. Functional Requirements

3.1 User Requirements

- Registration and login/logout.
- View categories and products.
- Add products to carts.
- Place an order from carts.

3.2 Admin Requirements

- Secure login with email, password.
- Displays messages for invalid credentials login.
- Add/edit/delete food items and categories.
- Manage orders.
- Manage users and their permissions.

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4. Non-Functional Requirements

4.1 Performance

- Responses within 5 seconds under normal load.
- Support 50+ concurrent users.

4.2 Security

- Authentication required for all users.
- Role-based permissions:
  - **Admin**: Full access
  - **User**: view menu, items, about us and place orders.

4.3 Usability, Reliability & Availability

- Responsive and mobile-friendly layout.

- Easy navigation and cart management.

- Uptime of 99%.
- Graceful error handling and logging

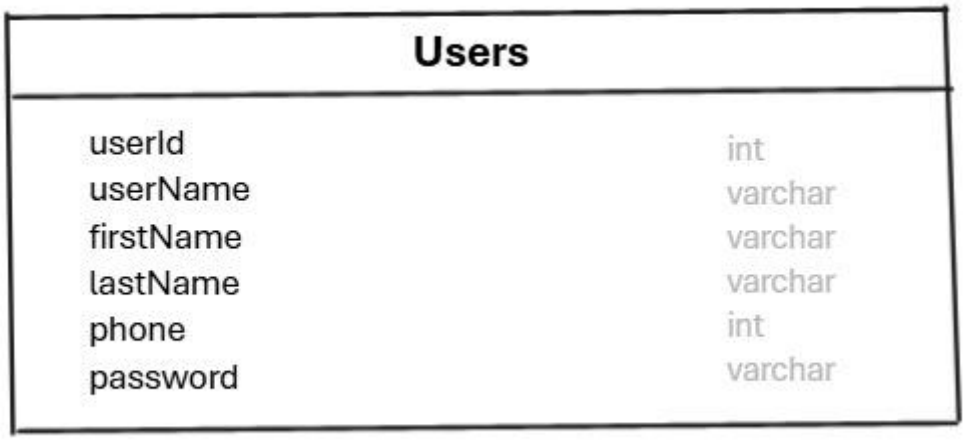
5. Data Requirements

1. **Data Entities**

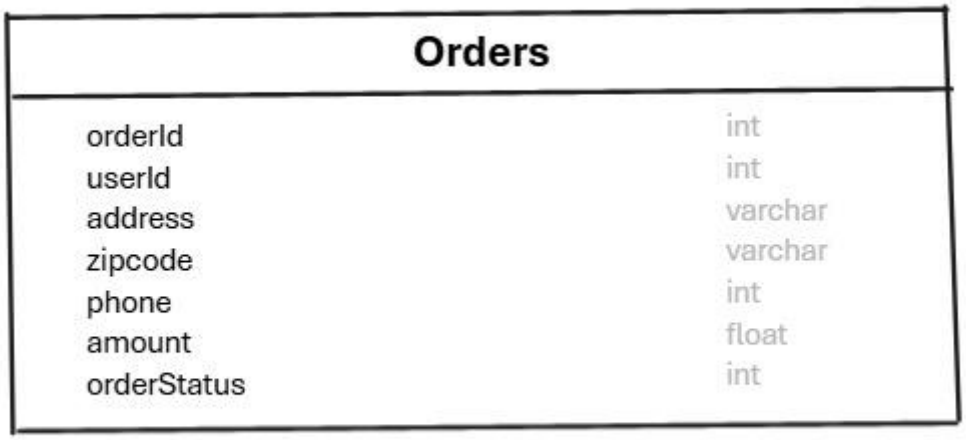
Based on the SRS document, the following core data entities are required for the Online Food Ordering System:

Primary Entities

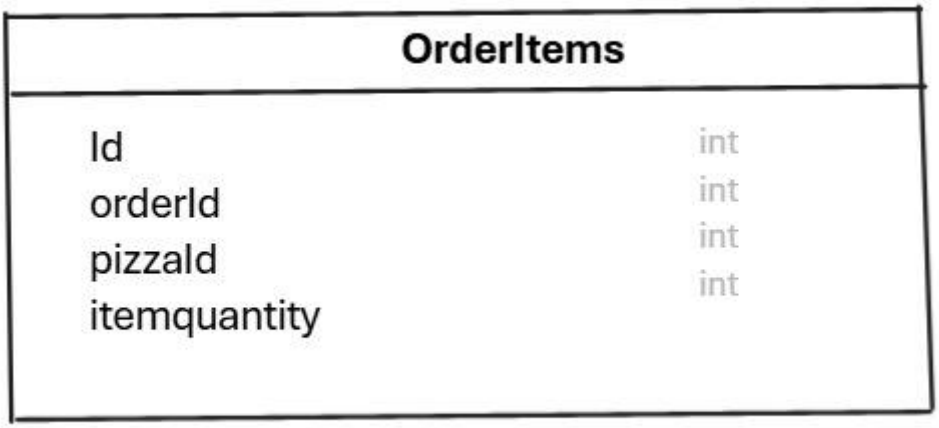
1. **Users**
    - Attributes: userId, userName, firsName, lastName, email, phone, password



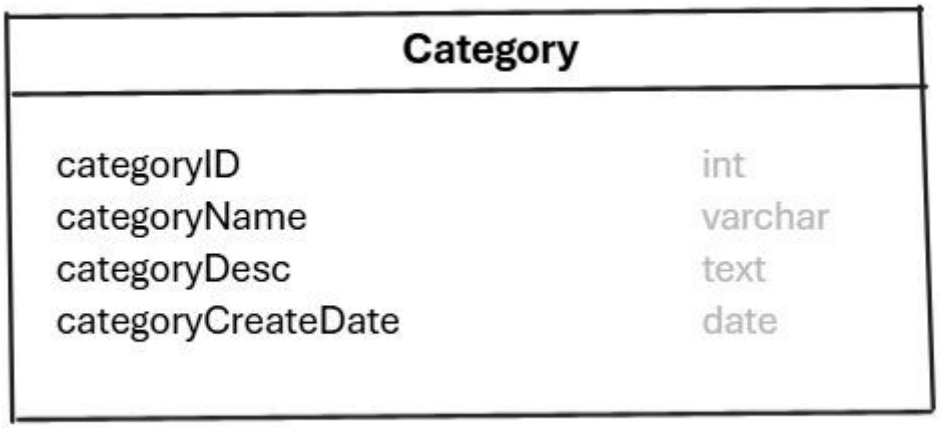
2. **Orders**
    - Attributes: orderId, userId, address, zipCode, phone, amount, orderStatus



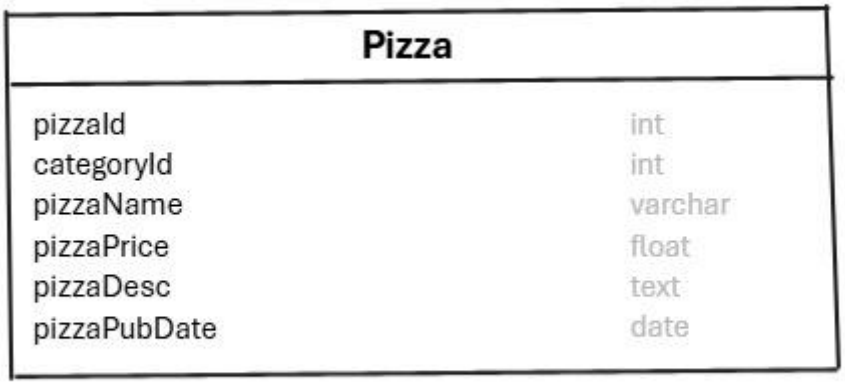
3. **OrderItems**
    - Attributes: id, orderId, pizzaId, itemquantity



4. **Category**
    - Attributes: categoryId, categoryName, categoryDesc, categoryCreateDate

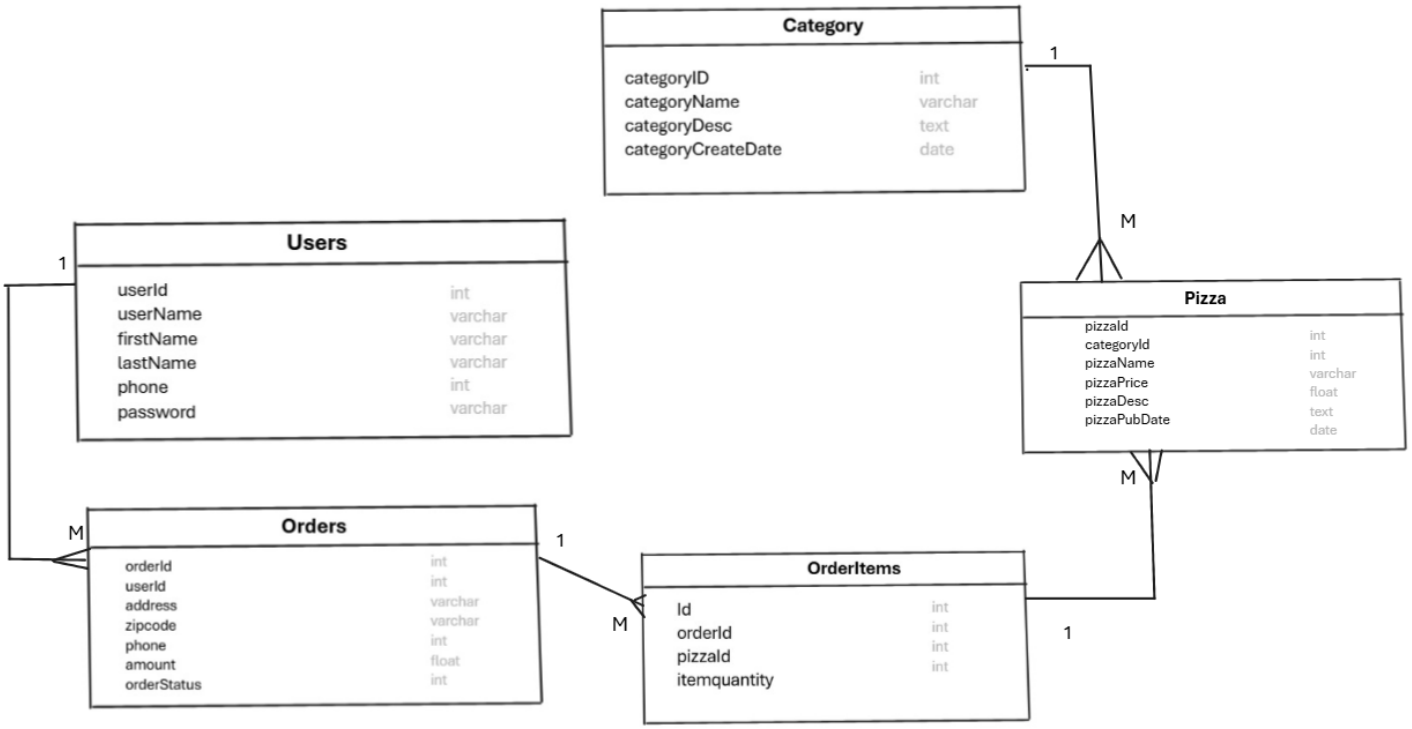


5. **Pizza**
    - Attributes: pizzaId, pizzaName, pizzaPrice, pizzaDesc, categoryId, pizzaPubDate



2. **Data Relationships**

The following relationships exist between the core entities:



One-to-Many Relationships

1. **User to other Entities**
    - One user can have many orders.

2. **Order to Other Entities**
    - One order can have many orderitems.

3. **Orderitems to other Entities**
    - One orderitems can have many Pizzas.

4. **Category to other Entities**
    - One category can have many pizzas

Many-to-One Relationships

Orders → Users

- Many orders can belong to one user.

OrderItems → Orders

- Many orderitems can belong to one order.

Pizzas → Categories

- Many pizzas can belong to one category.

6 External Interfaces

6.1 UI

- Bootstrap for responsive forms and navigation
- User pages: Home, Menu, Cart, Orders and About us
- Admin pages: Dashboard, Orders, Category list, Menu and Users

6.2 Hardware

- None required beyond typical web server

6.3 Software

- Apache, PHP 7.2+, MySQL, Bootstrap