项目文档

# Functional Requirement

3.1 User Management

3.1.1 User Registration

Description: User fills in registration details and the system saves them to the database.

Input: Username, Password, Email, PhoneNumber.

Output: New record inserted into the User table containing UserID, UserName, Password, Email, PhoneNumber.

3.1.2 User Login

Description: User enters the registered username and password; the system verifies the credentials.

Input: Username, Password.

Output: If credentials are valid, login-success message and system access granted; otherwise, an error message prompting re-entry.

3.1.3 Manage User Information

Description: Administrator or the user updates personal data or deletes the user account.

Input: UserID plus updated fields or a delete command.

Output: Updated record in the User table or deleted user record.

3.1.4 Delete User

Description: Administrator permanently removes a user from the system.

Input: UserID.

Output: User record removed from the User table.

3.2 Restaurant Browsing

3.2.1 Browse Restaurants

Description: User views the list of restaurants in the system.

Input: None.

Output: Restaurant list, each entry including RestaurantID and other relevant details.

3.2.2 Search Restaurants

Description: User searches for restaurants using keywords.

Input: Search keyword.

Output: List of restaurants matching the keyword, each record including RestaurantID and other details.

3.2.3 View Restaurant Details

Description: User views detailed information for a specific restaurant.

Input: RestaurantID.

Output: Full details of the selected restaurant.

3.3 Shopping-Cart Management

3.3.1 Add Dish to Cart

Description: User adds a selected dish to their personal shopping cart.

Input: UserID, DishID.

Output: New cart item inserted into ShoppingCart table containing ShoppingCartID and DishID.

3.3.2 Remove Dish from Cart

Description: User removes a dish from their shopping cart.

Input: UserID, DishID.

Output: Selected dish record removed from ShoppingCart table.

3.4 Order Management

3.4.1 Create Order

Description: User generates an order from the shopping cart.

Input: UserID, all DishIDs in the user’s cart.

Output: New order created in Order table with fields OrderID, UserID, OrderDate, etc.

3.4.2 Modify Order

Description: User edits an unfinished order.

Input: OrderID, updated list of DishIDs.

Output: Updated order record in Order table.

3.4.3 Cancel Order

Description: User cancels an unfinished order.

Input: OrderID.

Output: Order record removed from Order table.

3.4.4 Pay Order

Description: User completes payment for an unpaid order.

Input: OrderID, payment-method details, payment amount.

Output: New payment record inserted into PaymentRecord table with PaymentRecordID and amount.

3.4.5 View Order Status

Description: User checks the status of an order.

Input: OrderID.

Output: Displayed status information of the selected order.

3.4.6 Review Order

Description: User leaves a review for a completed order.

Input: OrderID, rating, comment.

Output: New review record inserted into Review table with ReviewID, OrderID, UserID, etc.

3.5 Payment-Method Management

3.5.1 Manage Payment Methods

Description: User updates or deletes their stored payment-method information.

Input: UserID, updated or deleted payment-method details.

Output: Updated or removed record in the PaymentMethods table.

3.6 System Administration

3.6.1 Create Order Status

Description: Administrator adds a new order status.

Input: Order-status description.

Output: New order-status record inserted into OrderStatus table with OrderStatusID and description.

3.6.2 Publish Review

Description: User publishes a new review.

Input: UserID, target-ID, review content.

Output: New review record inserted into the Review table.

3.6.3 View Payment Records

Description: User views all payment records related to them.

Input: UserID.

Output: List of payment records belonging to the user.