

Database Final Project Specification

1. Due date will announce later
 2. One or two members can finish the project
 3. Database project will be graded based on the number of functions finished and web visual effects.
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Database specification for an Uber Eats food delivery database:

1. User Registration and Login

- Users can create accounts with their first name, last name, email, password, and phone number.
- The system should ensure that each email is unique and that passwords meet certain security requirements (such as minimum length and complexity).
- Users should be able to log in with their email and password.

2. Restaurant Management

- Restaurants can create accounts and register their restaurant with a name, description, logo, address, and phone number.
- The system should ensure that each restaurant name is unique.
- Restaurants should be able to add, edit, and delete menu items associated with their restaurant.
- Menu items should have a name, description, and price.

3. User Interface

- Users should be able to browse available restaurants and menu items in their area.
- Users should be able to filter and sort restaurants and menu items by various criteria, such as distance, rating, and price.

- Users should be able to add menu items to their cart and adjust the quantity.
- Users should be able to view the total price of their order.

4. Ordering

- Users should be able to place orders for delivery to their specified delivery address.
- Orders should be associated with the user, the restaurant, and the order items.
- Orders should have an order time, delivery time, delivery address, and total price.
- The system should notify the restaurant of the new order and provide an estimated delivery time.
- The system should track the status of the order (such as pending, preparing, and delivered) and notify the user of any updates.
- The system should ensure that the delivery address is within the delivery range of the restaurant.

5. Payment and Billing

- Users should be able to pay for their orders using a credit card or other payment method.
- The system should securely process payments and store billing information for future orders.
- Users should be able to view their order history and billing information.

6. Ratings and Reviews

- Users should be able to rate and review restaurants and menu items.
- Users should be able to view the ratings and reviews of other users.
- The system should calculate and display the average rating for each restaurant and menu item.

7. Admin Interface

- The system should provide an admin interface for managing users, restaurants, orders, and other data.
- Admins should be able to view and edit user and restaurant accounts, as well as monitor and update order status.

- Admins should be able to view analytics and generate reports on user behavior and order history.

This functional specification outlines the main features and requirements of an Uber Eats food delivery system.

A candidate database scheme for the Uber Eats food delivery system is as follows

Users Table

- user_id (primary key)
- first_name
- last_name
- email
- password
- phone_number
- delivery_address

Restaurants Table

- restaurant_id (primary key)
- name
- description
- logo
- address
- phone_number
- rating

Menu Items Table

- item_id (primary key)
- restaurant_id (foreign key references Restaurants.restaurant_id)
- name

- description
- price

Orders Table

- order_id (primary key)
- user_id (foreign key references Users.user_id)
- restaurant_id (foreign key references Restaurants.restaurant_id)
- order_time
- delivery_time
- delivery_address
- total_price

Order Items Table

- order_id (foreign key references Orders.order_id)
- item_id (foreign key references Menu_Items.item_id)
- quantity

This database specification includes tables for users, restaurants, menu items, orders, and order items. Users can create accounts and specify a delivery address. Restaurants can list their name, description, logo, address, phone number, and rating. Menu items can be associated with a restaurant and listed with a name, description, and price. Orders can be created by users and associated with a restaurant, order time, delivery time, delivery address, and total price. Order items can be associated with an order and listed with a menu item and quantity.