



UNIVERSITY OF ASIA PACIFIC

*Department of Computer Science & Engineering
Database System Lab (CSE-212)*

Online Food Delivery System

Submitted by,

Shahria Amin, ID – 22201212,

Arfatun Nesa Humaira, ID – 22201217,

Tabeeb Tazwar Ahmad, ID – 22201218,

Puja Saha, ID – 22201213.

Ahnaf Iqbal, ID – 19101024.

Submitted to,

Nadeem Ahmed,

Assistant Professor,

Department of Computer Science and Engineering,

University of Asia Pacific.

Welcome

Topic

An **online food delivery system** is a platform that allows customers to order meals from various restaurants and have them delivered to their doorstep. An **online food delivery system** has become essential in today's fast-paced world due to its convenience, accessibility, and efficiency. It allows customers to enjoy restaurant-quality meals at home without the hassle of traveling, waiting in lines, or dealing with crowded spaces. These systems cater to a variety of needs, from busy professionals seeking quick meals to families enjoying dinner together or individuals exploring diverse cuisines. For businesses, food delivery platforms offer a powerful channel to reach a broader audience, especially those who may not visit physical locations. This is particularly valuable for small and mid-sized restaurants aiming to compete with larger chains. They also foster innovation, enabling features like real-time tracking, personalized recommendations, and seamless digital payments, enhancing the overall dining experience for customers. As technology advances, online food delivery systems are poised to continue reshaping how people access and enjoy food globally.

The users of an **online food delivery system** can be categorized into several key groups, each with specific needs and interactions with the platform:

1. **Customers:**

These are individuals who use the system to browse menus, place orders, and have food delivered. Customers can be regular users seeking convenience, office workers looking for quick meals, or food enthusiasts exploring new cuisines.

2. **Restaurant Owners/Managers:**

Restaurants use the system to showcase their menus, manage orders, and expand their customer base. They rely on the platform to streamline operations, track sales, and enhance brand visibility.

3. **Delivery Personnel:**

Delivery drivers use the system to receive and fulfill delivery requests. They often rely on mobile apps for navigation, tracking, and efficient communication with customers and restaurants.

4. **System Administrators:**

These are the individuals or teams responsible for maintaining and managing the platform. They ensure smooth operation, handle disputes, manage user accounts, and oversee the overall functionality of the system.

5. **Payment Providers:**

Financial institutions and third-party payment gateways are indirectly part of the system, facilitating secure transactions between customers and restaurants.

6. **Marketers/Advertisers:**

These users leverage the platform to promote restaurants, special offers, or related products to target audiences, enhancing visibility and sales.

Each user group interacts with the system differently, contributing to its holistic functionality and success.

Tables Affiliated

Users

Restaurant

Menu_Item

Order_Item

Payment

Feedback

Orders

Delivery

Security

Geolocation

Notification

Real_Time_Tracking

Coupon

Delivery_Person and Order_Customization.

Attributes instituted

1. Users:

- *user_id (Primary Key)*
- *name*
- *email*
- *phone*
- *delivery_address*

2. Restaurant:

- *restaurant_id (Primary Key)*
- *name*
- *location*
- *contact_info*

3. Menu_Item:

- *item_id (Primary Key)*
- *restaurant_id (Foreign key referencing Restaurant (restaurant_id))*
- *name*
- *description*
- *price*
- *category*

4. Order_Item:

- *order_id (Primary Key and Foreign Key referencing Orders (order_id))*
- *item_id (Primary Key and Foreign Key referencing Menu_Item (item_id))*
- *quantity*
- *price*

5. *Payment:*

- *payment_id (Primary Key)*
- *order_id (Foreign Key referencing Orders (order_id))*
- *amount*
- *payment_status*
- *payment_method*

6. *Feedback:*

- *user_id (Primary Key and Foreign Key referencing Users (user_id))*
- *order_id (Primary Key and Foreign Key referencing Orders (order_id))*
- *rating*
- *comments*

7. *Orders:*

- *order_id (Primary Key)*
- *user_id (Foreign Key referencing Users (user_id))*
- *coupon_id (Foreign Key referencing Coupon (coupon_id))*
- *total_price*
- *order_status*
- *order_time*
- *delivery_time*

8. *Delivery:*

- *order_id (Primary Key and Foreign Key referencing Orders (order_id))*
- *delivery_person_id (Foreign Key referencing Delivery_Person (delivery_person_id))*
- *delivery_status*
- *delivery_time*

9. Security:

- *order_id* (Primary Key and Foreign Key referencing Orders (*order_id*))
- *payment_id* (Foreign Key referencing Payment (*payment_id*))
- *authentication_token*
- *encrypted_payment_details*

10. Geolocation:

- *geolocation_id* (Primary Key)
- *user_id* (Foreign Key referencing Users (*user_id*))
- *latitude*
- *longitude*
- *timestamp*

11. Notification:

- *tracking_id* (Primary Key)
- *geolocation_id* (Foreign Key referencing Geolocation (*geolocation_id*))
- *message*
- *timestamp*

12. Real_Time_Tracking:

- *tracking_id* (Primary Key)
- *order_id* (Foreign Key referencing Orders (*order_id*))
- *estimated_time_of_arrival*
- *current_location_lat*
- *current_location_lon*

13. Coupon:

- *coupon_id* (Primary Key)
- *code*
- *discount_percentage*
- *valid_until*

14. Delivery_Person:

- *delivery_person_id* (Primary Key)
- *name*
- *contact_info*
- *vehicle_type*

15. Order_Customization:

- *order_id* (Primary Key and Foreign Key referencing Orders (*order_id*))
- *restaurant_id* (Foreign Key referencing Restaurant (*restaurant_id*))
- *special_requests*
- *dietary_preferences*

Description of the Affiliated Tables

*Here lies an explanation of the purpose and function of each table in the **online food delivery system database**:*

1. Restaurant

- **Purpose:** Stores information about restaurants registered on the platform.
 - **Attributes:**
 - *restaurant_id*: Unique identifier for each restaurant.
 - *name*: Name of the restaurant.
 - *location*: Physical address or location details of the restaurant.
 - *contact_info*: Contact details (e.g., phone number, email).
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2. Menu_Item

- **Purpose:** Contains details of menu items offered by restaurants.
- **Attributes:**
 - *item_id*: Unique identifier for each menu item.
 - *restaurant_id*: Links the menu item to a specific restaurant.

- *name*: Name of the menu item (e.g., "Texas Barbecue Chicken Pizza").
 - *description*: Details or ingredients of the menu item.
 - *price*: Price of the menu item.
 - *category*: Category or type of the item (e.g., desserts, mains).
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3. Users

- **Purpose:** Stores details of users (customers) on the platform.
 - **Attributes:**
 - *user_id*: Unique identifier for each user.
 - *name*: Full name of the user.
 - *email*: User's email address.
 - *phone*: Contact phone number.
 - *delivery_address*: Default delivery address for the user.
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4. Orders

- **Purpose:** Tracks order details placed by users.
 - **Attributes:**
 - *order_id*: Unique identifier for each order.
 - *user_id*: Links the order to the user who placed it.
 - *coupon_id*: Tracks any applied discount or promotion.
 - *total_price*: Total price of the order after discounts.
 - *order_status*: Current status of the order (e.g., pending, completed).
 - *order_time*: Timestamp when the order was placed.
 - *delivery_time*: Expected or actual delivery time.
-

5. Order_Item

- **Purpose:** Tracks the individual items in an order.
- **Attributes:**
 - *order_id*: Links the items to a specific order.
 - *item_id*: Tracks the specific menu items in the order.
 - *quantity*: Number of each item ordered.
 - *price*: Total price of the specific item (quantity × unit price).

6. Order_Customization

- **Purpose:** Tracks special requests or dietary preferences for an order.
 - **Attributes:**
 - *order_id*: Links customization to a specific order.
 - *restaurant_id*: Links the customization to a restaurant.
 - *special_requests*: Any additional customer instructions (e.g., "extra cheese").
 - *dietary_preferences*: Special dietary needs (e.g., vegan, gluten-free).
-

7. Payment

- **Purpose:** Manages payment-related information for each order.
 - **Attributes:**
 - *payment_id*: Unique identifier for each payment.
 - *order_id*: Links the payment to a specific order.
 - *amount*: Amount paid by the user.
 - *payment_status*: Status of the payment (e.g., successful, pending).
 - *payment_method*: Mode of payment (e.g., credit card, PayPal).
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8. Security

- **Purpose:** Handles secure payment information and authorization.
 - **Attributes:**
 - *order_id*: Links the security details to an order.
 - *payment_id*: Tracks the associated payment for added security.
 - *authentication_token*: Token for verifying payment authenticity.
 - *encrypted_payment_details*: Encrypted payment data for security.
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9. Delivery

- **Purpose:** Tracks delivery-related details for each order.
 - **Attributes:**
 - *order_id*: Links delivery information to an order.
 - *delivery_person_id*: Tracks the person assigned to deliver the order.
 - *delivery_status*: Current delivery status (e.g., on the way, delivered).
 - *delivery_time*: Actual time of delivery.
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10. Delivery_Person

- **Purpose:** Stores details of delivery personnel.
 - **Attributes:**
 - *delivery_person_id*: Unique identifier for each delivery person.
 - *name*: Name of the delivery person.
 - *contact_info*: Contact details of the delivery person.
 - *vehicle_type*: Type of vehicle used for delivery (e.g., bike, car).
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11. Feedback

- **Purpose:** Captures user feedback on orders and services.
 - **Attributes:**
 - *user_id*: Links the feedback to a specific user.
 - *order_id*: Links the feedback to a specific order.
 - *rating*: Numerical rating given by the user (e.g., 1-5).
 - *comments*: Additional comments or reviews from the user.
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12. Geolocation

- **Purpose:** Tracks user or delivery person locations for navigation and tracking.
- **Attributes:**
 - *geolocation_id*: Unique identifier for geolocation data.
 - *user_id*: Links location to a specific user.
 - *latitude*: Latitude coordinates of the location.

- *longitude*: Longitude coordinates of the location.
 - *timestamp*: Time when the location was recorded.
-

13. Notification

- **Purpose:** *Manages notifications for users or delivery personnel.*
 - **Attributes:**
 - *tracking_id*: Unique identifier for each notification.
 - *geolocation_id*: Links notification to location data.
 - *message*: Notification content (e.g., "Your order is on the way").
 - *timestamp*: Time when the notification was sent.
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14. Real_Time_Tracking

- **Purpose:** *Provides real-time updates on order delivery status.*
 - **Attributes:**
 - *tracking_id*: Unique identifier for tracking details.
 - *order_id*: Links tracking information to a specific order.
 - *estimated_time_of_arrival*: ETA for the delivery.
 - *current_location_lat*: Current latitude of the delivery person.
 - *current_location_lon*: Current longitude of the delivery person.
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15. Coupon

- **Purpose:** *Tracks discount codes and promotions.*
- **Attributes:**
 - *coupon_id*: Unique identifier for each coupon.
 - *code*: Coupon code entered by the user.
 - *discount_percentage*: Percentage discount offered by the coupon.
 - *valid_until*: Expiration date of the coupon.

Primary Keys in Each Table

1. ***User (user_id):*** Chosen as the primary key because it uniquely identifies each user.
2. ***Restaurant (restaurant_id):*** Chosen as the primary key because it uniquely identifies each restaurant.
3. ***Menu_Item (item_id):*** Chosen as the primary key because it uniquely identifies each menu item.
4. ***Coupon (coupon_id):*** Chosen as the primary key because it uniquely identifies each coupon.
5. ***Orders (order_id):*** Chosen as the primary key because it uniquely identifies each orders.
6. ***Order_Item (order_item_id):*** Chosen as the primary key because it uniquely identifies each order item.
7. ***Payment (payment_id):*** Chosen as the primary key because it uniquely identifies each payment.
8. ***Delivery_Person (delivery_person_id):*** Chosen as the primary key because it uniquely identifies each delivery person.
9. ***Delivery (delivery_id):*** Chosen as the primary key because it uniquely identifies each delivery.
10. ***Feedback (feedback_id):*** Chosen as the primary key because it uniquely identifies each feedback.
11. ***Notification (notification_id):*** Chosen as the primary key because it uniquely identifies each notification.
12. ***Order_Customization (customization_id):*** Chosen as the primary key because it uniquely identifies each order customization.
13. ***Geolocation (geolocation_id):*** Chosen as the primary key because it uniquely identifies each geolocation.
14. ***Security (security_id):*** Chosen as the primary key because it uniquely identifies each security.
15. ***Real_Time_Tracking (tracking_id):*** Chosen as the primary key because it uniquely identifies each real time tracking.

Foreign Keys in Each Table

1. **User:** *There is no foreign key.*
2. **Restaurant:** *There is no foreign key.*
3. **Menu_Item (restaurant_id):** *The attribute 'restaurant_id' is foreign key.*
4. **Coupon:** *There is no foreign key.*
5. **Orders (user_id, coupon_id):** *The attributes 'user_id, coupon_id' are foreign keys.*
6. **Order_Item (order_id, item_id):** *The attributes 'order_id, item_id' are foreign keys.*
7. **Payment (order_id):** *The attribute 'order_id' is foreign key.*
8. **Delivery_Person:** *There is no foreign key.*
9. **Delivery (order_id, delivery_person_id):** *The attributes 'order_id, delivery_person_id' are foreign keys.*
10. **Feedback (user_id, order_id):** *The attributes 'user_id, order_id' are foreign keys.*
11. **Notification (tracking_id, geolocation_id):** *The attributes 'tracking_id, geolocation_id' are foreign keys.*
12. **Order_Customization (order_id, restaurant_id):** *The attributes 'order_id, restaurant_id' are foreign keys.*
13. **Geolocation (user_id):** *The attribute 'user_id' is foreign key.*
14. **Security (order_id, payment_id):** *The attributes 'order_id, payment_id' are foreign keys.*
15. **Real_Time_Tracking (order_id):** *The attribute 'order_id' is foreign key.*

Entity Relationship

1. Users and Orders (One-to-Many)

- *Entity name: Users (strong entity) & orders (strong entity)*
- *Relationship name: User_order*
- *Relationship type: One-to-Many (1:N)*
- *Participation: Partial and total.*
- *Each user can place multiple orders, but each order belongs to one user.*

2. Orders and Coupons (any-to-One)

- *Entity name: Orders (strong entity) & coupon (strong entity)*
- *Relationship name: Coupon_order*
- *Relationship type: Many-to-one(1:N)*
- *Participation: Partial for both entities.*
- *Multiple orders can use the same coupon, but each order can apply only one coupon.*

3. Restaurant and Menu_Item (One-to-Many)

- *Entity name: Restaurant (strong entity) & menu_item (strong entity)*
- *Relationship name: Rest_menu*
- *Relationship type: One-to-Many (1:N)*
- *Participation: Partial and total.*
- *Each restaurant offers multiple menu items, but each menu item belongs to one restaurant.*

4. *Orders and Payment (One-to-One)*

- *Entity name: Orders (strong entity) & payment (strong entity)*
- *Relationship name: Has*
- *Relationship type: One-to-One*
- *Participation: Total for both entities.*
- *Each order has one payment.*

5. *Orders and Real_Time_Tracking (One-to-One)*

- *Entity name: Orders (strong entity) & Real_Time_Tracking (strong entity)*
- *Relationship name: Track_order*
- *Relationship type: One-to-One*
- *Participation: Total for both entities.*
- *Each order can have one tracking record.*

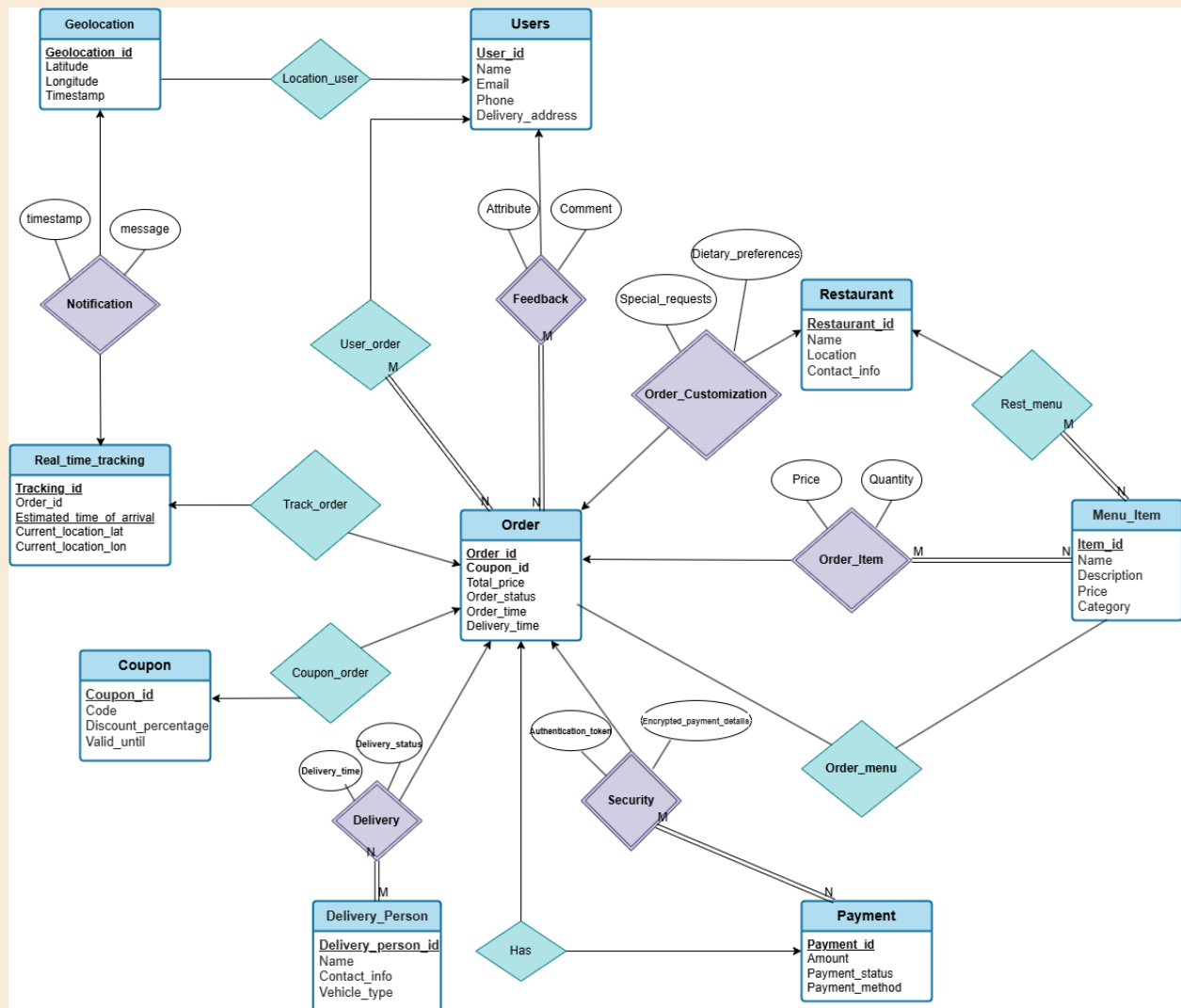
6. *Users and Geolocation (One-to-One)*

- *Entity name: Users (strong entity) & geolocation (strong entity)*
- *Relationship name: Location_user*
- *Relationship type: One-to-One*
- *Participation: Total for both entities.*
- *Each user can have one geolocation record.*

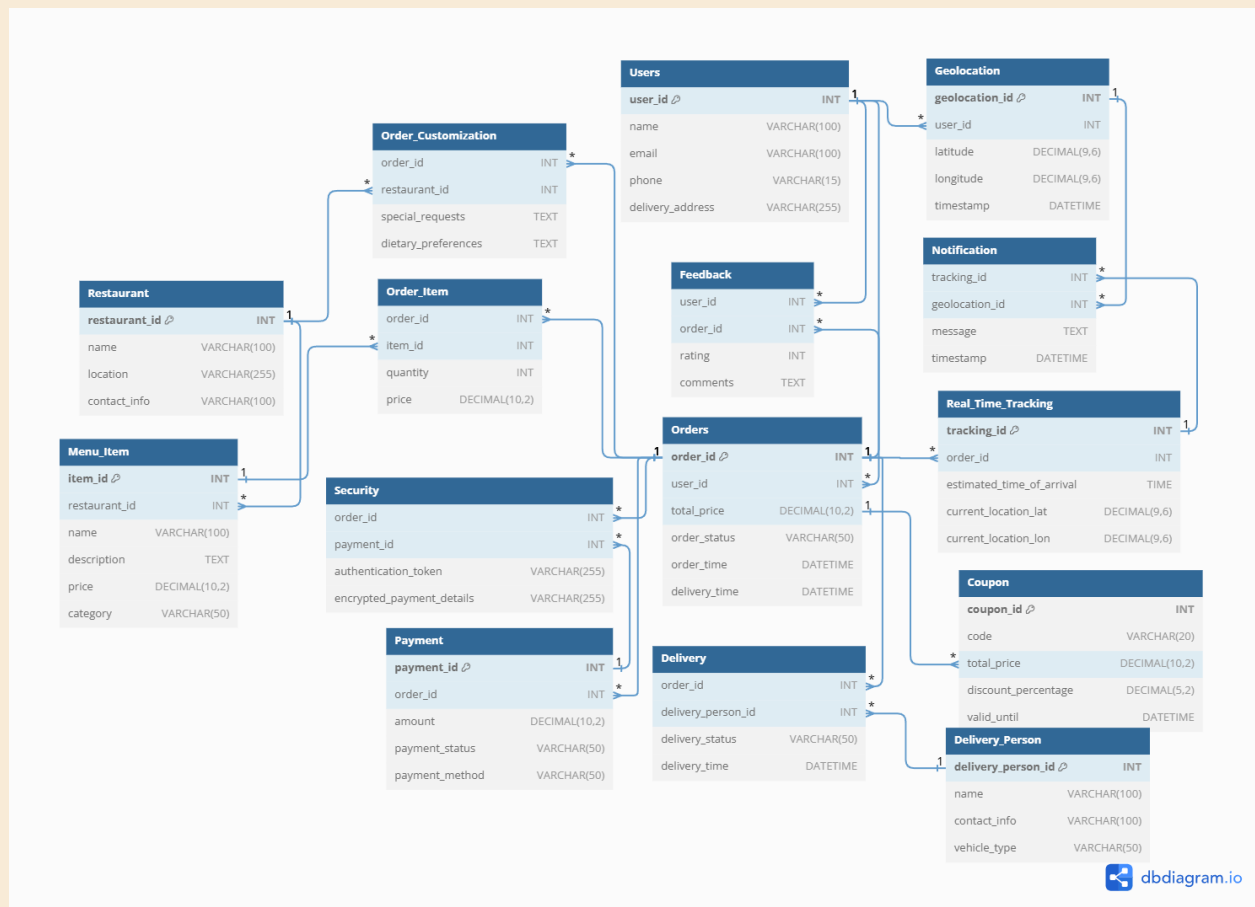
7. *Orders and Menu_item (Many-to-Many)*

- *Entity name: Orders (strong entity) & Menu_item (strong entity)*
- *Relationship name: Order_menu*
- *Relationship type: Many-to-Many*
- *Participation: Total for both entities.*
- *An order can have multiple menu items, and a menu item can belong to multiple orders.*

E-R Diagram for Online Food Delivery System



Schema Diagram for Online Food Delivery System



Implementing the Queries

Insertion:

1. Insert into Users:

| | Results | Messages | | | | |
|----|---------|---------------|-------------------------|------------|---------------------------|--|
| | user_id | name | email | phone | delivery_address | |
| 1 | 22201 | John Doe | johndoe@example.com | 1234567890 | 123 Elm St Springfield | |
| 2 | 22202 | Jane Smith | janesmith@example.com | 9876543210 | 456 Oak St Rivertown | |
| 3 | 22203 | Robert Brown | robertbrown@example.com | 5551234567 | 789 Pine St Lakeside | |
| 4 | 22204 | Alice Johnson | alicej@example.com | 6549873210 | 101 Maple St Springfield | |
| 5 | 22205 | Charlie White | charliew@example.com | 1112223333 | 202 Birch St Rivertown | |
| 6 | 22206 | Sophia Green | sophiag@example.com | 4445556666 | 303 Cedar St Lakeside | |
| 7 | 22207 | Liam Black | liamb@example.com | 7778889999 | 404 Spruce St Springfield | |
| 8 | 22208 | Olivia Brown | oliviab@example.com | 1010101010 | 505 Willow St Rivertown | |
| 9 | 22209 | Ethan Blue | ethanb@example.com | 1212121212 | 606 Pineapple St Lakeside | |
| 10 | 22210 | Emma Yellow | emmay@example.com | 2323232323 | 707 Orange St Springfield | |

2. Insert into Restaurant:

| | restaurant_id | name | location | contact_info |
|----|---------------|-----------------|---------------------------|--------------|
| 1 | 21201 | Pizza Palace | 123 Pizza Ave Springfield | 555-0001 |
| 2 | 21202 | Burger Queen | 456 Burger Rd Rivertown | 555-0002 |
| 3 | 21203 | Sushi Express | 789 Sushi Blvd Lakeside | 555-0003 |
| 4 | 21204 | Taco Town | 101 Taco St Springfield | 555-0004 |
| 5 | 21205 | Pasta Place | 202 Pasta Rd Rivertown | 555-0005 |
| 6 | 21206 | Chicken Cen... | 303 Chicken Blvd Lakes... | 555-0006 |
| 7 | 21207 | Seafood Sh... | 404 Seafood Ave Sprin... | 555-0007 |
| 8 | 21208 | Steakhouse ... | 505 Steak St Rivertown | 555-0008 |
| 9 | 21209 | Vegan Village | 606 Vegan Blvd Lakeside | 555-0009 |
| 10 | 21210 | Ice Cream Is... | 707 IceCream St Spring... | 555-0010 |

3. *Insert into Menu Item:*

| | item_id | restaurant_id | name | description | price | category |
|----|---------|---------------|---------------------|--|--------|----------|
| 1 | 1 | 21201 | Margherita Pizza | Classic pizza with mozzarella and tomato sauce | 550.00 | Pizza |
| 2 | 2 | 21201 | Pepperoni Pizza | Pizza with pepperoni slices | 500.00 | Pizza |
| 3 | 3 | 21202 | Cheeseburger | Burger with cheese, lettuce, and tomato | 199.00 | Burger |
| 4 | 4 | 21202 | Bacon Burger | Burger with crispy bacon | 150.00 | Burger |
| 5 | 5 | 21203 | California Roll | Sushi roll with avocado and crab | 225.00 | Sushi |
| 6 | 6 | 21203 | Spicy Tuna Roll | Sushi roll with tuna and spicy mayo | 210.00 | Sushi |
| 7 | 7 | 21204 | Beef Taco | Taco with seasoned beef | 750.00 | Mexican |
| 8 | 8 | 21204 | Chicken Taco | Taco with grilled chicken | 550.00 | Mexican |
| 9 | 9 | 21205 | Spaghetti Bolo... | Pasta with meat sauce | 600.00 | Italian |
| 10 | 10 | 21205 | Fettuccine Alfre... | Creamy pasta with parmesan | 499.00 | Italian |

4. *Insert into Coupon:*

| | coupon_id | code | discount_percentage | valid_until |
|----|-----------|------------|---------------------|-------------------------|
| 1 | 98370 | PIZZA10 | 10.00 | 2024-11-30 00:00:00.000 |
| 2 | 98371 | BURGER5 | 5.00 | 2024-11-15 00:00:00.000 |
| 3 | 98372 | SUSHI15 | 15.00 | 2024-12-01 00:00:00.000 |
| 4 | 98373 | TACO20 | 20.00 | 2024-11-25 00:00:00.000 |
| 5 | 98374 | PASTA25 | 25.00 | 2024-11-20 00:00:00.000 |
| 6 | 98375 | CHICKE... | 30.00 | 2024-11-27 00:00:00.000 |
| 7 | 98376 | SEAFOO... | 35.00 | 2024-12-05 00:00:00.000 |
| 8 | 98377 | STEAK40 | 40.00 | 2024-12-10 00:00:00.000 |
| 9 | 98378 | VEGAN50 | 50.00 | 2024-12-15 00:00:00.000 |
| 10 | 98379 | ICECREA... | 5.00 | 2024-12-20 00:00:00.000 |

5. *Insert into Orders:*

| | order_id | user_id | coupon_id | total_price | order_status | order_time | delivery_time |
|----|----------|---------|-----------|-------------|----------------|-------------------------|-------------------------|
| 1 | 68541 | 22201 | 98370 | 110.00 | Delivered | 2024-11-01 12:30:00.000 | 2024-11-01 12:50:00.000 |
| 2 | 68542 | 22202 | 98371 | 25.00 | Preparing | 2024-11-02 13:00:00.000 | 2024-11-02 13:30:00.000 |
| 3 | 68543 | 22203 | 98372 | 101.25 | Out for Del... | 2024-11-03 14:00:00.000 | 2024-11-03 14:30:00.000 |
| 4 | 68544 | 22204 | 98373 | 300.00 | Delivered | 2024-11-04 15:00:00.000 | 2024-11-04 15:20:00.000 |
| 5 | 68545 | 22205 | 98374 | 300.00 | Cancelled | 2024-11-05 16:00:00.000 | 2024-11-05 16:30:00.000 |
| 6 | 68546 | 22206 | 98375 | 252.00 | Preparing | 2024-11-06 17:00:00.000 | 2024-11-06 17:30:00.000 |
| 7 | 68547 | 22207 | 98376 | 157.50 | Out for Del... | 2024-11-07 18:00:00.000 | 2024-11-07 18:30:00.000 |
| 8 | 68548 | 22208 | 98377 | 1100.00 | Delivered | 2024-11-08 19:00:00.000 | 2024-11-08 19:30:00.000 |
| 9 | 68549 | 22209 | 98378 | 748.50 | Preparing | 2024-11-09 20:00:00.000 | 2024-11-09 20:30:00.000 |
| 10 | 68550 | 22210 | 98379 | 19.90 | Out for Del... | 2024-11-10 21:00:00.000 | 2024-11-10 21:30:00.000 |

6. *Insert into Order Item:*

| | order_item_id | order_id | item_id | quantity | price |
|----|---------------|----------|---------|----------|---------|
| 1 | 34561 | 68541 | 1 | 2 | 1100.00 |
| 2 | 34562 | 68542 | 2 | 1 | 500.00 |
| 3 | 34563 | 68543 | 5 | 3 | 675.00 |
| 4 | 34564 | 68544 | 7 | 2 | 1500.00 |
| 5 | 34565 | 68545 | 9 | 2 | 1200.00 |
| 6 | 34566 | 68546 | 6 | 4 | 840.00 |
| 7 | 34567 | 68547 | 4 | 3 | 450.00 |
| 8 | 34568 | 68548 | 8 | 5 | 2750.00 |
| 9 | 34569 | 68549 | 10 | 3 | 1497.00 |
| 10 | 34570 | 68550 | 3 | 2 | 398.00 |

7. *Insert into Payment:*

| | payment_id | order_id | amount | payment_status | payment_method |
|----|------------|----------|---------|----------------|----------------|
| 1 | 12351 | 68541 | 1100.00 | Completed | Credit Card |
| 2 | 12352 | 68542 | 675.00 | Pending | Debit Card |
| 3 | 12353 | 68543 | 675.00 | Completed | PayPal |
| 4 | 12354 | 68544 | 1500.00 | Completed | Cash |
| 5 | 12355 | 68545 | 1200.00 | Failed | Credit Card |
| 6 | 12356 | 68546 | 840.00 | Completed | Bank Transfer |
| 7 | 12357 | 68547 | 450.00 | Pending | PayPal |
| 8 | 12358 | 68548 | 2750.00 | Completed | Credit Card |
| 9 | 12359 | 68549 | 1497.00 | Completed | Debit Card |
| 10 | 12360 | 68550 | 398.00 | Failed | PayPal |

8. *Insert into Delivery Person:*

| | delivery_person_id | name | contact_info | vehicle_type |
|----|--------------------|----------------|--------------|--------------|
| 1 | 12461 | Alice Johnson | 555-1231 | Car |
| 2 | 12462 | Bob Miller | 555-1232 | Motorbike |
| 3 | 12463 | Charlie Ada... | 555-1233 | Bicycle |
| 4 | 12464 | Daisy Cooper | 555-1234 | Scooter |
| 5 | 12465 | Evan Brown | 555-1235 | Car |
| 6 | 12466 | Fiona Black | 555-1236 | Van |
| 7 | 12467 | George White | 555-1237 | Motorbike |
| 8 | 12468 | Hannah Gray | 555-1238 | Car |
| 9 | 12469 | Ian Green | 555-1239 | Bicycle |
| 10 | 12470 | Jill Taylor | 555-1240 | Truck |

9. *Insert into Delivery:*

| | delivery_id | order_id | delivery_person_id | delivery_status | delivery_time |
|----|-------------|----------|--------------------|------------------|-------------------------|
| 1 | 67051 | 68541 | 12461 | Delivered | 2024-11-01 12:50:00.000 |
| 2 | 67052 | 68542 | 12462 | Out for Delivery | 2024-11-02 13:25:00.000 |
| 3 | 67053 | 68543 | 12463 | Delivered | 2024-11-03 14:10:00.000 |
| 4 | 67054 | 68544 | 12464 | Preparing | 2024-11-04 12:45:00.000 |
| 5 | 67055 | 68545 | 12465 | Out for Delivery | 2024-11-05 13:30:00.000 |
| 6 | 67056 | 68546 | 12466 | Delivered | 2024-11-06 15:20:00.000 |
| 7 | 67057 | 68547 | 12467 | Delivered | 2024-11-07 14:15:00.000 |
| 8 | 67058 | 68548 | 12468 | Out for Delivery | 2024-11-08 16:00:00.000 |
| 9 | 67059 | 68549 | 12469 | Delivered | 2024-11-09 12:30:00.000 |
| 10 | 67060 | 68550 | 12470 | Preparing | 2024-11-10 11:45:00.000 |

10. *Insert into Feedback:*

| | feedback_id | user_id | order_id | rating | comments |
|----|-------------|---------|----------|--------|----------------------------------|
| 1 | 83061 | 22201 | 68541 | 5 | Amazing service, fast delivery! |
| 2 | 83062 | 22202 | 68542 | 4 | Good food but arrived late. |
| 3 | 83063 | 22203 | 68543 | 3 | Food quality was average. |
| 4 | 83064 | 22204 | 68544 | 5 | Loved it, very quick delivery! |
| 5 | 83065 | 22205 | 68545 | 2 | Cold food, disappointed. |
| 6 | 83066 | 22206 | 68546 | 4 | Great food, delivery person ... |
| 7 | 83067 | 22207 | 68547 | 5 | Excellent, everything was pe... |
| 8 | 83068 | 22208 | 68548 | 3 | Okay experience, nothing s... |
| 9 | 83069 | 22209 | 68549 | 4 | Food was fresh and tasty. |
| 10 | 83070 | 22210 | 68550 | 1 | Terrible, wrong order deliver... |

11. *Insert into Real Time Tracking:*

| | tracking_id | order_id | estimated_time_of_arrival | current_location_lat | current_location_lon |
|----|-------------|----------|---------------------------|----------------------|----------------------|
| 1 | 30001 | 68541 | 00:15:00.0000000 | 37.774929 | -122.419416 |
| 2 | 30002 | 68542 | 00:20:00.0000000 | 34.052235 | -118.243683 |
| 3 | 30003 | 68543 | 00:30:00.0000000 | 40.712776 | -74.005974 |
| 4 | 30004 | 68544 | 00:10:00.0000000 | 51.507351 | -0.127758 |
| 5 | 30005 | 68545 | 00:25:00.0000000 | 48.856613 | 2.352222 |
| 6 | 30006 | 68546 | 00:35:00.0000000 | 35.689487 | 139.691711 |
| 7 | 30007 | 68547 | 00:12:00.0000000 | 55.755825 | 37.617298 |
| 8 | 30008 | 68548 | 00:40:00.0000000 | -33.868820 | 151.209290 |
| 9 | 30009 | 68549 | 00:18:00.0000000 | -23.550520 | -46.633308 |
| 10 | 30010 | 68550 | 00:22:00.0000000 | 28.613939 | 77.209023 |

12. *Insert into Geolocation:*

| | geolocation_id | user_id | latitude | longitude | timestamp |
|----|----------------|---------|-------------|-------------|-------------------------|
| 1 | 10001 | 22201 | 37.774929 | -122.419416 | 2024-11-01 12:30:00.000 |
| 2 | 10002 | 22202 | 34.052235 | -118.243683 | 2024-11-02 13:20:00.000 |
| 3 | 10003 | 22203 | 40.712776 | -74.005974 | 2024-11-03 14:15:00.000 |
| 4 | 10004 | 22204 | 51.507351 | -0.127758 | 2024-11-04 15:00:00.000 |
| 5 | 10005 | 22205 | 48.856613 | 2.352222 | 2024-11-05 16:10:00.000 |
| 6 | 10006 | 22206 | 35.689487 | 139.691711 | 2024-11-06 17:25:00.000 |
| 7 | 10007 | 22207 | 55.755825 | 37.617298 | 2024-11-07 18:45:00.000 |
| 8 | 10008 | 22208 | -33.8688... | 151.209290 | 2024-11-08 19:00:00.000 |
| 9 | 10009 | 22209 | -23.5505... | -46.633308 | 2024-11-09 20:30:00.000 |
| 10 | 10010 | 22210 | 28.613939 | 77.209023 | 2024-11-10 21:15:00.000 |

13. *Insert into Notification:*

| | notification_id | tracking_id | geolocation_id | message | timestamp |
|----|-----------------|-------------|----------------|---------------------------------|-------------------------|
| 1 | 73731 | 30001 | 10001 | Your pizza is on the way! | 2024-11-01 12:30:00.000 |
| 2 | 73732 | 30002 | 10002 | Your order is being prepared. | 2024-11-02 13:10:00.000 |
| 3 | 73733 | 30003 | 10003 | Your sushi will arrive soon. | 2024-11-03 14:05:00.000 |
| 4 | 73734 | 30004 | 10004 | Your tacos are being cooked. | 2024-11-04 12:15:00.000 |
| 5 | 73735 | 30005 | 10005 | Your order is out for delivery. | 2024-11-05 13:20:00.000 |
| 6 | 73736 | 30006 | 10006 | Your roll is delivered! | 2024-11-06 15:10:00.000 |
| 7 | 73737 | 30007 | 10007 | Order successfully delivered! | 2024-11-07 14:10:00.000 |
| 8 | 73738 | 30008 | 10008 | Your delivery is on its way. | 2024-11-08 16:05:00.000 |
| 9 | 73739 | 30009 | 10009 | Enjoy your pasta! | 2024-11-09 12:35:00.000 |
| 10 | 73740 | 30010 | 10010 | Your cheeseburger is being... | 2024-11-10 11:50:00.000 |

14. *Insert into Order Customization:*

| | customization_id | order_id | restaurant_id | special_requests | dietary_preferences |
|----|------------------|----------|---------------|--------------------------|-------------------------|
| 1 | 53741 | 68541 | 21201 | Extra cheese on pizza | No dietary restrictions |
| 2 | 53742 | 68542 | 21202 | No onions on burger | Vegetarian |
| 3 | 53743 | 68543 | 21203 | Extra soy sauce with... | Gluten-free |
| 4 | 53744 | 68544 | 21204 | Mild spice in tacos | Halal |
| 5 | 53745 | 68545 | 21205 | No garlic in pasta | Vegan |
| 6 | 53746 | 68546 | 21206 | More wasabi with roll | No peanuts |
| 7 | 53747 | 68547 | 21207 | Well-done patty in b... | No dietary restrictions |
| 8 | 53748 | 68548 | 21208 | Extra lime with tacos | Vegetarian |
| 9 | 53749 | 68549 | 21209 | No salt in Alfredo sa... | Low sodium |
| 10 | 53750 | 68550 | 21210 | Add jalapenos to ch... | No dietary restrictions |

15. *Insert into Security:*

| | security_id | order_id | payment_id | authentication_token | encrypted_payment_details |
|----|-------------|----------|------------|----------------------|---------------------------|
| 1 | 20001 | 68541 | 12351 | aBc123XyZ | ENCRYPTED_PAY_001 |
| 2 | 20002 | 68542 | 12352 | dEf456MnO | ENCRYPTED_PAY_002 |
| 3 | 20003 | 68543 | 12353 | gHi789PqR | ENCRYPTED_PAY_003 |
| 4 | 20004 | 68544 | 12354 | jKl012StU | ENCRYPTED_PAY_004 |
| 5 | 20005 | 68545 | 12355 | mNo345VwX | ENCRYPTED_PAY_005 |
| 6 | 20006 | 68546 | 12356 | pQr678YzA | ENCRYPTED_PAY_006 |
| 7 | 20007 | 68547 | 12357 | sTu901BcD | ENCRYPTED_PAY_007 |
| 8 | 20008 | 68548 | 12358 | vWx234EfG | ENCRYPTED_PAY_008 |
| 9 | 20009 | 68549 | 12359 | yZ1234HiJ | ENCRYPTED_PAY_009 |
| 10 | 20010 | 68550 | 12360 | kLm567NoP | ENCRYPTED_PAY_010 |

Arithmetic Operation Based Query:

1. *Arithmetic operation (5% discount on the total price)-*

SELECT order_id, (total_price * 0.05)"Payment"
FROM orders;
GO

| | order_id | Payment |
|----|----------|---------|
| 1 | 68541 | 5.5000 |
| 2 | 68542 | 1.2500 |
| 3 | 68543 | 5.0625 |
| 4 | 68544 | 15.0000 |
| 5 | 68545 | 15.0000 |
| 6 | 68546 | 12.6000 |
| 7 | 68547 | 7.8750 |
| 8 | 68548 | 55.0000 |
| 9 | 68549 | 37.4250 |
| 10 | 68550 | 0.9950 |

2. *String Function (Name starts with 'J')-*

SELECT * *FROM* Users *WHERE* name like 'J%'
GO

| | user_id | name | email | phone | delivery_address |
|---|---------|------------|-----------------------|------------|------------------------|
| 1 | 22201 | John Doe | johndoe@example.com | 1234567890 | 123 Elm St Springfield |
| 2 | 22202 | Jane Smith | janesmith@example.com | 9876543210 | 456 Oak St Rivertown |

3. **Name do not start with 'R'**-

*SELECT * FROM Users WHERE name like '[^R]%'*
GO

| | user_id | name | email | phone | delivery_address |
|---|---------|---------------|-----------------------|------------|---------------------------|
| 1 | 22201 | John Doe | johndoe@example.com | 1234567890 | 123 Elm St Springfield |
| 2 | 22202 | Jane Smith | janesmith@example.com | 9876543210 | 456 Oak St Rivertown |
| 3 | 22204 | Alice Johnson | alicej@example.com | 6549873210 | 101 Maple St Springfield |
| 4 | 22205 | Charlie White | charliew@example.com | 1112223333 | 202 Birch St Rivertown |
| 5 | 22206 | Sophia Green | sophiag@example.com | 4445556666 | 303 Cedar St Lakeside |
| 6 | 22207 | Liam Black | liamb@example.com | 7778889999 | 404 Spruce St Springfield |
| 7 | 22208 | Olivia Brown | oliviab@example.com | 1010101010 | 505 Willow St Rivertown |
| 8 | 22209 | Ethan Blue | ethanb@example.com | 1212121212 | 606 Pineapple St Lakeside |
| 9 | 22210 | Emma Yellow | emmay@example.com | 2323232323 | 707 Orange St Springfield |

4. **Condition Based Queries (Find out which item can be budget friendly)-**

SELECT name FROM Menu WHERE price > 8.99
GO

| | name |
|----|---------------------|
| 1 | Margherita Pizza |
| 2 | Pepperoni Pizza |
| 3 | Cheeseburger |
| 4 | Bacon Burger |
| 5 | California Roll |
| 6 | Spicy Tuna Roll |
| 7 | Beef Taco |
| 8 | Chicken Taco |
| 9 | Spaghetti Bolognese |
| 10 | Fettuccine Alfredo |

5. **Condition Based Queries (Payment Amount between 500 to 1000)-**

*SELECT * FROM Payment WHERE amount BETWEEN 500 and 1000*
GO

| | payment_id | order_id | amount | payment_status | payment_method |
|---|------------|----------|--------|----------------|----------------|
| 1 | 12352 | 68542 | 675.00 | Pending | Debit Card |
| 2 | 12353 | 68543 | 675.00 | Completed | PayPal |
| 3 | 12356 | 68546 | 840.00 | Completed | Bank Transfer |

6. **Condition Based Queries (Show payment status)-**

```
SELECT payment_status, payment_method
FROM payment
WHERE payment_method IN('PayPal', 'Cash', 'Credit Card')
GO
```

| | payment_status | payment_method |
|---|----------------|----------------|
| 1 | Completed | Credit Card |
| 2 | Completed | PayPal |
| 3 | Completed | Cash |
| 4 | Failed | Credit Card |
| 5 | Pending | PayPal |
| 6 | Completed | Credit Card |
| 7 | Failed | PayPal |

7. **Aggregate Function based Queries (Average)-**

```
SELECT AVG(price) AS [avg price] FROM Menu_Item WHERE
category = 'Pizza'
GO
```

| | avg price |
|---|------------|
| 1 | 525.000000 |

8. **Aggregate Function based Queries (Maximum)-**

```
SELECT MAX(discount_percentage) AS [max discount] FROM Coupon
GO
```

| | max discount |
|---|--------------|
| 1 | 50.00 |

9. **Count-**

```
SELECT COUNT(category) FROM Menu_Item
GO
```

| | (No column name) |
|---|------------------|
| 1 | 10 |

10. Group by-

---How many ways can the order be delivered?

*SELECT vehicle_type FROM Delivery_Person GROUP BY vehicle_type
GO*

| | vehicle_type |
|---|--------------|
| 1 | Bicycle |
| 2 | Car |
| 3 | Motorbike |
| 4 | Scooter |
| 5 | Truck |
| 6 | Van |

11. Order by-

---Ordering based on the restaurant's name

*SELECT name FROM Restaurant ORDER BY Desc
GO*

| | name |
|----|--------------------|
| 1 | Vegan Village |
| 2 | Taco Town |
| 3 | Sushi Express |
| 4 | Steakhouse Supreme |
| 5 | Seafood Shack |
| 6 | Pizza Palace |
| 7 | Pasta Place |
| 8 | Ice Cream Island |
| 9 | Chicken Central |
| 10 | Burger Queen |

12. Group by, Order by-

---How much is the total cost of food in each category?

*SELECT category, SUM (price) FROM Menu_Item GROUP BY category
ORDER BY SUM (price) ASC
GO*

| | category | (No column name) |
|---|----------|------------------|
| 1 | Burger | 349.00 |
| 2 | Sushi | 435.00 |
| 3 | Pizza | 1050.00 |
| 4 | Italian | 1099.00 |
| 5 | Mexican | 1300.00 |

13. Double Grouping-

SELECT payment_method, payment_status *FROM* payment *GROUP BY* payment_method, payment_status
GO

| | payment_method | payment_status |
|---|----------------|----------------|
| 1 | Bank Transfer | Completed |
| 2 | Cash | Completed |
| 3 | Credit Card | Completed |
| 4 | Credit Card | Failed |
| 5 | Debit Card | Completed |
| 6 | Debit Card | Pending |
| 7 | PayPal | Completed |
| 8 | PayPal | Failed |
| 9 | PayPal | Pending |

14. Cross Join-

SELECT * *FROM* Order_Item, Orders
GO

| | order_item_id | order_id | item_id | quantity | price | order_id | user_id | coupon_id | total_price | order_status | order_time | delivery_time |
|----|---------------|----------|---------|----------|---------|----------|---------|-----------|-------------|----------------|-------------------------|-------------------------|
| 1 | 34561 | 68541 | 1 | 2 | 1100.00 | 68541 | 22201 | 98370 | 110.00 | Delivered | 2024-11-01 12:30:00.000 | 2024-11-01 12:50:00.000 |
| 2 | 34562 | 68542 | 2 | 1 | 500.00 | 68541 | 22201 | 98370 | 110.00 | Delivered | 2024-11-01 12:30:00.000 | 2024-11-01 12:50:00.000 |
| 3 | 34563 | 68543 | 5 | 3 | 675.00 | 68541 | 22201 | 98370 | 110.00 | Delivered | 2024-11-01 12:30:00.000 | 2024-11-01 12:50:00.000 |
| 4 | 34564 | 68544 | 7 | 2 | 1500.00 | 68541 | 22201 | 98370 | 110.00 | Delivered | 2024-11-01 12:30:00.000 | 2024-11-01 12:50:00.000 |
| 5 | 34565 | 68545 | 9 | 2 | 1200.00 | 68541 | 22201 | 98370 | 110.00 | Delivered | 2024-11-01 12:30:00.000 | 2024-11-01 12:50:00.000 |
| 6 | 34566 | 68546 | 6 | 4 | 840.00 | 68541 | 22201 | 98370 | 110.00 | Delivered | 2024-11-01 12:30:00.000 | 2024-11-01 12:50:00.000 |
| 7 | 34567 | 68547 | 4 | 3 | 450.00 | 68541 | 22201 | 98370 | 110.00 | Delivered | 2024-11-01 12:30:00.000 | 2024-11-01 12:50:00.000 |
| 8 | 34568 | 68548 | 8 | 5 | 2750.00 | 68541 | 22201 | 98370 | 110.00 | Delivered | 2024-11-01 12:30:00.000 | 2024-11-01 12:50:00.000 |
| 9 | 34569 | 68549 | 10 | 3 | 1497.00 | 68541 | 22201 | 98370 | 110.00 | Delivered | 2024-11-01 12:30:00.000 | 2024-11-01 12:50:00.000 |
| 10 | 34570 | 68550 | 3 | 2 | 398.00 | 68541 | 22201 | 98370 | 110.00 | Delivered | 2024-11-01 12:30:00.000 | 2024-11-01 12:50:00.000 |
| 11 | 34561 | 68541 | 1 | 2 | 1100.00 | 68542 | 22202 | 98371 | 25.00 | Preparing | 2024-11-02 13:00:00.000 | 2024-11-02 13:30:00.000 |
| 12 | 34562 | 68542 | 2 | 1 | 500.00 | 68542 | 22202 | 98371 | 25.00 | Preparing | 2024-11-02 13:00:00.000 | 2024-11-02 13:30:00.000 |
| 13 | 34563 | 68543 | 5 | 3 | 675.00 | 68542 | 22202 | 98371 | 25.00 | Preparing | 2024-11-02 13:00:00.000 | 2024-11-02 13:30:00.000 |
| 14 | 34564 | 68544 | 7 | 2 | 1500.00 | 68542 | 22202 | 98371 | 25.00 | Preparing | 2024-11-02 13:00:00.000 | 2024-11-02 13:30:00.000 |
| 15 | 34565 | 68545 | 9 | 2 | 1200.00 | 68542 | 22202 | 98371 | 25.00 | Preparing | 2024-11-02 13:00:00.000 | 2024-11-02 13:30:00.000 |
| 16 | 34566 | 68546 | 6 | 4 | 840.00 | 68542 | 22202 | 98371 | 25.00 | Preparing | 2024-11-02 13:00:00.000 | 2024-11-02 13:30:00.000 |
| 17 | 34567 | 68547 | 4 | 3 | 450.00 | 68542 | 22202 | 98371 | 25.00 | Preparing | 2024-11-02 13:00:00.000 | 2024-11-02 13:30:00.000 |
| 18 | 34568 | 68548 | 8 | 5 | 2750.00 | 68542 | 22202 | 98371 | 25.00 | Preparing | 2024-11-02 13:00:00.000 | 2024-11-02 13:30:00.000 |
| 19 | 34569 | 68549 | 10 | 3 | 1497.00 | 68542 | 22202 | 98371 | 25.00 | Preparing | 2024-11-02 13:00:00.000 | 2024-11-02 13:30:00.000 |
| 20 | 34570 | 68550 | 3 | 2 | 398.00 | 68542 | 22202 | 98371 | 25.00 | Preparing | 2024-11-02 13:00:00.000 | 2024-11-02 13:30:00.000 |
| 21 | 34561 | 68541 | 1 | 2 | 1100.00 | 68543 | 22203 | 98372 | 101.25 | Out for Del... | 2024-11-03 14:00:00.000 | 2024-11-03 14:30:00.000 |
| 22 | 34562 | 68542 | 2 | 1 | 500.00 | 68543 | 22203 | 98372 | 101.25 | Out for Del... | 2024-11-03 14:00:00.000 | 2024-11-03 14:30:00.000 |
| 23 | 34563 | 68543 | 5 | 3 | 675.00 | 68543 | 22203 | 98372 | 101.25 | Out for Del... | 2024-11-03 14:00:00.000 | 2024-11-03 14:30:00.000 |
| 24 | 34564 | 68544 | 7 | 2 | 1500.00 | 68543 | 22203 | 98372 | 101.25 | Out for Del... | 2024-11-03 14:00:00.000 | 2024-11-03 14:30:00.000 |
| 25 | 34565 | 68545 | 9 | 2 | 1200.00 | 68543 | 22203 | 98372 | 101.25 | Out for Del... | 2024-11-03 14:00:00.000 | 2024-11-03 14:30:00.000 |
| 26 | 34566 | 68546 | 6 | 4 | 840.00 | 68543 | 22203 | 98372 | 101.25 | Out for Del... | 2024-11-03 14:00:00.000 | 2024-11-03 14:30:00.000 |
| 27 | 34567 | 68547 | 4 | 3 | 450.00 | 68543 | 22203 | 98372 | 101.25 | Out for Del... | 2024-11-03 14:00:00.000 | 2024-11-03 14:30:00.000 |
| 28 | 34568 | 68548 | 8 | 5 | 2750.00 | 68543 | 22203 | 98372 | 101.25 | Out for Del... | 2024-11-03 14:00:00.000 | 2024-11-03 14:30:00.000 |
| 29 | 34569 | 68549 | 10 | 3 | 1497.00 | 68543 | 22203 | 98372 | 101.25 | Out for Del... | 2024-11-03 14:00:00.000 | 2024-11-03 14:30:00.000 |
| 30 | 34570 | 68550 | 3 | 2 | 398.00 | 68543 | 22203 | 98372 | 101.25 | Out for Del... | 2024-11-03 14:00:00.000 | 2024-11-03 14:30:00.000 |
| 31 | 34561 | 68541 | 1 | 2 | 1100.00 | 68544 | 22204 | 98373 | 300.00 | Delivered | 2024-11-04 15:00:00.000 | 2024-11-04 15:20:00.000 |
| 32 | 34562 | 68542 | 2 | 1 | 500.00 | 68544 | 22204 | 98373 | 300.00 | Delivered | 2024-11-04 15:00:00.000 | 2024-11-04 15:20:00.000 |
| 33 | 34563 | 68543 | 5 | 3 | 675.00 | 68544 | 22204 | 98373 | 300.00 | Delivered | 2024-11-04 15:00:00.000 | 2024-11-04 15:20:00.000 |
| 34 | 34564 | 68544 | 7 | 2 | 1500.00 | 68544 | 22204 | 98373 | 300.00 | Delivered | 2024-11-04 15:00:00.000 | 2024-11-04 15:20:00.000 |

| | | | | | | | | | | | | |
|-----|-------|-------|----|---|---------|-------|-------|-------|---------|----------------|-------------------------|-------------------------|
| 71 | 34561 | 68541 | 1 | 2 | 1100.00 | 68548 | 22208 | 98377 | 1100.00 | Delivered | 2024-11-08 19:00:00.000 | 2024-11-08 19:30:00.000 |
| 72 | 34562 | 68542 | 2 | 1 | 500.00 | 68548 | 22208 | 98377 | 1100.00 | Delivered | 2024-11-08 19:00:00.000 | 2024-11-08 19:30:00.000 |
| 73 | 34563 | 68543 | 5 | 3 | 675.00 | 68548 | 22208 | 98377 | 1100.00 | Delivered | 2024-11-08 19:00:00.000 | 2024-11-08 19:30:00.000 |
| 74 | 34564 | 68544 | 7 | 2 | 1500.00 | 68548 | 22208 | 98377 | 1100.00 | Delivered | 2024-11-08 19:00:00.000 | 2024-11-08 19:30:00.000 |
| 75 | 34565 | 68545 | 9 | 2 | 1200.00 | 68548 | 22208 | 98377 | 1100.00 | Delivered | 2024-11-08 19:00:00.000 | 2024-11-08 19:30:00.000 |
| 76 | 34566 | 68546 | 6 | 4 | 840.00 | 68548 | 22208 | 98377 | 1100.00 | Delivered | 2024-11-08 19:00:00.000 | 2024-11-08 19:30:00.000 |
| 77 | 34567 | 68547 | 4 | 3 | 450.00 | 68548 | 22208 | 98377 | 1100.00 | Delivered | 2024-11-08 19:00:00.000 | 2024-11-08 19:30:00.000 |
| 78 | 34568 | 68548 | 8 | 5 | 2750.00 | 68548 | 22208 | 98377 | 1100.00 | Delivered | 2024-11-08 19:00:00.000 | 2024-11-08 19:30:00.000 |
| 79 | 34569 | 68549 | 10 | 3 | 1497.00 | 68548 | 22208 | 98377 | 1100.00 | Delivered | 2024-11-08 19:00:00.000 | 2024-11-08 19:30:00.000 |
| 80 | 34570 | 68550 | 3 | 2 | 398.00 | 68548 | 22208 | 98377 | 1100.00 | Delivered | 2024-11-08 19:00:00.000 | 2024-11-08 19:30:00.000 |
| 81 | 34561 | 68541 | 1 | 2 | 1100.00 | 68549 | 22209 | 98378 | 748.50 | Preparing | 2024-11-09 20:00:00.000 | 2024-11-09 20:30:00.000 |
| 82 | 34562 | 68542 | 2 | 1 | 500.00 | 68549 | 22209 | 98378 | 748.50 | Preparing | 2024-11-09 20:00:00.000 | 2024-11-09 20:30:00.000 |
| 83 | 34563 | 68543 | 5 | 3 | 675.00 | 68549 | 22209 | 98378 | 748.50 | Preparing | 2024-11-09 20:00:00.000 | 2024-11-09 20:30:00.000 |
| 84 | 34564 | 68544 | 7 | 2 | 1500.00 | 68549 | 22209 | 98378 | 748.50 | Preparing | 2024-11-09 20:00:00.000 | 2024-11-09 20:30:00.000 |
| 85 | 34565 | 68545 | 9 | 2 | 1200.00 | 68549 | 22209 | 98378 | 748.50 | Preparing | 2024-11-09 20:00:00.000 | 2024-11-09 20:30:00.000 |
| 86 | 34566 | 68546 | 6 | 4 | 840.00 | 68549 | 22209 | 98378 | 748.50 | Preparing | 2024-11-09 20:00:00.000 | 2024-11-09 20:30:00.000 |
| 87 | 34567 | 68547 | 4 | 3 | 450.00 | 68549 | 22209 | 98378 | 748.50 | Preparing | 2024-11-09 20:00:00.000 | 2024-11-09 20:30:00.000 |
| 88 | 34568 | 68548 | 8 | 5 | 2750.00 | 68549 | 22209 | 98378 | 748.50 | Preparing | 2024-11-09 20:00:00.000 | 2024-11-09 20:30:00.000 |
| 89 | 34569 | 68549 | 10 | 3 | 1497.00 | 68549 | 22209 | 98378 | 748.50 | Preparing | 2024-11-09 20:00:00.000 | 2024-11-09 20:30:00.000 |
| 90 | 34570 | 68550 | 3 | 2 | 398.00 | 68549 | 22209 | 98378 | 748.50 | Preparing | 2024-11-09 20:00:00.000 | 2024-11-09 20:30:00.000 |
| 91 | 34561 | 68541 | 1 | 2 | 1100.00 | 68550 | 22210 | 98379 | 19.90 | Out for Del... | 2024-11-10 21:00:00.000 | 2024-11-10 21:30:00.000 |
| 92 | 34562 | 68542 | 2 | 1 | 500.00 | 68550 | 22210 | 98379 | 19.90 | Out for Del... | 2024-11-10 21:00:00.000 | 2024-11-10 21:30:00.000 |
| 93 | 34563 | 68543 | 5 | 3 | 675.00 | 68550 | 22210 | 98379 | 19.90 | Out for Del... | 2024-11-10 21:00:00.000 | 2024-11-10 21:30:00.000 |
| 94 | 34564 | 68544 | 7 | 2 | 1500.00 | 68550 | 22210 | 98379 | 19.90 | Out for Del... | 2024-11-10 21:00:00.000 | 2024-11-10 21:30:00.000 |
| 95 | 34565 | 68545 | 9 | 2 | 1200.00 | 68550 | 22210 | 98379 | 19.90 | Out for Del... | 2024-11-10 21:00:00.000 | 2024-11-10 21:30:00.000 |
| 96 | 34566 | 68546 | 6 | 4 | 840.00 | 68550 | 22210 | 98379 | 19.90 | Out for Del... | 2024-11-10 21:00:00.000 | 2024-11-10 21:30:00.000 |
| 97 | 34567 | 68547 | 4 | 3 | 450.00 | 68550 | 22210 | 98379 | 19.90 | Out for Del... | 2024-11-10 21:00:00.000 | 2024-11-10 21:30:00.000 |
| 98 | 34568 | 68548 | 8 | 5 | 2750.00 | 68550 | 22210 | 98379 | 19.90 | Out for Del... | 2024-11-10 21:00:00.000 | 2024-11-10 21:30:00.000 |
| 99 | 34569 | 68549 | 10 | 3 | 1497.00 | 68550 | 22210 | 98379 | 19.90 | Out for Del... | 2024-11-10 21:00:00.000 | 2024-11-10 21:30:00.000 |
| 100 | 34570 | 68550 | 3 | 2 | 398.00 | 68550 | 22210 | 98379 | 19.90 | Out for Del... | 2024-11-10 21:00:00.000 | 2024-11-10 21:30:00.000 |

15. **Natural join with rename operation-**

*SELECT * FROM Orders AS O, Order_item AS I WHERE O.order_id = I.order_id and order_status = 'Delivered'*
GO

| | order_id | user_id | coupon_id | total_price | order_status | order_time | delivery_time | order_item_id | order_id | item_id | quantity | price |
|---|----------|---------|-----------|-------------|--------------|-------------------------|-------------------------|---------------|----------|---------|----------|---------|
| 1 | 68541 | 22201 | 98370 | 110.00 | Delivered | 2024-11-01 12:30:00.000 | 2024-11-01 12:50:00.000 | 34561 | 68541 | 1 | 2 | 1100.00 |
| 2 | 68544 | 22204 | 98373 | 300.00 | Delivered | 2024-11-04 15:00:00.000 | 2024-11-04 15:20:00.000 | 34564 | 68544 | 7 | 2 | 1500.00 |
| 3 | 68548 | 22208 | 98377 | 1100.00 | Delivered | 2024-11-08 19:00:00.000 | 2024-11-08 19:30:00.000 | 34568 | 68548 | 8 | 5 | 2750.00 |

16. **Distinct-**

---find out How many ways can payment be made?

SELECT DISTINCT Payment_method FROM Payment
GO

| | Payment_method |
|---|----------------|
| 1 | Bank Transfer |
| 2 | Cash |
| 3 | Credit Card |
| 4 | Debit Card |
| 5 | PayPal |

17. **Update-**

UPDATE Delivery_Person
SET name = 'Bunty'
WHERE delivery_person_id = 12462;
*SELECT *FROM Delivery_Person*
GO

| | delivery_person_id | name | contact_info | vehicle_type |
|----|--------------------|---------------|--------------|--------------|
| 1 | 12461 | Alice Johnson | 555-1231 | Car |
| 2 | 12462 | Bunty | 555-1232 | Motorbike |
| 3 | 12463 | Charlie Adams | 555-1233 | Bicycle |
| 4 | 12464 | Daisy Cooper | 555-1234 | Scooter |
| 5 | 12465 | Evan Brown | 555-1235 | Car |
| 6 | 12466 | Fiona Black | 555-1236 | Van |
| 7 | 12467 | George White | 555-1237 | Motorbike |
| 8 | 12468 | Hannah Gray | 555-1238 | Car |
| 9 | 12469 | Ian Green | 555-1239 | Bicycle |
| 10 | 12470 | Jill Taylor | 555-1240 | Truck |

18. Set Operation (Union)-

SELECT Payment_id *FROM* Payment *WHERE* payment_method = 'PayPal' and payment_status = 'Completed' *UNION SELECT* Payment_id *FROM* Payment *WHERE* payment_method = 'Debit Card' and payment_status = 'Pending'
GO

| | Payment_id |
|---|------------|
| 1 | 12352 |
| 2 | 12353 |

19. Set Operation (Intersect)-

SELECT amount *FROM* Payment *WHERE* payment_method = 'PayPal' and payment_status = 'Completed' *INTERSECT SELECT* Payment_id *FROM* Payment *WHERE* payment_method 'Debit Card' and payment_status = 'Pending'
GO

| | amount |
|---|--------|
| 1 | 675.00 |

20. Set Operation (Except)-

SELECT amount *FROM* Payment *WHERE* payment_method = 'PayPal' and payment_status = 'Completed' *EXCEPT SELECT* Payment_id *FROM* Payment *WHERE* payment_method 'Debit Card' and payment_status = 'Pending'
GO

| amount |
|--------|
|--------|

21. Aggregate Function (Having)-

```
SELECT Payment_status, Payment_method, MAX(amount) as  
max_amount  
FROM Payment  
GROUP BY Payment_status, Payment_method HAVING MAX(amount) >  
14.99 ORDER BY Payment_status DESC  
GO
```

| | Payment_status | Payment_method | max_amount |
|---|----------------|----------------|------------|
| 1 | Pending | Debit Card | 675.00 |
| 2 | Pending | PayPal | 450.00 |
| 3 | Failed | Credit Card | 1200.00 |
| 4 | Failed | PayPal | 398.00 |
| 5 | Completed | Bank Transfer | 840.00 |
| 6 | Completed | Cash | 1500.00 |
| 7 | Completed | Credit Card | 2750.00 |
| 8 | Completed | Debit Card | 1497.00 |
| 9 | Completed | PayPal | 675.00 |

22. Set Membership-

```
SELECT DISTINCT Payment_id  
FROM Payment  
WHERE payment_method = 'PayPal' and payment_status = 'Completed'  
or  
Payment_id in (SELECT Payment_id FROM Payment  
WHERE payment_method = 'Credit Card' and payment_status =  
'Completed');  
GO
```

| | Payment_id |
|---|------------|
| 1 | 12351 |
| 2 | 12353 |
| 3 | 12358 |

23. **Set Membership-**

```
SELECT DISTINCT vehicle_type
FROM Delivery_Person
WHERE vehicle_type not in ('Car')
GO
```

| | vehicle_type |
|---|--------------|
| 1 | Bicycle |
| 2 | Motorbike |
| 3 | Scooter |
| 4 | Truck |
| 5 | Van |

24. **Alter Adding-**

```
ALTER TABLE Restaurant ADD comment VARCHAR(100)
GO
SELECT * FROM Restaurant
GO
```

| | restaurant_id | name | location | contact_info | comment |
|----|---------------|--------------------|-----------------------------|--------------|---------|
| 1 | 21201 | Pizza Palace | 123 Pizza Ave Springfield | 555-0001 | NULL |
| 2 | 21202 | Burger Queen | 456 Burger Rd Rivertown | 555-0002 | NULL |
| 3 | 21203 | Sushi Express | 789 Sushi Blvd Lakeside | 555-0003 | NULL |
| 4 | 21204 | Taco Town | 101 Taco St Springfield | 555-0004 | NULL |
| 5 | 21205 | Pasta Place | 202 Pasta Rd Rivertown | 555-0005 | NULL |
| 6 | 21206 | Chicken Central | 303 Chicken Blvd Lakeside | 555-0006 | NULL |
| 7 | 21207 | Seafood Shack | 404 Seafood Ave Springfield | 555-0007 | NULL |
| 8 | 21208 | Steakhouse Supreme | 505 Steak St Rivertown | 555-0008 | NULL |
| 9 | 21209 | Vegan Village | 606 Vegan Blvd Lakeside | 555-0009 | NULL |
| 10 | 21210 | Ice Cream Island | 707 IceCream St Springfield | 555-0010 | NULL |

25. **Delete-**

```
DELETE FROM Coupon
GO
```

The statement has been terminated.

Completion time: 2024-12-01T09:23:33.7672840+06:00

The End