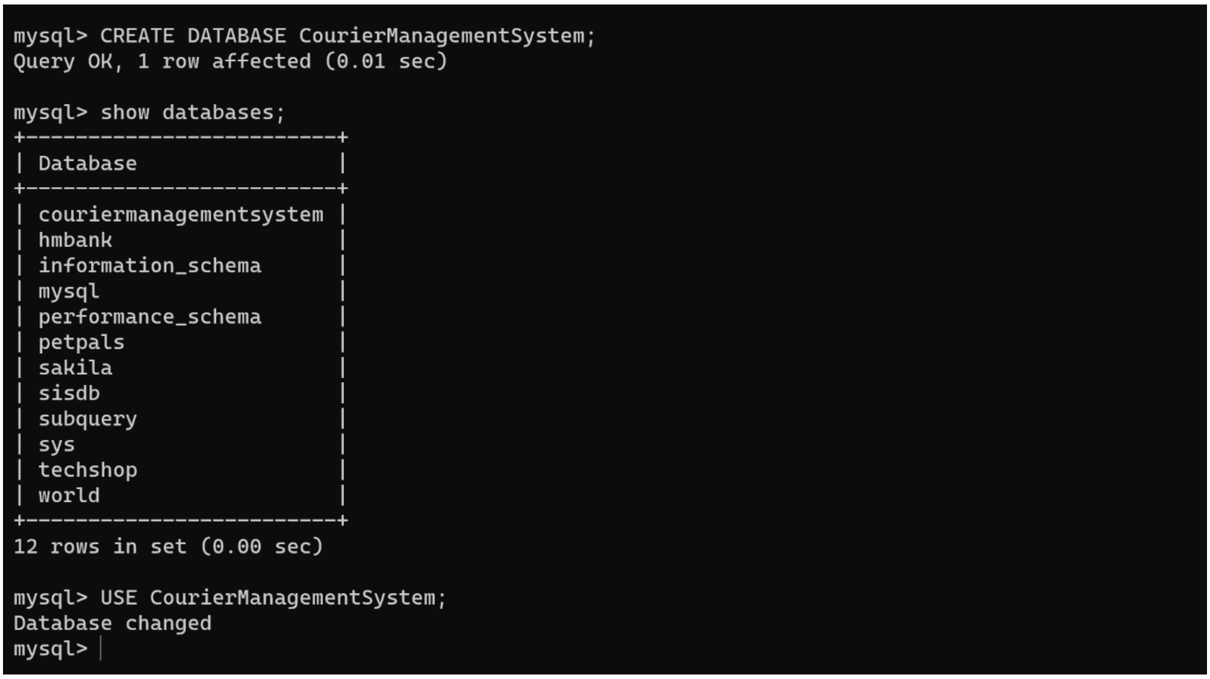
ASSIGNMENT 4

Task 1: Database Design

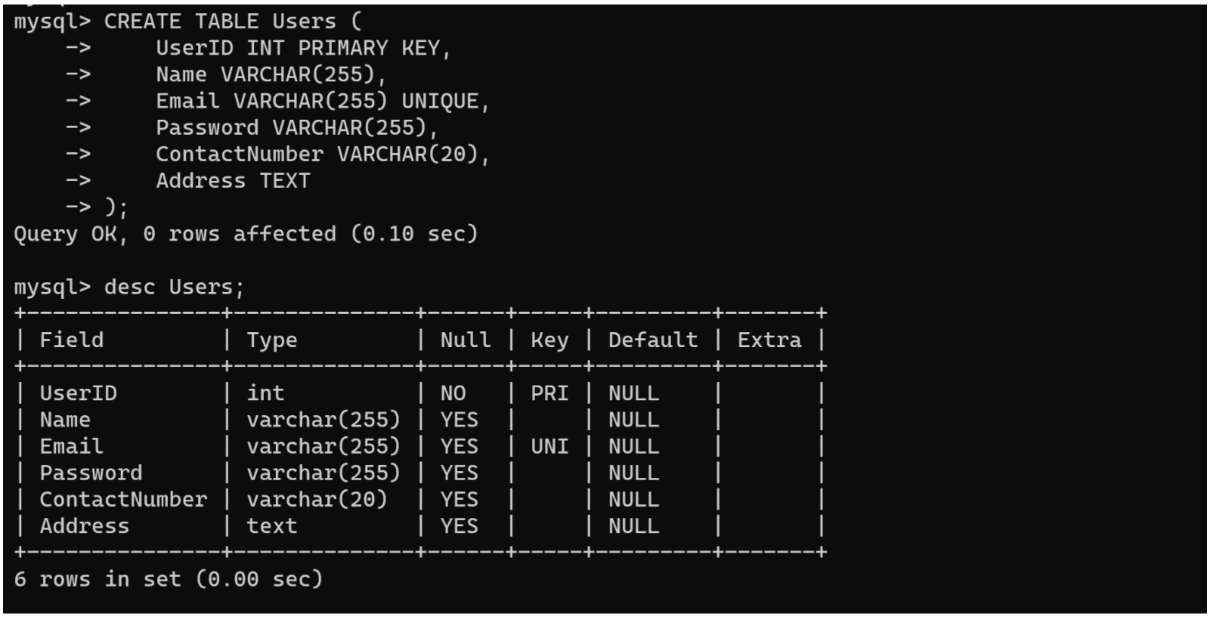
Create Database named CourierManagementSystem



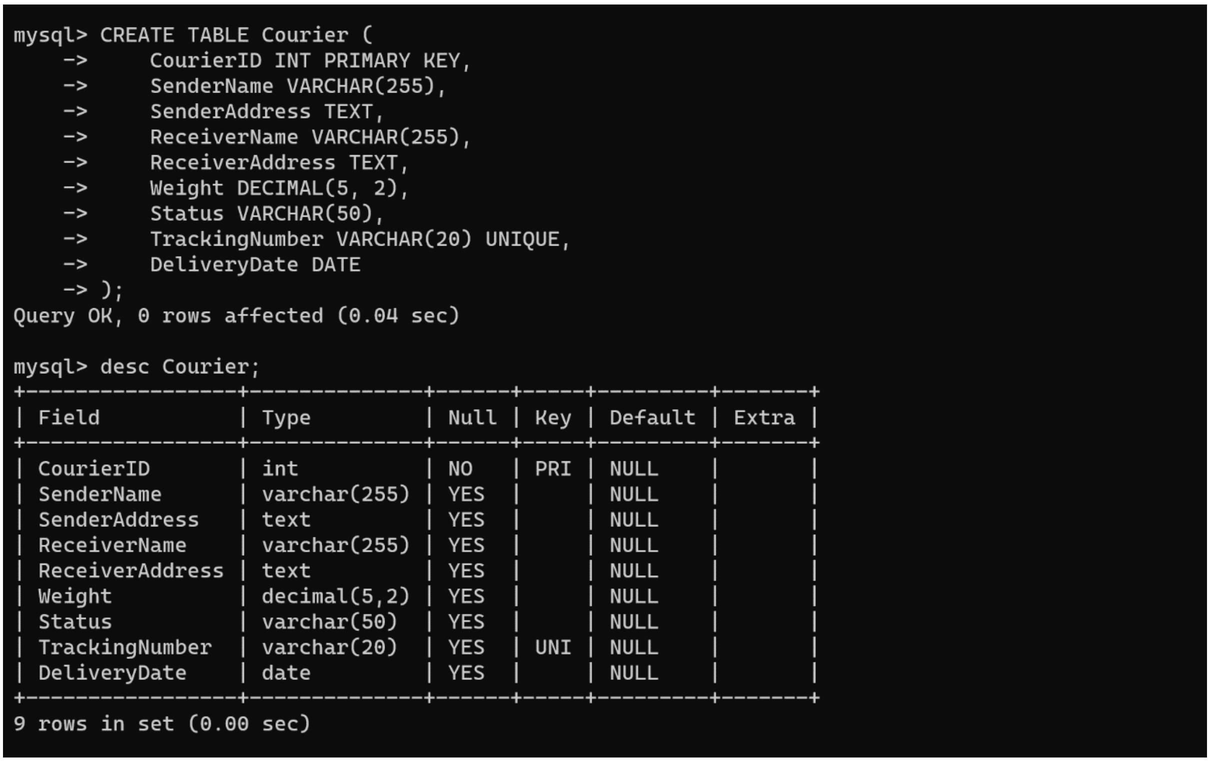
```
mysql> CREATE DATABASE CourierManagementSystem;
Query OK, 1 row affected (0.01 sec)

mysql> show databases;
+-------------------------+
| Database                |
+-------------------------+
| couriermanagementsystem |
| hmbank                  |
| information_schema      |
| mysql                   |
| performance_schema      |
| petpals                 |
| sakila                  |
| sisdb                   |
| subquery                |
| sys                     |
| techshop                |
| world                   |
+-------------------------+
12 rows in set (0.00 sec)

mysql> USE CourierManagementSystem;
Database changed
mysql>
```

Create Tables:

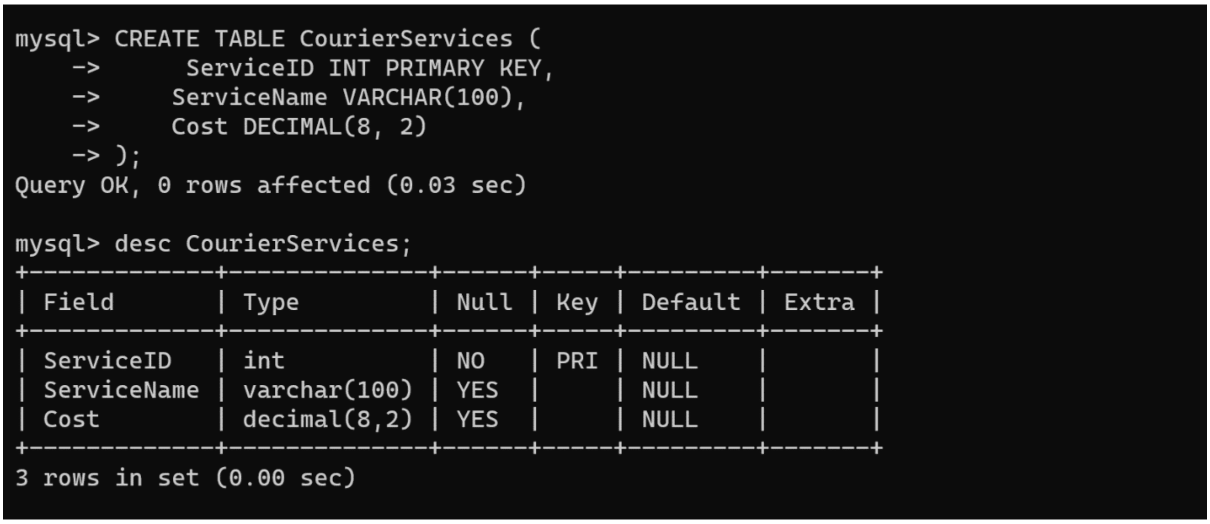
- ➢ User
- ➢ Courier
- ➢ CourierServices
- ➢ Employee
- ➢ Location
- ➢ Payment



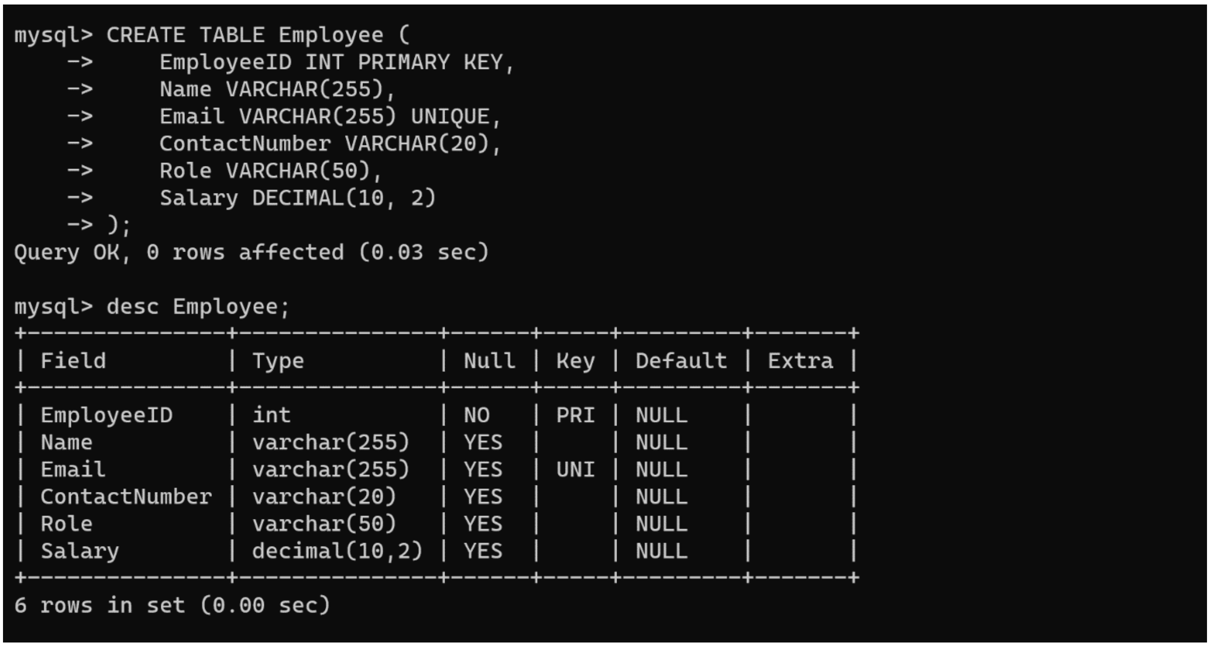
```
mysql> CREATE TABLE Users (
    ->     UserID INT PRIMARY KEY,
    ->     Name VARCHAR(255),
    ->     Email VARCHAR(255) UNIQUE,
    ->     Password VARCHAR(255),
    ->     ContactNumber VARCHAR(20),
    ->     Address TEXT
    -> );
Query OK, 0 rows affected (0.10 sec)

mysql> desc Users;
+---------------+--------------+------+-----+---------+-------+
| Field         | Type         | Null | Key | Default | Extra |
+---------------+--------------+------+-----+---------+-------+
| UserID        | int          | NO   | PRI | NULL    |       |
| Name          | varchar(255) | YES  |     | NULL    |       |
| Email         | varchar(255) | YES  | UNI | NULL    |       |
| Password      | varchar(255) | YES  |     | NULL    |       |
| ContactNumber | varchar(20)  | YES  |     | NULL    |       |
| Address       | text         | YES  |     | NULL    |       |
+---------------+--------------+------+-----+---------+-------+
6 rows in set (0.00 sec)
```



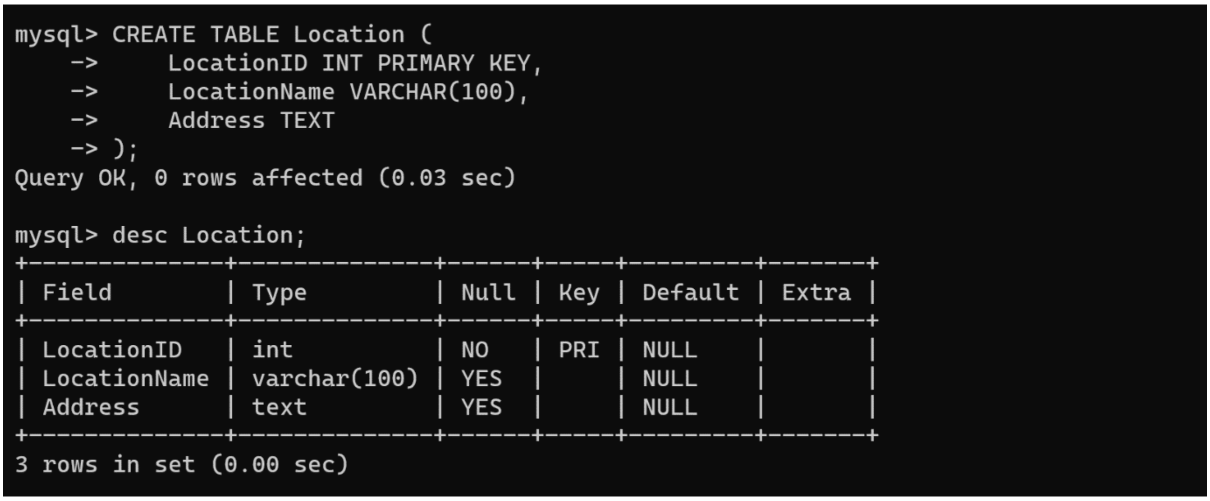
```
mysql> CREATE TABLE Courier (
    ->     CourierID INT PRIMARY KEY,
    ->     SenderName VARCHAR(255),
    ->     SenderAddress TEXT,
    ->     ReceiverName VARCHAR(255),
    ->     ReceiverAddress TEXT,
    ->     Weight DECIMAL(5, 2),
    ->     Status VARCHAR(50),
    ->     TrackingNumber VARCHAR(20) UNIQUE,
    ->     DeliveryDate DATE
    -> );
Query OK, 0 rows affected (0.04 sec)

mysql> desc Courier;
+-----------------+--------------+------+-----+---------+-------+
| Field           | Type         | Null | Key | Default | Extra |
+-----------------+--------------+------+-----+---------+-------+
| CourierID       | int          | NO   | PRI | NULL    |       |
| SenderName      | varchar(255) | YES  |     | NULL    |       |
| SenderAddress   | text         | YES  |     | NULL    |       |
| ReceiverName    | varchar(255) | YES  |     | NULL    |       |
| ReceiverAddress | text         | YES  |     | NULL    |       |
| Weight          | decimal(5,2) | YES  |     | NULL    |       |
| Status          | varchar(50)  | YES  |     | NULL    |       |
| TrackingNumber  | varchar(20)  | YES  | UNI | NULL    |       |
| DeliveryDate    | date         | YES  |     | NULL    |       |
+-----------------+--------------+------+-----+---------+-------+
9 rows in set (0.00 sec)
```



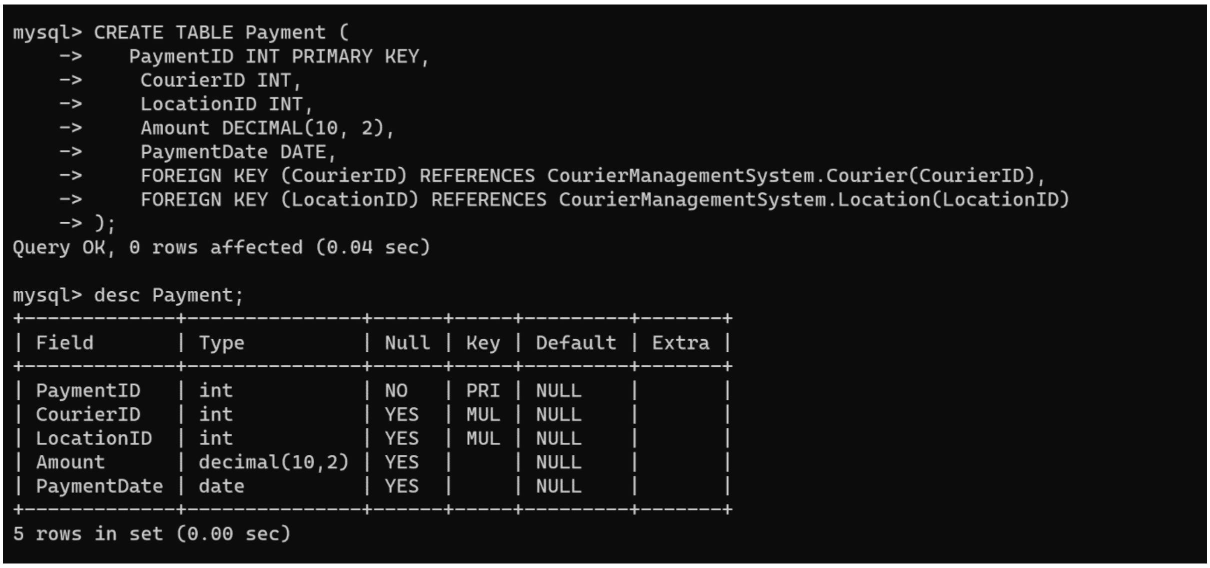
```
mysql> CREATE TABLE CourierServices (
    ->      ServiceID INT PRIMARY KEY,
    ->     ServiceName VARCHAR(100),
    ->     Cost DECIMAL(8, 2)
    -> );
Query OK, 0 rows affected (0.03 sec)

mysql> desc CourierServices;
+-------------+--------------+------+-----+---------+-------+
| Field       | Type         | Null | Key | Default | Extra |
+-------------+--------------+------+-----+---------+-------+
| ServiceID   | int          | NO   | PRI | NULL    |       |
| ServiceName | varchar(100) | YES  |     | NULL    |       |
| Cost        | decimal(8,2) | YES  |     | NULL    |       |
+-------------+--------------+------+-----+---------+-------+
3 rows in set (0.00 sec)
```



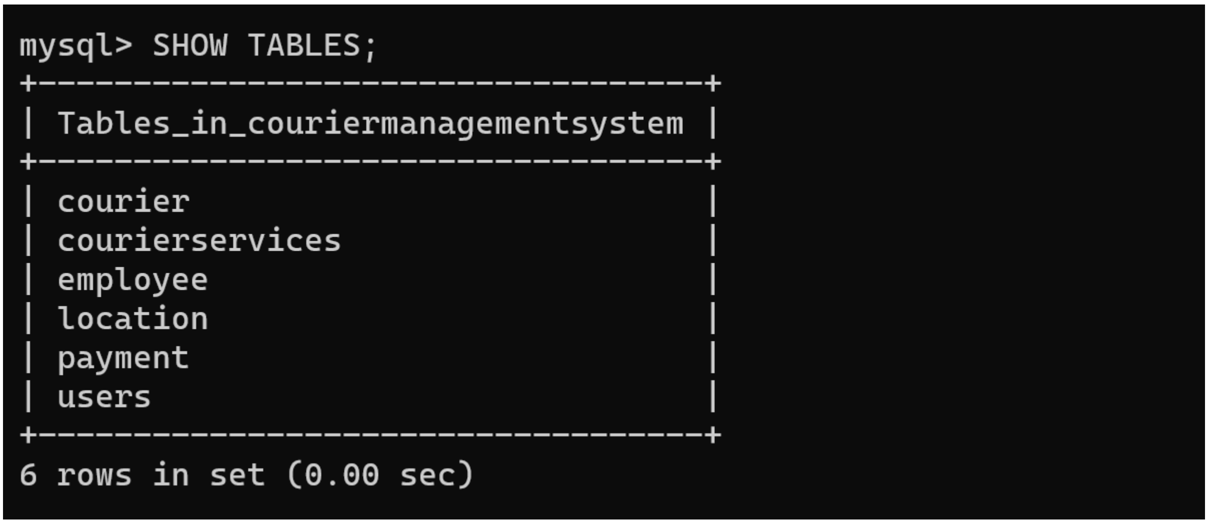
```
mysql> CREATE TABLE Employee (
    ->     EmployeeID INT PRIMARY KEY,
    ->     Name VARCHAR(255),
    ->     Email VARCHAR(255) UNIQUE,
    ->     ContactNumber VARCHAR(20),
    ->     Role VARCHAR(50),
    ->     Salary DECIMAL(10, 2)
    -> );
Query OK, 0 rows affected (0.03 sec)

mysql> desc Employee;
+---------------+---------------+------+-----+---------+-------+
| Field         | Type          | Null | Key | Default | Extra |
+---------------+---------------+------+-----+---------+-------+
| EmployeeID    | int           | NO   | PRI | NULL    |       |
| Name          | varchar(255)  | YES  |     | NULL    |       |
| Email         | varchar(255)  | YES  | UNI | NULL    |       |
| ContactNumber | varchar(20)   | YES  |     | NULL    |       |
| Role          | varchar(50)   | YES  |     | NULL    |       |
| Salary        | decimal(10,2) | YES  |     | NULL    |       |
+---------------+---------------+------+-----+---------+-------+
6 rows in set (0.00 sec)
```



```
mysql> CREATE TABLE Location (
    ->     LocationID INT PRIMARY KEY,
    ->     LocationName VARCHAR(100),
    ->     Address TEXT
    -> );
Query OK, 0 rows affected (0.03 sec)

mysql> desc Location;
+--------------+--------------+------+-----+---------+-------+
| Field        | Type         | Null | Key | Default | Extra |
+--------------+--------------+------+-----+---------+-------+
| LocationID   | int          | NO   | PRI | NULL    |       |
| LocationName | varchar(100) | YES  |     | NULL    |       |
| Address      | text         | YES  |     | NULL    |       |
+--------------+--------------+------+-----+---------+-------+
3 rows in set (0.00 sec)
```

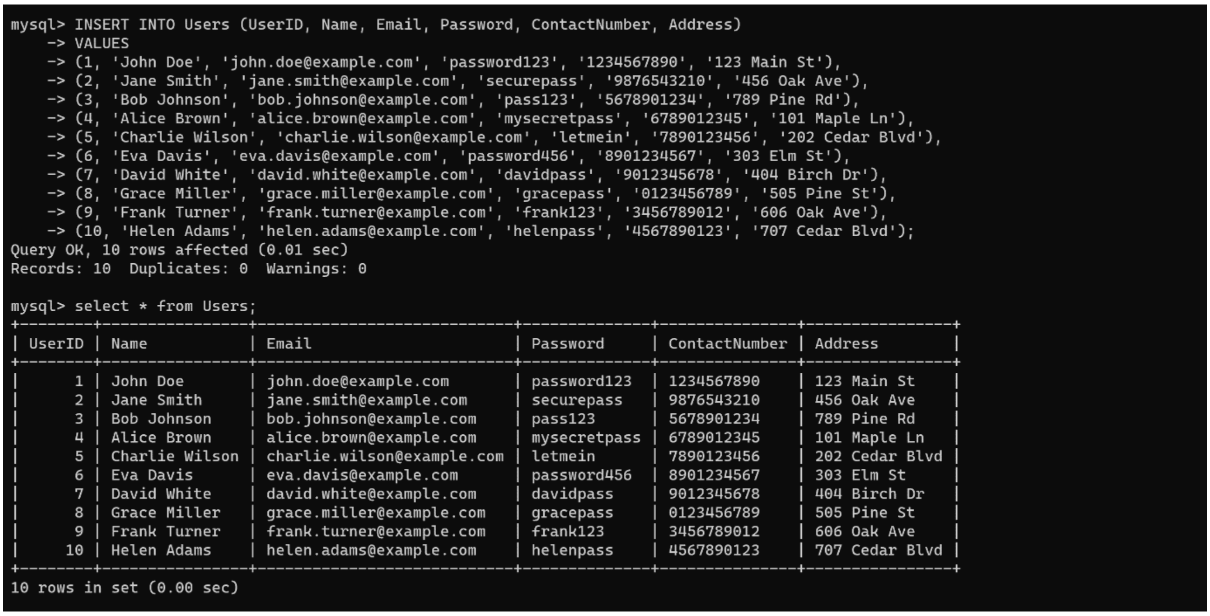


```
mysql> CREATE TABLE Payment (
    ->    PaymentID INT PRIMARY KEY,
    ->     CourierID INT,
    ->     LocationID INT,
    ->     Amount DECIMAL(10, 2),
    ->     PaymentDate DATE,
    ->     FOREIGN KEY (CourierID) REFERENCES CourierManagementSystem.Courier(CourierID),
    ->     FOREIGN KEY (LocationID) REFERENCES CourierManagementSystem.Location(LocationID)
    -> );
Query OK, 0 rows affected (0.04 sec)

mysql> desc Payment;
+-------------+---------------+------+-----+---------+-------+
| Field       | Type          | Null | Key | Default | Extra |
+-------------+---------------+------+-----+---------+-------+
| PaymentID   | int           | NO   | PRI | NULL    |       |
| CourierID   | int           | YES  | MUL | NULL    |       |
| LocationID  | int           | YES  | MUL | NULL    |       |
| Amount      | decimal(10,2) | YES  |     | NULL    |       |
| PaymentDate | date          | YES  |     | NULL    |       |
+-------------+---------------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

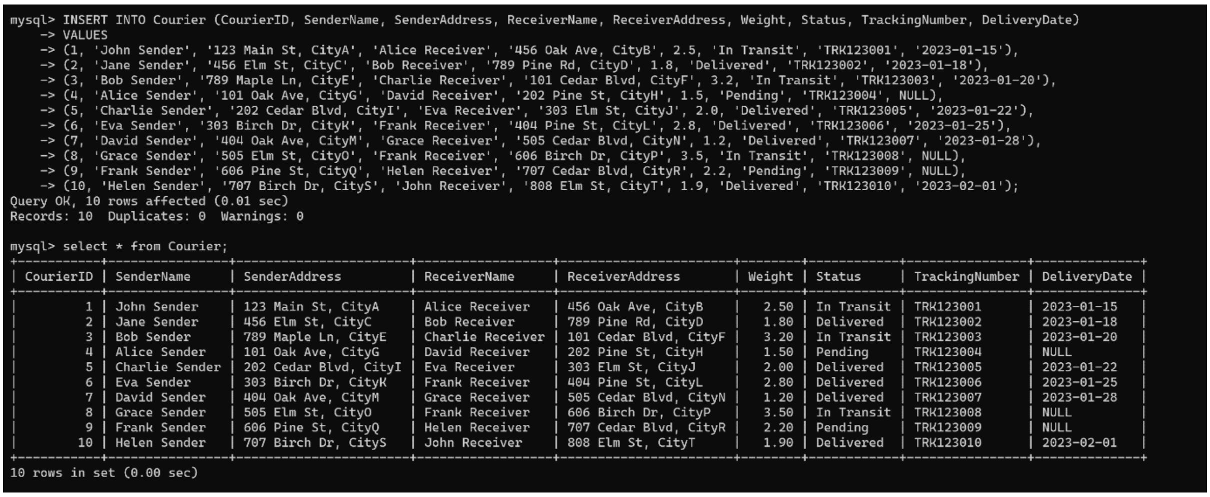


```
mysql> SHOW TABLES;
+-----------------------------------+
| Tables_in_couriermanagementsystem |
+-----------------------------------+
| courier                           |
| courierservices                   |
| employee                          |
| location                          |
| payment                           |
| users                             |
+-----------------------------------+
6 rows in set (0.00 sec)
```

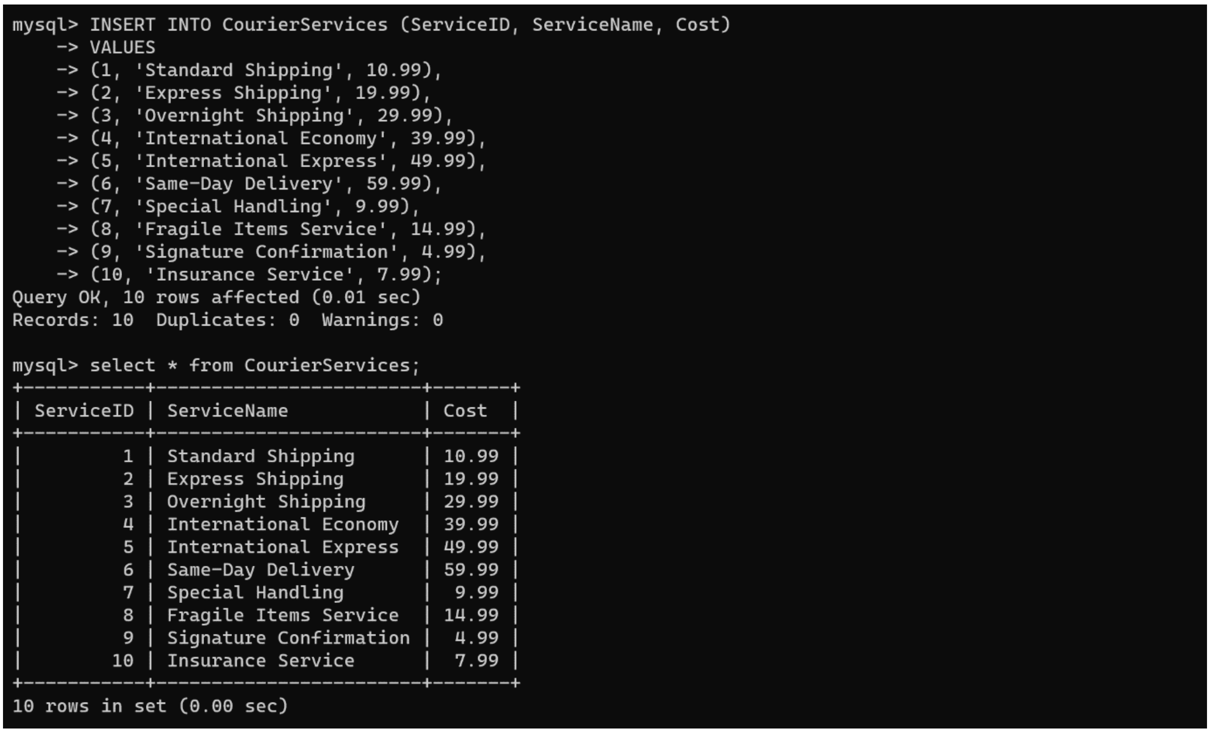
Insert at least 10 values in each of the table



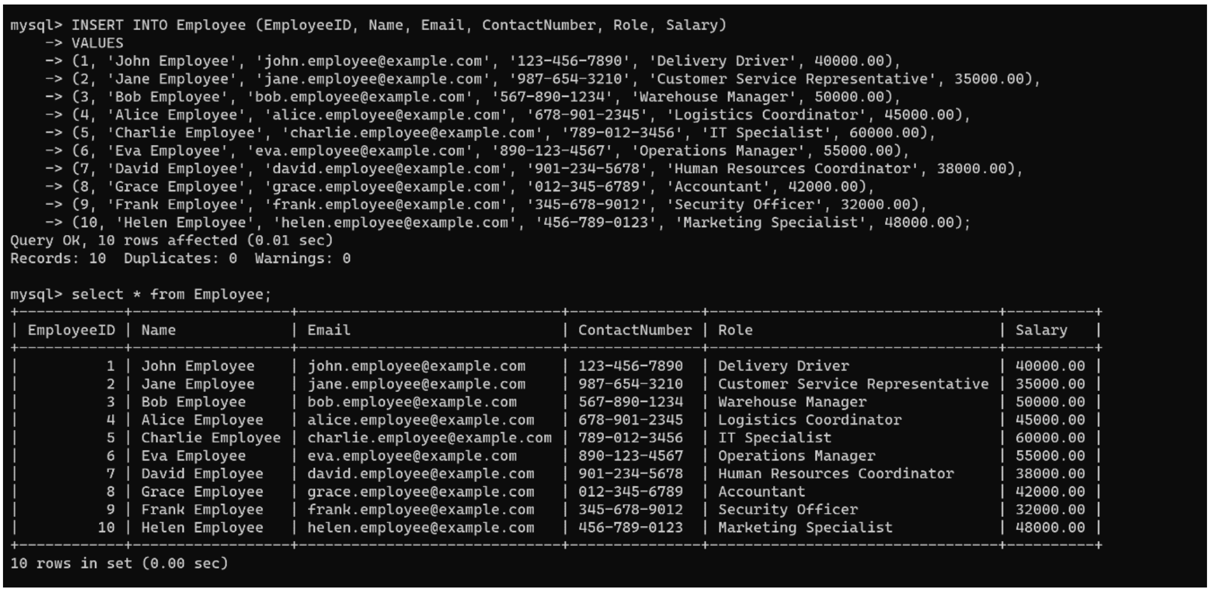
```
mysql> INSERT INTO Users (UserID, Name, Email, Password, ContactNumber, Address)
    -> VALUES
    -> (1, 'John Doe', 'john.doe@example.com', 'password123', '1234567890', '123 Main St'),
    -> (2, 'Jane Smith', 'jane.smith@example.com', 'securepass', '9876543210', '456 Oak Ave'),
    -> (3, 'Bob Johnson', 'bob.johnson@example.com', 'pass123', '5678901234', '789 Pine Rd'),
    -> (4, 'Alice Brown', 'alice.brown@example.com', 'mysecretpass', '6789012345', '101 Maple Ln'),
    -> (5, 'Charlie Wilson', 'charlie.wilson@example.com', 'letmein', '7890123456', '202 Cedar Blvd'),
    -> (6, 'Eva Davis', 'eva.davis@example.com', 'password456', '8901234567', '303 Elm St'),
    -> (7, 'David White', 'david.white@example.com', 'davidpass', '9012345678', '404 Birch Dr'),
    -> (8, 'Grace Miller', 'grace.miller@example.com', 'gracepass', '0123456789', '505 Pine St'),
    -> (9, 'Frank Turner', 'frank.turner@example.com', 'frank123', '3456789012', '606 Oak Ave'),
    -> (10, 'Helen Adams', 'helen.adams@example.com', 'helenpass', '4567890123', '707 Cedar Blvd');
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0

mysql> select * from Users;
+--------+----------------+----------------------------+--------------+---------------+----------------+
| UserID | Name           | Email                      | Password     | ContactNumber | Address        |
+--------+----------------+----------------------------+--------------+---------------+----------------+
|      1 | John Doe       | john.doe@example.com       | password123  | 1234567890    | 123 Main St    |
|      2 | Jane Smith     | jane.smith@example.com     | securepass   | 9876543210    | 456 Oak Ave    |
|      3 | Bob Johnson    | bob.johnson@example.com    | pass123      | 5678901234    | 789 Pine Rd    |
|      4 | Alice Brown    | alice.brown@example.com    | mysecretpass | 6789012345    | 101 Maple Ln   |
|      5 | Charlie Wilson | charlie.wilson@example.com | letmein      | 7890123456    | 202 Cedar Blvd |
|      6 | Eva Davis      | eva.davis@example.com      | password456  | 8901234567    | 303 Elm St     |
|      7 | David White    | david.white@example.com    | davidpass    | 9012345678    | 404 Birch Dr   |
|      8 | Grace Miller   | grace.miller@example.com   | gracepass    | 0123456789    | 505 Pine St    |
|      9 | Frank Turner   | frank.turner@example.com   | frank123     | 3456789012    | 606 Oak Ave    |
|     10 | Helen Adams    | helen.adams@example.com    | helenpass    | 4567890123    | 707 Cedar Blvd |
+--------+----------------+----------------------------+--------------+---------------+----------------+
10 rows in set (0.00 sec)
```



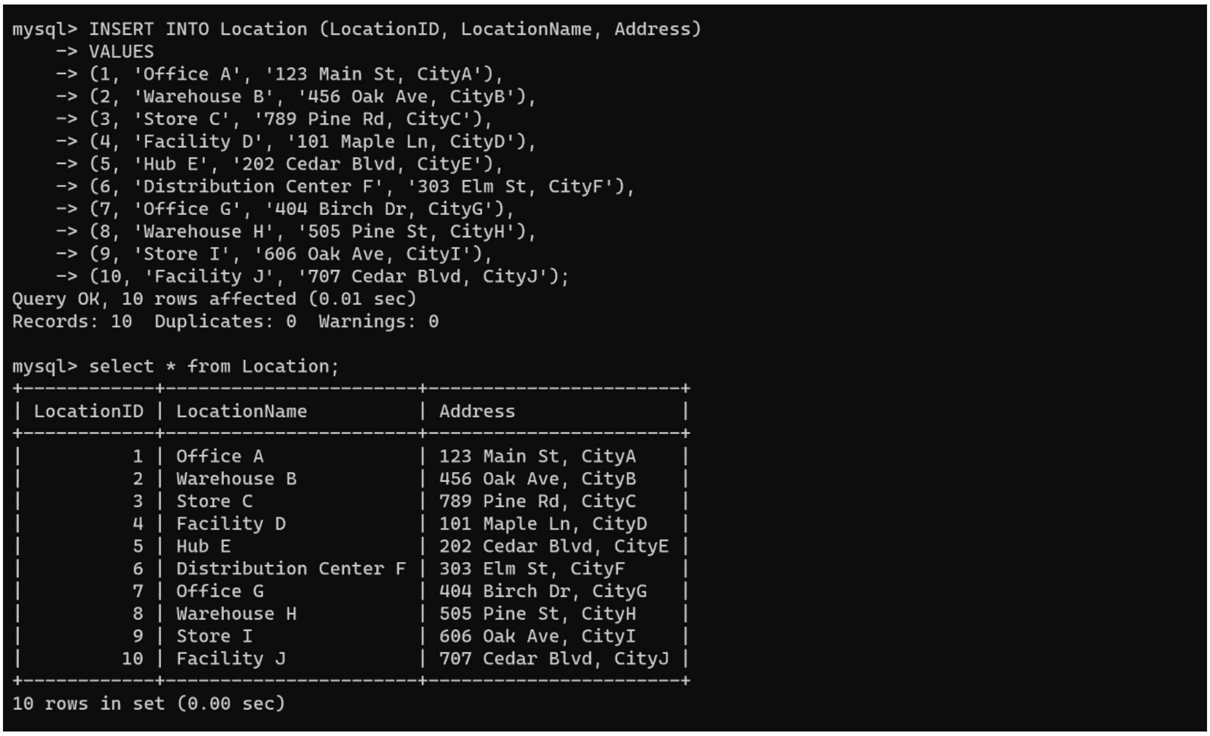
```
mysql> INSERT INTO Courier (CourierID, SenderName, SenderAddress, ReceiverName, ReceiverAddress, Weight, Status, TrackingNumber, DeliveryDate)
    -> VALUES
    -> (1, 'John Sender', '123 Main St, CityA', 'Alice Receiver', '456 Oak Ave, CityB', 2.5, 'In Transit', 'TRK123001', '2023-01-15'),
    -> (2, 'Jane Sender', '456 Elm St, CityC', 'Bob Receiver', '789 Pine Rd, CityD', 1.8, 'Delivered', 'TRK123002', '2023-01-18'),
    -> (3, 'Bob Sender', '789 Maple Ln, CityE', 'Charlie Receiver', '101 Cedar Blvd, CityF', 3.2, 'In Transit', 'TRK123003', '2023-01-20'),
    -> (4, 'Alice Sender', '101 Oak Ave, CityG', 'David Receiver', '202 Pine St, CityH', 1.5, 'Pending', 'TRK123004', NULL),
    -> (5, 'Charlie Sender', '202 Cedar Blvd, CityI', 'Eva Receiver', '303 Elm St, CityJ', 2.0, 'Delivered', 'TRK123005', '2023-01-22'),
    -> (6, 'Eva Sender', '303 Birch Dr, CityK', 'Frank Receiver', '404 Pine St, CityL', 2.8, 'Delivered', 'TRK123006', '2023-01-25'),
    -> (7, 'David Sender', '404 Oak Ave, CityM', 'Grace Receiver', '505 Cedar Blvd, CityN', 1.2, 'Delivered', 'TRK123007', '2023-01-28'),
    -> (8, 'Grace Sender', '505 Elm St, CityO', 'Frank Receiver', '606 Birch Dr, CityP', 3.5, 'In Transit', 'TRK123008', NULL),
    -> (9, 'Frank Sender', '606 Pine St, CityQ', 'Helen Receiver', '707 Cedar Blvd, CityR', 2.2, 'Pending', 'TRK123009', NULL),
    -> (10, 'Helen Sender', '707 Birch Dr, CityS', 'John Receiver', '808 Elm St, CityT', 1.9, 'Delivered', 'TRK123010', '2023-02-01');
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0

mysql> select * from Courier;
+-----------+----------------+-----------------------+------------------+-----------------------+--------+------------+----------------+--------------+
| CourierID | SenderName     | SenderAddress         | ReceiverName     | ReceiverAddress       | Weight | Status     | TrackingNumber | DeliveryDate |
+-----------+----------------+-----------------------+------------------+-----------------------+--------+------------+----------------+--------------+
|         1 | John Sender    | 123 Main St, CityA    | Alice Receiver   | 456 Oak Ave, CityB    |   2.50 | In Transit | TRK123001      | 2023-01-15   |
|         2 | Jane Sender    | 456 Elm St, CityC     | Bob Receiver     | 789 Pine Rd, CityD    |   1.80 | Delivered  | TRK123002      | 2023-01-18   |
|         3 | Bob Sender     | 789 Maple Ln, CityE   | Charlie Receiver | 101 Cedar Blvd, CityF |   3.20 | In Transit | TRK123003      | 2023-01-20   |
|         4 | Alice Sender   | 101 Oak Ave, CityG    | David Receiver   | 202 Pine St, CityH    |   1.50 | Pending    | TRK123004      | NULL         |
|         5 | Charlie Sender | 202 Cedar Blvd, CityI | Eva Receiver     | 303 Elm St, CityJ     |   2.00 | Delivered  | TRK123005      | 2023-01-22   |
|         6 | Eva Sender     | 303 Birch Dr, CityK   | Frank Receiver   | 404 Pine St, CityL    |   2.80 | Delivered  | TRK123006      | 2023-01-25   |
|         7 | David Sender   | 404 Oak Ave, CityM    | Grace Receiver   | 505 Cedar Blvd, CityN |   1.20 | Delivered  | TRK123007      | 2023-01-28   |
|         8 | Grace Sender   | 505 Elm St, CityO     | Frank Receiver   | 606 Birch Dr, CityP   |   3.50 | In Transit | TRK123008      | NULL         |
|         9 | Frank Sender   | 606 Pine St, CityQ    | Helen Receiver   | 707 Cedar Blvd, CityR |   2.20 | Pending    | TRK123009      | NULL         |
|        10 | Helen Sender   | 707 Birch Dr, CityS   | John Receiver    | 808 Elm St, CityT     |   1.90 | Delivered  | TRK123010      | 2023-02-01   |
+-----------+----------------+-----------------------+------------------+-----------------------+--------+------------+----------------+--------------+
10 rows in set (0.00 sec)
```



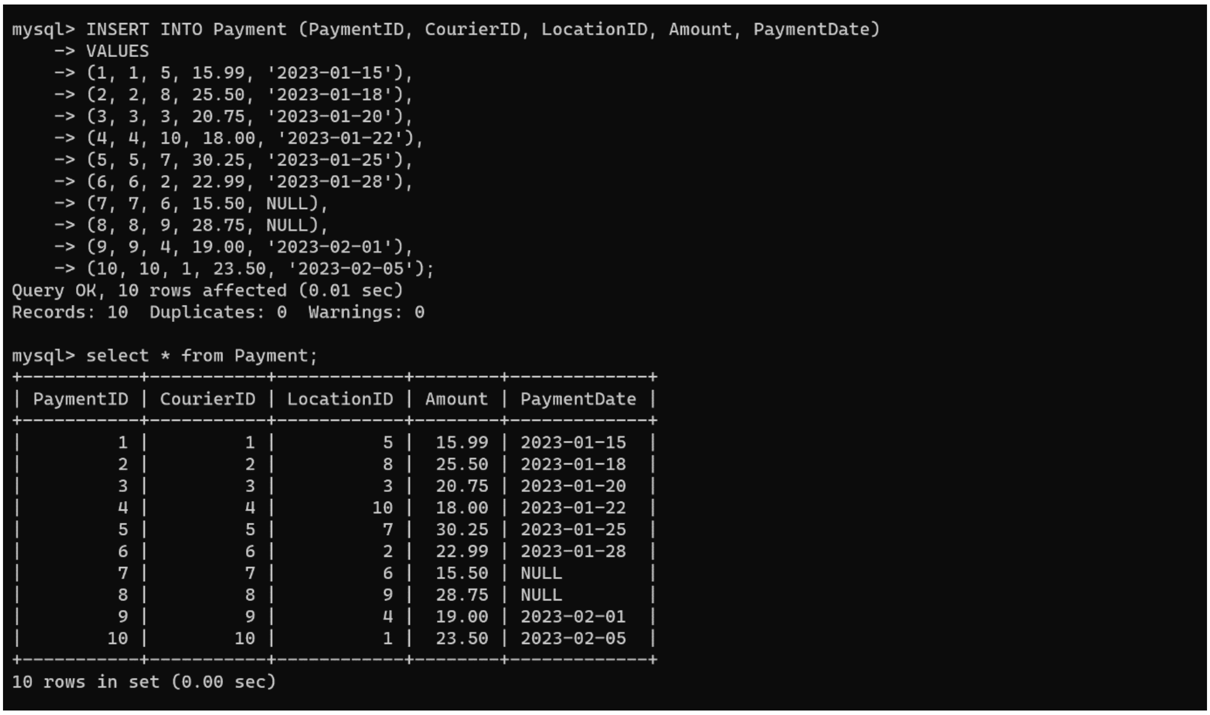
```
mysql> INSERT INTO CourierServices (ServiceID, ServiceName, Cost)
    -> VALUES
    -> (1, 'Standard Shipping', 10.99),
    -> (2, 'Express Shipping', 19.99),
    -> (3, 'Overnight Shipping', 29.99),
    -> (4, 'International Economy', 39.99),
    -> (5, 'International Express', 49.99),
    -> (6, 'Same-Day Delivery', 59.99),
    -> (7, 'Special Handling', 9.99),
    -> (8, 'Fragile Items Service', 14.99),
    -> (9, 'Signature Confirmation', 4.99),
    -> (10, 'Insurance Service', 7.99);
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0

mysql> select * from CourierServices;
+-----------+------------------------+-------+
| ServiceID | ServiceName            | Cost  |
+-----------+------------------------+-------+
|         1 | Standard Shipping      | 10.99 |
|         2 | Express Shipping       | 19.99 |
|         3 | Overnight Shipping     | 29.99 |
|         4 | International Economy  | 39.99 |
|         5 | International Express  | 49.99 |
|         6 | Same-Day Delivery      | 59.99 |
|         7 | Special Handling       |  9.99 |
|         8 | Fragile Items Service  | 14.99 |
|         9 | Signature Confirmation |  4.99 |
|        10 | Insurance Service      |  7.99 |
+-----------+------------------------+-------+
10 rows in set (0.00 sec)
```



```
mysql> INSERT INTO Employee (EmployeeID, Name, Email, ContactNumber, Role, Salary)
    -> VALUES
    -> (1, 'John Employee', 'john.employee@example.com', '123-456-7890', 'Delivery Driver', 40000.00),
    -> (2, 'Jane Employee', 'jane.employee@example.com', '987-654-3210', 'Customer Service Representative', 35000.00),
    -> (3, 'Bob Employee', 'bob.employee@example.com', '567-890-1234', 'Warehouse Manager', 50000.00),
    -> (4, 'Alice Employee', 'alice.employee@example.com', '678-901-2345', 'Logistics Coordinator', 45000.00),
    -> (5, 'Charlie Employee', 'charlie.employee@example.com', '789-012-3456', 'IT Specialist', 60000.00),
    -> (6, 'Eva Employee', 'eva.employee@example.com', '890-123-4567', 'Operations Manager', 55000.00),
    -> (7, 'David Employee', 'david.employee@example.com', '901-234-5678', 'Human Resources Coordinator', 38000.00),
    -> (8, 'Grace Employee', 'grace.employee@example.com', '012-345-6789', 'Accountant', 42000.00),
    -> (9, 'Frank Employee', 'frank.employee@example.com', '345-678-9012', 'Security Officer', 32000.00),
    -> (10, 'Helen Employee', 'helen.employee@example.com', '456-789-0123', 'Marketing Specialist', 48000.00);
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0

mysql> select * from Employee;
+------------+------------------+------------------------------+---------------+---------------------------------+----------+
| EmployeeID | Name             | Email                        | ContactNumber | Role                            | Salary   |
+------------+------------------+------------------------------+---------------+---------------------------------+----------+
|          1 | John Employee    | john.employee@example.com    | 123-456-7890  | Delivery Driver                 | 40000.00 |
|          2 | Jane Employee    | jane.employee@example.com    | 987-654-3210  | Customer Service Representative | 35000.00 |
|          3 | Bob Employee     | bob.employee@example.com     | 567-890-1234  | Warehouse Manager               | 50000.00 |
|          4 | Alice Employee   | alice.employee@example.com   | 678-901-2345  | Logistics Coordinator           | 45000.00 |
|          5 | Charlie Employee | charlie.employee@example.com | 789-012-3456  | IT Specialist                   | 60000.00 |
|          6 | Eva Employee     | eva.employee@example.com     | 890-123-4567  | Operations Manager              | 55000.00 |
|          7 | David Employee   | david.employee@example.com   | 901-234-5678  | Human Resources Coordinator     | 38000.00 |
|          8 | Grace Employee   | grace.employee@example.com   | 012-345-6789  | Accountant                      | 42000.00 |
|          9 | Frank Employee   | frank.employee@example.com   | 345-678-9012  | Security Officer                | 32000.00 |
|         10 | Helen Employee   | helen.employee@example.com   | 456-789-0123  | Marketing Specialist            | 48000.00 |
+------------+------------------+------------------------------+---------------+---------------------------------+----------+
10 rows in set (0.00 sec)
```



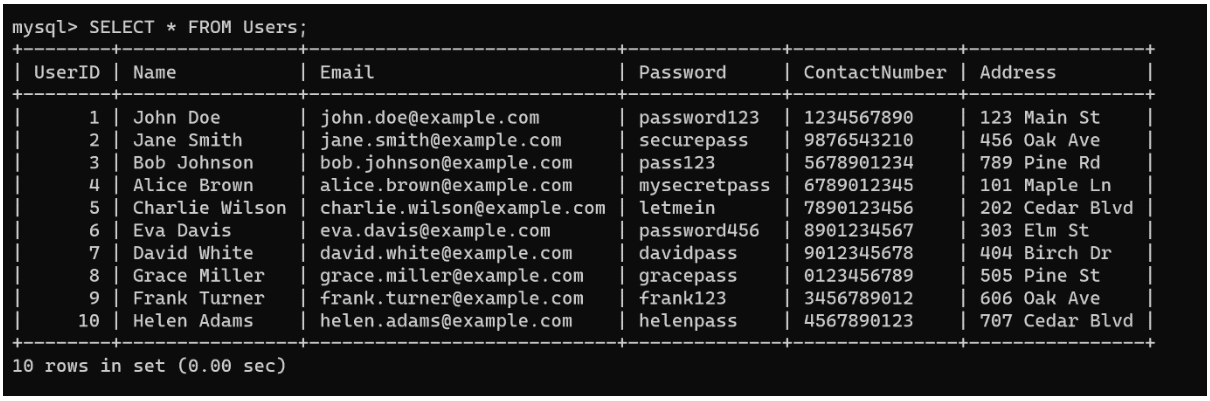
```
mysql> INSERT INTO Location (LocationID, LocationName, Address)
    -> VALUES
    -> (1, 'Office A', '123 Main St, CityA'),
    -> (2, 'Warehouse B', '456 Oak Ave, CityB'),
    -> (3, 'Store C', '789 Pine Rd, CityC'),
    -> (4, 'Facility D', '101 Maple Ln, CityD'),
    -> (5, 'Hub E', '202 Cedar Blvd, CityE'),
    -> (6, 'Distribution Center F', '303 Elm St, CityF'),
    -> (7, 'Office G', '404 Birch Dr, CityG'),
    -> (8, 'Warehouse H', '505 Pine St, CityH'),
    -> (9, 'Store I', '606 Oak Ave, CityI'),
    -> (10, 'Facility J', '707 Cedar Blvd, CityJ');
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0

mysql> select * from Location;
+------------+-----------------------+-----------------------+
| LocationID | LocationName          | Address               |
+------------+-----------------------+-----------------------+
|          1 | Office A              | 123 Main St, CityA    |
|          2 | Warehouse B           | 456 Oak Ave, CityB    |
|          3 | Store C               | 789 Pine Rd, CityC    |
|          4 | Facility D            | 101 Maple Ln, CityD   |
|          5 | Hub E                 | 202 Cedar Blvd, CityE |
|          6 | Distribution Center F | 303 Elm St, CityF     |
|          7 | Office G              | 404 Birch Dr, CityG   |
|          8 | Warehouse H           | 505 Pine St, CityH    |
|          9 | Store I               | 606 Oak Ave, CityI    |
|         10 | Facility J            | 707 Cedar Blvd, CityJ |
+------------+-----------------------+-----------------------+
10 rows in set (0.00 sec)
```



```
mysql> INSERT INTO Payment (PaymentID, CourierID, LocationID, Amount, PaymentDate)
    -> VALUES
    -> (1, 1, 5, 15.99, '2023-01-15'),
    -> (2, 2, 8, 25.50, '2023-01-18'),
    -> (3, 3, 3, 20.75, '2023-01-20'),
    -> (4, 4, 10, 18.00, '2023-01-22'),
    -> (5, 5, 7, 30.25, '2023-01-25'),
    -> (6, 6, 2, 22.99, '2023-01-28'),
    -> (7, 7, 6, 15.50, NULL),
    -> (8, 8, 9, 28.75, NULL),
    -> (9, 9, 4, 19.00, '2023-02-01'),
    -> (10, 10, 1, 23.50, '2023-02-05');
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0

mysql> select * from Payment;
+-----------+-----------+------------+--------+-------------+
| PaymentID | CourierID | LocationID | Amount | PaymentDate |
+-----------+-----------+------------+--------+-------------+
|         1 |         1 |          5 |  15.99 | 2023-01-15  |
|         2 |         2 |          8 |  25.50 | 2023-01-18  |
|         3 |         3 |          3 |  20.75 | 2023-01-20  |
|         4 |         4 |         10 |  18.00 | 2023-01-22  |
|         5 |         5 |          7 |  30.25 | 2023-01-25  |
|         6 |         6 |          2 |  22.99 | 2023-01-28  |
|         7 |         7 |          6 |  15.50 | NULL        |
|         8 |         8 |          9 |  28.75 | NULL        |
|         9 |         9 |          4 |  19.00 | 2023-02-01  |
|        10 |        10 |          1 |  23.50 | 2023-02-05  |
+-----------+-----------+------------+--------+-------------+
10 rows in set (0.00 sec)
```

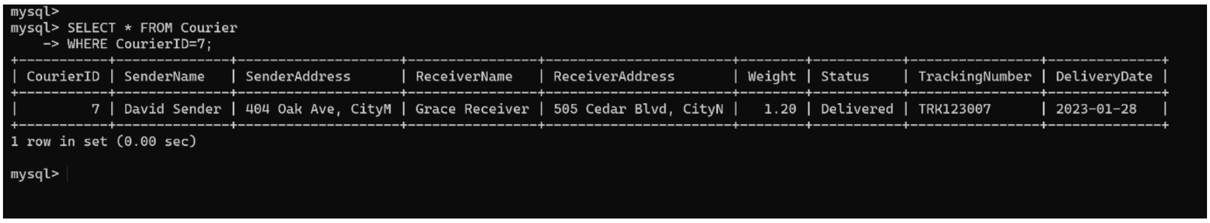
Task 2: Select, Where

List all couriers



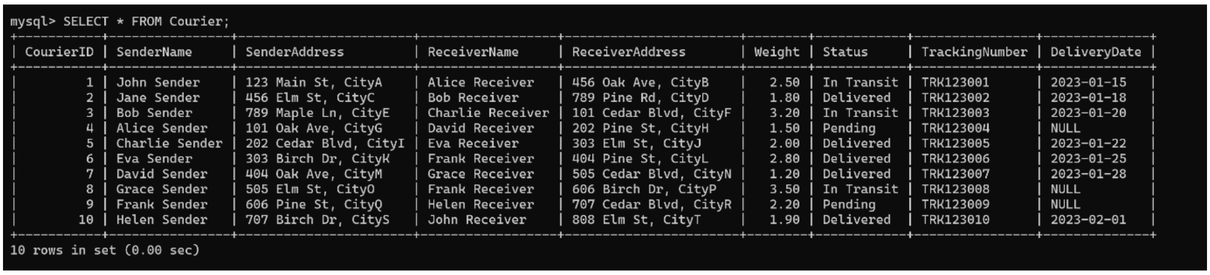
```
mysql> SELECT * FROM Users;
+--------+----------------+----------------------------+--------------+---------------+----------------+
| UserID | Name           | Email                      | Password     | ContactNumber | Address        |
+--------+----------------+----------------------------+--------------+---------------+----------------+
|      1 | John Doe       | john.doe@example.com       | password123  | 1234567890    | 123 Main St    |
|      2 | Jane Smith     | jane.smith@example.com     | securepass   | 9876543210    | 456 Oak Ave    |
|      3 | Bob Johnson    | bob.johnson@example.com    | pass123      | 5678901234    | 789 Pine Rd    |
|      4 | Alice Brown    | alice.brown@example.com    | mysecretpass | 6789012345    | 101 Maple Ln   |
|      5 | Charlie Wilson | charlie.wilson@example.com | letmein      | 7890123456    | 202 Cedar Blvd |
|      6 | Eva Davis      | eva.davis@example.com      | password456  | 8901234567    | 303 Elm St     |
|      7 | David White    | david.white@example.com    | davidpass    | 9012345678    | 404 Birch Dr   |
|      8 | Grace Miller   | grace.miller@example.com   | gracepass    | 0123456789    | 505 Pine St    |
|      9 | Frank Turner   | frank.turner@example.com   | frank123     | 3456789012    | 606 Oak Ave    |
|     10 | Helen Adams    | helen.adams@example.com    | helenpass    | 4567890123    | 707 Cedar Blvd |
+--------+----------------+----------------------------+--------------+---------------+----------------+
10 rows in set (0.00 sec)
```

List all packages for a specific order



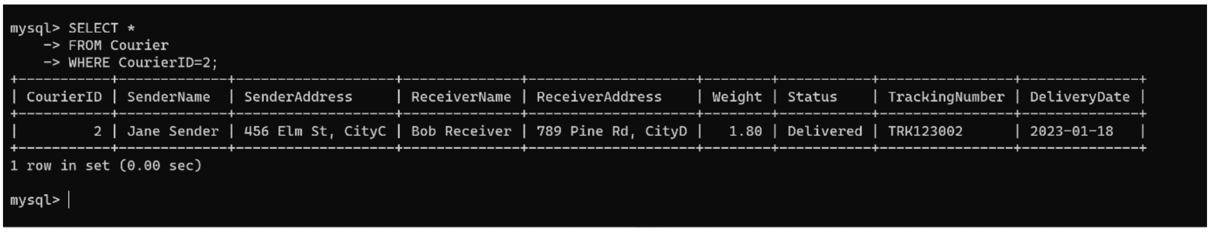
```
mysql>
mysql> SELECT * FROM Courier
    -> WHERE CourierID=7;
+-----------+--------------+--------------------+----------------+-----------------------+--------+-----------+----------------+--------------+
| CourierID | SenderName   | SenderAddress      | ReceiverName   | ReceiverAddress       | Weight | Status    | TrackingNumber | DeliveryDate |
+-----------+--------------+--------------------+----------------+-----------------------+--------+-----------+----------------+--------------+
|         7 | David Sender | 404 Oak Ave, CityM | Grace Receiver | 505 Cedar Blvd, CityN |   1.20 | Delivered | TRK123007      | 2023-01-28   |
+-----------+--------------+--------------------+----------------+-----------------------+--------+-----------+----------------+--------------+
1 row in set (0.00 sec)

mysql>
```

List all couriers



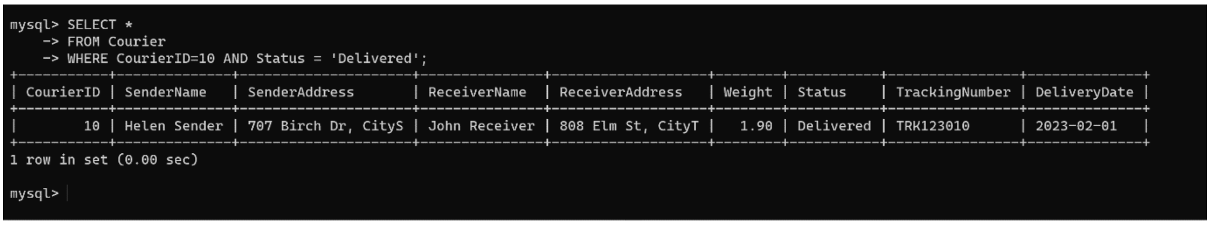
```
mysql> SELECT * FROM Courier;
+-----------+----------------+-----------------------+------------------+-----------------------+--------+------------+----------------+--------------+
| CourierID | SenderName     | SenderAddress         | ReceiverName     | ReceiverAddress       | Weight | Status     | TrackingNumber | DeliveryDate |
+-----------+----------------+-----------------------+------------------+-----------------------+--------+------------+----------------+--------------+
|         1 | John Sender    | 123 Main St, CityA    | Alice Receiver   | 456 Oak Ave, CityB    |   2.50 | In Transit | TRK123001      | 2023-01-15   |
|         2 | Jane Sender    | 456 Elm St, CityC     | Bob Receiver     | 789 Pine Rd, CityD    |   1.80 | Delivered  | TRK123002      | 2023-01-18   |
|         3 | Bob Sender     | 789 Maple Ln, CityE   | Charlie Receiver | 101 Cedar Blvd, CityF |   3.20 | In Transit | TRK123003      | 2023-01-20   |
|         4 | Alice Sender   | 101 Oak Ave, CityG    | David Receiver   | 202 Pine St, CityH    |   1.50 | Pending    | TRK123004      | NULL         |
|         5 | Charlie Sender | 202 Cedar Blvd, CityI | Eva Receiver     | 303 Elm St, CityJ     |   2.00 | Delivered  | TRK123005      | 2023-01-22   |
|         6 | Eva Sender     | 303 Birch Dr, CityK   | Frank Receiver   | 404 Pine St, CityL    |   2.80 | Delivered  | TRK123006      | 2023-01-25   |
|         7 | David Sender   | 404 Oak Ave, CityM    | Grace Receiver   | 505 Cedar Blvd, CityN |   1.20 | Delivered  | TRK123007      | 2023-01-28   |
|         8 | Grace Sender   | 505 Elm St, CityO     | Frank Receiver   | 606 Birch Dr, CityP   |   3.50 | In Transit | TRK123008      | NULL         |
|         9 | Frank Sender   | 606 Pine St, CityQ    | Helen Receiver   | 707 Cedar Blvd, CityR |   2.20 | Pending    | TRK123009      | NULL         |
|        10 | Helen Sender   | 707 Birch Dr, CityS   | John Receiver    | 808 Elm St, CityT     |   1.90 | Delivered  | TRK123010      | 2023-02-01   |
+-----------+----------------+-----------------------+------------------+-----------------------+--------+------------+----------------+--------------+
10 rows in set (0.00 sec)
```

List all packages for a specific order



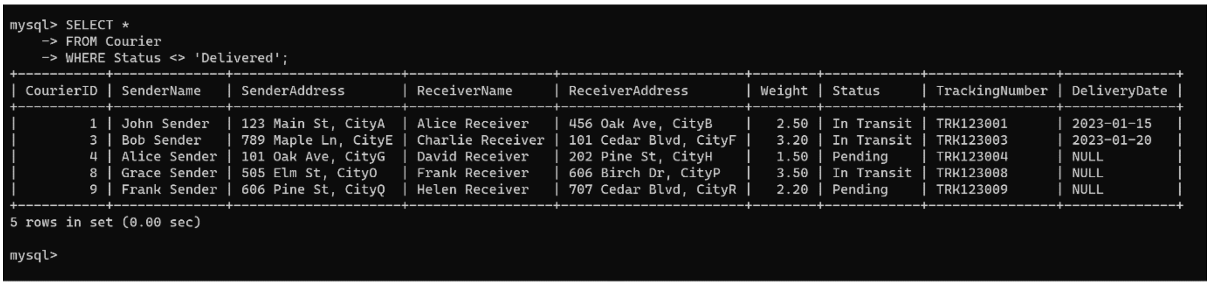
```
mysql> SELECT *
    -> FROM Courier
    -> WHERE CourierID=2;
+-----------+-------------+-------------------+--------------+--------------------+--------+-----------+----------------+--------------+
| CourierID | SenderName  | SenderAddress     | ReceiverName | ReceiverAddress    | Weight | Status    | TrackingNumber | DeliveryDate |
+-----------+-------------+-------------------+--------------+--------------------+--------+-----------+----------------+--------------+
|         2 | Jane Sender | 456 Elm St, CityC | Bob Receiver | 789 Pine Rd, CityD |   1.80 | Delivered | TRK123002      | 2023-01-18   |
+-----------+-------------+-------------------+--------------+--------------------+--------+-----------+----------------+--------------+
1 row in set (0.00 sec)

mysql>
```

List all deliveries for a specific courier



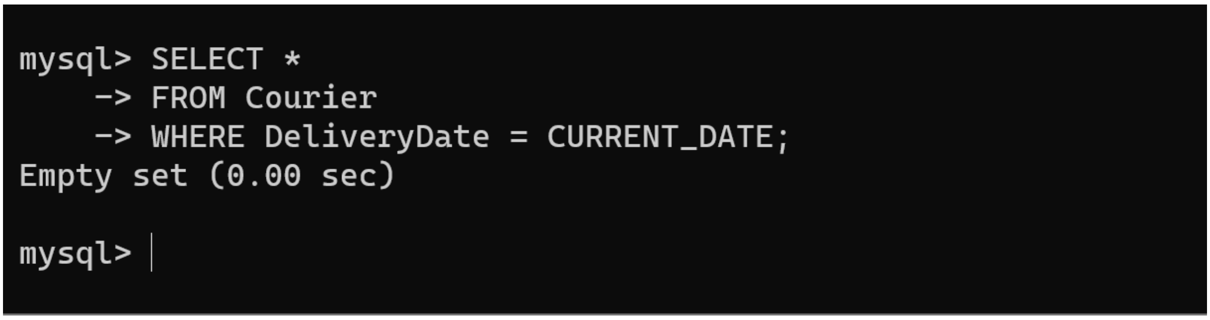
```
mysql> SELECT *
    -> FROM Courier
    -> WHERE CourierID=10 AND Status = 'Delivered';
+-----------+--------------+---------------------+---------------+-------------------+--------+-----------+----------------+--------------+
| CourierID | SenderName   | SenderAddress       | ReceiverName  | ReceiverAddress   | Weight | Status    | TrackingNumber | DeliveryDate |
+-----------+--------------+---------------------+---------------+-------------------+--------+-----------+----------------+--------------+
|        10 | Helen Sender | 707 Birch Dr, CityS | John Receiver | 808 Elm St, CityT |   1.90 | Delivered | TRK123010      | 2023-02-01   |
+-----------+--------------+---------------------+---------------+-------------------+--------+-----------+----------------+--------------+
1 row in set (0.00 sec)

mysql>
```

List all undelivered packages



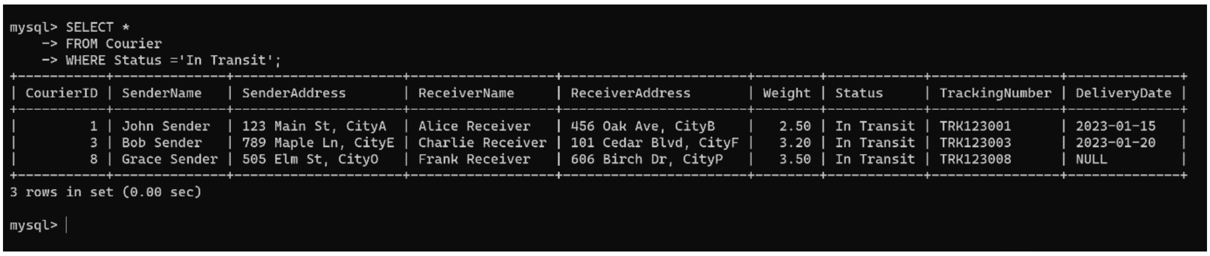
```
mysql> SELECT *
    -> FROM Courier
    -> WHERE Status <> 'Delivered';
+-----------+--------------+---------------------+------------------+-----------------------+--------+------------+----------------+--------------+
| CourierID | SenderName   | SenderAddress       | ReceiverName     | ReceiverAddress       | Weight | Status     | TrackingNumber | DeliveryDate |
+-----------+--------------+---------------------+------------------+-----------------------+--------+------------+----------------+--------------+
|         1 | John Sender  | 123 Main St, CityA  | Alice Receiver   | 456 Oak Ave, CityB    |   2.50 | In Transit | TRK123001      | 2023-01-15   |
|         3 | Bob Sender   | 789 Maple Ln, CityE | Charlie Receiver | 101 Cedar Blvd, CityF |   3.20 | In Transit | TRK123003      | 2023-01-20   |
|         4 | Alice Sender | 101 Oak Ave, CityG  | David Receiver   | 202 Pine St, CityH    |   1.50 | Pending    | TRK123004      | NULL         |
|         8 | Grace Sender | 505 Elm St, CityO   | Frank Receiver   | 606 Birch Dr, CityP   |   3.50 | In Transit | TRK123008      | NULL         |
|         9 | Frank Sender | 606 Pine St, CityQ  | Helen Receiver   | 707 Cedar Blvd, CityR |   2.20 | Pending    | TRK123009      | NULL         |
+-----------+--------------+---------------------+------------------+-----------------------+--------+------------+----------------+--------------+
5 rows in set (0.00 sec)

mysql>
```

List all packages that are scheduled for delivery today



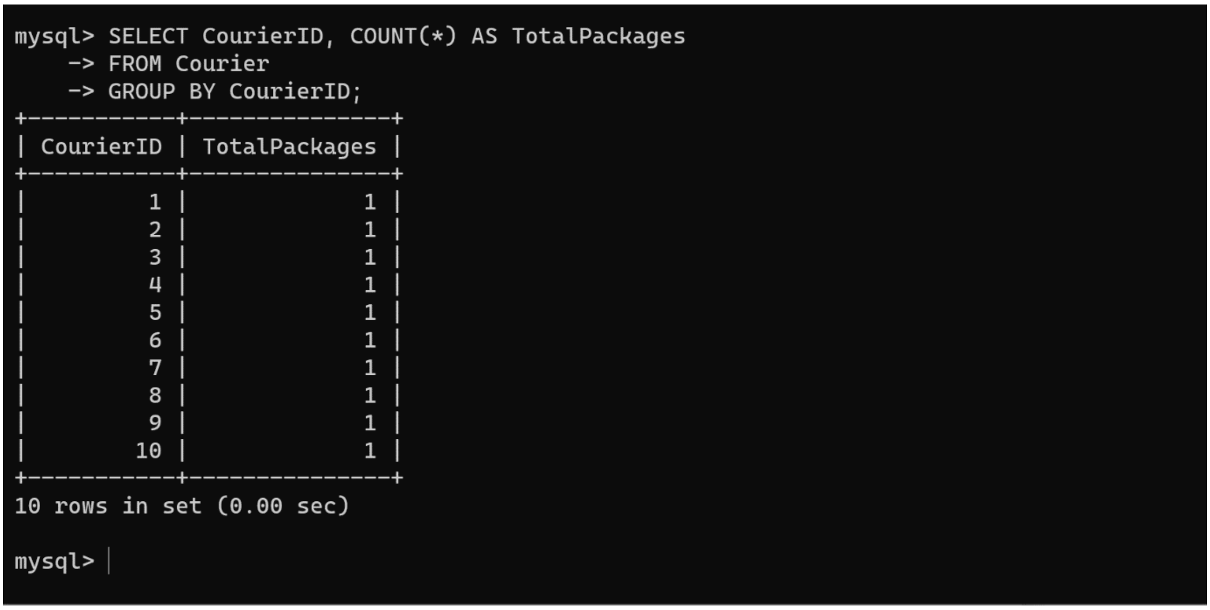
```
mysql> SELECT *
    -> FROM Courier
    -> WHERE DeliveryDate = CURRENT_DATE;
Empty set (0.00 sec)

mysql>
```

List all packages with a specific status



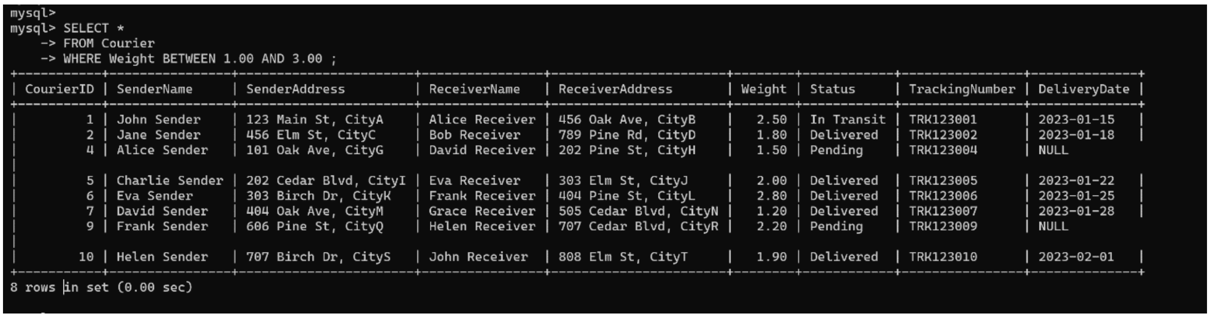
```
mysql> SELECT *
    -> FROM Courier
    -> WHERE Status ='In Transit';
+-----------+--------------+---------------------+------------------+-----------------------+--------+------------+----------------+--------------+
| CourierID | SenderName   | SenderAddress       | ReceiverName     | ReceiverAddress       | Weight | Status     | TrackingNumber | DeliveryDate |
+-----------+--------------+---------------------+------------------+-----------------------+--------+------------+----------------+--------------+
|         1 | John Sender  | 123 Main St, CityA  | Alice Receiver   | 456 Oak Ave, CityB    |   2.50 | In Transit | TRK123001      | 2023-01-15   |
|         3 | Bob Sender   | 789 Maple Ln, CityE | Charlie Receiver | 101 Cedar Blvd, CityF |   3.20 | In Transit | TRK123003      | 2023-01-20   |
|         8 | Grace Sender | 505 Elm St, CityO   | Frank Receiver   | 606 Birch Dr, CityP   |   3.50 | In Transit | TRK123008      | NULL         |
+-----------+--------------+---------------------+------------------+-----------------------+--------+------------+----------------+--------------+
3 rows in set (0.00 sec)

mysql>
```

Calculate the total number of packages for each courier



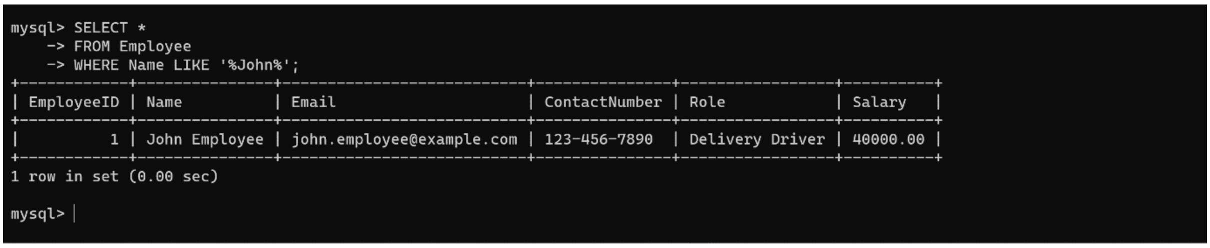
```
mysql> SELECT CourierID, COUNT(*) AS TotalPackages
    -> FROM Courier
    -> GROUP BY CourierID;
+-----------+---------------+
| CourierID | TotalPackages |
+-----------+---------------+
|         1 |             1 |
|         2 |             1 |
|         3 |             1 |
|         4 |             1 |
|         5 |             1 |
|         6 |             1 |
|         7 |             1 |
|         8 |             1 |
|         9 |             1 |
|        10 |             1 |
+-----------+---------------+
10 rows in set (0.00 sec)

mysql>
```

List all packages with a specific weight range:



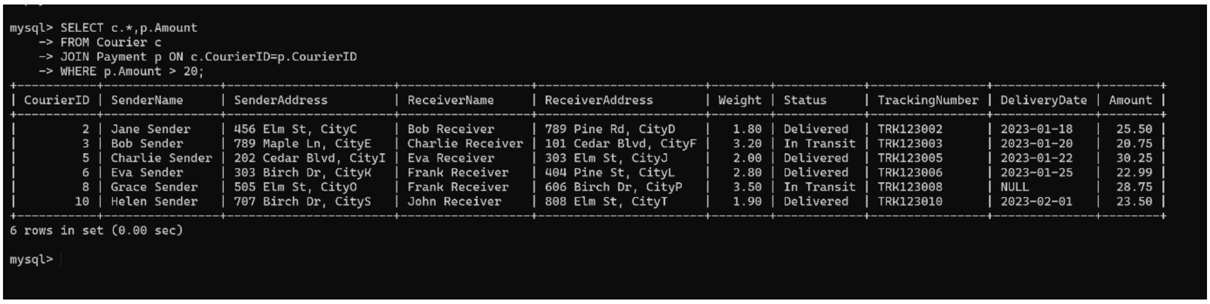
```
mysql>
mysql> SELECT *
    -> FROM Courier
    -> WHERE Weight BETWEEN 1.00 AND 3.00 ;
+-----------+----------------+-----------------------+----------------+-----------------------+--------+------------+----------------+--------------+
| CourierID | SenderName     | SenderAddress         | ReceiverName   | ReceiverAddress       | Weight | Status     | TrackingNumber | DeliveryDate |
+-----------+----------------+-----------------------+----------------+-----------------------+--------+------------+----------------+--------------+
|         1 | John Sender    | 123 Main St, CityA    | Alice Receiver | 456 Oak Ave, CityB    |   2.50 | In Transit | TRK123001      | 2023-01-15   |
|         2 | Jane Sender    | 456 Elm St, CityC     | Bob Receiver   | 789 Pine Rd, CityD    |   1.80 | Delivered  | TRK123002      | 2023-01-18   |
|         4 | Alice Sender   | 101 Oak Ave, CityG    | David Receiver | 202 Pine St, CityH    |   1.50 | Pending    | TRK123004      | NULL
|
|         5 | Charlie Sender | 202 Cedar Blvd, CityI | Eva Receiver   | 303 Elm St, CityJ     |   2.00 | Delivered  | TRK123005      | 2023-01-22   |
|         6 | Eva Sender     | 303 Birch Dr, CityK   | Frank Receiver | 404 Pine St, CityL    |   2.80 | Delivered  | TRK123006      | 2023-01-25   |
|         7 | David Sender   | 404 Oak Ave, CityM    | Grace Receiver | 505 Cedar Blvd, CityN |   1.20 | Delivered  | TRK123007      | 2023-01-28   |
|         9 | Frank Sender   | 606 Pine St, CityQ    | Helen Receiver | 707 Cedar Blvd, CityR |   2.20 | Pending    | TRK123009      | NULL
|
|        10 | Helen Sender   | 707 Birch Dr, CityS   | John Receiver  | 808 Elm St, CityT     |   1.90 | Delivered  | TRK123010      | 2023-02-01   |
+-----------+----------------+-----------------------+----------------+-----------------------+--------+------------+----------------+--------------+
8 rows in set (0.00 sec)
```

Retrieve employees whose names contain 'John’



```
mysql> SELECT *
    -> FROM Employee
    -> WHERE Name LIKE '%John%';
+------------+---------------+---------------------------+---------------+-----------------+----------+
| EmployeeID | Name          | Email                     | ContactNumber | Role            | Salary   |
+------------+---------------+---------------------------+---------------+-----------------+----------+
|          1 | John Employee | john.employee@example.com | 123-456-7890  | Delivery Driver | 40000.00 |
+------------+---------------+---------------------------+---------------+-----------------+----------+
1 row in set (0.00 sec)

mysql>
```

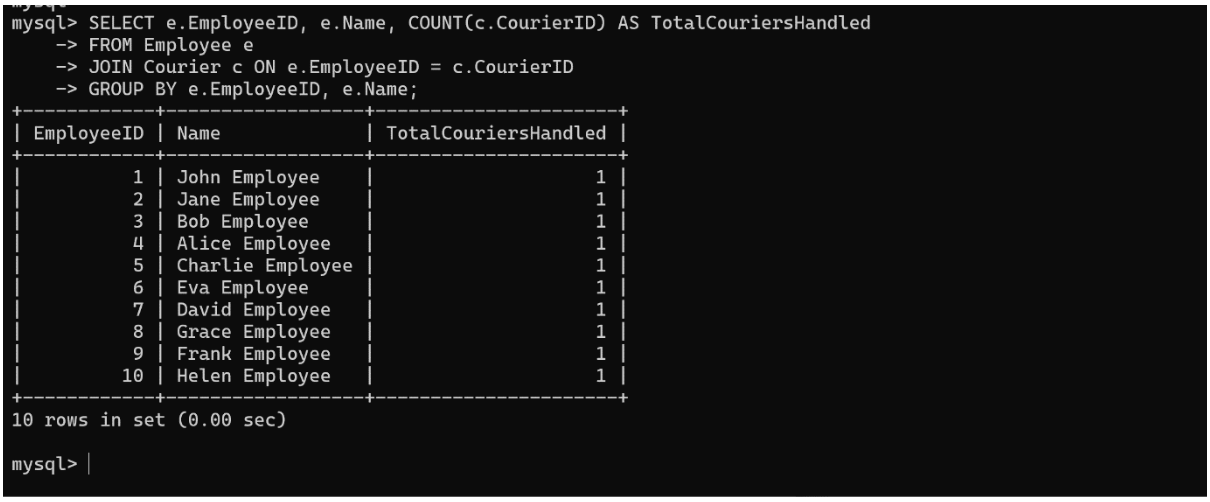
Retrieve all courier records with payments greater than 20.



```
mysql> SELECT c.*,p.Amount
    -> FROM Courier c
    -> JOIN Payment p ON c.CourierID=p.CourierID
    -> WHERE p.Amount > 20;
+-----------+----------------+-----------------------+------------------+-----------------------+--------+------------+----------------+--------------+--------+
| CourierID | SenderName     | SenderAddress         | ReceiverName     | ReceiverAddress       | Weight | Status     | TrackingNumber | DeliveryDate | Amount |
+-----------+----------------+-----------------------+------------------+-----------------------+--------+------------+----------------+--------------+--------+
|         2 | Jane Sender    | 456 Elm St, CityC     | Bob Receiver     | 789 Pine Rd, CityD    |   1.80 | Delivered  | TRK123002      | 2023-01-18   |  25.50 |
|         3 | Bob Sender     | 789 Maple Ln, CityE   | Charlie Receiver | 101 Cedar Blvd, CityF |   3.20 | In Transit | TRK123003      | 2023-01-20   |  20.75 |
|         5 | Charlie Sender | 202 Cedar Blvd, CityI | Eva Receiver     | 303 Elm St, CityJ     |   2.00 | Delivered  | TRK123005      | 2023-01-22   |  30.25 |
|         6 | Eva Sender     | 303 Birch Dr, CityK   | Frank Receiver   | 404 Pine St, CityL    |   2.80 | Delivered  | TRK123006      | 2023-01-25   |  22.99 |
|         8 | Grace Sender   | 505 Elm St, CityO     | Frank Receiver   | 606 Birch Dr, CityP   |   3.50 | In Transit | TRK123008      | NULL         |  28.75 |
|        10 | Helen Sender   | 707 Birch Dr, CityS   | John Receiver    | 808 Elm St, CityT     |   1.90 | Delivered  | TRK123010      | 2023-02-01   |  23.50 |
+-----------+----------------+-----------------------+------------------+-----------------------+--------+------------+----------------+--------------+--------+
6 rows in set (0.00 sec)

mysql>
```

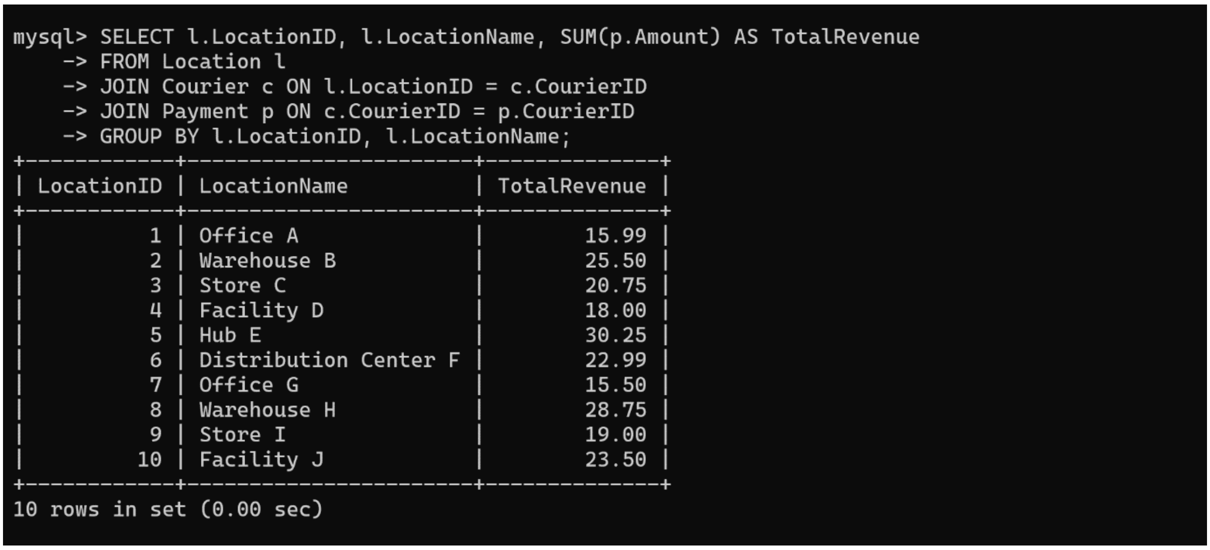
Task 3: GroupBy, Aggregate Functions, Having, Order By, where

Find the total number of couriers handled by each employee.



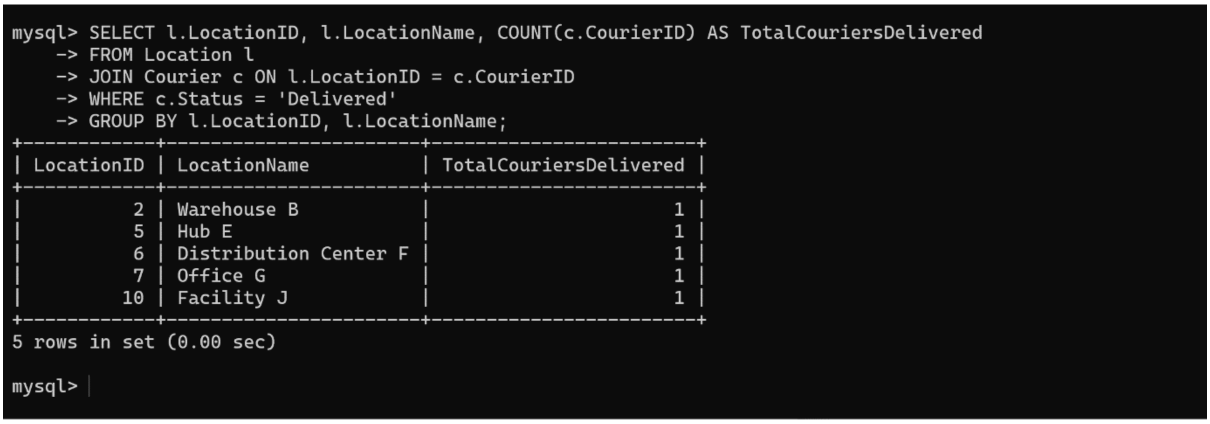
```
mysql> SELECT e.EmployeeID, e.Name, COUNT(c.CourierID) AS TotalCouriersHandled
    -> FROM Employee e
    -> JOIN Courier c ON e.EmployeeID = c.CourierID
    -> GROUP BY e.EmployeeID, e.Name;
+------------+------------------+----------------------+
| EmployeeID | Name             | TotalCouriersHandled |
+------------+------------------+----------------------+
|          1 | John Employee    |                    1 |
|          2 | Jane Employee    |                    1 |
|          3 | Bob Employee     |                    1 |
|          4 | Alice Employee   |                    1 |
|          5 | Charlie Employee |                    1 |
|          6 | Eva Employee     |                    1 |
|          7 | David Employee   |                    1 |
|          8 | Grace Employee   |                    1 |
|          9 | Frank Employee   |                    1 |
|         10 | Helen Employee   |                    1 |
+------------+------------------+----------------------+
10 rows in set (0.00 sec)

mysql> 
```

Calculate the total revenue generated by each location



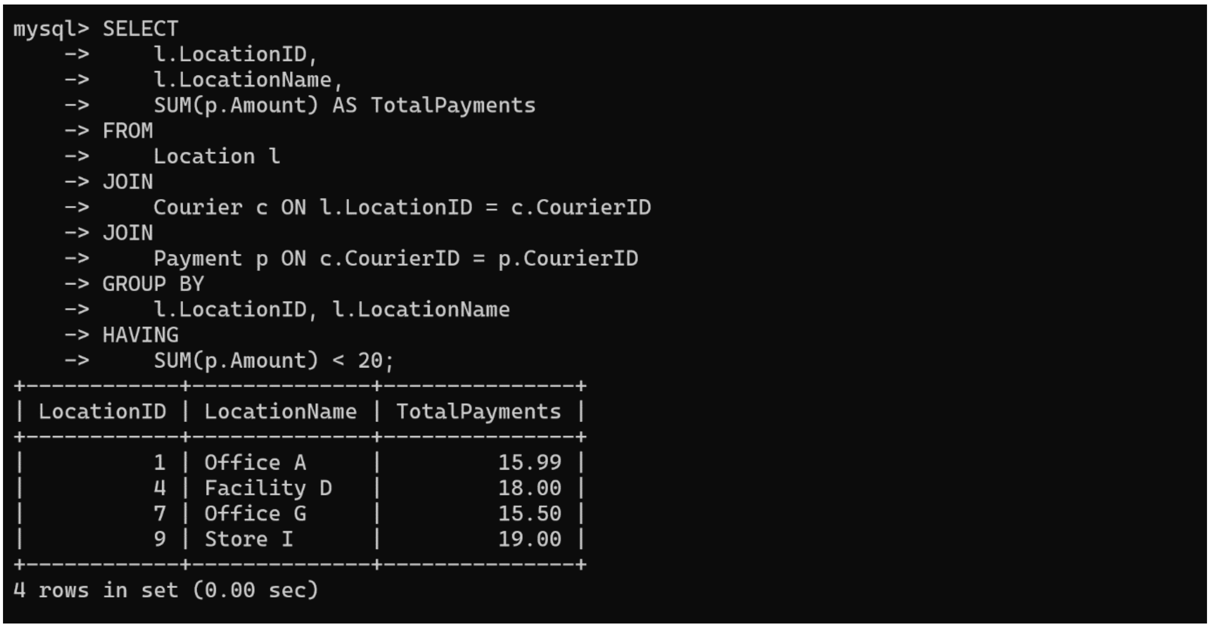
```
mysql> SELECT l.LocationID, l.LocationName, SUM(p.Amount) AS TotalRevenue
    -> FROM Location l
    -> JOIN Courier c ON l.LocationID = c.CourierID
    -> JOIN Payment p ON c.CourierID = p.CourierID
    -> GROUP BY l.LocationID, l.LocationName;
+------------+-----------------------+--------------+
| LocationID | LocationName          | TotalRevenue |
+------------+-----------------------+--------------+
|          1 | Office A              |        15.99 |
|          2 | Warehouse B           |        25.50 |
|          3 | Store C               |        20.75 |
|          4 | Facility D            |        18.00 |
|          5 | Hub E                 |        30.25 |
|          6 | Distribution Center F |        22.99 |
|          7 | Office G              |        15.50 |
|          8 | Warehouse H           |        28.75 |
|          9 | Store I               |        19.00 |
|         10 | Facility J            |        23.50 |
+------------+-----------------------+--------------+
10 rows in set (0.00 sec)
```

Find the total number of couriers delivered to each location.



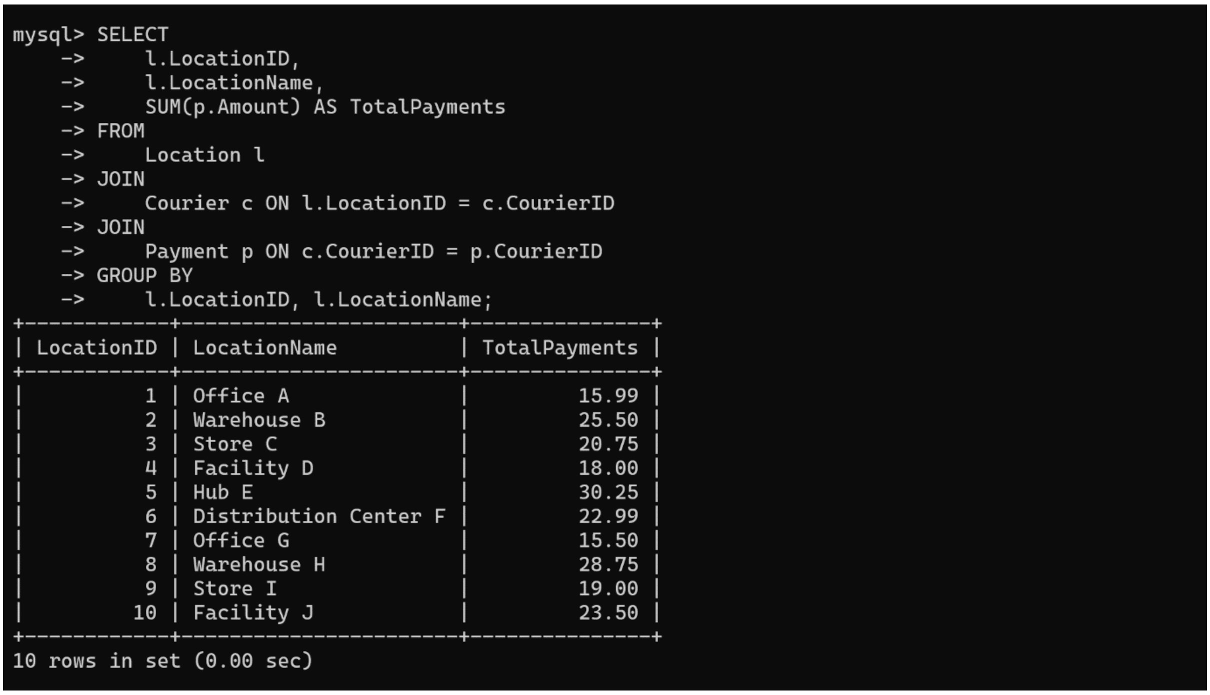
```
mysql> SELECT l.LocationID, l.LocationName, COUNT(c.CourierID) AS TotalCouriersDelivered
    -> FROM Location l
    -> JOIN Courier c ON l.LocationID = c.CourierID
    -> WHERE c.Status = 'Delivered'
    -> GROUP BY l.LocationID, l.LocationName;
+------------+-----------------------+------------------------+
| LocationID | LocationName          | TotalCouriersDelivered |
+------------+-----------------------+------------------------+
|          2 | Warehouse B           |                      1 |
|          5 | Hub E                 |                      1 |
|          6 | Distribution Center F |                      1 |
|          7 | Office G              |                      1 |
|         10 | Facility J            |                      1 |
+------------+-----------------------+------------------------+
5 rows in set (0.00 sec)

mysql>
```

Find Locations with Total Payments Less Than a Certain Amount



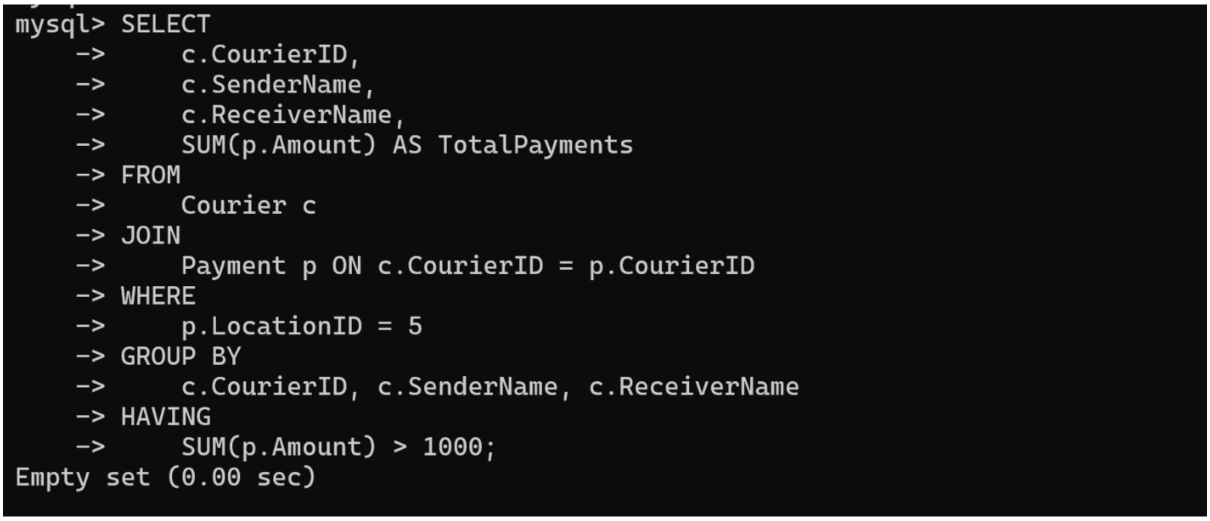
```
mysql> SELECT
    ->     l.LocationID,
    ->     l.LocationName,
    ->     SUM(p.Amount) AS TotalPayments
    -> FROM
    ->     Location l
    -> JOIN
    ->     Courier c ON l.LocationID = c.CourierID
    -> JOIN
    ->     Payment p ON c.CourierID = p.CourierID
    -> GROUP BY
    ->     l.LocationID, l.LocationName
    -> HAVING
    ->     SUM(p.Amount) < 20;
+------------+--------------+---------------+
| LocationID | LocationName | TotalPayments |
+------------+--------------+---------------+
|          1 | Office A     |         15.99 |
|          4 | Facility D   |         18.00 |
|          7 | Office G     |         15.50 |
|          9 | Store I      |         19.00 |
+------------+--------------+---------------+
4 rows in set (0.00 sec)
```

Calculate Total Payments per Location



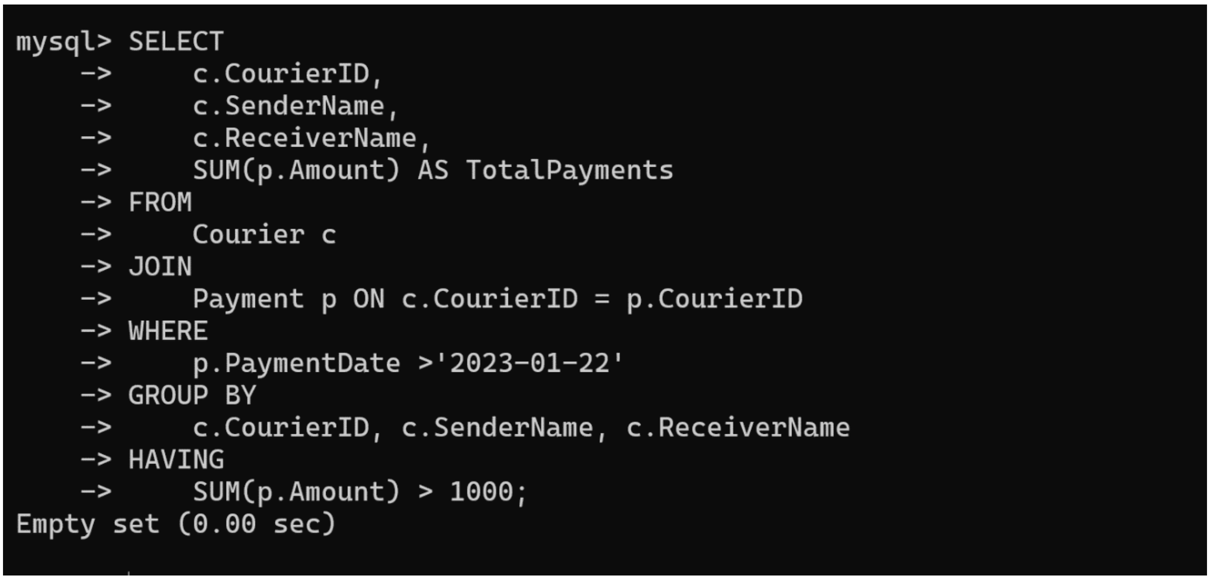
```
mysql> SELECT
    ->     l.LocationID,
    ->     l.LocationName,
    ->     SUM(p.Amount) AS TotalPayments
    -> FROM
    ->     Location l
    -> JOIN
    ->     Courier c ON l.LocationID = c.CourierID
    -> JOIN
    ->     Payment p ON c.CourierID = p.CourierID
    -> GROUP BY
    ->     l.LocationID, l.LocationName;
+------------+-----------------------+---------------+
| LocationID | LocationName          | TotalPayments |
+------------+-----------------------+---------------+
|          1 | Office A              |         15.99 |
|          2 | Warehouse B           |         25.50 |
|          3 | Store C               |         20.75 |
|          4 | Facility D            |         18.00 |
|          5 | Hub E                 |         30.25 |
|          6 | Distribution Center F |         22.99 |
|          7 | Office G              |         15.50 |
|          8 | Warehouse H           |         28.75 |
|          9 | Store I               |         19.00 |
|         10 | Facility J            |         23.50 |
+------------+-----------------------+---------------+
10 rows in set (0.00 sec)
```

Retrieve couriers who have received payments totaling more than $1000 in a specific location



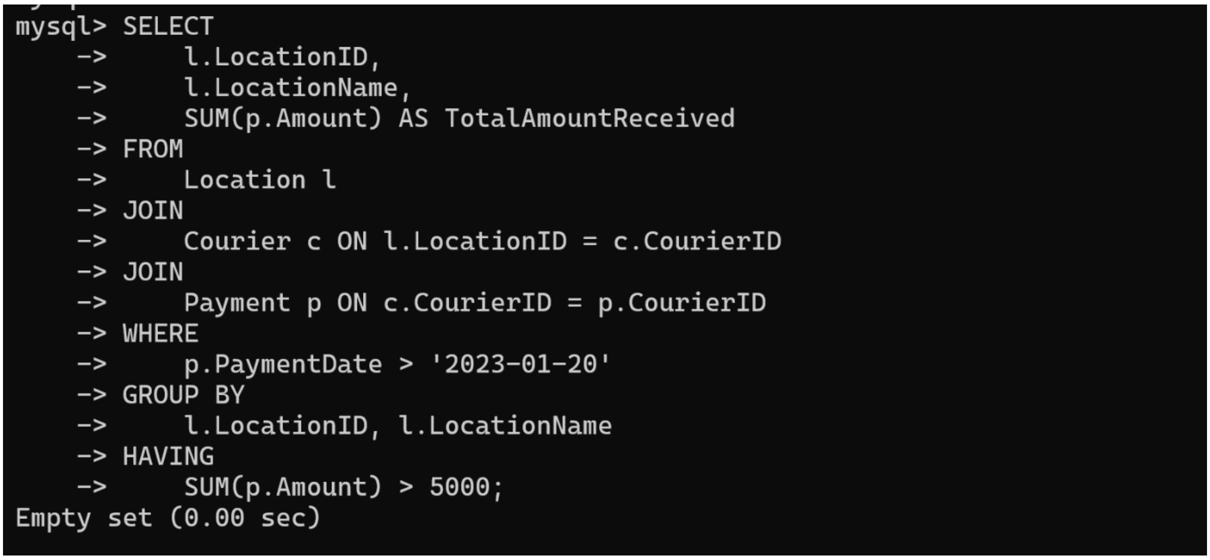
```
mysql> SELECT
    ->     c.CourierID,
    ->     c.SenderName,
    ->     c.ReceiverName,
    ->     SUM(p.Amount) AS TotalPayments
    -> FROM
    ->     Courier c
    -> JOIN
    ->     Payment p ON c.CourierID = p.CourierID
    -> WHERE
    ->     p.LocationID = 5
    -> GROUP BY
    ->     c.CourierID, c.SenderName, c.ReceiverName
    -> HAVING
    ->     SUM(p.Amount) > 1000;
Empty set (0.00 sec)
```

Retrieve couriers who have received payments totaling more than $1000 after a certain date (PaymentDate > 'YYYY-MM-DD')



```
mysql> SELECT
    ->     c.CourierID,
    ->     c.SenderName,
    ->     c.ReceiverName,
    ->     SUM(p.Amount) AS TotalPayments
    -> FROM
    ->     Courier c
    -> JOIN
    ->     Payment p ON c.CourierID = p.CourierID
    -> WHERE
    ->     p.PaymentDate >'2023-01-22'
    -> GROUP BY
    ->     c.CourierID, c.SenderName, c.ReceiverName
    -> HAVING
    ->     SUM(p.Amount) > 1000;
Empty set (0.00 sec)
```

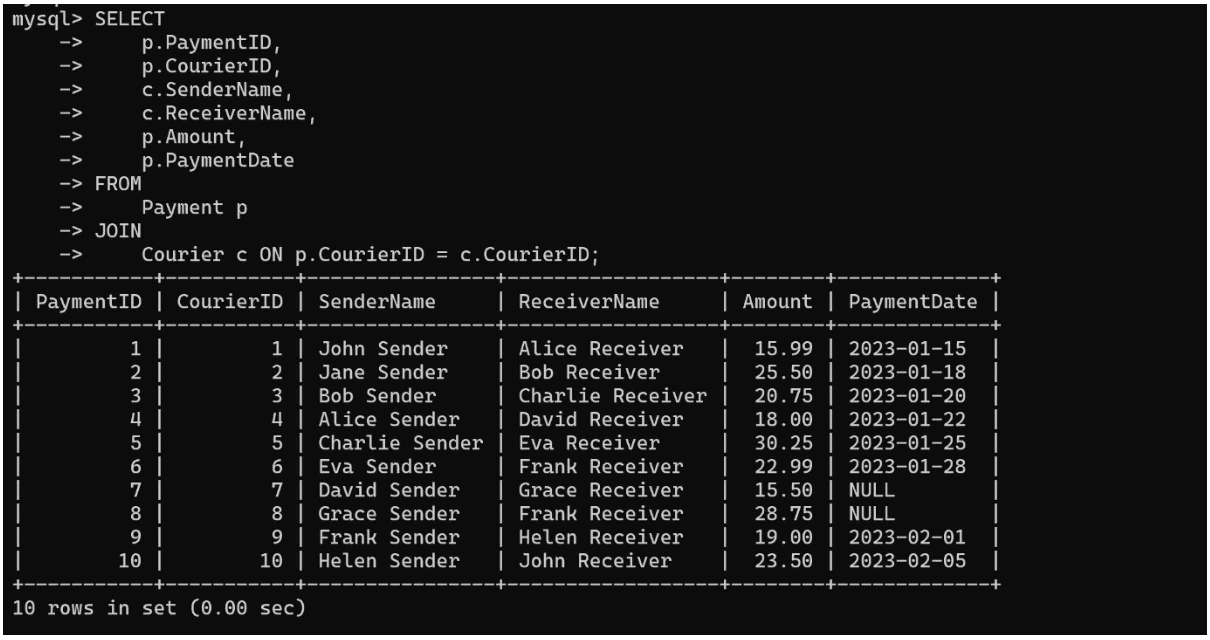
Retrieve locations where the total amount received is more than $5000 before a certain date (PaymentDate > 'YYYY-MM-DD')



```
mysql> SELECT
    ->     l.LocationID,
    ->     l.LocationName,
    ->     SUM(p.Amount) AS TotalAmountReceived
    -> FROM
    ->     Location l
    -> JOIN
    ->     Courier c ON l.LocationID = c.CourierID
    -> JOIN
    ->     Payment p ON c.CourierID = p.CourierID
    -> WHERE
    ->     p.PaymentDate > '2023-01-20'
    -> GROUP BY
    ->     l.LocationID, l.LocationName
    -> HAVING
    ->     SUM(p.Amount) > 5000;
Empty set (0.00 sec)
```

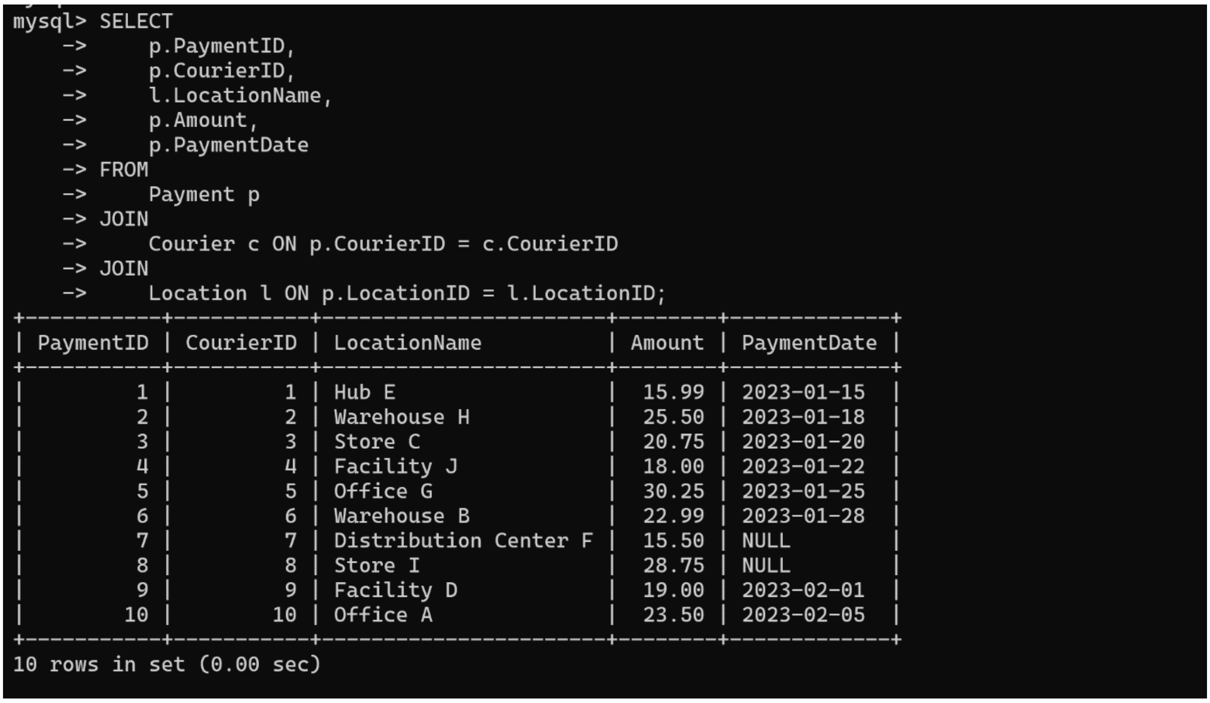
Task 4: Inner Join, Full Outer Join, Cross Join, Left Outer Join, Right Outer Join

Retrieve Payments with Courier Information



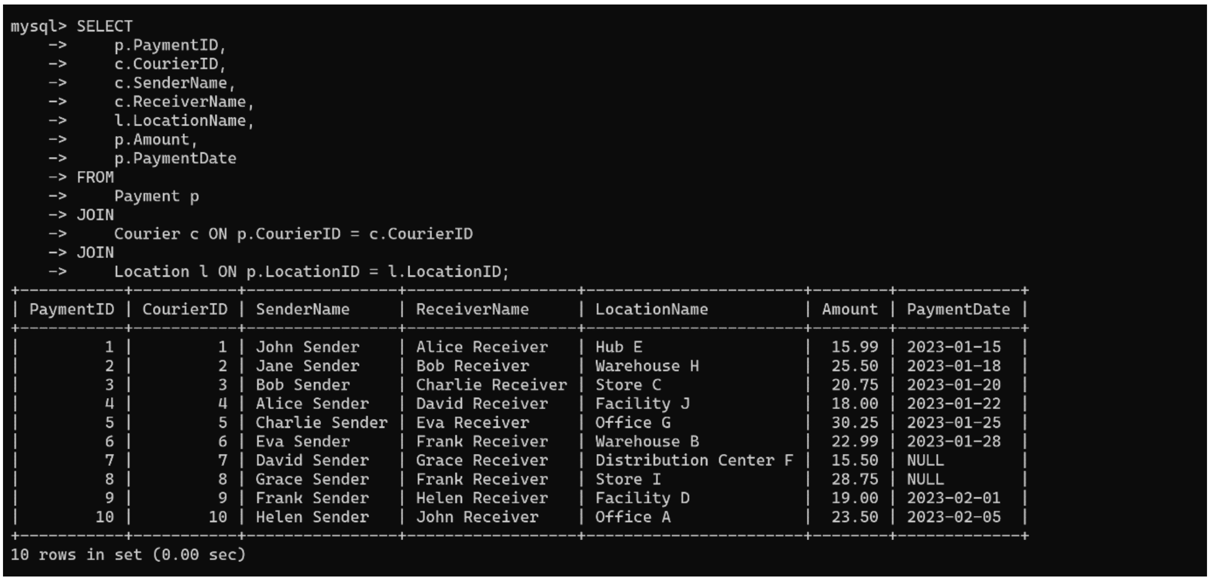
```
mysql> SELECT
    ->     p.PaymentID,
    ->     p.CourierID,
    ->     c.SenderName,
    ->     c.ReceiverName,
    ->     p.Amount,
    ->     p.PaymentDate
    -> FROM
    ->     Payment p
    -> JOIN
    ->     Courier c ON p.CourierID = c.CourierID;
+-----------+-----------+----------------+------------------+--------+-------------+
| PaymentID | CourierID | SenderName     | ReceiverName     | Amount | PaymentDate |
+-----------+-----------+----------------+------------------+--------+-------------+
|         1 |         1 | John Sender    | Alice Receiver   |  15.99 | 2023-01-15  |
|         2 |         2 | Jane Sender    | Bob Receiver     |  25.50 | 2023-01-18  |
|         3 |         3 | Bob Sender     | Charlie Receiver |  20.75 | 2023-01-20  |
|         4 |         4 | Alice Sender   | David Receiver   |  18.00 | 2023-01-22  |
|         5 |         5 | Charlie Sender | Eva Receiver     |  30.25 | 2023-01-25  |
|         6 |         6 | Eva Sender     | Frank Receiver   |  22.99 | 2023-01-28  |
|         7 |         7 | David Sender   | Grace Receiver   |  15.50 | NULL        |
|         8 |         8 | Grace Sender   | Frank Receiver   |  28.75 | NULL        |
|         9 |         9 | Frank Sender   | Helen Receiver   |  19.00 | 2023-02-01  |
|        10 |        10 | Helen Sender   | John Receiver    |  23.50 | 2023-02-05  |
+-----------+-----------+----------------+------------------+--------+-------------+
10 rows in set (0.00 sec)
```

Retrieve Payments with Location Information



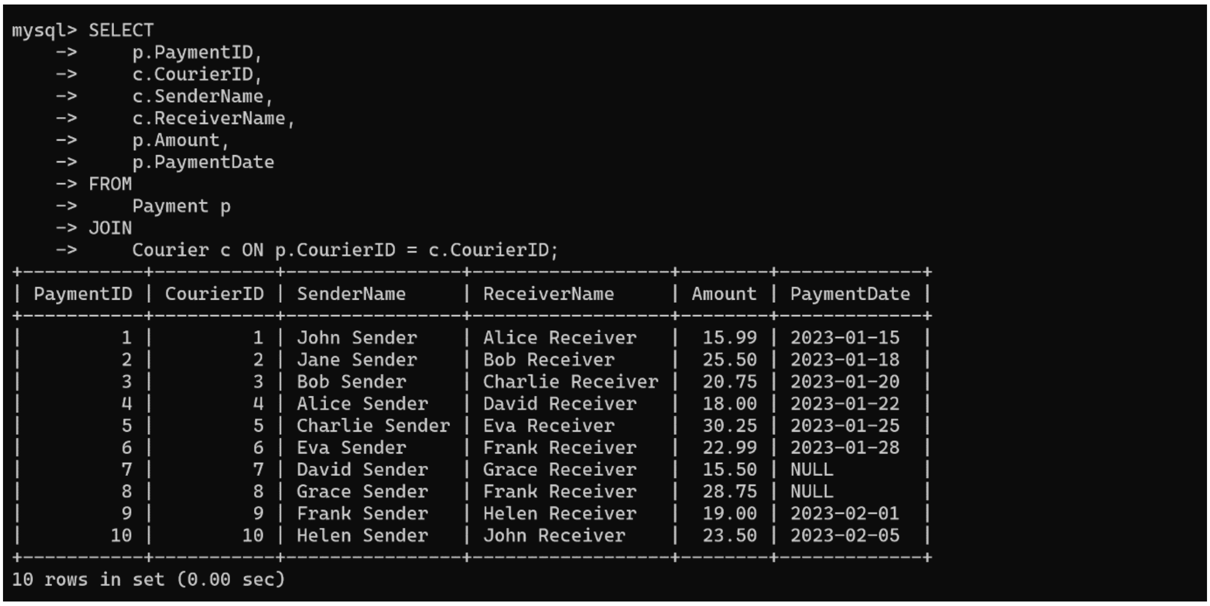
```
mysql> SELECT
    ->     p.PaymentID,
    ->     p.CourierID,
    ->     l.LocationName,
    ->     p.Amount,
    ->     p.PaymentDate
    -> FROM
    ->     Payment p
    -> JOIN
    ->     Courier c ON p.CourierID = c.CourierID
    -> JOIN
    ->     Location l ON p.LocationID = l.LocationID;
+-----------+-----------+-----------------------+--------+-------------+
| PaymentID | CourierID | LocationName          | Amount | PaymentDate |
+-----------+-----------+-----------------------+--------+-------------+
|         1 |         1 | Hub E                 |  15.99 | 2023-01-15  |
|         2 |         2 | Warehouse H           |  25.50 | 2023-01-18  |
|         3 |         3 | Store C               |  20.75 | 2023-01-20  |
|         4 |         4 | Facility J            |  18.00 | 2023-01-22  |
|         5 |         5 | Office G              |  30.25 | 2023-01-25  |
|         6 |         6 | Warehouse B           |  22.99 | 2023-01-28  |
|         7 |         7 | Distribution Center F |  15.50 | NULL        |
|         8 |         8 | Store I               |  28.75 | NULL        |
|         9 |         9 | Facility D            |  19.00 | 2023-02-01  |
|        10 |        10 | Office A              |  23.50 | 2023-02-05  |
+-----------+-----------+-----------------------+--------+-------------+
10 rows in set (0.00 sec)
```

Retrieve Payments with Courier and Location Information



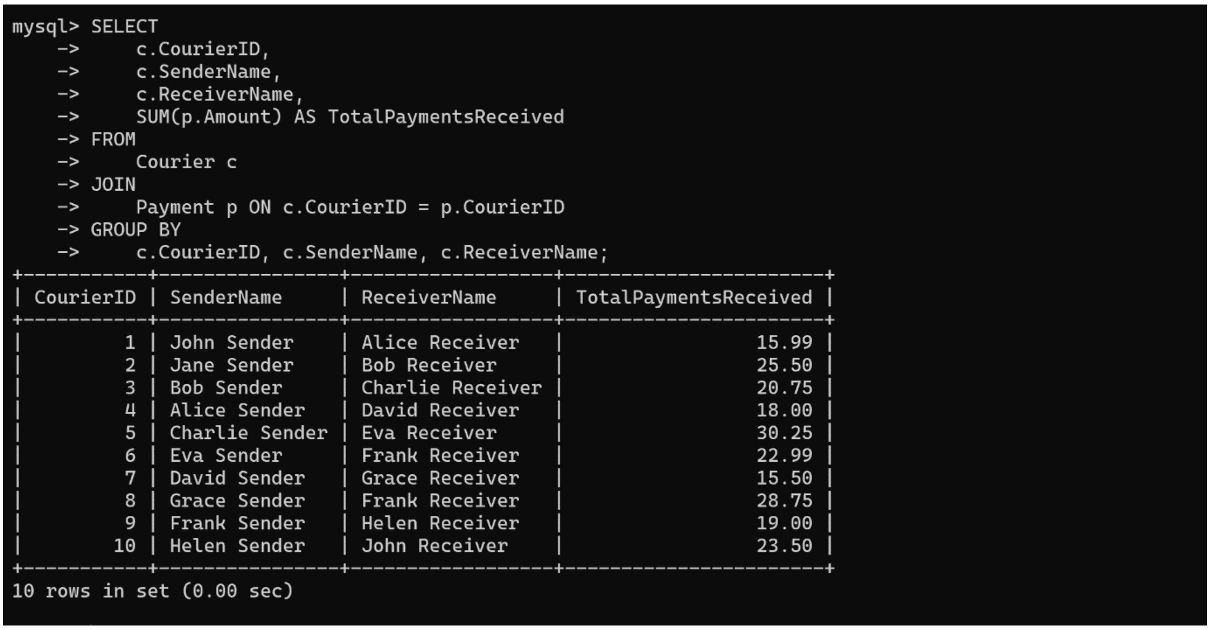
```
mysql> SELECT
    ->     p.PaymentID,
    ->     c.CourierID,
    ->     c.SenderName,
    ->     c.ReceiverName,
    ->     l.LocationName,
    ->     p.Amount,
    ->     p.PaymentDate
    -> FROM
    ->     Payment p
    -> JOIN
    ->     Courier c ON p.CourierID = c.CourierID
    -> JOIN
    ->     Location l ON p.LocationID = l.LocationID;
+-----------+-----------+----------------+------------------+-----------------------+--------+-------------+
| PaymentID | CourierID | SenderName     | ReceiverName     | LocationName          | Amount | PaymentDate |
+-----------+-----------+----------------+------------------+-----------------------+--------+-------------+
|         1 |         1 | John Sender    | Alice Receiver   | Hub E                 |  15.99 | 2023-01-15  |
|         2 |         2 | Jane Sender    | Bob Receiver     | Warehouse H           |  25.50 | 2023-01-18  |
|         3 |         3 | Bob Sender     | Charlie Receiver | Store C               |  20.75 | 2023-01-20  |
|         4 |         4 | Alice Sender   | David Receiver   | Facility J            |  18.00 | 2023-01-22  |
|         5 |         5 | Charlie Sender | Eva Receiver     | Office G              |  30.25 | 2023-01-25  |
|         6 |         6 | Eva Sender     | Frank Receiver   | Warehouse B           |  22.99 | 2023-01-28  |
|         7 |         7 | David Sender   | Grace Receiver   | Distribution Center F |  15.50 | NULL        |
|         8 |         8 | Grace Sender   | Frank Receiver   | Store I               |  28.75 | NULL        |
|         9 |         9 | Frank Sender   | Helen Receiver   | Facility D            |  19.00 | 2023-02-01  |
|        10 |        10 | Helen Sender   | John Receiver    | Office A              |  23.50 | 2023-02-05  |
+-----------+-----------+----------------+------------------+-----------------------+--------+-------------+
10 rows in set (0.00 sec)
```

List all payments with courier details



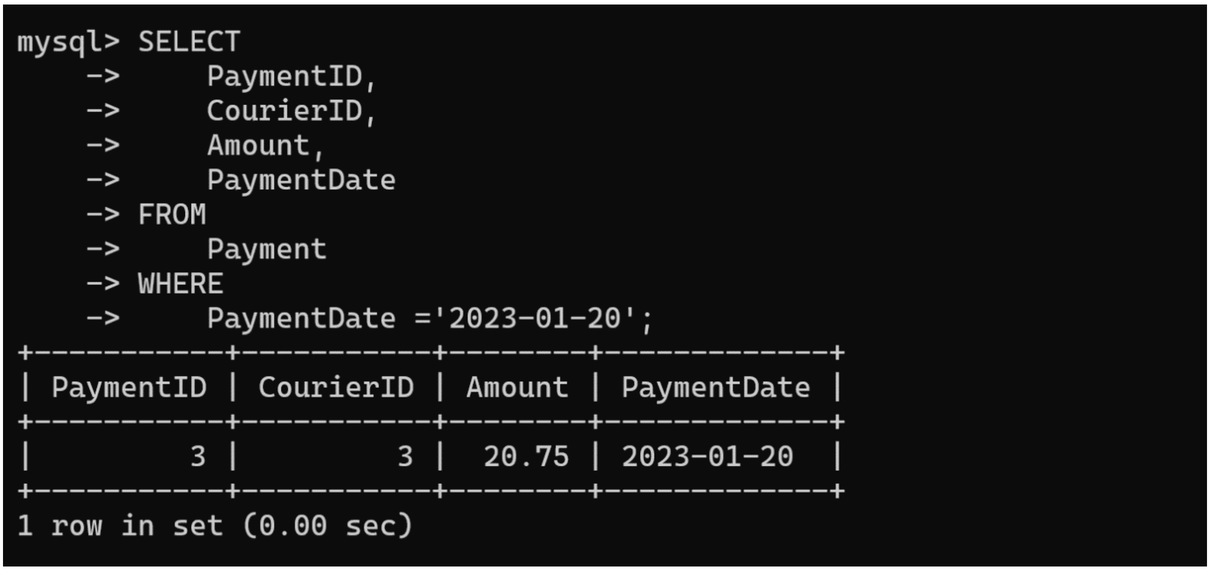
```
mysql> SELECT
    ->     p.PaymentID,
    ->     c.CourierID,
    ->     c.SenderName,
    ->     c.ReceiverName,
    ->     p.Amount,
    ->     p.PaymentDate
    -> FROM
    ->     Payment p
    -> JOIN
    ->     Courier c ON p.CourierID = c.CourierID;
+-----------+-----------+----------------+------------------+--------+-------------+
| PaymentID | CourierID | SenderName     | ReceiverName     | Amount | PaymentDate |
+-----------+-----------+----------------+------------------+--------+-------------+
|         1 |         1 | John Sender    | Alice Receiver   |  15.99 | 2023-01-15  |
|         2 |         2 | Jane Sender    | Bob Receiver     |  25.50 | 2023-01-18  |
|         3 |         3 | Bob Sender     | Charlie Receiver |  20.75 | 2023-01-20  |
|         4 |         4 | Alice Sender   | David Receiver   |  18.00 | 2023-01-22  |
|         5 |         5 | Charlie Sender | Eva Receiver     |  30.25 | 2023-01-25  |
|         6 |         6 | Eva Sender     | Frank Receiver   |  22.99 | 2023-01-28  |
|         7 |         7 | David Sender   | Grace Receiver   |  15.50 | NULL        |
|         8 |         8 | Grace Sender   | Frank Receiver   |  28.75 | NULL        |
|         9 |         9 | Frank Sender   | Helen Receiver   |  19.00 | 2023-02-01  |
|        10 |        10 | Helen Sender   | John Receiver    |  23.50 | 2023-02-05  |
+-----------+-----------+----------------+------------------+--------+-------------+
10 rows in set (0.00 sec)
```

Total payments received for each courier



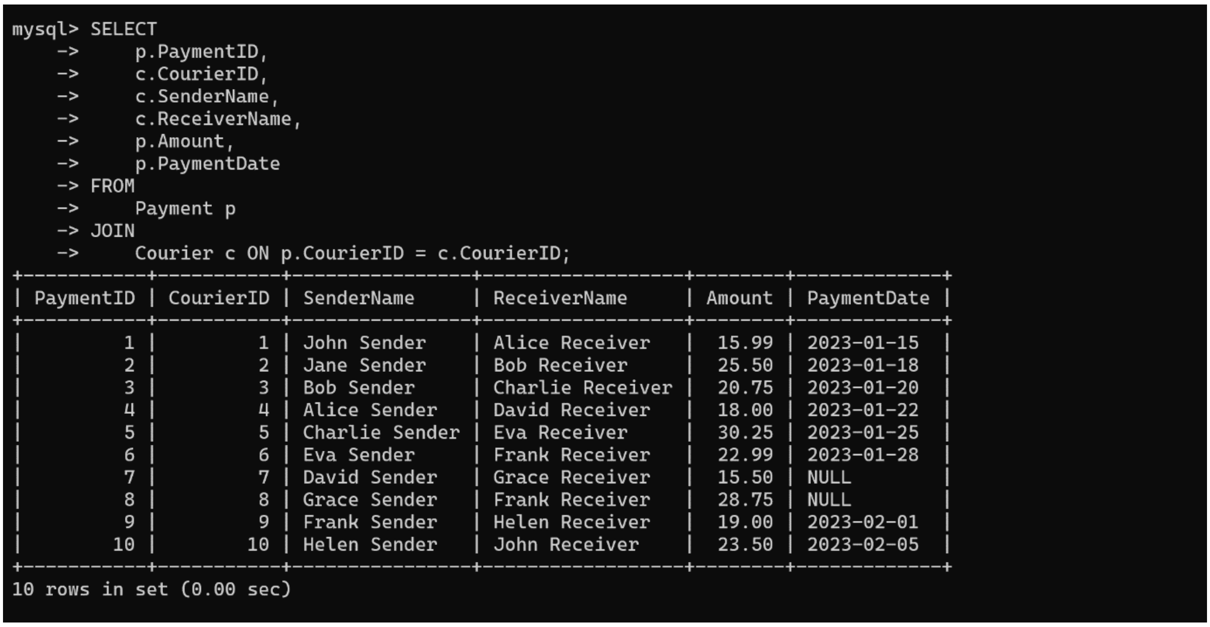
```
mysql> SELECT
    ->     c.CourierID,
    ->     c.SenderName,
    ->     c.ReceiverName,
    ->     SUM(p.Amount) AS TotalPaymentsReceived
    -> FROM
    ->     Courier c
    -> JOIN
    ->     Payment p ON c.CourierID = p.CourierID
    -> GROUP BY
    ->     c.CourierID, c.SenderName, c.ReceiverName;
+-----------+----------------+------------------+-----------------------+
| CourierID | SenderName     | ReceiverName     | TotalPaymentsReceived |
+-----------+----------------+------------------+-----------------------+
|         1 | John Sender    | Alice Receiver   |                 15.99 |
|         2 | Jane Sender    | Bob Receiver     |                 25.50 |
|         3 | Bob Sender     | Charlie Receiver |                 20.75 |
|         4 | Alice Sender   | David Receiver   |                 18.00 |
|         5 | Charlie Sender | Eva Receiver     |                 30.25 |
|         6 | Eva Sender     | Frank Receiver   |                 22.99 |
|         7 | David Sender   | Grace Receiver   |                 15.50 |
|         8 | Grace Sender   | Frank Receiver   |                 28.75 |
|         9 | Frank Sender   | Helen Receiver   |                 19.00 |
|        10 | Helen Sender   | John Receiver    |                 23.50 |
+-----------+----------------+------------------+-----------------------+
10 rows in set (0.00 sec)
```

List payments made on a specific date



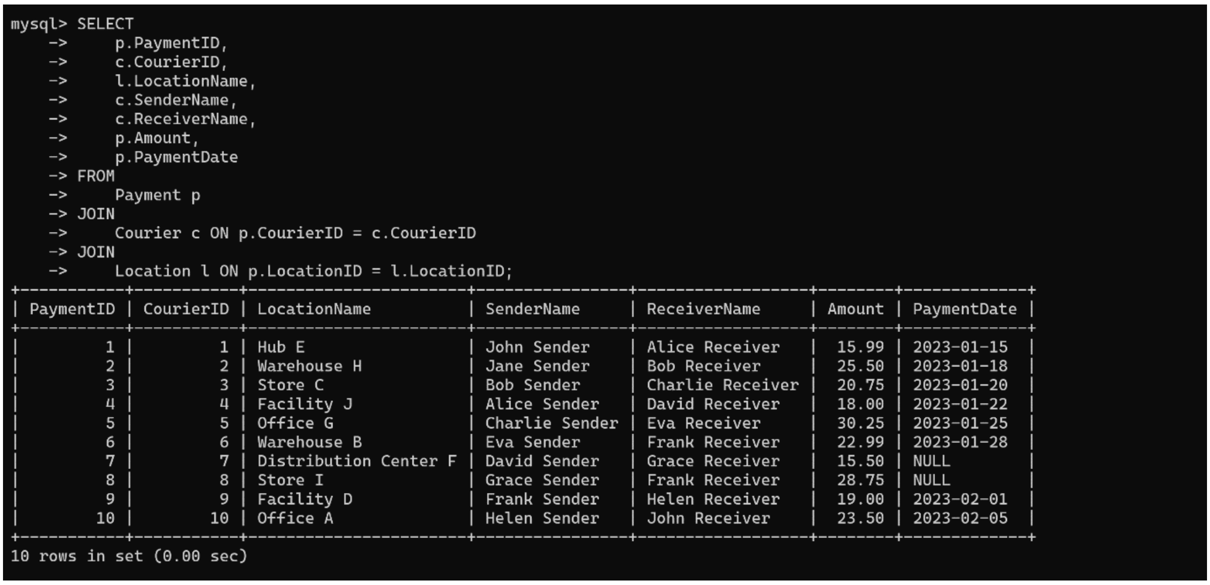
```
mysql> SELECT
    ->     PaymentID,
    ->     CourierID,
    ->     Amount,
    ->     PaymentDate
    -> FROM
    ->     Payment
    -> WHERE
    ->     PaymentDate ='2023-01-20';
+-----------+-----------+--------+-------------+
| PaymentID | CourierID | Amount | PaymentDate |
+-----------+-----------+--------+-------------+
|         3 |         3 |  20.75 | 2023-01-20  |
+-----------+-----------+--------+-------------+
1 row in set (0.00 sec)
```

Get Courier Information for Each Payment



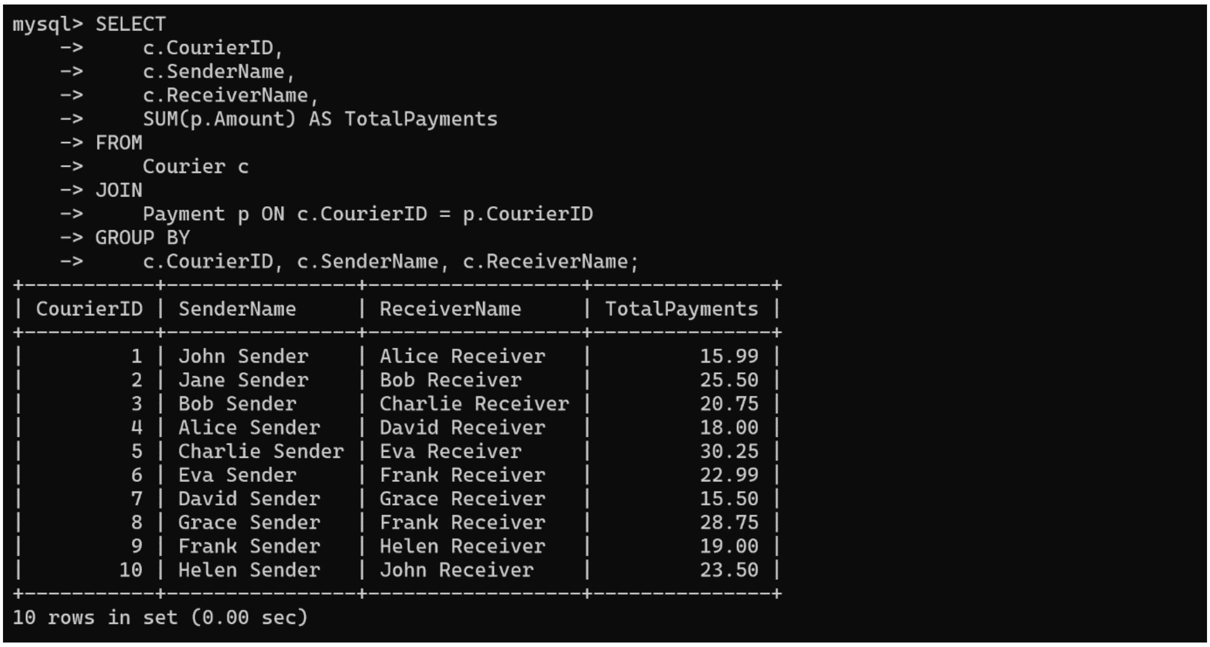
```
mysql> SELECT
    ->     p.PaymentID,
    ->     c.CourierID,
    ->     c.SenderName,
    ->     c.ReceiverName,
    ->     p.Amount,
    ->     p.PaymentDate
    -> FROM
    ->     Payment p
    -> JOIN
    ->     Courier c ON p.CourierID = c.CourierID;
+-----------+-----------+----------------+------------------+--------+-------------+
| PaymentID | CourierID | SenderName     | ReceiverName     | Amount | PaymentDate |
+-----------+-----------+----------------+------------------+--------+-------------+
|         1 |         1 | John Sender    | Alice Receiver   |  15.99 | 2023-01-15  |
|         2 |         2 | Jane Sender    | Bob Receiver     |  25.50 | 2023-01-18  |
|         3 |         3 | Bob Sender     | Charlie Receiver |  20.75 | 2023-01-20  |
|         4 |         4 | Alice Sender   | David Receiver   |  18.00 | 2023-01-22  |
|         5 |         5 | Charlie Sender | Eva Receiver     |  30.25 | 2023-01-25  |
|         6 |         6 | Eva Sender     | Frank Receiver   |  22.99 | 2023-01-28  |
|         7 |         7 | David Sender   | Grace Receiver   |  15.50 | NULL        |
|         8 |         8 | Grace Sender   | Frank Receiver   |  28.75 | NULL        |
|         9 |         9 | Frank Sender   | Helen Receiver   |  19.00 | 2023-02-01  |
|        10 |        10 | Helen Sender   | John Receiver    |  23.50 | 2023-02-05  |
+-----------+-----------+----------------+------------------+--------+-------------+
10 rows in set (0.00 sec)
```

Get Payment Details with Location



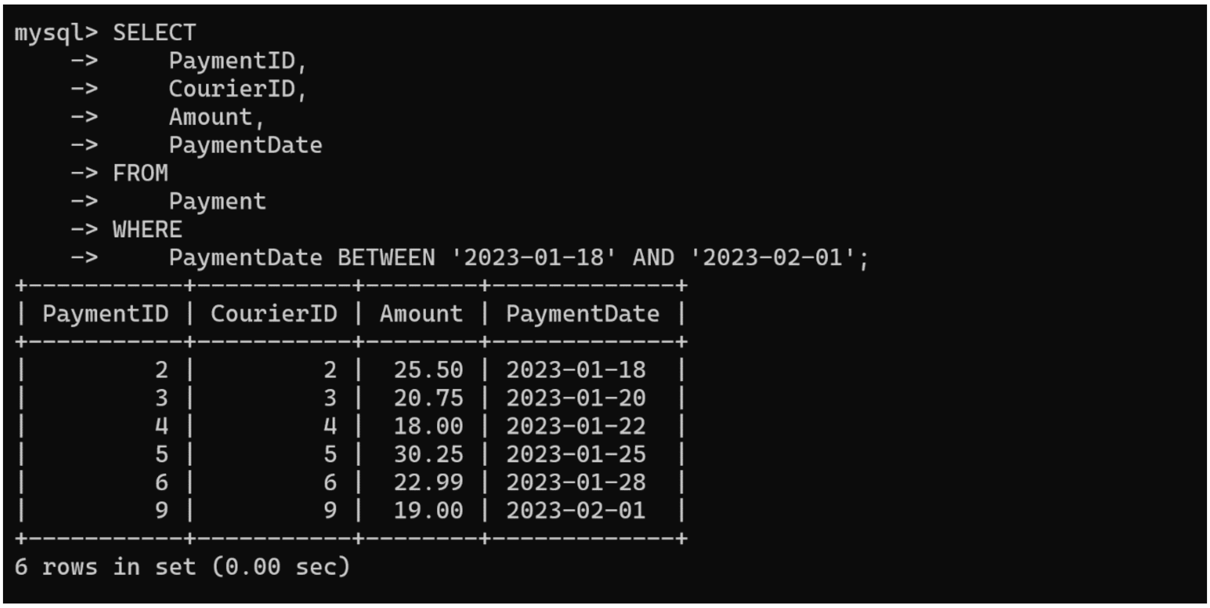
```
mysql> SELECT
    ->     p.PaymentID,
    ->     c.CourierID,
    ->     l.LocationName,
    ->     c.SenderName,
    ->     c.ReceiverName,
    ->     p.Amount,
    ->     p.PaymentDate
    -> FROM
    ->     Payment p
    -> JOIN
    ->     Courier c ON p.CourierID = c.CourierID
    -> JOIN
    ->     Location l ON p.LocationID = l.LocationID;
+-----------+-----------+-----------------------+----------------+------------------+--------+-------------+
| PaymentID | CourierID | LocationName          | SenderName     | ReceiverName     | Amount | PaymentDate |
+-----------+-----------+-----------------------+----------------+------------------+--------+-------------+
|         1 |         1 | Hub E                 | John Sender    | Alice Receiver   |  15.99 | 2023-01-15  |
|         2 |         2 | Warehouse H           | Jane Sender    | Bob Receiver     |  25.50 | 2023-01-18  |
|         3 |         3 | Store C               | Bob Sender     | Charlie Receiver |  20.75 | 2023-01-20  |
|         4 |         4 | Facility J            | Alice Sender   | David Receiver   |  18.00 | 2023-01-22  |
|         5 |         5 | Office G              | Charlie Sender | Eva Receiver     |  30.25 | 2023-01-25  |
|         6 |         6 | Warehouse B           | Eva Sender     | Frank Receiver   |  22.99 | 2023-01-28  |
|         7 |         7 | Distribution Center F | David Sender   | Grace Receiver   |  15.50 | NULL        |
|         8 |         8 | Store I               | Grace Sender   | Frank Receiver   |  28.75 | NULL        |
|         9 |         9 | Facility D            | Frank Sender   | Helen Receiver   |  19.00 | 2023-02-01  |
|        10 |        10 | Office A              | Helen Sender   | John Receiver    |  23.50 | 2023-02-05  |
+-----------+-----------+-----------------------+----------------+------------------+--------+-------------+
10 rows in set (0.00 sec)
```

Calculating Total Payments for Each Courier



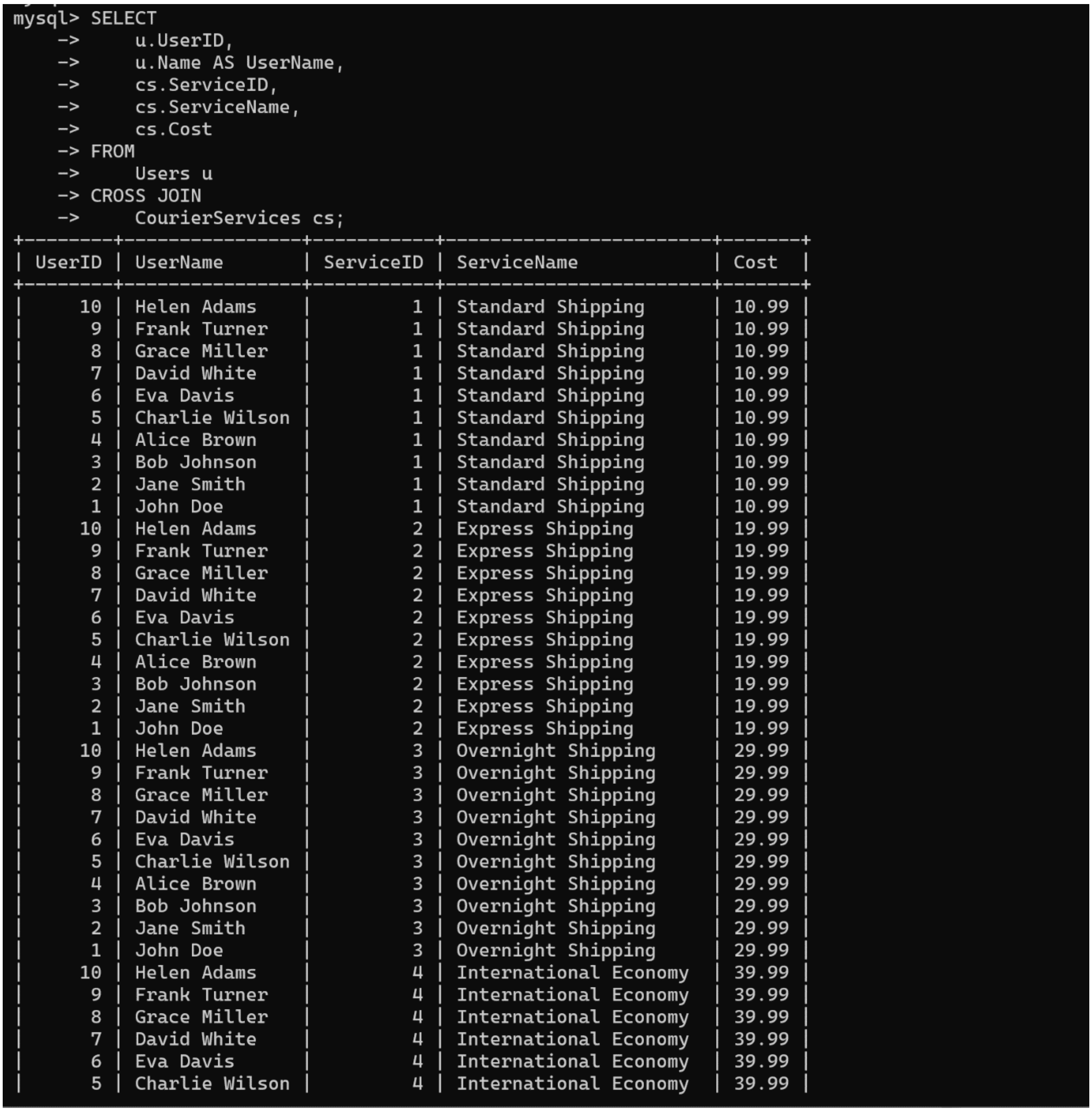
```
mysql> SELECT
    ->     c.CourierID,
    ->     c.SenderName,
    ->     c.ReceiverName,
    ->     SUM(p.Amount) AS TotalPayments
    -> FROM
    ->     Courier c
    -> JOIN
    ->     Payment p ON c.CourierID = p.CourierID
    -> GROUP BY
    ->     c.CourierID, c.SenderName, c.ReceiverName;
+-----------+----------------+------------------+---------------+
| CourierID | SenderName     | ReceiverName     | TotalPayments |
+-----------+----------------+------------------+---------------+
|         1 | John Sender    | Alice Receiver   |         15.99 |
|         2 | Jane Sender    | Bob Receiver     |         25.50 |
|         3 | Bob Sender     | Charlie Receiver |         20.75 |
|         4 | Alice Sender   | David Receiver   |         18.00 |
|         5 | Charlie Sender | Eva Receiver     |         30.25 |
|         6 | Eva Sender     | Frank Receiver   |         22.99 |
|         7 | David Sender   | Grace Receiver   |         15.50 |
|         8 | Grace Sender   | Frank Receiver   |         28.75 |
|         9 | Frank Sender   | Helen Receiver   |         19.00 |
|        10 | Helen Sender   | John Receiver    |         23.50 |
+-----------+----------------+------------------+---------------+
10 rows in set (0.00 sec)
```

List Payments Within a Date Range

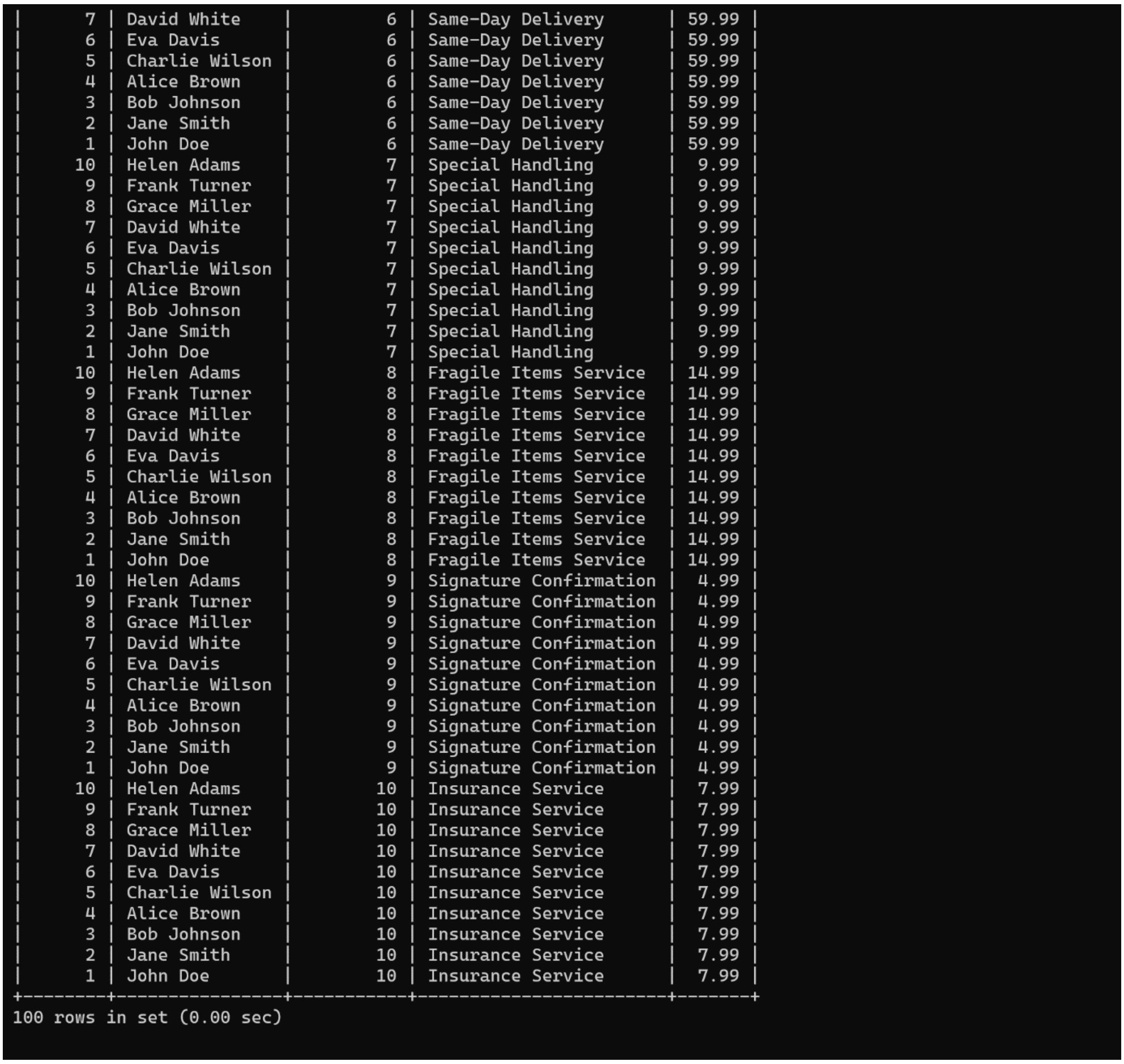


```
mysql> SELECT
    ->     PaymentID,
    ->     CourierID,
    ->     Amount,
    ->     PaymentDate
    -> FROM
    ->     Payment
    -> WHERE
    ->     PaymentDate BETWEEN '2023-01-18' AND '2023-02-01';
+-----------+-----------+--------+-------------+
| PaymentID | CourierID | Amount | PaymentDate |
+-----------+-----------+--------+-------------+
|         2 |         2 |  25.50 | 2023-01-18  |
|         3 |         3 |  20.75 | 2023-01-20  |
|         4 |         4 |  18.00 | 2023-01-22  |
|         5 |         5 |  30.25 | 2023-01-25  |
|         6 |         6 |  22.99 | 2023-01-28  |
|         9 |         9 |  19.00 | 2023-02-01  |
+-----------+-----------+--------+-------------+
6 rows in set (0.00 sec)
```

List all users and all courier services, showing all possible combinations.

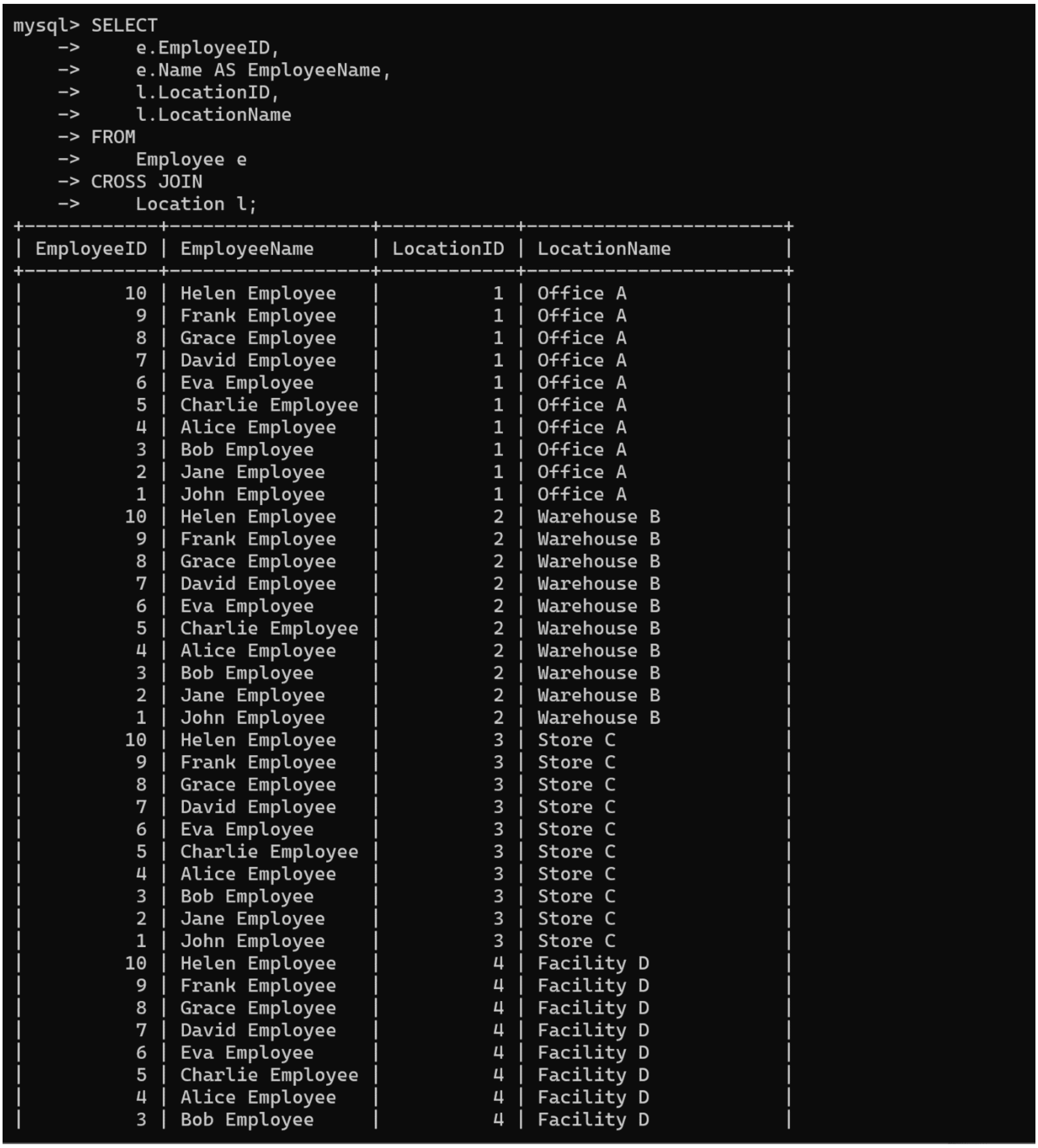


```
mysql> SELECT
    ->     u.UserID,
    ->     u.Name AS UserName,
    ->     cs.ServiceID,
    ->     cs.ServiceName,
    ->     cs.Cost
    -> FROM
    ->     Users u
    -> CROSS JOIN
    ->     CourierServices cs;
+--------+----------------+-----------+------------------------+-------+
| UserID | UserName       | ServiceID | ServiceName            | Cost  |
+--------+----------------+-----------+------------------------+-------+
|     10 | Helen Adams    |         1 | Standard Shipping      | 10.99 |
|      9 | Frank Turner   |         1 | Standard Shipping      | 10.99 |
|      8 | Grace Miller   |         1 | Standard Shipping      | 10.99 |
|      7 | David White    |         1 | Standard Shipping      | 10.99 |
|      6 | Eva Davis      |         1 | Standard Shipping      | 10.99 |
|      5 | Charlie Wilson |         1 | Standard Shipping      | 10.99 |
|      4 | Alice Brown    |         1 | Standard Shipping      | 10.99 |
|      3 | Bob Johnson    |         1 | Standard Shipping      | 10.99 |
|      2 | Jane Smith     |         1 | Standard Shipping      | 10.99 |
|      1 | John Doe       |         1 | Standard Shipping      | 10.99 |
|     10 | Helen Adams    |         2 | Express Shipping       | 19.99 |
|      9 | Frank Turner   |         2 | Express Shipping       | 19.99 |
|      8 | Grace Miller   |         2 | Express Shipping       | 19.99 |
|      7 | David White    |         2 | Express Shipping       | 19.99 |
|      6 | Eva Davis      |         2 | Express Shipping       | 19.99 |
|      5 | Charlie Wilson |         2 | Express Shipping       | 19.99 |
|      4 | Alice Brown    |         2 | Express Shipping       | 19.99 |
|      3 | Bob Johnson    |         2 | Express Shipping       | 19.99 |
|      2 | Jane Smith     |         2 | Express Shipping       | 19.99 |
|      1 | John Doe       |         2 | Express Shipping       | 19.99 |
|     10 | Helen Adams    |         3 | Overnight Shipping     | 29.99 |
|      9 | Frank Turner   |         3 | Overnight Shipping     | 29.99 |
|      8 | Grace Miller   |         3 | Overnight Shipping     | 29.99 |
|      7 | David White    |         3 | Overnight Shipping     | 29.99 |
|      6 | Eva Davis      |         3 | Overnight Shipping     | 29.99 |
|      5 | Charlie Wilson |         3 | Overnight Shipping     | 29.99 |
|      4 | Alice Brown    |         3 | Overnight Shipping     | 29.99 |
|      3 | Bob Johnson    |         3 | Overnight Shipping     | 29.99 |
|      2 | Jane Smith     |         3 | Overnight Shipping     | 29.99 |
|      1 | John Doe       |         3 | Overnight Shipping     | 29.99 |
|     10 | Helen Adams    |         4 | International Economy  | 39.99 |
|      9 | Frank Turner   |         4 | International Economy  | 39.99 |
|      8 | Grace Miller   |         4 | International Economy  | 39.99 |
|      7 | David White    |         4 | International Economy  | 39.99 |
|      6 | Eva Davis      |         4 | International Economy  | 39.99 |
|      5 | Charlie Wilson |         4 | International Economy  | 39.99 |
```

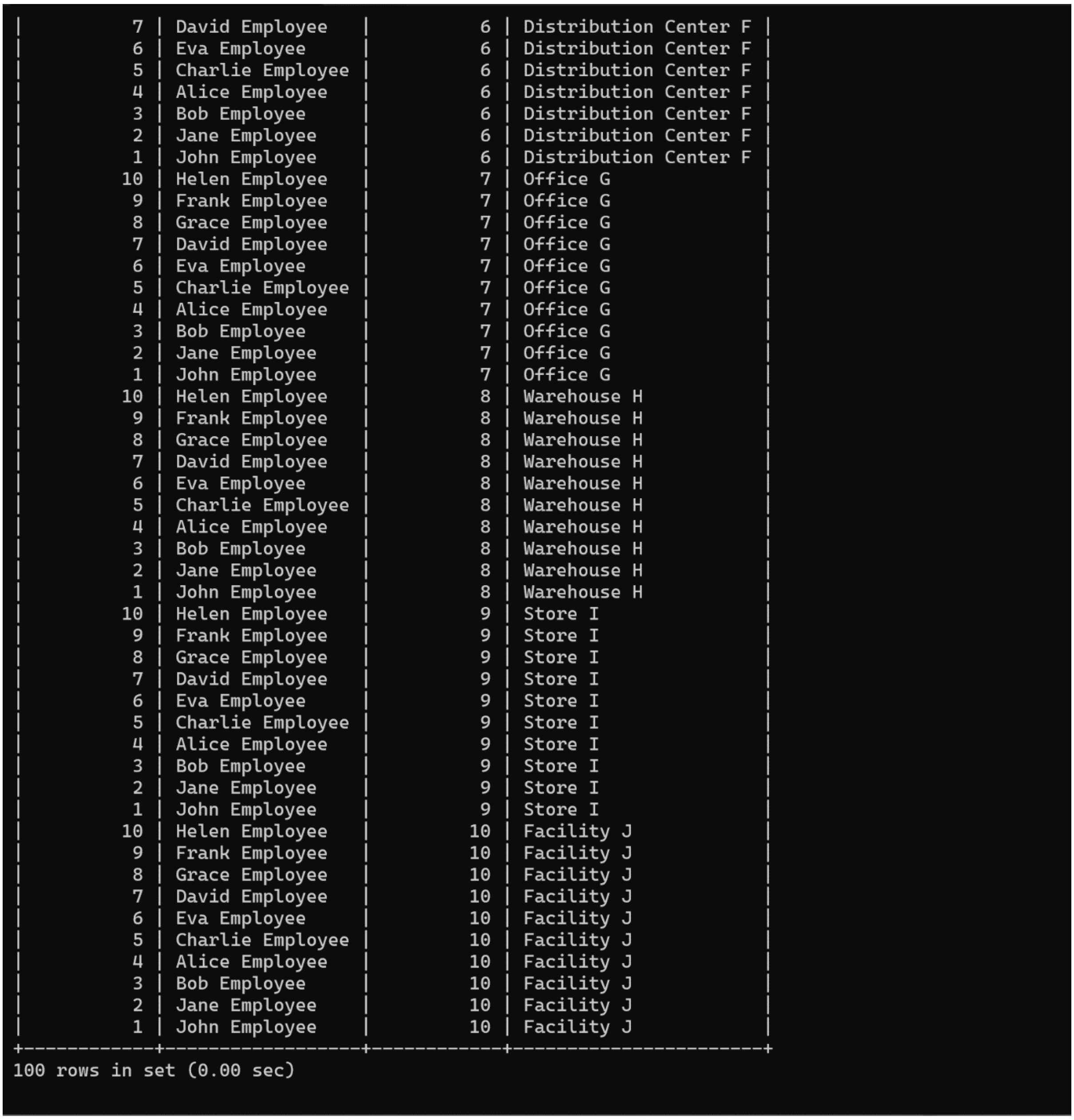


```
|      7 | David White    |         6 | Same-Day Delivery      | 59.99 |
|      6 | Eva Davis      |         6 | Same-Day Delivery      | 59.99 |
|      5 | Charlie Wilson |         6 | Same-Day Delivery      | 59.99 |
|      4 | Alice Brown    |         6 | Same-Day Delivery      | 59.99 |
|      3 | Bob Johnson    |         6 | Same-Day Delivery      | 59.99 |
|      2 | Jane Smith     |         6 | Same-Day Delivery      | 59.99 |
|      1 | John Doe       |         6 | Same-Day Delivery      | 59.99 |
|     10 | Helen Adams    |         7 | Special Handling       |  9.99 |
|      9 | Frank Turner   |         7 | Special Handling       |  9.99 |
|      8 | Grace Miller   |         7 | Special Handling       |  9.99 |
|      7 | David White    |         7 | Special Handling       |  9.99 |
|      6 | Eva Davis      |         7 | Special Handling       |  9.99 |
|      5 | Charlie Wilson |         7 | Special Handling       |  9.99 |
|      4 | Alice Brown    |         7 | Special Handling       |  9.99 |
|      3 | Bob Johnson    |         7 | Special Handling       |  9.99 |
|      2 | Jane Smith     |         7 | Special Handling       |  9.99 |
|      1 | John Doe       |         7 | Special Handling       |  9.99 |
|     10 | Helen Adams    |         8 | Fragile Items Service  | 14.99 |
|      9 | Frank Turner   |         8 | Fragile Items Service  | 14.99 |
|      8 | Grace Miller   |         8 | Fragile Items Service  | 14.99 |
|      7 | David White    |         8 | Fragile Items Service  | 14.99 |
|      6 | Eva Davis      |         8 | Fragile Items Service  | 14.99 |
|      5 | Charlie Wilson |         8 | Fragile Items Service  | 14.99 |
|      4 | Alice Brown    |         8 | Fragile Items Service  | 14.99 |
|      3 | Bob Johnson    |         8 | Fragile Items Service  | 14.99 |
|      2 | Jane Smith     |         8 | Fragile Items Service  | 14.99 |
|      1 | John Doe       |         8 | Fragile Items Service  | 14.99 |
|     10 | Helen Adams    |         9 | Signature Confirmation |  4.99 |
|      9 | Frank Turner   |         9 | Signature Confirmation |  4.99 |
|      8 | Grace Miller   |         9 | Signature Confirmation |  4.99 |
|      7 | David White    |         9 | Signature Confirmation |  4.99 |
|      6 | Eva Davis      |         9 | Signature Confirmation |  4.99 |
|      5 | Charlie Wilson |         9 | Signature Confirmation |  4.99 |
|      4 | Alice Brown    |         9 | Signature Confirmation |  4.99 |
|      3 | Bob Johnson    |         9 | Signature Confirmation |  4.99 |
|      2 | Jane Smith     |         9 | Signature Confirmation |  4.99 |
|      1 | John Doe       |         9 | Signature Confirmation |  4.99 |
|     10 | Helen Adams    |        10 | Insurance Service      |  7.99 |
|      9 | Frank Turner   |        10 | Insurance Service      |  7.99 |
|      8 | Grace Miller   |        10 | Insurance Service      |  7.99 |
|      7 | David White    |        10 | Insurance Service      |  7.99 |
|      6 | Eva Davis      |        10 | Insurance Service      |  7.99 |
|      5 | Charlie Wilson |        10 | Insurance Service      |  7.99 |
|      4 | Alice Brown    |        10 | Insurance Service      |  7.99 |
|      3 | Bob Johnson    |        10 | Insurance Service      |  7.99 |
|      2 | Jane Smith     |        10 | Insurance Service      |  7.99 |
|      1 | John Doe       |        10 | Insurance Service      |  7.99 |
+--------+----------------+-----------+------------------------+-------+
100 rows in set (0.00 sec)
```

List all employees and all locations, showing all possible combinations:

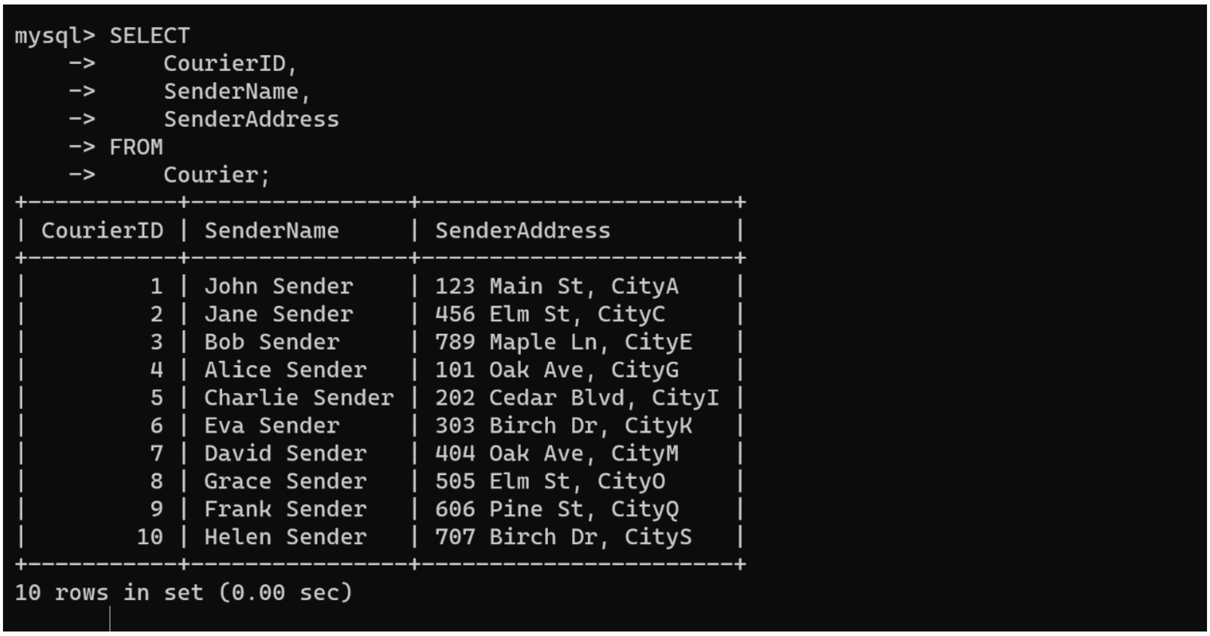


```
mysql> SELECT
    ->     e.EmployeeID,
    ->     e.Name AS EmployeeName,
    ->     l.LocationID,
    ->     l.LocationName
    -> FROM
    ->     Employee e
    -> CROSS JOIN
    ->     Location l;
+------------+------------------+------------+-----------------------+
| EmployeeID | EmployeeName     | LocationID | LocationName          |
+------------+------------------+------------+-----------------------+
|         10 | Helen Employee   |          1 | Office A              |
|          9 | Frank Employee   |          1 | Office A              |
|          8 | Grace Employee   |          1 | Office A              |
|          7 | David Employee   |          1 | Office A              |
|          6 | Eva Employee     |          1 | Office A              |
|          5 | Charlie Employee |          1 | Office A              |
|          4 | Alice Employee   |          1 | Office A              |
|          3 | Bob Employee     |          1 | Office A              |
|          2 | Jane Employee    |          1 | Office A              |
|          1 | John Employee    |          1 | Office A              |
|         10 | Helen Employee   |          2 | Warehouse B           |
|          9 | Frank Employee   |          2 | Warehouse B           |
|          8 | Grace Employee   |          2 | Warehouse B           |
|          7 | David Employee   |          2 | Warehouse B           |
|          6 | Eva Employee     |          2 | Warehouse B           |
|          5 | Charlie Employee |          2 | Warehouse B           |
|          4 | Alice Employee   |          2 | Warehouse B           |
|          3 | Bob Employee     |          2 | Warehouse B           |
|          2 | Jane Employee    |          2 | Warehouse B           |
|          1 | John Employee    |          2 | Warehouse B           |
|         10 | Helen Employee   |          3 | Store C               |
|          9 | Frank Employee   |          3 | Store C               |
|          8 | Grace Employee   |          3 | Store C               |
|          7 | David Employee   |          3 | Store C               |
|          6 | Eva Employee     |          3 | Store C               |
|          5 | Charlie Employee |          3 | Store C               |
|          4 | Alice Employee   |          3 | Store C               |
|          3 | Bob Employee     |          3 | Store C               |
|          2 | Jane Employee    |          3 | Store C               |
|          1 | John Employee    |          3 | Store C               |
|         10 | Helen Employee   |          4 | Facility D            |
|          9 | Frank Employee   |          4 | Facility D            |
|          8 | Grace Employee   |          4 | Facility D            |
|          7 | David Employee   |          4 | Facility D            |
|          6 | Eva Employee     |          4 | Facility D            |
|          5 | Charlie Employee |          4 | Facility D            |
|          4 | Alice Employee   |          4 | Facility D            |
|          3 | Bob Employee     |          4 | Facility D            |
```



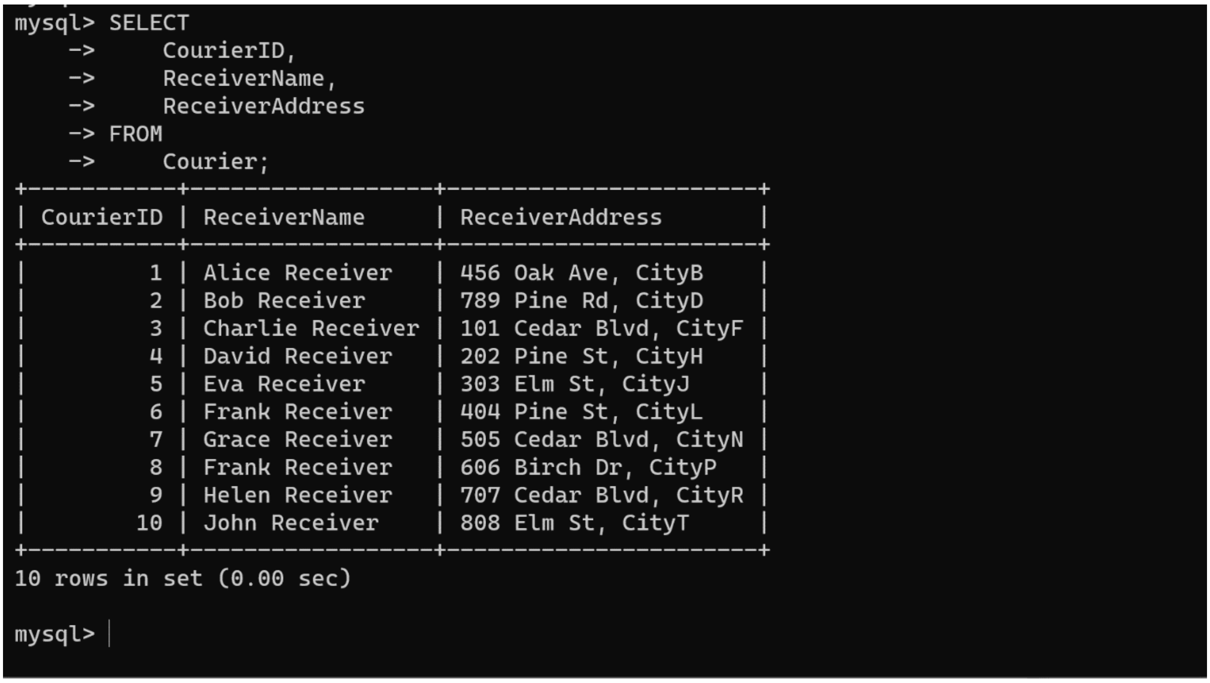
```
|           7 | David Employee   |           6 | Distribution Center F |
|           6 | Eva Employee     |           6 | Distribution Center F |
|           5 | Charlie Employee |           6 | Distribution Center F |
|           4 | Alice Employee   |           6 | Distribution Center F |
|           3 | Bob Employee     |           6 | Distribution Center F |
|           2 | Jane Employee    |           6 | Distribution Center F |
|           1 | John Employee    |           6 | Distribution Center F |
|          10 | Helen Employee   |           7 | Office G              |
|           9 | Frank Employee   |           7 | Office G              |
|           8 | Grace Employee   |           7 | Office G              |
|           7 | David Employee   |           7 | Office G              |
|           6 | Eva Employee     |           7 | Office G              |
|           5 | Charlie Employee |           7 | Office G              |
|           4 | Alice Employee   |           7 | Office G              |
|           3 | Bob Employee     |           7 | Office G              |
|           2 | Jane Employee    |           7 | Office G              |
|           1 | John Employee    |           7 | Office G              |
|          10 | Helen Employee   |           8 | Warehouse H           |
|           9 | Frank Employee   |           8 | Warehouse H           |
|           8 | Grace Employee   |           8 | Warehouse H           |
|           7 | David Employee   |           8 | Warehouse H           |
|           6 | Eva Employee     |           8 | Warehouse H           |
|           5 | Charlie Employee |           8 | Warehouse H           |
|           4 | Alice Employee   |           8 | Warehouse H           |
|           3 | Bob Employee     |           8 | Warehouse H           |
|           2 | Jane Employee    |           8 | Warehouse H           |
|           1 | John Employee    |           8 | Warehouse H           |
|          10 | Helen Employee   |           9 | Store I               |
|           9 | Frank Employee   |           9 | Store I               |
|           8 | Grace Employee   |           9 | Store I               |
|           7 | David Employee   |           9 | Store I               |
|           6 | Eva Employee     |           9 | Store I               |
|           5 | Charlie Employee |           9 | Store I               |
|           4 | Alice Employee   |           9 | Store I               |
|           3 | Bob Employee     |           9 | Store I               |
|           2 | Jane Employee    |           9 | Store I               |
|           1 | John Employee    |           9 | Store I               |
|          10 | Helen Employee   |          10 | Facility J            |
|           9 | Frank Employee   |          10 | Facility J            |
|           8 | Grace Employee   |          10 | Facility J            |
|           7 | David Employee   |          10 | Facility J            |
|           6 | Eva Employee     |          10 | Facility J            |
|           5 | Charlie Employee |          10 | Facility J            |
|           4 | Alice Employee   |          10 | Facility J            |
|           3 | Bob Employee     |          10 | Facility J            |
|           2 | Jane Employee    |          10 | Facility J            |
|           1 | John Employee    |          10 | Facility J            |
+-------------+------------------+-------------+-----------------------+
100 rows in set (0.00 sec)
```

Retrieve a list of couriers and their corresponding sender information (if available



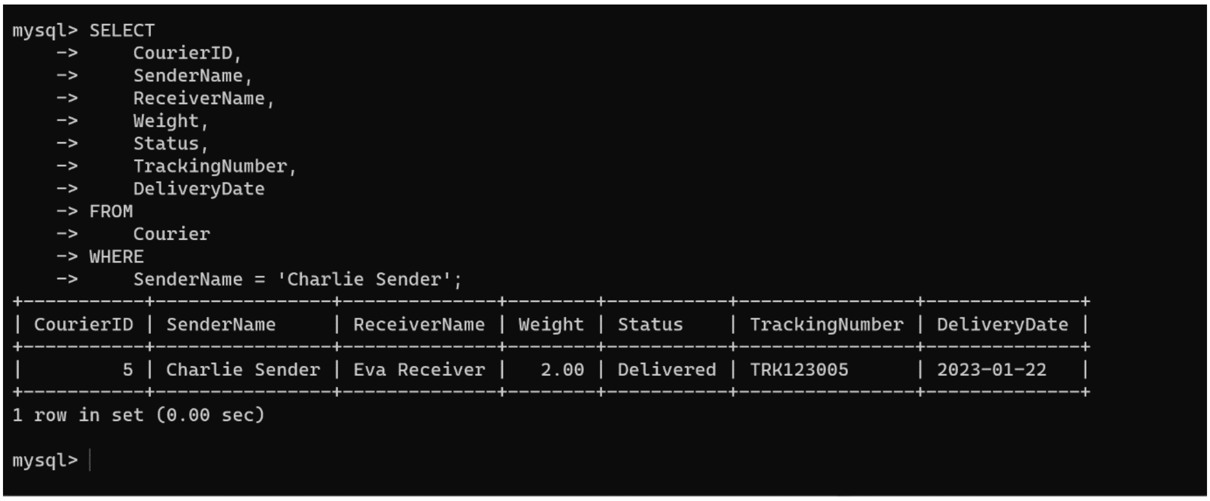
```
mysql> SELECT
    ->     CourierID,
    ->     SenderName,
    ->     SenderAddress
    -> FROM
    ->     Courier;
+-----------+----------------+----------------------+
| CourierID | SenderName     | SenderAddress        |
+-----------+----------------+----------------------+
|         1 | John Sender    | 123 Main St, CityA   |
|         2 | Jane Sender    | 456 Elm St, CityC    |
|         3 | Bob Sender     | 789 Maple Ln, CityE  |
|         4 | Alice Sender   | 101 Oak Ave, CityG   |
|         5 | Charlie Sender | 202 Cedar Blvd, CityI |
|         6 | Eva Sender     | 303 Birch Dr, CityK  |
|         7 | David Sender   | 404 Oak Ave, CityM   |
|         8 | Grace Sender   | 505 Elm St, CityO    |
|         9 | Frank Sender   | 606 Pine St, CityQ   |
|        10 | Helen Sender   | 707 Birch Dr, CityS  |
+-----------+----------------+----------------------+
10 rows in set (0.00 sec)
```

Retrieve a list of couriers and their corresponding receiver information (if available):



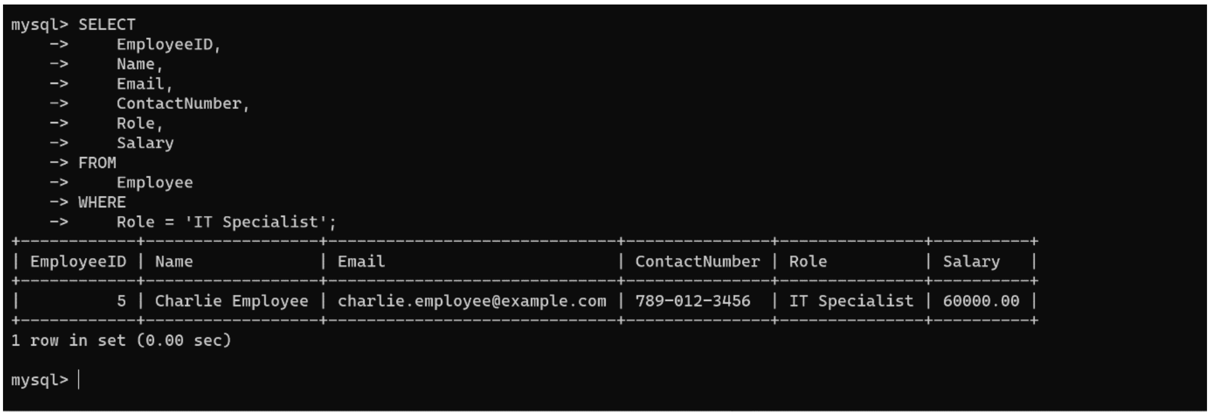
```
mysql> SELECT
    ->     CourierID,
    ->     ReceiverName,
    ->     ReceiverAddress
    -> FROM
    ->     Courier;
+-----------+------------------+-----------------------+
| CourierID | ReceiverName     | ReceiverAddress       |
+-----------+------------------+-----------------------+
|         1 | Alice Receiver   | 456 Oak Ave, CityB    |
|         2 | Bob Receiver     | 789 Pine Rd, CityD    |
|         3 | Charlie Receiver | 101 Cedar Blvd, CityF |
|         4 | David Receiver   | 202 Pine St, CityH    |
|         5 | Eva Receiver     | 303 Elm St, CityJ     |
|         6 | Frank Receiver   | 404 Pine St, CityL    |
|         7 | Grace Receiver   | 505 Cedar Blvd, CityN |
|         8 | Frank Receiver   | 606 Birch Dr, CityP   |
|         9 | Helen Receiver   | 707 Cedar Blvd, CityR |
|        10 | John Receiver    | 808 Elm St, CityT     |
+-----------+------------------+-----------------------+
10 rows in set (0.00 sec)

mysql>
```

Retrieve all couriers sent by the same sender (based on SenderName).



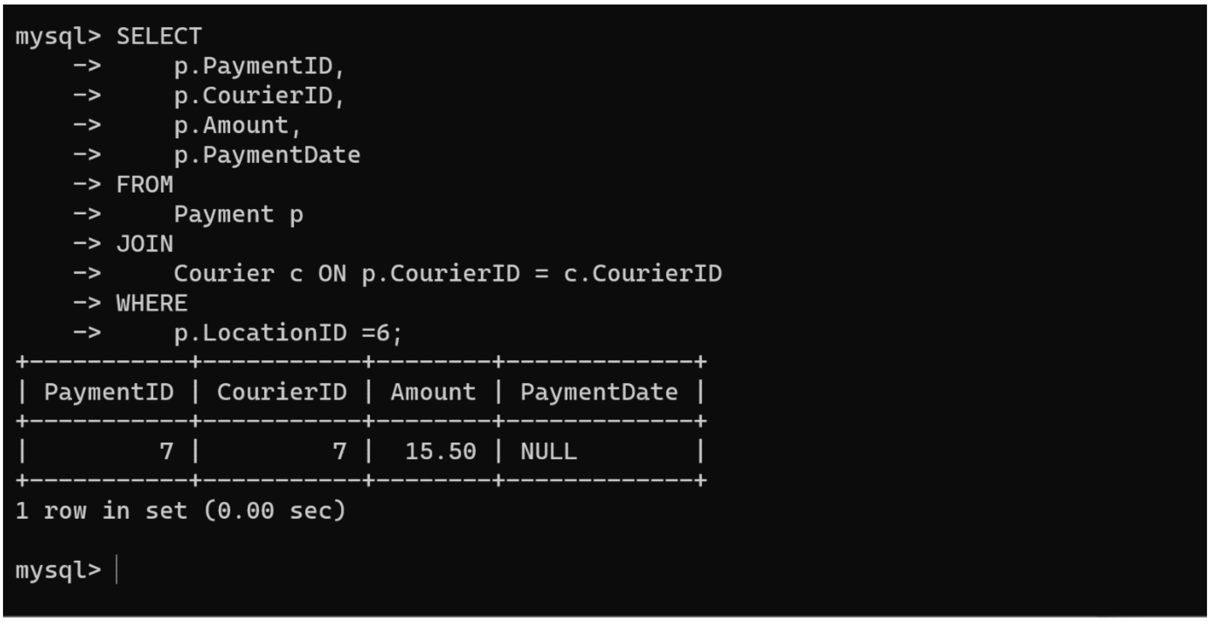
```
mysql> SELECT
    ->     CourierID,
    ->     SenderName,
    ->     ReceiverName,
    ->     Weight,
    ->     Status,
    ->     TrackingNumber,
    ->     DeliveryDate
    -> FROM
    ->     Courier
    -> WHERE
    ->     SenderName = 'Charlie Sender';
+-----------+----------------+--------------+--------+-----------+----------------+--------------+
| CourierID | SenderName     | ReceiverName | Weight | Status    | TrackingNumber | DeliveryDate |
+-----------+----------------+--------------+--------+-----------+----------------+--------------+
|         5 | Charlie Sender | Eva Receiver |   2.00 | Delivered | TRK123005      | 2023-01-22   |
+-----------+----------------+--------------+--------+-----------+----------------+--------------+
1 row in set (0.00 sec)

mysql>
```

List all employees who share the same role.



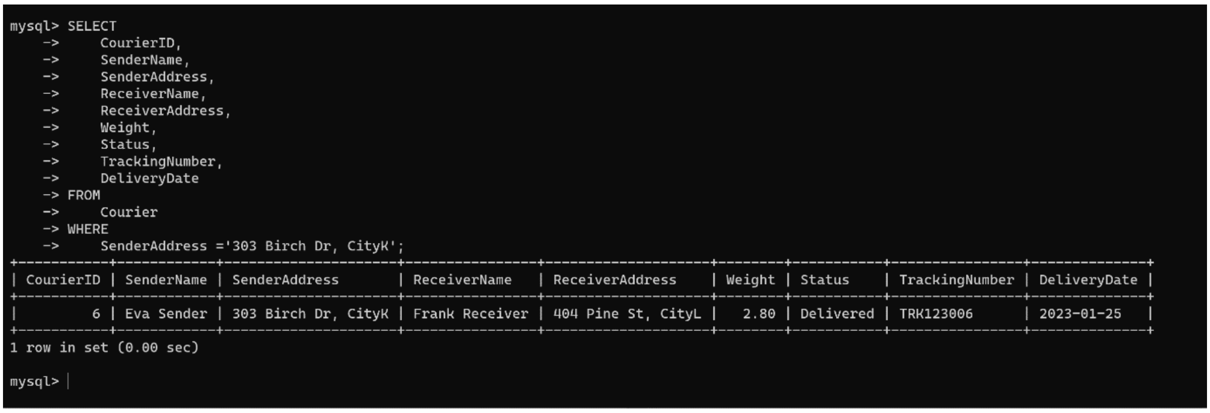
```
mysql> SELECT
    ->     EmployeeID,
    ->     Name,
    ->     Email,
    ->     ContactNumber,
    ->     Role,
    ->     Salary
    -> FROM
    ->     Employee
    -> WHERE
    ->     Role = 'IT Specialist';
+------------+------------------+------------------------------+---------------+---------------+----------+
| EmployeeID | Name             | Email                        | ContactNumber | Role          | Salary   |
+------------+------------------+------------------------------+---------------+---------------+----------+
|          5 | Charlie Employee | charlie.employee@example.com | 789-012-3456  | IT Specialist | 60000.00 |
+------------+------------------+------------------------------+---------------+---------------+----------+
1 row in set (0.00 sec)

mysql>
```

Retrieve all payments made for couriers sent from the same location.



```
mysql> SELECT
    ->     p.PaymentID,
    ->     p.CourierID,
    ->     p.Amount,
    ->     p.PaymentDate
    -> FROM
    ->     Payment p
    -> JOIN
    ->     Courier c ON p.CourierID = c.CourierID
    -> WHERE
    ->     p.LocationID =6;
+-----------+-----------+--------+-------------+
| PaymentID | CourierID | Amount | PaymentDate |
+-----------+-----------+--------+-------------+
|         7 |         7 |  15.50 | NULL        |
+-----------+-----------+--------+-------------+
1 row in set (0.00 sec)

mysql>
```

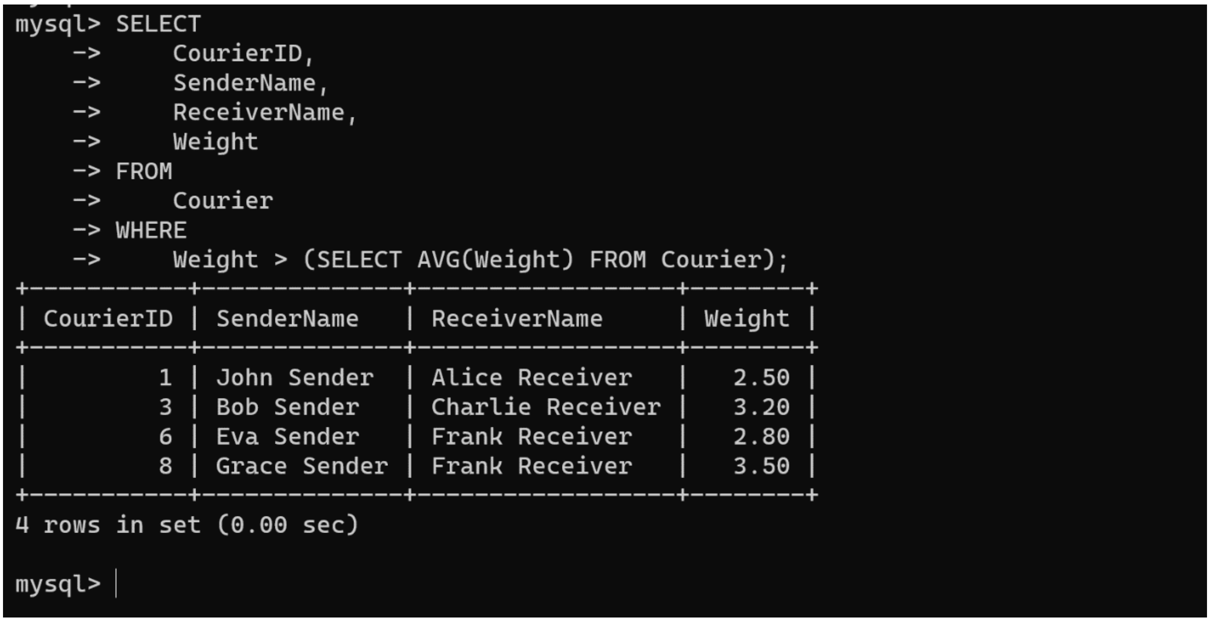
Retrieve all couriers sent from the same location (based on SenderAddress).



```
mysql> SELECT
    ->     CourierID,
    ->     SenderName,
    ->     SenderAddress,
    ->     ReceiverName,
    ->     ReceiverAddress,
    ->     Weight,
    ->     Status,
    ->     TrackingNumber,
    ->     DeliveryDate
    -> FROM
    ->     Courier
    -> WHERE
    ->     SenderAddress ='303 Birch Dr, CityK';
+-----------+------------+---------------------+----------------+--------------------+--------+-----------+----------------+--------------+
| CourierID | SenderName | SenderAddress       | ReceiverName   | ReceiverAddress    | Weight | Status    | TrackingNumber | DeliveryDate |
+-----------+------------+---------------------+----------------+--------------------+--------+-----------+----------------+--------------+
|         6 | Eva Sender | 303 Birch Dr, CityK | Frank Receiver | 404 Pine St, CityL |   2.80 | Delivered | TRK123006      | 2023-01-25   |
+-----------+------------+---------------------+----------------+--------------------+--------+-----------+----------------+--------------+
1 row in set (0.00 sec)

mysql>
```

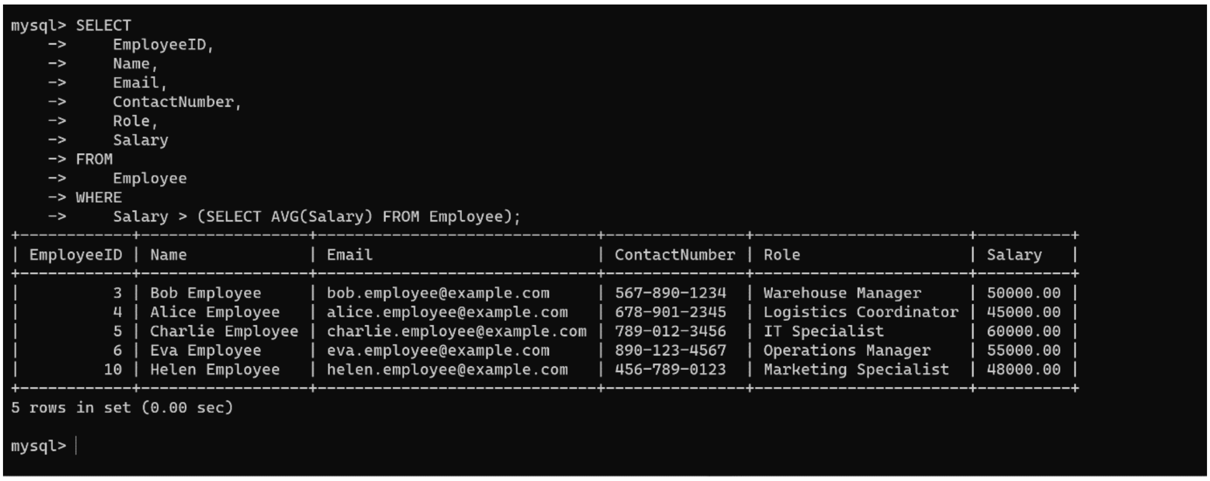
Scope: Inner Queries, Non Equi Joins, Equi joins, Exist, Any, All

Find couriers that have a weight greater than the average weight of all couriers



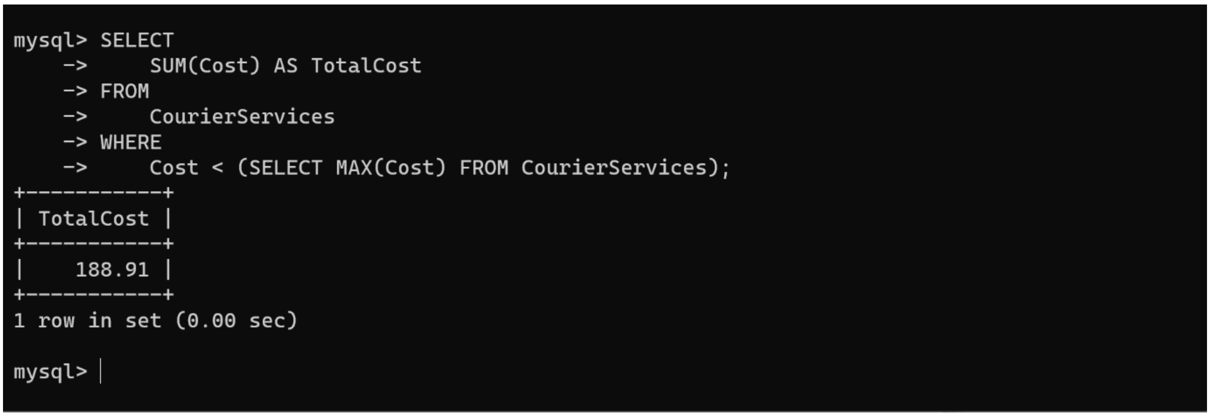
```
mysql> SELECT
    ->     CourierID,
    ->     SenderName,
    ->     ReceiverName,
    ->     Weight
    -> FROM
    ->     Courier
    -> WHERE
    ->     Weight > (SELECT AVG(Weight) FROM Courier);
+-----------+--------------+------------------+--------+
| CourierID | SenderName   | ReceiverName     | Weight |
+-----------+--------------+------------------+--------+
|         1 | John Sender  | Alice Receiver   |   2.50 |
|         3 | Bob Sender   | Charlie Receiver |   3.20 |
|         6 | Eva Sender   | Frank Receiver   |   2.80 |
|         8 | Grace Sender | Frank Receiver   |   3.50 |
+-----------+--------------+------------------+--------+
4 rows in set (0.00 sec)

mysql>
```

Find the names of all employees who have a salary greater than the average salary



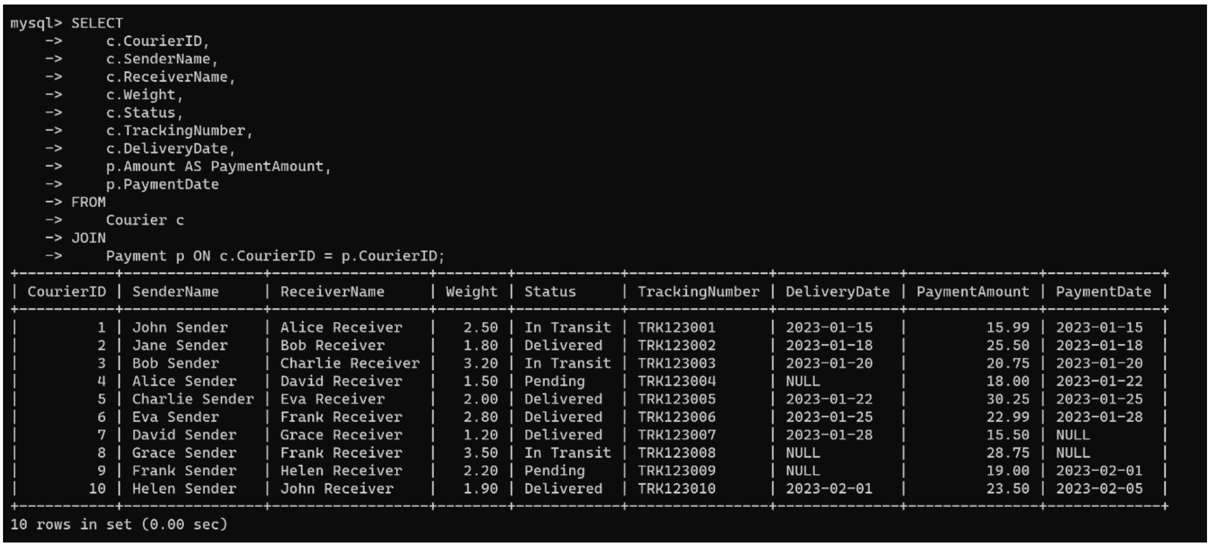
```
mysql> SELECT
    ->     EmployeeID,
    ->     Name,
    ->     Email,
    ->     ContactNumber,
    ->     Role,
    ->     Salary
    -> FROM
    ->     Employee
    -> WHERE
    ->     Salary > (SELECT AVG(Salary) FROM Employee);
+------------+------------------+------------------------------+---------------+-----------------------+----------+
| EmployeeID | Name             | Email                        | ContactNumber | Role                  | Salary   |
+------------+------------------+------------------------------+---------------+-----------------------+----------+
|          3 | Bob Employee     | bob.employee@example.com     | 567-890-1234  | Warehouse Manager     | 50000.00 |
|          4 | Alice Employee   | alice.employee@example.com   | 678-901-2345  | Logistics Coordinator | 45000.00 |
|          5 | Charlie Employee | charlie.employee@example.com | 789-012-3456  | IT Specialist         | 60000.00 |
|          6 | Eva Employee     | eva.employee@example.com     | 890-123-4567  | Operations Manager    | 55000.00 |
|         10 | Helen Employee   | helen.employee@example.com   | 456-789-0123  | Marketing Specialist  | 48000.00 |
+------------+------------------+------------------------------+---------------+-----------------------+----------+
5 rows in set (0.00 sec)

mysql>
```

Find the total cost of all courier services where the cost is less than the maximum cost



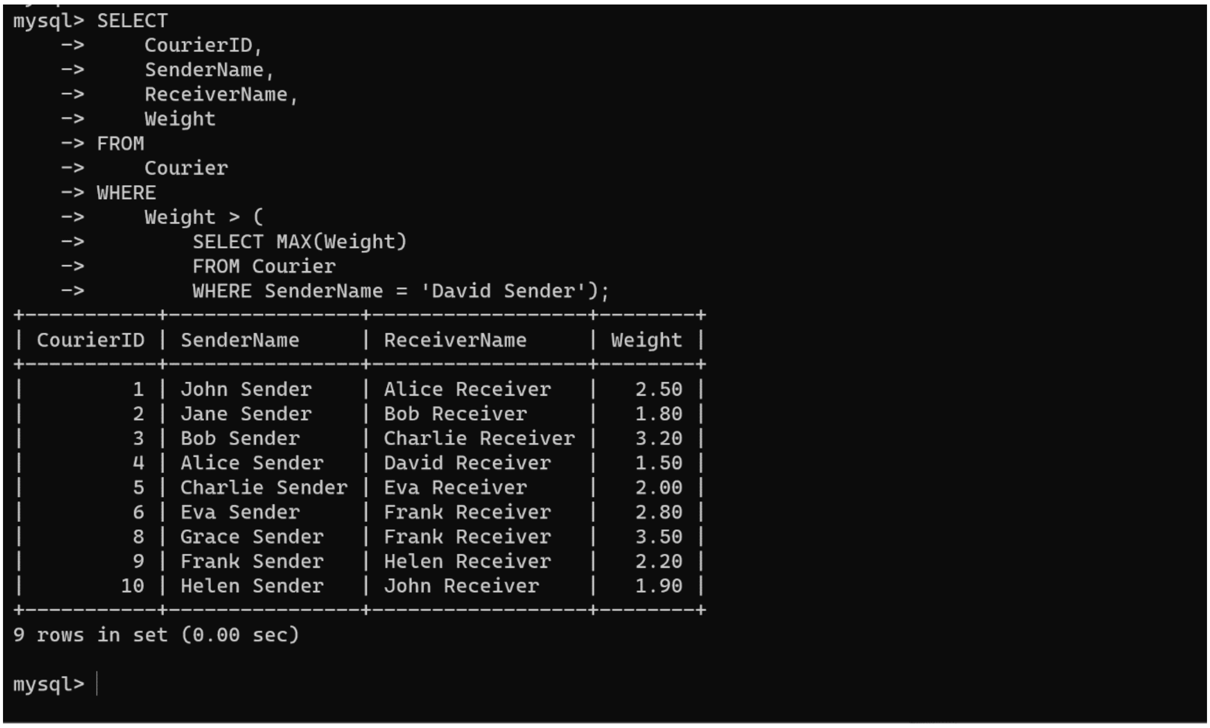
```
mysql> SELECT
    ->     SUM(Cost) AS TotalCost
    -> FROM
    ->     CourierServices
    -> WHERE
    ->     Cost < (SELECT MAX(Cost) FROM CourierServices);
+-----------+
| TotalCost |
+-----------+
|    188.91 |
+-----------+
1 row in set (0.00 sec)

mysql>
```

Find all couriers that have been paid for



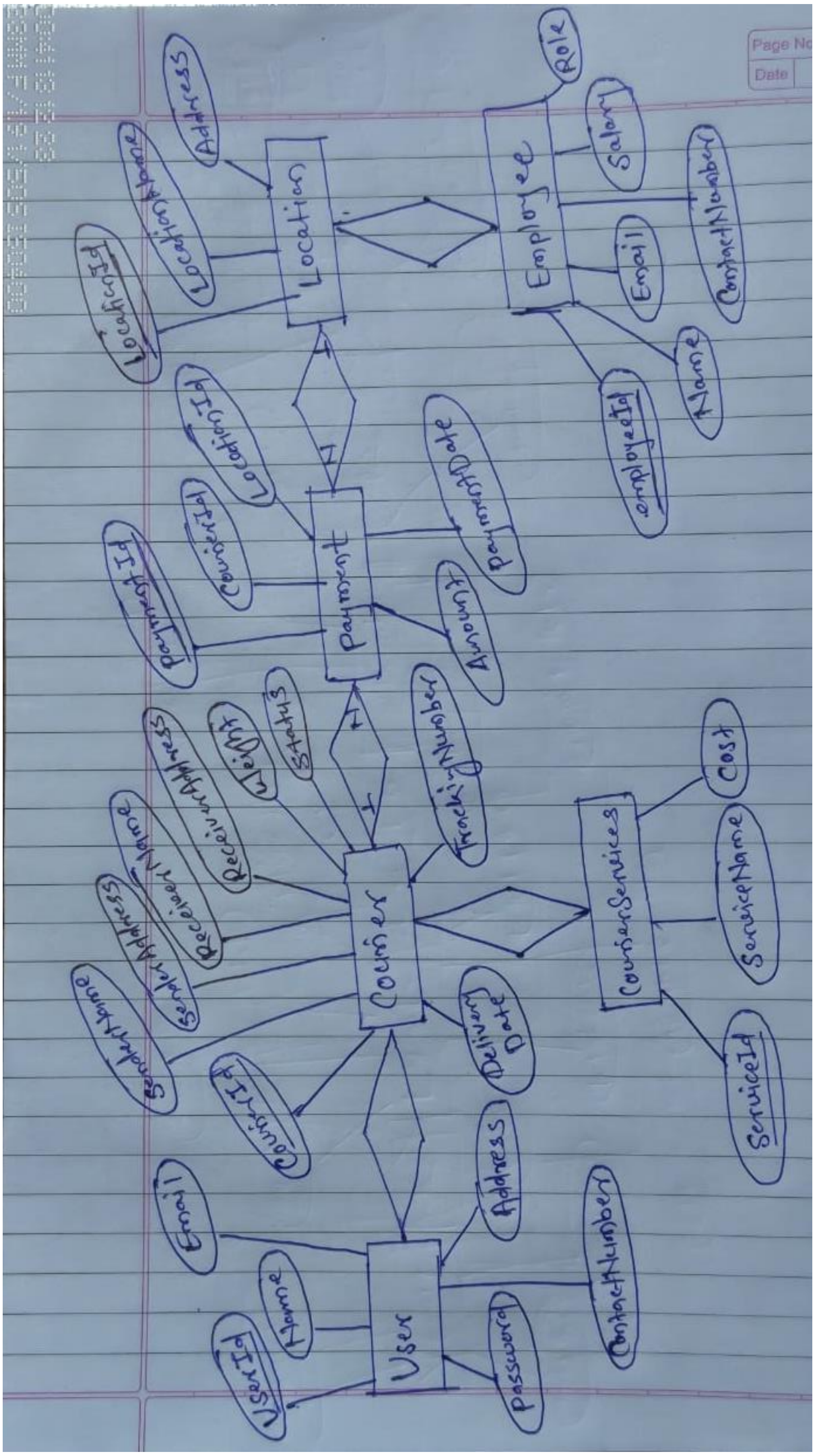
```
mysql> SELECT
    ->     c.CourierID,
    ->     c.SenderName,
    ->     c.ReceiverName,
    ->     c.Weight,
    ->     c.Status,
    ->     c.TrackingNumber,
    ->     c.DeliveryDate,
    ->     p.Amount AS PaymentAmount,
    ->     p.PaymentDate
    -> FROM
    ->     Courier c
    -> JOIN
    ->     Payment p ON c.CourierID = p.CourierID;
+-----------+----------------+------------------+--------+------------+----------------+--------------+---------------+-------------+
| CourierID | SenderName     | ReceiverName     | Weight | Status     | TrackingNumber | DeliveryDate | PaymentAmount | PaymentDate |
+-----------+----------------+------------------+--------+------------+----------------+--------------+---------------+-------------+
|         1 | John Sender    | Alice Receiver   |   2.50 | In Transit | TRK123001      | 2023-01-15   |         15.99 | 2023-01-15  |
|         2 | Jane Sender    | Bob Receiver     |   1.80 | Delivered  | TRK123002      | 2023-01-18   |         25.50 | 2023-01-18  |
|         3 | Bob Sender     | Charlie Receiver |   3.20 | In Transit | TRK123003      | 2023-01-20   |         20.75 | 2023-01-20  |
|         4 | Alice Sender   | David Receiver   |   1.50 | Pending    | TRK123004      | NULL         |         18.00 | 2023-01-22  |
|         5 | Charlie Sender | Eva Receiver     |   2.00 | Delivered  | TRK123005      | 2023-01-22   |         30.25 | 2023-01-25  |
|         6 | Eva Sender     | Frank Receiver   |   2.80 | Delivered  | TRK123006      | 2023-01-25   |         22.99 | 2023-01-28  |
|         7 | David Sender   | Grace Receiver   |   1.20 | Delivered  | TRK123007      | 2023-01-28   |         15.50 | NULL        |
|         8 | Grace Sender   | Frank Receiver   |   3.50 | In Transit | TRK123008      | NULL         |         28.75 | NULL        |
|         9 | Frank Sender   | Helen Receiver   |   2.20 | Pending    | TRK123009      | NULL         |         19.00 | 2023-02-01  |
|        10 | Helen Sender   | John Receiver    |   1.90 | Delivered  | TRK123010      | 2023-02-01   |         23.50 | 2023-02-05  |
+-----------+----------------+------------------+--------+------------+----------------+--------------+---------------+-------------+
10 rows in set (0.00 sec)
```

Find all couriers whose weight is greater than the weight of all couriers sent by a specific sender



```
mysql> SELECT
    ->     CourierID,
    ->     SenderName,
    ->     ReceiverName,
    ->     Weight
    -> FROM
    ->     Courier
    -> WHERE
    ->     Weight > (
    ->         SELECT MAX(Weight)
    ->         FROM Courier
    ->         WHERE SenderName = 'David Sender');
+-----------+----------------+------------------+--------+
| CourierID | SenderName     | ReceiverName     | Weight |
+-----------+----------------+------------------+--------+
|         1 | John Sender    | Alice Receiver   |   2.50 |
|         2 | Jane Sender    | Bob Receiver     |   1.80 |
|         3 | Bob Sender     | Charlie Receiver |   3.20 |
|         4 | Alice Sender   | David Receiver   |   1.50 |
|         5 | Charlie Sender | Eva Receiver     |   2.00 |
|         6 | Eva Sender     | Frank Receiver   |   2.80 |
|         8 | Grace Sender   | Frank Receiver   |   3.50 |
|         9 | Frank Sender   | Helen Receiver   |   2.20 |
|        10 | Helen Sender   | John Receiver    |   1.90 |
+-----------+----------------+------------------+--------+
9 rows in set (0.00 sec)

mysql>
```

Entity Relationship Diagram


User
UserId
Name
Email
Password
ContactNumber
Address
Courier
CourierId
SenderName
SenderAddress
ReceiverName
ReceiverAddress
Weight
Status
TrackingNumber
Delivery Date
CourierServices
ServiceId
ServiceName
Cost
Payment
PaymentId
CourierId
LocationId
PaymentDate
Amount
Location
LocationId
LocationPhone
Address
Employee
employeeId
Name
Email
ContactNumber
Salary
Role
1
N
1
N