ASSIGNMENT-4

COURIER MANAGEMENT SYSTEM

BY

VINODHA R

TASK-1:

I. Creating a Database

QUERY: CREATE DATABASE CourierManagementDB;

```
MySQL  localhost:3306 ssl  SQL > CREATE DATABASE CourieManagementDB;
Query OK, 1 row affected (0.0198 sec)
```

```
MySQL    localhost:3306 ssl  SQL > SHOW DATABASES;
+--------------------+
| Database           |
+--------------------+
| couriermanagementdb |
| db                 |
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
6 rows in set (0.0015 sec)
```

II. Creating Tables

- User Table

```
MySQL  localhost:3306 ssl  SQL > USE CourierManagementDB;
Default schema set to `CourierManagementDB`.
Fetching global names, object names from `couriermanagementdb` for auto-completion... Press ^C to stop
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > CREATE TABLE User(UserID INT PRIMARY KEY,
                                                  -> Name VARCHAR(255),
                                                  -> Email VARCHAR(255) UNIQUE,
                                                  -> Password VARCHAR(255),
                                                  -> ContactNumber VARCHAR(20),
                                                  -> Address TEXT
                                                  -> );
Query OK, 0 rows affected (0.0777 sec)
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > DESC User
                                                  -> ;
+---------------+--------------+------+-----+---------+-------+
| 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 (0.0094 sec)
```

- Courier Table

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > 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 (0.0597 sec)
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > 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 (0.0033 sec)
```

- Courier Services Table

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > CREATE TABLE CourierServices
                                                   -> (ServiceID INT PRIMARY KEY,
                                                   -> ServiceName VARCHAR(100),
                                                   -> Cost DECIMAL(8,2)
                                                   -> );
Query OK, 0 rows affected (0.1322 sec)
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > 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 (0.0363 sec)
```

- Employee Table

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > CREATE TABLE Employee(EmpID 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 (0.0832 sec)
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > DESC Employee
                                                   -> ;
+---------------+---------------+------+-----+---------+-------+
| Field         | Type          | Null | Key | Default | Extra |
+---------------+---------------+------+-----+---------+-------+
| EmpID         | 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 (0.0048 sec)
```

- Location Table

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > CREATE TABLE Location(LocationID INT PRIMARY KEY,
                                                   -> LocationName VARCHAR(100),
                                                   -> Address TEXT);
Query OK, 0 rows affected (0.0260 sec)
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > 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 (0.0060 sec)
```

- Payment Table

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > CREATE TABLE Payment(PaymentID INT PRIMARY KEY,
                                                   -> CourierID INT,
                                                   -> LocationID INT,
                                                   -> Amount DECIMAL(10,2),
                                                   -> PaymentDate DATE,
                                                   -> FOREIGN KEY(CourierID) REFERENCES Courier(CourierID),
                                                   -> FOREIGN KEY(LocationID) REFERENCES Location(LocationID)
                                                   -> );
Query OK, 0 rows affected (0.0606 sec)
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > 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 (0.0044 sec)
```

Note: As there is a need for one more table, creating the parcel table in addition to the tables given.

- Parcel Table

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > CREATE TABLE Parcel (
                                                   ->     ParcelID INT PRIMARY KEY,
                                                   ->     CourierID INT,
                                                   ->     Description VARCHAR(255),
                                                   ->     Weight DECIMAL(5,2),
                                                   ->     Status VARCHAR(50),
                                                   ->     FOREIGN KEY (CourierID) REFERENCES Courier(CourierID)
                                                   -> );
Query OK, 0 rows affected (0.1040 sec)
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > desc Parcel;
+-------------+--------------+------+-----+---------+-------+
| Field       | Type         | Null | Key | Default | Extra |
+-------------+--------------+------+-----+---------+-------+
| ParcelID    | int          | NO   | PRI | NULL    |       |
| CourierID   | int          | YES  | MUL | NULL    |       |
| Description | varchar(255) | YES  |     | NULL    |       |
| Weight      | decimal(5,2) | YES  |     | NULL    |       |
| Status      | varchar(50)  | YES  |     | NULL    |       |
+-------------+--------------+------+-----+---------+-------+
5 rows in set (0.0128 sec)
```

III. Inserting values into the tables

▪ User Table

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > INSERT INTO User VALUES
                                              -> (121, 'Brindha', 'brindha10@gmail.com', 'bri204', '9857679819', 'Chennai'),
                                              -> (122, 'Agnes', 'agnes94@gmail.com', 'agnes12', '9786564872', 'Madurai'),
                                              -> (123, 'John', 'johnjohn@gmail.com', 'john70', '8270465829', 'Coimbatore'),
                                              -> (124, 'Mary', 'maryjose@gmail.com', 'maryj', '9896284637', 'Tiruchirapalli'),
                                              -> (125, 'Lavanya', 'lavanya04@gmail.com', 'lavs', '7308952618', 'Kumbakonam');
Query OK, 5 rows affected (0.0320 sec)

Records: 5  Duplicates: 0  Warnings: 0
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM USER;
+--------+---------+---------------------+----------+---------------+----------------+
| UserID | Name    | Email               | Password | ContactNumber | Address        |
+--------+---------+---------------------+----------+---------------+----------------+
|    121 | Brindha | brindha10@gmail.com | bri204   | 9857679819    | Chennai        |
|    122 | Agnes   | agnes94@gmail.com   | agnes12  | 9786564872    | Madurai        |
|    123 | John    | johnjohn@gmail.com  | john70   | 8270465829    | Coimbatore     |
|    124 | Mary    | maryjose@gmail.com  | maryj    | 9896284637    | Tiruchirapalli |
|    125 | Lavanya | lavanya04@gmail.com | lavs     | 7308952618    | Kumbakonam     |
+--------+---------+---------------------+----------+---------------+----------------+
5 rows in set (0.0040 sec)
```

▪ Courier Table

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > INSERT INTO Courier (CourierID, SenderName, SenderAddress, ReceiverName, ReceiverAddress, Weight, Status, TrackingNumber, DeliveryDate)
                                      -> VALUES
                                      -> (201, 'Mr. Ramachandran', 'Chennai', 'Kavi', 'Hyderabad', 2.8, 'Delivered', 'TRK2001', '2025-06-10'),

                                      -> (202, 'Agnes', 'Madurai', 'Revathi', 'Delhi', 1.5, 'In Transit', 'TRK2002', '2025-06-14'),
                                      -> (203, 'Naveen', 'Coimbatore', 'Rekha', 'Bangalore', 3.0, 'Yet to Dispatch', 'TRK2003', '2025-06-20'),

                                      -> (204, 'Lavanya', 'Kumbakonam', 'Deepa', 'Pune', 4.2, 'Delivered', 'TRK2004', '2025-06-08'),
                                      -> (205, 'Mary', 'Tiruchirapalli', 'Meera', 'Lucknow', 2.7, 'Cancelled', 'TRK2005', '2025-06-05'),
                                      -> (206, 'Kiran', 'Mumbai', 'Sahana', 'Chennai', 1.9, 'In Transit', 'TRK2006', '2025-06-12'),
                                      -> (207, 'John', 'Coimbatore', 'Vijay', 'Kolkata', 3.5, 'Yet to Dispatch', 'TRK2007', '2025-06-22'),
                                      -> (208, 'Ravi', 'Trichy', 'Ayesha', 'Jaipur', 2.0, 'Delivered', 'TRK2008', '2025-06-11'),
                                      -> (209, 'Brindha', 'Chennai', 'Arjun', 'Ahmedabad', 3.8, 'In Transit', 'TRK2009', '2025-06-13'),
                                      -> (210, 'Sundar', 'Madurai', 'Karthik', 'Delhi', 1.3, 'Yet to Dispatch', 'TRK2010', '2025-06-25');
Query OK, 10 rows affected (0.0169 sec)

Records: 10  Duplicates: 0  Warnings: 0
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > select * from Courier;
+-----------+------------------+----------------+--------------+-----------------+--------+-----------------+----------------+--------------+
| CourierID | SenderName       | SenderAddress  | ReceiverName | ReceiverAddress | Weight | Status          | TrackingNumber | DeliveryDate |
+-----------+------------------+----------------+--------------+-----------------+--------+-----------------+----------------+--------------+
|       201 | Mr. Ramachandran | Chennai        | Kavi         | Hyderabad       |   2.80 | Delivered       | TRK2001        | 2025-06-10   |
|       202 | Agnes            | Madurai        | Revathi      | Delhi           |   1.50 | In Transit      | TRK2002        | 2025-06-14   |
|       203 | Naveen           | Coimbatore     | Rekha        | Bangalore       |   3.00 | Yet to Dispatch | TRK2003        | 2025-06-20   |
|       204 | Lavanya          | Kumbakonam     | Deepa        | Pune            |   4.20 | Delivered       | TRK2004        | 2025-06-08   |
|       205 | Mary             | Tiruchirapalli | Meera        | Lucknow         |   2.70 | Cancelled       | TRK2005        | 2025-06-05   |
|       206 | Kiran            | Mumbai         | Sahana       | Chennai         |   1.90 | In Transit      | TRK2006        | 2025-06-12   |
|       207 | John             | Coimbatore     | Vijay        | Kolkata         |   3.50 | Yet to Dispatch | TRK2007        | 2025-06-22   |
|       208 | Ravi             | Trichy         | Ayesha       | Jaipur          |   2.00 | Delivered       | TRK2008        | 2025-06-11   |
|       209 | Brindha          | Chennai        | Arjun        | Ahmedabad       |   3.80 | In Transit      | TRK2009        | 2025-06-13   |
|       210 | Sundar           | Madurai        | Karthik      | Delhi           |   1.30 | Yet to Dispatch | TRK2010        | 2025-06-25   |
+-----------+------------------+----------------+--------------+-----------------+--------+-----------------+----------------+--------------+
10 rows in set (0.0050 sec)
```

▪ Courier Services Table

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > INSERT INTO CourierServices (ServiceID, ServiceName, Cost)
                                            -> VALUES
                                            -> (1, 'Standard Delivery', 150.00),
                                            -> (2, 'Express Delivery', 300.00),
                                            -> (3, 'Same-Day Delivery', 500.00),
                                            -> (4, 'Overnight Delivery', 450.00),
                                            -> (5, 'Eco Saver Delivery', 100.00),
                                            -> (6, 'Premium Handling Service', 650.00);
Query OK, 6 rows affected (0.0082 sec)

Records: 6  Duplicates: 0  Warnings: 0
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM CourierServices;
+-----------+--------------------------+--------+
| ServiceID | ServiceName              | Cost   |
+-----------+--------------------------+--------+
|         1 | Standard Delivery        | 150.00 |
|         2 | Express Delivery         | 300.00 |
|         3 | Same-Day Delivery        | 500.00 |
|         4 | Overnight Delivery       | 450.00 |
|         5 | Eco Saver Delivery       | 100.00 |
|         6 | Premium Handling Service | 650.00 |
+-----------+--------------------------+--------+
6 rows in set (0.0009 sec)
```

- Employee Table

```
MySQL localhost:3306 ssl couriermanagementdb SQL > INSERT INTO Employee VALUES(1201,'Shakthi','shakthi002@gmail.com','9095866437','Delivery Executive',22000), (1202,'
Manikandan','manikandan@gmail.com','6374356002','Manager',55000), (1203,'Shalini','shalini4444@gmail.com','7205783480','Supervisor',30000), (1204,'Surya','suryasekar@gmai
l.com','9786453768','Delivery Executive',24000), (1205,'Shai Sharath','shaisharath@gmail.com','9629698774','Supervisor',35000), (1206,'Mukundh','mukundh@gmail.com','82785
64378','Logistics Analyst',45000), (1207,'Marshook','marshook09@gmail.com','7094555273','Delivery Executive',27000);
Query OK, 7 rows affected (0.0150 sec)

Records: 7  Duplicates: 0  Warnings: 0
MySQL localhost:3306 ssl couriermanagementdb SQL > SELECT * FROM Employee;
+-------+--------------+----------------------+---------------+-------------------+----------+
| EmpID | Name         | Email                | ContactNumber | Role              | Salary   |
+-------+--------------+----------------------+---------------+-------------------+----------+
|  1201 | Shakthi      | shakthi002@gmail.com | 9095866437    | Delivery Executive | 22000.00 |
|  1202 | Manikandan   | manikandan@gmail.com | 6374356002    | Manager           | 55000.00 |
|  1203 | Shalini      | shalini4444@gmail.com| 7205783480    | Supervisor        | 30000.00 |
|  1204 | Surya        | suryasekar@gmail.com | 9786453768    | Delivery Executive | 24000.00 |
|  1205 | Shai Sharath | shaisharath@gmail.com| 9629698774    | Supervisor        | 35000.00 |
|  1206 | Mukundh      | mukundh@gmail.com    | 8278564378    | Logistics Analyst | 45000.00 |
|  1207 | Marshook     | marshook09@gmail.com | 7094555273    | Delivery Executive | 27000.00 |
+-------+--------------+----------------------+---------------+-------------------+----------+
```

- Location Table

```
MySQL localhost:3306 ssl couriermanagementdb SQL > INSERT INTO Location (LocationID, LocationName, Address)
    -> VALUES
    -> (831, 'Kumbakonam Delivery Express', 'Opp. to Mahamaham, Kumbakonam'),
    -> (832, 'Trichy Courier Services', 'Next to Periyasamy Tower, Chathram, Tiruchirappalli'),
    -> (833, 'Thanjai Courier Point', 'Railway Junction Road, Thanjavur'),
    -> (834, 'Madurai Parcel Services', 'Near Teppakulam, Madurai'),
    -> (835, 'Covai Express Delivery', 'Backside of Gandhi Nagar Bus Stand, Coimbatore'),
    -> (836, 'Pondy Couriers', 'MG Road, White Town, Pondicherry'),
    -> (837, 'Salem Delivery Point', 'Anna Statue, Salem'),
    -> (838, 'Vellore Parcels', 'Chennai Highways, Vellore'),
    -> (839, 'Hosur Delivery Express', 'Bangalore Main Road, Hosur');
Query OK, 9 rows affected (0.0220 sec)

Records: 9  Duplicates: 0  Warnings: 0
MySQL localhost:3306 ssl couriermanagementdb SQL > select * from Location;
+------------+-----------------------------+------------------------------------------------------+
| LocationID | LocationName                | Address                                              |
+------------+-----------------------------+------------------------------------------------------+
|        831 | Kumbakonam Delivery Express | Opp. to Mahamaham, Kumbakonam                        |
|        832 | Trichy Courier Services     | Next to Periyasamy Tower, Chathram, Tiruchirappalli  |
|        833 | Thanjai Courier Point       | Railway Junction Road, Thanjavur                     |
|        834 | Madurai Parcel Services     | Near Teppakulam, Madurai                             |
|        835 | Covai Express Delivery      | Backside of Gandhi Nagar Bus Stand, Coimbatore       |
|        836 | Pondy Couriers              | MG Road, White Town, Pondicherry                     |
|        837 | Salem Delivery Point        | Anna Statue, Salem                                   |
|        838 | Vellore Parcels             | Chennai Highways, Vellore                            |
|        839 | Hosur Delivery Express      | Bangalore Main Road, Hosur                           |
+------------+-----------------------------+------------------------------------------------------+
9 rows in set (0.0016 sec)
```

- Payment Table

```
MySQL localhost:3306 ssl couriermanagementdb SQL > INSERT INTO Payment (PaymentID, CourierID, LocationID, Amount, PaymentDate)
    -> VALUES
    -> (601, 201, 831, 120.00, '2025-06-10'),
    -> (602, 202, 832, 320.00, '2025-06-12'),
    -> (603, 203, 833, 90.00, '2025-06-14'),
    -> (604, 204, 834, 400.00, '2025-06-08'),
    -> (605, 205, 835, 550.00, '2025-06-07'),
    -> (606, 206, 836, 1500.00, '2025-06-11'),
    -> (607, 207, 837, 180.00, '2025-06-13'),
    -> (608, 208, 838, 250.00, '2025-06-09'),
    -> (609, 209, 839, 6000.00, '2025-06-12'),
    -> (610, 210, 832, 100.00, '2025-06-14');
Query OK, 10 rows affected (0.0099 sec)

Records: 10  Duplicates: 0  Warnings: 0
MySQL localhost:3306 ssl couriermanagementdb SQL > SELECT * FROM Payment;
+-----------+-----------+------------+---------+-------------+
| PaymentID | CourierID | LocationID | Amount  | PaymentDate |
+-----------+-----------+------------+---------+-------------+
|       601 |       201 |        831 |  120.00 | 2025-06-10  |
|       602 |       202 |        832 |  320.00 | 2025-06-12  |
|       603 |       203 |        833 |   90.00 | 2025-06-14  |
|       604 |       204 |        834 |  400.00 | 2025-06-08  |
|       605 |       205 |        835 |  550.00 | 2025-06-07  |
|       606 |       206 |        836 | 1500.00 | 2025-06-11  |
|       607 |       207 |        837 |  180.00 | 2025-06-13  |
|       608 |       208 |        838 |  250.00 | 2025-06-09  |
|       609 |       209 |        839 | 6000.00 | 2025-06-12  |
|       610 |       210 |        832 |  100.00 | 2025-06-14  |
+-----------+-----------+------------+---------+-------------+
10 rows in set (0.0029 sec)
```

- Parcel Table


```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > INSERT INTO Parcel VALUES
                                                   -> (1, 201, 'Electronics - Mobile Phone', 0.5, 'Delivered'),
                                                   -> (2, 201, 'Phone Charger & Case', 0.3, 'Delivered'),
                                                   -> (3, 202, 'Books - Science & Math', 1.2, 'In Transit'),
                                                   -> (4, 203, 'Kitchen Items - Mixer Jar', 2.0, 'Yet to Dispatch'),
                                                   -> (5, 204, 'Documents - Legal Papers', 0.2, 'Delivered'),
                                                   -> (6, 204, 'Cheque Book & ID Proofs', 0.4, 'Delivered'),
                                                   -> (7, 205, 'Shoes - Sports', 1.1, 'Cancelled'),
                                                   -> (8, 206, 'Laptop', 2.5, 'In Transit'),
                                                   -> (9, 207, 'Gift Box - Cosmetics', 1.8, 'Yet to Dispatch'),
                                                   -> (10, 208, 'Groceries - Packaged Foods', 3.0, 'Delivered');
Query OK, 10 rows affected (0.0083 sec)

Records: 10  Duplicates: 0  Warnings: 0
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > select * from Parcel;
+----------+-----------+----------------------------+--------+-----------------+
| ParcelID | CourierID | Description                | Weight | Status          |
+----------+-----------+----------------------------+--------+-----------------+
|        1 |       201 | Electronics - Mobile Phone |   0.50 | Delivered       |
|        2 |       201 | Phone Charger & Case       |   0.30 | Delivered       |
|        3 |       202 | Books - Science & Math     |   1.20 | In Transit      |
|        4 |       203 | Kitchen Items - Mixer Jar  |   2.00 | Yet to Dispatch |
|        5 |       204 | Documents - Legal Papers   |   0.20 | Delivered       |
|        6 |       204 | Cheque Book & ID Proofs    |   0.40 | Delivered       |
|        7 |       205 | Shoes - Sports             |   1.10 | Cancelled       |
|        8 |       206 | Laptop                     |   2.50 | In Transit      |
|        9 |       207 | Gift Box - Cosmetics       |   1.80 | Yet to Dispatch |
|       10 |       208 | Groceries - Packaged Foods |   3.00 | Delivered       |
+----------+-----------+----------------------------+--------+-----------------+
10 rows in set (0.0008 sec)
```

III. Defining Relationships between the Tables

i. **User ↔ Courier**

Relationship: One – Many.

Description: One user can place many courier orders.

ii. **Courier ↔ Parcel**

Relationship: One – Many.

Description: One courier can include multiple parcels or packages.

iii. **Courier ↔ Payment**

Relationship: One – One.

Description: One courier has only one payment.

iv. **Location ↔ Payment**

Relationship: One – Many.

Description: One location can be used for various payments.

v. **Courier ↔ Courier Services**

Relationship: Many – One.

Description: Many couriers can use the same type of courier service.

vi. **Employee ↔ Courier**

Relationship: One – Many.

Description: One employee (Delivery Executive) may deliver multiple couriers.

TASK-2 (SELECT, WHERE)

1. List all customers:

Here customers are the users who are all using the courier service.

QUERY:

SELECT *FROM User;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-2 question-1 list all the customers*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM User;
+--------+---------+----------------------+----------+---------------+---------------+
| UserID | Name    | Email                | Password | ContactNumber | Address       |
+--------+---------+----------------------+----------+---------------+---------------+
|    121 | Brindha | brindha10@gmail.com  | bri204   | 9857679819    | Chennai       |
|    122 | Agnes   | agnes94@gmail.com    | agnes12  | 9786564872    | Madurai       |
|    123 | John    | johnjohn@gmail.com   | john70   | 8270465829    | Coimbatore    |
|    124 | Mary    | maryjose@gmail.com   | maryj    | 9896284637    | Tiruchirapalli |
|    125 | Lavanya | lavanya04@gmail.com  | lavs     | 7308952618    | Kumbakonam    |
+--------+---------+----------------------+----------+---------------+---------------+
```

2. List all orders for a specific customer:

QUERY:

SELECT * FROM Courier WHERE UserID=121;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  /* TASK-2 QUESTION-2 List all the orders for the specific customers*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM COURIER WHERE UserID=121;
+----------+------------+----------------+--------------+----------------+--------+------------+----------------+--------------+--------+
| CourierID | SenderName | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status     | TrackingNumber | DeliveryDate | UserID |
+----------+------------+----------------+--------------+----------------+--------+------------+----------------+--------------+--------+
|      202 | Agnes      | Madurai        | Revathi      | Delhi          |   1.50 | In Transit | TRK2002        | 2025-06-14   |    121 |
|      205 | Mary       | Tiruchirapalli | Meera        | Lucknow        |   2.70 | Cancelled  | TRK2005        | 2025-06-05   |    121 |
|      208 | Ravi       | Trichy         | Ayesha       | Jaipur         |   2.00 | Delivered  | TRK2008        | 2025-06-11   |    121 |
+----------+------------+----------------+--------------+----------------+--------+------------+----------------+--------------+--------+
3 rows in set (0.0014 sec)
```

3. List all couriers:

QUERY:

SELECT * FROM Courier;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*TASK-2 QUESTION-3 List all couriers*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Courier;
+----------+------------------+----------------+--------------+----------------+--------+----------------+----------------+--------------+--------+
| CourierID | SenderName      | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status         | TrackingNumber | DeliveryDate | UserID |
+----------+------------------+----------------+--------------+----------------+--------+----------------+----------------+--------------+--------+
|      201 | Mr. Ramachandran | Chennai        | Kavi         | Hyderabad      |   2.80 | Delivered      | TRK2001        | 2025-06-10   |    123 |
|      202 | Agnes            | Madurai        | Revathi      | Delhi          |   1.50 | In Transit     | TRK2002        | 2025-06-14   |    121 |
|      203 | Naveen           | Coimbatore     | Rekha        | Bangalore      |   3.00 | Yet to Dispatch | TRK2003       | 2025-06-20   |    125 |
|      204 | Lavanya          | Kumbakonam     | Deepa        | Pune           |   4.20 | Delivered      | TRK2004        | 2025-06-08   |    122 |
|      205 | Mary             | Tiruchirapalli | Meera        | Lucknow        |   2.70 | Cancelled      | TRK2005        | 2025-06-05   |    121 |
|      206 | Kiran            | Mumbai         | Sahana       | Chennai        |   1.90 | In Transit     | TRK2006        | 2025-06-12   |    124 |
|      207 | John             | Coimbatore     | Vijay        | Kolkata        |   3.50 | Yet to Dispatch | TRK2007       | 2025-06-22   |    125 |
|      208 | Ravi             | Trichy         | Ayesha       | Jaipur         |   2.00 | Delivered      | TRK2008        | 2025-06-11   |    121 |
|      209 | Brindha          | Chennai        | Arjun        | Ahmedabad      |   3.80 | In Transit     | TRK2009        | 2025-06-13   |    123 |
|      210 | Sundar           | Madurai        | Karthik      | Delhi          |   1.30 | Yet to Dispatch | TRK2010       | 2025-06-25   |    124 |
+----------+------------------+----------------+--------------+----------------+--------+----------------+----------------+--------------+--------+
10 rows in set (0.0015 sec)
```

4. List all packages for a specific order:

SELECT * FROM Parcel WHERE CourierID=204;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /* task-2 question-4 List all packages for a specific order*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*Here the specific order refers to the specific courier*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Parcel WHERE CourierID=204;
+----------+-----------+------------------------+--------+-----------+
| ParcelID | CourierID | Description            | Weight | Status    |
+----------+-----------+------------------------+--------+-----------+
|        5 |       204 | Documents - Legal Papers |  0.20 | Delivered |
|        6 |       204 | Cheque Book & ID Proofs  |  0.40 | Delivered |
+----------+-----------+------------------------+--------+-----------+
2 rows in set (0.0036 sec)
```

5.   List all deliveries for a specific courier:

QUERY:

SELECT * FROM Parcel WHERE CourierID=201 AND Status ='Delivered';

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-2 question-5  List all deliveries for a specific courier*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*Here we are asked to retrieve the parcels for a specific courier which are all delivered*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  SELECT * FROM Parcel WHERE CourierID=201 AND Status='Delivered';
+----------+----------+-----------------------+--------+-----------+
| ParcelID | CourierID | Description           | Weight | Status    |
+----------+----------+-----------------------+--------+-----------+
|        1 |      201 | Electronics - Mobile Phone |  0.50 | Delivered |
|        2 |      201 | Phone Charger & Case  |   0.30 | Delivered |
+----------+----------+-----------------------+--------+-----------+
2 rows in set (0.0014 sec)
```

6.   List all undelivered packages:

QUERY:

SELECT * FROM Courier WHERE Status IN ("In Transit','Yet to Dispatch','Cancelled');

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /* task-2 question-6 List all undelivered packages*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Courier WHERE Status IN('In Transit','Yet to Dispatch','Cancelled');
+----------+------------+----------------+--------------+-----------------+--------+----------------+----------------+--------------+--------+
| CourierID | SenderName | SenderAddress  | ReceiverName | ReceiverAddress | Weight | Status         | TrackingNumber | DeliveryDate | UserID |
+----------+------------+----------------+--------------+-----------------+--------+----------------+----------------+--------------+--------+
|      202 | Agnes      | Madurai        | Revathi      | Delhi           |   1.50 | In Transit     | TRK2002        | 2025-06-14   |    121 |
|      203 | Naveen     | Coimbatore     | Rekha        | Bangalore       |   3.00 | Yet to Dispatch | TRK2003       | 2025-06-20   |    125 |
|      205 | Mary       | Tiruchirapalli | Meera        | Lucknow         |   2.70 | Cancelled      | TRK2005        | 2025-06-05   |    121 |
|      206 | Kiran      | Mumbai         | Sahana       | Chennai         |   1.90 | In Transit     | TRK2006        | 2025-06-12   |    124 |
|      207 | John       | Coimbatore     | Vijay        | Kolkata         |   3.50 | Yet to Dispatch | TRK2007       | 2025-06-22   |    125 |
|      209 | Brindha    | Chennai        | Arjun        | Ahmedabad       |   3.80 | In Transit     | TRK2009        | 2025-06-13   |    123 |
|      210 | Sundar     | Madurai        | Karthik      | Delhi           |   1.30 | Yet to Dispatch | TRK2010       | 2025-06-25   |    124 |
+----------+------------+----------------+--------------+-----------------+--------+----------------+----------------+--------------+--------+
7 rows in set (0.0451 sec)
```

7.   List all packages that are scheduled for delivery today:

QUERY:

SELECT * FROM Courier WHERE DeliveryDate=DATE(NOW());

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /* task-2 question 7 List all packages that are scheduled for delivery today*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Courier WHERE DeliveryDate=DATE(NOW());
+----------+------------+---------------+--------------+-----------------+--------+------------+----------------+--------------+--------+
| CourierID | SenderName | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status     | TrackingNumber | DeliveryDate | UserID |
+----------+------------+---------------+--------------+-----------------+--------+------------+----------------+--------------+--------+
|      206 | Kiran      | Mumbai        | Sahana       | Chennai         |   1.90 | In Transit | TRK2006        | 2025-06-12   |    124 |
+----------+------------+---------------+--------------+-----------------+--------+------------+----------------+--------------+--------+
1 row in set (0.0057 sec)
```

8.   List all packages with a specific status:

QUERY:

SELECT * FROM Parcel WHERE Status='In Transit';

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  /* TASK-2 QUESTION-8 List all packages with a specific status*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Parcel WHERE Status='In Transit';
+----------+----------+-----------------------+--------+------------+
| ParcelID | CourierID | Description          | Weight | Status     |
+----------+----------+-----------------------+--------+------------+
|        3 |      202 | Books - Science & Math |  1.20 | In Transit |
|        8 |      206 | Laptop                |   2.50 | In Transit |
+----------+----------+-----------------------+--------+------------+
2 rows in set (0.0012 sec)
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Parcel WHERE Status='Delivered';
+----------+----------+-------------------------+--------+-----------+
| ParcelID | CourierID | Description            | Weight | Status    |
+----------+----------+-------------------------+--------+-----------+
|        1 |      201 | Electronics - Mobile Phone |  0.50 | Delivered |
|        2 |      201 | Phone Charger & Case   |   0.30 | Delivered |
|        5 |      204 | Documents - Legal Papers |  0.20 | Delivered |
|        6 |      204 | Cheque Book & ID Proofs |   0.40 | Delivered |
|       10 |      208 | Groceries - Packaged Foods |  3.00 | Delivered |
+----------+----------+-------------------------+--------+-----------+
5 rows in set (0.0008 sec)
```

9. Calculate the total number of packages for each courier:

QUERY:

SELECT CourierID,COUNT(*) AS TotalPackages FROM Parcel GROUP BY CourierID;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  /* task-2 question-9  Calculate the total number of packages for each courier*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT CourierID, COUNT(*) AS TotalPackages FROM Parcel GROUP BY CourierID;
+-----------+---------------+
| CourierID | TotalPackages |
+-----------+---------------+
|       201 |             2 |
|       202 |             1 |
|       203 |             1 |
|       204 |             2 |
|       205 |             1 |
|       206 |             1 |
|       207 |             1 |
|       208 |             1 |
+-----------+---------------+
8 rows in set (0.0051 sec)
```

10. Find the average delivery time for each courier:

QUERY:

SELECT CourierID, DATEDIFF(DeliveryDate, OrderDate) AS DeliveryTime_inDays FROM Courier WHERE

DeliveryDate IS NOT NULL GROUP BY CourierID;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*TASK-2 QUESTION-10  Find the average delivery time for each courier*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT CourierID, DATEDIFF(DeliveryDate,OrderDate) AS DeliveryTime_inDays
                                                   -> FROM Courier WHERE DeliveryDate IS NOT NULL GROUP BY CourierID;
+-----------+--------------------+
| CourierID | DeliveryTime_inDays |
+-----------+--------------------+
|       201 |                  2 |
|       202 |                  5 |
|       203 |                 10 |
|       204 |                  2 |
|       205 |                  0 |
|       206 |                  5 |
|       207 |                 14 |
|       208 |                  5 |
|       209 |                  6 |
|       210 |                 16 |
+-----------+--------------------+
10 rows in set (0.0012 sec)
```

11. List all packages with a specific weight range:

QUERY:

SELECT * FROM Parcel WHERE Weight BETWEEN 1.0 AND 2.5;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  /*TASK-2 QUESTION-11  List all packages with a specific weight range*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Parcel WHERE Weight BETWEEN 1.0 AND 2.5;
+----------+-----------+-------------------------+--------+----------------+
| ParcelID | CourierID | Description             | Weight | Status         |
+----------+-----------+-------------------------+--------+----------------+
|        3 |       202 | Books - Science & Math  |   1.20 | In Transit     |
|        4 |       203 | Kitchen Items - Mixer Jar |  2.00 | Yet to Dispatch |
|        7 |       205 | Shoes - Sports          |   1.10 | Cancelled      |
|        8 |       206 | Laptop                  |   2.50 | In Transit     |
|        9 |       207 | Gift Box - Cosmetics    |   1.80 | Yet to Dispatch |
+----------+-----------+-------------------------+--------+----------------+
5 rows in set (0.0294 sec)
```

12. Retrieve employees whose names contain 'John':

QUERY:

SELECT * FROM Employee WHERE Name LIKE '%John%;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  /* task-2 ques-12 Retrieve employees whose names contain 'John'*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Employee WHERE Name LIKE '%John%';
+-------+-------------------+----------------------+---------------+-------------------+----------+
| EmpID | Name              | Email                | ContactNumber | Role              | Salary   |
+-------+-------------------+----------------------+---------------+-------------------+----------+
|  1208 | John paul         | pauljohn@gmail.com   | 9678674587    | Delivery Executive | 29000.00 |
|  1209 | Peter John Francis | johnfrancis@gmail.com | 6374567567    | Customer Support  | 35000.00 |
|  1210 | Kevin John        | kevin@gmail.com      | 8234758972    | Delivery Executive | 28000.00 |
+-------+-------------------+----------------------+---------------+-------------------+----------+
3 rows in set (0.0008 sec)
```

13.   Retrieve all courier records with payments greater than $50:

QUERY:

SELECT * FROM Courier WHERE CourierID IN (SELECT CourierID FROM Payment WHERE Amount > 50);

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /* task-2 ques-13 Retrieve all courier records with payments greater than $50*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Courier WHERE CourierID IN(SELECT CourierID FROM Payment WHERE Amount>50);

+----------+-----------------+----------------+--------------+----------------+--------+-----------------+----------------+--------------+----------+------------+
| CourierID | SenderName     | SenderAddress  | ReceiverName | ReceiverAddress | Weight | Status          | TrackingNumber | DeliveryDate | UserID   | OrderDate  |
+----------+-----------------+----------------+--------------+----------------+--------+-----------------+----------------+--------------+----------+------------+
|       201 | Mr. Ramachandran | Chennai       | Kavi         | Hyderabad       |   2.80 | Delivered       | TRK2001        | 2025-06-10   |      123 | 2025-06-08 |
|       203 | Naveen          | Coimbatore     | Rekha        | Bangalore       |   3.00 | Yet to Dispatch | TRK2003        | 2025-06-20   |      125 | 2025-06-10 |
|       205 | Mary            | Tiruchirapalli | Meera        | Lucknow         |   2.70 | Cancelled       | TRK2005        | 2025-06-05   |      121 | 2025-06-05 |
|       207 | John            | Coimbatore     | Vijay        | Kolkata         |   3.50 | Yet to Dispatch | TRK2007        | 2025-06-22   |      125 | 2025-06-08 |
|       208 | Ravi            | Trichy         | Ayesha       | Jaipur          |   2.00 | Delivered       | TRK2008        | 2025-06-11   |      121 | 2025-06-06 |
|       210 | Sundar          | Madurai        | Karthik      | Delhi           |   1.30 | Yet to Dispatch | TRK2010        | 2025-06-25   |      124 | 2025-06-09 |
+----------+-----------------+----------------+--------------+----------------+--------+-----------------+----------------+--------------+----------+------------+
6 rows in set (0.0061 sec)
```

TASK-3 (Group By, Aggregate Functions, Having, Order By, Where)

14. Find the total number of couriers handled by each employee:

QUERY:

SELECT Employee.EmpID, Employee.Name, COUNT(Courier.CourierID) FROM Employee JOIN Courier ON

Employee.EmpID = Courier.EmpID GROUP BY Employee.EmpID, Employee.Name;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-3 ques-14 Find the total number of couriers handled by each employee*
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  SELECT Employee.EmpID,Employee.Name, COUNT(Courier.CourierID)  FROM Employe
                                                    -> JOIN Courier ON Employee.EmpID=Courier.EmpID
                                                    ->  GROUP BY Employee.EmpID,Employee.Name;

+-------+---------------+--------------------------+
| EmpID | Name          | COUNT(Courier.CourierID) |
+-------+---------------+--------------------------+
|  1201 | Shakthi       |                        5 |
|  1202 | Manikandan    |                        1 |
|  1204 | Surya         |                        2 |
|  1205 | Shai Sharath  |                        1 |
|  1207 | Marshook      |                        1 |
+-------+---------------+--------------------------+
5 rows in set (0.0012 sec)
```

15. Calculate the total revenue generated by each location:

QUERY:

SELECT Location.LocationID, Location.LocationName, SUM(Payment.Amount) AS TotalRevenue FROM Payment

JOIN Location ON Payment.LocationID = Location.LocationID GROUP BY Location.LocationID,

Location.LocationName;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  /*task-3 ques-15 Calculate the total revenue generated by each location*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT Location.LocationID,Location.LocationName, SUM(Payment.Amount) AS TotalRevenue
                                                    -> FROM Payment JOIN Location ON Payment.LocationID=Location.LocationID
                                                    -> GROUP BY Location.LocationID,Location.LocationName;

+------------+---------------------------+--------------+
| LocationID | LocationName              | TotalRevenue |
+------------+---------------------------+--------------+
|        831 | Kumbakonam Delivery Express |     160.00 |
|        832 | Trichy Courier Services   |       155.00 |
|        833 | Thanjai Courier Point     |        90.00 |
|        834 | Madurai Parcel Services   |        29.00 |
|        835 | Covai Express Delivery    |       550.00 |
|        836 | Pondy Couriers            |        45.00 |
|        837 | Salem Delivery Point      |       180.00 |
|        838 | Vellore Parcels           |       250.00 |
|        839 | Hosur Delivery Express    |        50.00 |
+------------+---------------------------+--------------+
9 rows in set (0.0051 sec)
```

16. Find the total number of couriers delivered to each location:

QUERY:

SELECT Location.LocationName, COUNT(*) AS TotalDelivered FROM Courier JOIN Location ON

Location.LocationID = Courier.LocationID WHERE Status = 'Delivered' GROUP BY Location.LocationName;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*Task-3 Ques-16 Find the total number of couriers delivered to each location*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT Location.LocationName,COUNT(*) AS TotalDelivered FROM Courier
                                                   -> JOIN Location ON Location.LocationID=Courier.LocationID
                                                   -> WHERE Status='Delivered' GROUP BY Location.LocationName;
+-----------------------------+----------------+
| LocationName                | TotalDelivered |
+-----------------------------+----------------+
| Kumbakonam Delivery Express |              1 |
| Thanjai Courier Point       |              1 |
| Salem Delivery Point        |              1 |
+-----------------------------+----------------+
3 rows in set (0.0011 sec)
```

17. Find the courier with the highest average delivery time:

QUERY:

SELECT CourierID, DATEDIFF(DeliveryDate, OrderDate) AS AvgDeliveryTime_inDays FROM Courier WHERE

DeliveryDate IS NOT NULL AND OrderDate IS NOT NULL GROUP BY CourierID ORDER BY

AvgDeliveryTime_inDays DESC LIMIT 1;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  /*Task-3 ques-17  Find the courier with the highest average delivery time*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT CourierID, DATEDIFF(DeliveryDate,OrderDate) AS AvgDeliveryTime_inDays
                                                   ->  FROM Courier WHERE DeliveryDate IS NOT NULL AND OrderDate IS NOT NULL
                                                   ->  GROUP BY CourierID ORDER BY AvgDeliveryTime_inDays DESC LIMIT 1;
+-----------+------------------------+
| CourierID | AvgDeliveryTime_inDays |
+-----------+------------------------+
|       210 |                     16 |
+-----------+------------------------+
1 row in set (0.0008 sec)
```

18. Find Locations with Total Payments Less Than a Certain Amount:

QUERY:

SELECT Location.LocationID, Location.LocationName, SUM(Payment.Amount) AS TotalPayment FROM Payment

JOIN Location ON Location.LocationID = Payment.LocationID WHERE Payment.Amount < 100 GROUP BY

Location.LocationID, Location.LocationName;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*Task-3 ques-18 Find Locations with Total Payments Less Than a Certain Amount*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT Location.LocationID,Location.LocationName,SUM(Payment.Amount) AS
                                                   -> TotalPayment FROM Payment JOIN Location ON Location.LocationID=Payment.LocationID
                                                   -> WHERE Payment.Amount<100 GROUP BY Location.LocationID,Location.LocationName;
+------------+-----------------------------+--------------+
| LocationID | LocationName                | TotalPayment |
+------------+-----------------------------+--------------+
|        832 | Trichy Courier Services     |        55.00 |
|        833 | Thanjai Courier Point       |        90.00 |
|        834 | Madurai Parcel Services     |        29.00 |
|        836 | Pondy Couriers              |        45.00 |
|        839 | Hosur Delivery Express      |        50.00 |
|        831 | Kumbakonam Delivery Express |        40.00 |
+------------+-----------------------------+--------------+
6 rows in set (0.0015 sec)
```

19. Calculate Total Payments per Location:

QUERY:

SELECT Location.LocationID, Location.LocationName, SUM(Payment.Amount) AS TotalPayment FROM Payment JOIN Location ON Location.LocationID = Payment.LocationID GROUP BY Location.LocationID, Location.LocationName;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-3 ques-19 Calculate Total Payments per Location*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT Location.LocationID,Location.LocationName,SUM(Payment.Amount) AS
                                                  -> TotalPayment FROM Payment JOIN Location ON Location.LocationID=Payment.LocationID
                                                  -> GROUP BY Location.LocationID,Location.LocationName;
+------------+----------------------------+--------------+
| LocationID | LocationName               | TotalPayment |
+------------+----------------------------+--------------+
|        831 | Kumbakonam Delivery Express |       160.00 |
|        832 | Trichy Courier Services    |       155.00 |
|        833 | Thanjai Courier Point      |        90.00 |
|        834 | Madurai Parcel Services    |        29.00 |
|        835 | Covai Express Delivery     |       550.00 |
|        836 | Pondy Couriers             |        45.00 |
|        837 | Salem Delivery Point       |       180.00 |
|        838 | Vellore Parcels            |       250.00 |
|        839 | Hosur Delivery Express     |        50.00 |
+------------+----------------------------+--------------+
9 rows in set (0.0013 sec)
```

20. Retrieve couriers who have received payments totalling more than $1000 in a specific location (LocationID = X):

QUERY:

SELECT Courier.CourierID, Location.LocationName, SUM(Payment.Amount) AS TotalPayment FROM Courier JOIN Payment ON Courier.CourierID = Payment.CourierID JOIN Location ON Payment.LocationID = Location.LocationID WHERE Payment.LocationID = 831 GROUP BY Courier.CourierID, Location.LocationName HAVING TotalPayment > 1000;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /* Retrieve couriers who have received payments totaling more than $1000 in a specific location*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT Courier.CourierID, Location.LocationName,SUM(Payment.Amount) AS TotalPayment
                                                  -> FROM Courier JOIN Payment ON Courier.CourierID = Payment.CourierID
                                                  -> JOIN Location ON Payment.LocationID = Location.LocationID
                                                  -> WHERE Payment.LocationID = 831  GROUP BY Courier.CourierID, Location.LocationName
                                                  -> HAVING TotalPayment > 1000;
+-----------+----------------------------+--------------+
| CourierID | LocationName               | TotalPayment |
+-----------+----------------------------+--------------+
|       215 | Kumbakonam Delivery Express |      1200.00 |
+-----------+----------------------------+--------------+
1 row in set (0.0012 sec)
```

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

QUERY:

SELECT Courier.CourierID, SUM(Payment.Amount) AS TotalPayment FROM Courier JOIN Payment ON Courier.CourierID = Payment.CourierID WHERE Payment.PaymentDate > '2025-06-10' GROUP BY Courier.CourierID HAVING TotalPayment > 1000;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-3 ques-21 Retrieve couriers who have received payments totaling more than $1000 after a certain date*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT Courier.CourierID,SUM(Payment.Amount) AS TotalPayment FROM Courier JOIN Payment ON Courier.CourierID = Payment.CourierID
                                                  -> WHERE Payment.PaymentDate > '2025-06-10' GROUP BY Courier.CourierID HAVING TotalPayment>1000;
+-----------+--------------+
| CourierID | TotalPayment |
+-----------+--------------+
|       215 |      1200.00 |
+-----------+--------------+
1 row in set (0.0043 sec)
```

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

QUERY:

SELECT Location.LocationID, Location.LocationName, SUM(Payment.Amount) AS TotalReceived FROM Payment JOIN Location ON Payment.LocationID = Location.LocationID WHERE Payment.PaymentDate > '2025-06-10' GROUP BY Location.LocationID, Location.LocationName HAVING TotalReceived > 5000;

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

23. Retrieve Payments with Courier Information:

QUERY:

SELECT p.PaymentID,c.CourierID,c.SenderName,c.SenderAdress,c.ReceiverName,c.ReceiverAddress,c.Weight, c.Status,p.Amount, p.PaymentDate FROM Payment p JOIN Courier C ON c.CourierID=p.CourierID;

24. Retrieve Payments with Location Information:

QUERY:

SELECT p.PaymentID,p.Amount,p.PaymentDate, l.LocationID,l.LocationName,l.Address FROM Payment p JOIN Location l ON p.LocationID=l.LocationID;

25. Retrieve Payments with Courier and Location Information:

QUERY:

SELECT c.CourierID,p.PaymentID,c.SenderName,c,SenderAddress,c.ReceiverAddress,c.Weight,c.Status,p.Amount,
p.PaymentDate,l.LocationID,l.LocationName,l.Address FROM Payment p JOIN Courier c ON
p.CourierID=c.CourierID JOIN Location l On p.LocationID=l.LocationID;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-25 Retrieve Payments with Courier and Location Information*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT c.CourierID,p.PaymentID,c.SenderName,c.SenderAddress,c.ReceiverName,
  -> c.ReceiverAddress,c.Weight,c.Status,p.Amount,p.PaymentDate,l.LocationID,l.LocationName,l.Address
  -> FROM Payment p JOIN Courier c ON p.CourierID=c.CourierID
  -> JOIN Location l ON p.LocationID=l.LocationID;
+----------+-----------+----------------+---------------+-------------+----------------+--------+----------------+---------+-------------+------------+--------------------------+----------------------------------------------+
| CourierID | PaymentID | SenderName     | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status         | Amount  | PaymentDate | LocationID | LocationName             | Address                                      |
+----------+-----------+----------------+---------------+-------------+----------------+--------+----------------+---------+-------------+------------+--------------------------+----------------------------------------------+
|      201 |       601 | Mr. Ramachandran | Chennai      | Kavi        | Hyderabad      |   2.80 | Delivered      |  120.00 | 2025-06-10  |        831 | Kumbakonam Delivery Express | Opp. to Mahamaham, Kumbakonam             |
|      209 |       611 | Brindha        | Chennai       | Arjun       | Ahmedabad      |   3.80 | In Transit     |   40.00 | 2025-06-15  |        831 | Kumbakonam Delivery Express | Opp. to Mahamaham, Kumbakonam             |
|      215 |       617 | Pooja          | Kumbakonam    | Arun        | Bangalore      |   2.50 | Delivered      | 1200.00 | 2025-06-20  |        831 | Kumbakonam Delivery Express | Opp. to Mahamaham, Kumbakonam             |
|      202 |       602 | Agnes          | Madurai       | Revathi     | Delhi          |   1.50 | In Transit     |   30.00 | 2025-06-12  |        832 | Trichy Courier Services  | Next to Periyasamy Tower, Chathram, Tiruchirappalli |
|      210 |       610 | Sundar         | Madurai       | Karthik     | Delhi          |   1.30 | Yet to Dispatch |  100.00 | 2025-06-14  |        832 | Trichy Courier Services  | Next to Periyasamy Tower, Chathram, Tiruchirappalli |
|      210 |       612 | Sundar         | Madurai       | Karthik     | Delhi          |   1.30 | Yet to Dispatch |   25.00 | 2025-06-16  |        832 | Trichy Courier Services  | Next to Periyasamy Tower, Chathram, Tiruchirappalli |
|      203 |       603 | Naveen         | Coimbatore    | Rekha       | Bangalore      |   3.00 | Yet to Dispatch |   90.00 | 2025-06-14  |        833 | Thanjai Courier Point    | Railway Junction Road, Thanjavur          |
|      204 |       604 | Lavanya        | Kumbakonam    | Deepa       | Pune           |   4.20 | Delivered      |   29.00 | 2025-06-08  |        834 | Madurai Parcel Services  | Near Teppakulam, Madurai                  |
|      205 |       605 | Mary           | Tiruchirapalli | Meera      | Lucknow        |   2.70 | Cancelled      |  550.00 | 2025-06-07  |        835 | Covai Express Delivery   | Backside of Gandhi Nagar Bus Stand, Coimbatore |
|      206 |       606 | Kiran          | Mumbai        | Sahana      | Chennai        |   1.90 | In Transit     |   45.00 | 2025-06-11  |        836 | Pondy Couriers           | MG Road, White Town, Pondicherry          |
|      207 |       607 | John           | Coimbatore    | Vijay       | Kolkata        |   3.50 | Yet to Dispatch |  180.00 | 2025-06-13  |        837 | Salem Delivery Point     | Anna Statue, Salem                        |
|      208 |       608 | Ravi           | Trichy        | Ayesha      | Jaipur         |   2.00 | Delivered      |  250.00 | 2025-06-09  |        838 | Vellore Parcels          | Chennai Highways, Vellore                 |
|      209 |       609 | Brindha        | Chennai       | Arjun       | Ahmedabad      |   3.80 | In Transit     | 7000.00 | 2025-06-12  |        839 | Hosur Delivery Express   | Bangalore Main Road, Hosur                |
+----------+-----------+----------------+---------------+-------------+----------------+--------+----------------+---------+-------------+------------+--------------------------+----------------------------------------------+
13 rows in set (0.0044 sec)
```

26. List all payments with courier details:

QUERY:

SELECT p.*,c.* FROM Payment p JOIN Courier c ON p.CourierID=c.CourierID;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-26  List all payments with courier details*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT p.*,c.* FROM Payment p JOIN Courier c ON p.CourierID=c.CourierID;
+-----------+-----------+------------+--------+-------------+-----------+----------------+---------------+-------------+----------------+--------+----------------+----------------+-------------+--------+-------------+--------+------------+
| PaymentID | CourierID | LocationID | Amount | PaymentDate | CourierID | SenderName     | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status         | TrackingNumber | DeliveryDate | UserID | OrderDate   | EmpID  | LocationID |
+-----------+-----------+------------+--------+-------------+-----------+----------------+---------------+-------------+----------------+--------+----------------+----------------+-------------+--------+-------------+--------+------------+
|       601 |       201 |        831 | 120.00 | 2025-06-10  |       201 | Mr. Ramachandran | Chennai     | Kavi        | Hyderabad      |   2.80 | Delivered      | TRK2001        | 2025-06-10  |    123 | 2025-06-08  |   1201 |        831 |
|       602 |       202 |        832 |  30.00 | 2025-06-12  |       202 | Agnes          | Madurai       | Revathi     | Delhi          |   1.50 | In Transit     | TRK2002        | 2025-06-14  |    121 | 2025-06-09  |   1202 |        832 |
|       603 |       203 |        833 |  90.00 | 2025-06-14  |       203 | Naveen         | Coimbatore    | Rekha       | Bangalore      |   3.00 | Yet to Dispatch | TRK2003        | 2025-06-20  |    125 | 2025-06-10  |   1201 |        831 |
|       604 |       204 |        834 |  29.00 | 2025-06-08  |       204 | Lavanya        | Kumbakonam    | Deepa       | Pune           |   4.20 | Delivered      | TRK2004        | 2025-06-08  |    122 | 2025-06-06  |   1204 |        833 |
|       605 |       205 |        835 | 550.00 | 2025-06-07  |       205 | Mary           | Tiruchirapalli | Meera      | Lucknow        |   2.70 | Cancelled      | TRK2005        | 2025-06-05  |    121 | 2025-06-05  |   1205 |        834 |
|       606 |       206 |        836 |  45.00 | 2025-06-11  |       206 | Kiran          | Mumbai        | Sahana      | Chennai        |   1.90 | In Transit     | TRK2006        | 2025-06-12  |    124 | 2025-06-07  |   1201 |        835 |
|       607 |       207 |        837 | 180.00 | 2025-06-13  |       207 | John           | Coimbatore    | Vijay       | Kolkata        |   3.50 | Yet to Dispatch | TRK2007        | 2025-06-22  |    125 | 2025-06-08  |   1207 |        836 |
|       608 |       208 |        838 | 250.00 | 2025-06-09  |       208 | Ravi           | Trichy        | Ayesha      | Jaipur         |   2.00 | Delivered      | TRK2008        | 2025-06-11  |    121 | 2025-06-09  |   1201 |        837 |
|       609 |       209 |        839 | 7000.00 | 2025-06-12 |       209 | Brindha        | Chennai       | Arjun       | Ahmedabad      |   3.80 | In Transit     | TRK2009        | 2025-06-13  |    123 | 2025-06-07  |   1204 |        838 |
|       610 |       210 |        832 | 100.00 | 2025-06-14  |       210 | Sundar         | Madurai       | Karthik     | Delhi          |   1.30 | Yet to Dispatch | TRK2010        | 2025-06-25  |    124 | 2025-06-09  |   1201 |        839 |
|       611 |       209 |        831 |  40.00 | 2025-06-15  |       209 | Brindha        | Chennai       | Arjun       | Ahmedabad      |   3.80 | In Transit     | TRK2009        | 2025-06-13  |    123 | 2025-06-07  |   1204 |        838 |
|       612 |       210 |        832 |  25.00 | 2025-06-16  |       210 | Sundar         | Madurai       | Karthik     | Delhi          |   1.30 | Yet to Dispatch | TRK2010        | 2025-06-25  |    124 | 2025-06-09  |   1201 |        839 |
|       617 |       215 |        831 | 1200.00 | 2025-06-20 |       215 | Pooja          | Kumbakonam    | Arun        | Bangalore      |   2.50 | Delivered      | TRK215         | 2025-06-21  |    121 | 2025-06-18  |   NULL |       NULL |
+-----------+-----------+------------+--------+-------------+-----------+----------------+---------------+-------------+----------------+--------+----------------+----------------+-------------+--------+-------------+--------+------------+
13 rows in set (0.0031 sec)
```

27. Total payments received for each courier:

QUERY:

SELECT c.CourierID,c.SenderName,SUM(p.Amount) AS TotalPayment FROM Courier c JOIN Payment p ON
p.CourierID=c.CourierID GROUP BY c.CourierID,c.SenderName;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*Task-4 ques-27 Total payments received for each courier*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT c.CourierID,c.SenderName, SUM(p.Amount) AS TotalPayment FROM Courier c JOIN Payment p
  -> ON p.CourierID=c.CourierID GROUP BY c.CourierID,c.SenderName;
+-----------+------------------+--------------+
| CourierID | SenderName       | TotalPayment |
+-----------+------------------+--------------+
|       201 | Mr. Ramachandran |       120.00 |
|       202 | Agnes            |        30.00 |
|       203 | Naveen           |        90.00 |
|       204 | Lavanya          |        29.00 |
|       205 | Mary             |       550.00 |
|       206 | Kiran            |        45.00 |
|       207 | John             |       180.00 |
|       208 | Ravi             |       250.00 |
|       209 | Brindha          |      7040.00 |
|       210 | Sundar           |       125.00 |
|       215 | Pooja            |      1200.00 |
+-----------+------------------+--------------+
11 rows in set (0.0010 sec)
```

28. List payments made on a specific date:

QUERY:

1. SELECT * FROM Payment WHERE PaymentDate='2025-06-15';

2. SELECT * FROM Payment WHERE PaymentDate='2025-06-12';

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*Task-4 ques-28 List payments made on a specific date*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Payment WHERE PaymentDate='2025-06-15';
+-----------+-----------+------------+---------+-------------+
| PaymentID | CourierID | LocationID | Amount  | PaymentDate |
+-----------+-----------+------------+---------+-------------+
|       611 |       209 |        831 |   40.00 | 2025-06-15  |
+-----------+-----------+------------+---------+-------------+
1 row in set (0.0043 sec)
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Payment WHERE PaymentDate='2025-06-12';
+-----------+-----------+------------+---------+-------------+
| PaymentID | CourierID | LocationID | Amount  | PaymentDate |
+-----------+-----------+------------+---------+-------------+
|       602 |       202 |        832 |   30.00 | 2025-06-12  |
|       609 |       209 |        839 | 7000.00 | 2025-06-12  |
+-----------+-----------+------------+---------+-------------+
2 rows in set (0.0009 sec)
```

29. Get Courier Information for Each Payment:

QUERY:

SELECT p.PaymentID,p.Amount,p.PaymentDate,c.CourierID,c.SenderName,c.ReceiverName,c.TrackingNumber

FROM Payment AS p JOIN Courier AS c ON p.CourierID=c.CourierID;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-29 Get Courier Information for Each Payment*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT p.PaymentID,p.Amount,p.PaymentDate,c.CourierID,c.SenderName,c.ReceiverName,c.TrackingNumber
                                                  -> FROM Payment AS p JOIN Courier AS c ON p.CourierID = c.CourierID;
+-----------+---------+-------------+-----------+-----------------+--------------+----------------+
| PaymentID | Amount  | PaymentDate | CourierID | SenderName      | ReceiverName | TrackingNumber |
+-----------+---------+-------------+-----------+-----------------+--------------+----------------+
|       601 |  120.00 | 2025-06-10  |       201 | Mr. Ramachandran| Kavi         | TRK2001        |
|       602 |   30.00 | 2025-06-12  |       202 | Agnes           | Revathi      | TRK2002        |
|       603 |   90.00 | 2025-06-14  |       203 | Naveen          | Rekha        | TRK2003        |
|       604 |   29.00 | 2025-06-08  |       204 | Lavanya         | Deepa        | TRK2004        |
|       605 |  550.00 | 2025-06-07  |       205 | Mary            | Meera        | TRK2005        |
|       606 |   45.00 | 2025-06-11  |       206 | Kiran           | Sahana       | TRK2006        |
|       607 |  180.00 | 2025-06-13  |       207 | John            | Vijay        | TRK2007        |
|       608 |  250.00 | 2025-06-09  |       208 | Ravi            | Ayesha       | TRK2008        |
|       609 | 7000.00 | 2025-06-12  |       209 | Brindha         | Arjun        | TRK2009        |
|       610 |  100.00 | 2025-06-14  |       210 | Sundar          | Karthik      | TRK2010        |
|       611 |   40.00 | 2025-06-15  |       209 | Brindha         | Arjun        | TRK2009        |
|       612 |   25.00 | 2025-06-16  |       210 | Sundar          | Karthik      | TRK2010        |
|       617 | 1200.00 | 2025-06-20  |       215 | Pooja           | Arun         | TRK215         |
+-----------+---------+-------------+-----------+-----------------+--------------+----------------+
13 rows in set (0.0013 sec)
```

30. Get Payment Details with Location:

QUERY:

SELECT p.PaymentID,p.CourierID,p.LocationID,p.Amount,p.PaymentDate,l.LocationName,l.Address FROM

Payment p RIGHT JOIN Location l ON p.LocationID=l.LocationID;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-30 Get Payment Details with Location*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT p.PaymentID,p.CourierID,p.LocationID,
                                                  -> p.Amount,p.PaymentDate,l.LocationName,l.Address
                                                  -> FROM Payment p RIGHT JOIN Location l ON p.LocationID=l.LocationID;
+-----------+-----------+------------+---------+-------------+----------------------------+-------------------------------------------+
| PaymentID | CourierID | LocationID | Amount  | PaymentDate | LocationName               | Address                                   |
+-----------+-----------+------------+---------+-------------+----------------------------+-------------------------------------------+
|       601 |       201 |        831 |  120.00 | 2025-06-10  | Kumbakonam Delivery Express| Opp. to Mahamaham, Kumbakonam             |
|       611 |       209 |        831 |   40.00 | 2025-06-15  | Kumbakonam Delivery Express| Opp. to Mahamaham, Kumbakonam             |
|       617 |       215 |        831 | 1200.00 | 2025-06-20  | Kumbakonam Delivery Express| Opp. to Mahamaham, Kumbakonam             |
|       602 |       202 |        832 |   30.00 | 2025-06-12  | Trichy Courier Services    | Next to Periyasamy Tower, Chathram, Tiruchirappalli |
|       610 |       210 |        832 |  100.00 | 2025-06-14  | Trichy Courier Services    | Next to Periyasamy Tower, Chathram, Tiruchirappalli |
|       612 |       210 |        832 |   25.00 | 2025-06-16  | Trichy Courier Services    | Next to Periyasamy Tower, Chathram, Tiruchirappalli |
|       603 |       203 |        833 |   90.00 | 2025-06-14  | Thanjai Courier Point      | Railway Junction Road, Thanjavur          |
|       604 |       204 |        834 |   29.00 | 2025-06-08  | Madurai Parcel Services    | Near Teppakulam, Madurai                  |
|       605 |       205 |        835 |  550.00 | 2025-06-07  | Covai Express Delivery     | Backside of Gandhi Nagar Bus Stand, Coimbatore |
|       606 |       206 |        836 |   45.00 | 2025-06-11  | Pondy Couriers             | MG Road, White Town, Pondicherry          |
|       607 |       207 |        837 |  180.00 | 2025-06-13  | Salem Delivery Point       | Anna Statue, Salem                        |
|       608 |       208 |        838 |  250.00 | 2025-06-09  | Vellore Parcels            | Chennai Highways, Vellore                 |
|       609 |       209 |        839 | 7000.00 | 2025-06-12  | Hosur Delivery Express     | Bangalore Main Road, Hosur                |
+-----------+-----------+------------+---------+-------------+----------------------------+-------------------------------------------+
13 rows in set (0.0016 sec)
```

31. Calculating Total Payments for Each Courier:

QUERY:

SELECT c.CourierID,SUM(p.Amount) AS TotalPayment FROM Courier AS c JOIN Payment AS p ON

c.CourierID=p.CourierID GROUP BY c.CourierID;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  /*task-4 ques-31 Calculating Total Payments for Each Courier*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT c.CourierID, SUM(p.Amount) AS TotalPayment FROM
                                                   -> Courier AS c JOIN Payment AS p ON
                                                   -> c.CourierID = p.CourierID GROUP BY c.CourierID;
+-----------+--------------+
| CourierID | TotalPayment |
+-----------+--------------+
|       201 |       120.00 |
|       202 |        30.00 |
|       203 |        90.00 |
|       204 |        29.00 |
|       205 |       550.00 |
|       206 |        45.00 |
|       207 |       180.00 |
|       208 |       250.00 |
|       209 |      7040.00 |
|       210 |       125.00 |
|       215 |      1200.00 |
+-----------+--------------+
11 rows in set (0.0032 sec)
```

32. List Payments Within a Date Range:

QUERY:

SELECT PaymentID,Amount FROM Payment WHERE PaymentDate BETWEEN '2025-06-10' AND '2025-06-15';

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-32 List Payments Within a Date Range*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT PaymentID,Amount FROM Payment WHERE PaymentDate
                                                   -> BETWEEN '2025-06-10' AND '2025-06-15';
+-----------+---------+
| PaymentID | Amount  |
+-----------+---------+
|       601 |  120.00 |
|       602 |   30.00 |
|       603 |   90.00 |
|       606 |   45.00 |
|       607 |  180.00 |
|       609 | 7000.00 |
|       610 |  100.00 |
|       611 |   40.00 |
+-----------+---------+
8 rows in set (0.0008 sec)
```

33. Retrieve a list of all users and their corresponding courier records, including cases where there are no matches on either side:

QUERY:

SELECT u.UserID,u.Name AS UserName, c.CourierID, c.TrackingNumber,c.Status FROM User AS u LEFT JOIN

Courier AS c ON u.UserID=c.UserId;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*Retrieve a list of all users and their corresponding courier records, including cases where there are no matches
on either side*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT u.UserID, u.Name AS UserName, c.CourierID,
                                                   -> c.TrackingNumber, c.Status FROM User AS u
                                                   -> LEFT JOIN Courier AS c ON u.UserID = c.UserID;
+--------+----------+-----------+----------------+-----------------+
| UserID | UserName | CourierID | TrackingNumber | Status          |
+--------+----------+-----------+----------------+-----------------+
|    121 | Brindha  |       202 | TRK2002        | In Transit      |
|    121 | Brindha  |       205 | TRK2005        | Cancelled       |
|    121 | Brindha  |       208 | TRK2008        | Delivered       |
|    121 | Brindha  |       215 | TRK215         | Delivered       |
|    122 | Agnes    |       204 | TRK2004        | Delivered       |
|    123 | John     |       201 | TRK2001        | Delivered       |
|    123 | John     |       209 | TRK2009        | In Transit      |
|    124 | Mary     |       206 | TRK2006        | In Transit      |
|    124 | Mary     |       210 | TRK2010        | Yet to Dispatch |
|    125 | Lavanya  |       203 | TRK2003        | Yet to Dispatch |
|    125 | Lavanya  |       207 | TRK2007        | Yet to Dispatch |
+--------+----------+-----------+----------------+-----------------+
11 rows in set (0.0251 sec)
```

34. Retrieve a list of all couriers and their corresponding services, including cases where there are no matches on either side:

QUERY:

SELECT c.CourierID,c.TrackingNumber,s.ServiceID,s.ServiceName,s.Cost FROM Courier AS c LEFT JOIN CourierServices AS s ON c.ServiceID=s.ServiceID UNION SELECT c.CourierID,c.TrackingNumber,s.ServiceID,s.ServiceName,s.Cost FROM Courier AS c RIGHT JOIN CourierServices AS s ON c.ServiceID=s.ServiceID;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT c.CourierID, c.TrackingNumber, s.ServiceID, s.ServiceName,
                                                   -> s.Cost FROM Courier AS c LEFT JOIN CourierServices
                                                   ->  AS s ON c.ServiceID = s.ServiceID UNION
                                                   -> SELECT c.CourierID, c.TrackingNumber, s.ServiceID, s.ServiceName,
                                                   -> s.Cost FROM Courier AS c RIGHT JOIN CourierServices AS s ON c.ServiceID = s.ServiceID;
+----------+----------------+-----------+-------------------------+--------+
| CourierID | TrackingNumber | ServiceID | ServiceName             | Cost   |
+----------+----------------+-----------+-------------------------+--------+
|      201 | TRK2001        |         1 | Standard Delivery       | 150.00 |
|      202 | TRK2002        |         2 | Express Delivery        | 300.00 |
|      203 | TRK2003        |         1 | Standard Delivery       | 150.00 |
|      204 | TRK2004        |         2 | Express Delivery        | 300.00 |
|      205 | TRK2005        |         1 | Standard Delivery       | 150.00 |
|      206 | TRK2006        |         3 | Same-Day Delivery       | 500.00 |
|      207 | TRK2007        |         4 | Overnight Delivery      | 450.00 |
|      208 | TRK2008        |         5 | Eco Saver Delivery      | 100.00 |
|      209 | TRK2009        |         6 | Premium Handling Service | 650.00 |
|      210 | TRK2010        |      NULL | NULL                    |   NULL |
|      215 | TRK215         |      NULL | NULL                    |   NULL |
+----------+----------------+-----------+-------------------------+--------+
11 rows in set (0.0048 sec)
```

35. Retrieve a list of all employees and their corresponding payments, including cases where there are no matches on either side:

QUERY:

SELECT e.EmpID,e.Name AS EmployeeName,p.PaymentID,p.Amount,p.PaymentDate FROM Employee AS e LEFT JOIN Payment AS p ON e.EmpID=p.EmpID UNION

SELECT e.EmpID,e.Name AS EmployeeName,p.PaymentID,p.Amount,p.PaymentDate FROM Employee AS e RIGHT JOIN Payment AS p ON e.EmpID=p.EmpID

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-35 Retrieve a list of all employees and their corresponding payments, including cases where there are
no matches on either side*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT e.EmpID,e.Name AS EmployeeName, p.PaymentID, p.Amount, p.PaymentDate
                                                   -> FROM Employee AS e LEFT JOIN Payment AS p ON e.EmpID = p.EmpID UNION
                                                   -> SELECT e.EmpID, e.Name AS EmployeeName, p.PaymentID, p.Amount, p.PaymentDate
                                                   -> FROM Employee AS e RIGHT JOIN Payment AS p ON e.EmpID = p.EmpID;
+-------+--------------------+-----------+---------+-------------+
| EmpID | EmployeeName       | PaymentID | Amount  | PaymentDate |
+-------+--------------------+-----------+---------+-------------+
|  1201 | Shakthi            |       601 |  120.00 | 2025-06-10  |
|  1201 | Shakthi            |       603 |   90.00 | 2025-06-14  |
|  1201 | Shakthi            |       606 |   45.00 | 2025-06-11  |
|  1201 | Shakthi            |       608 |  250.00 | 2025-06-09  |
|  1202 | Manikandan         |       602 |   30.00 | 2025-06-12  |
|  1202 | Manikandan         |       610 |  100.00 | 2025-06-14  |
|  1203 | Shalini            |      NULL |    NULL | NULL        |
|  1204 | Surya              |       604 |   29.00 | 2025-06-08  |
|  1204 | Surya              |       609 | 7000.00 | 2025-06-12  |
|  1205 | Shai Sharath       |       605 |  550.00 | 2025-06-07  |
|  1206 | Mukundh            |      NULL |    NULL | NULL        |
|  1207 | Marshook           |       607 |  180.00 | 2025-06-13  |
|  1208 | John paul          |      NULL |    NULL | NULL        |
|  1209 | Peter John Francis |      NULL |    NULL | NULL        |
|  1210 | Kevin John         |      NULL |    NULL | NULL        |
|  NULL | NULL               |       611 |   40.00 | 2025-06-15  |
|  NULL | NULL               |       612 |   25.00 | 2025-06-16  |
|  NULL | NULL               |       617 | 1200.00 | 2025-06-20  |
+-------+--------------------+-----------+---------+-------------+
18 rows in set (0.0017 sec)
```

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

QUERY:

SELECT u.UserID,u.Name AS UserName,s.ServiceID,s.ServiceName FROM User AS u CROSS JOIN

CourierServices AS s;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-36 List all users and all courier services, showing all possible combinations*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT u.UserID, u.Name AS UserName, s.ServiceID, s.ServiceName
                                                    -> FROM User AS u CROSS JOIN CourierServices AS s;
+--------+----------+-----------+-------------------------+
| UserID | UserName | ServiceID | ServiceName             |
+--------+----------+-----------+-------------------------+
|    125 | Lavanya  |         1 | Standard Delivery       |
|    124 | Mary     |         1 | Standard Delivery       |
|    123 | John     |         1 | Standard Delivery       |
|    122 | Agnes    |         1 | Standard Delivery       |
|    121 | Brindha  |         1 | Standard Delivery       |
|    125 | Lavanya  |         2 | Express Delivery        |
|    124 | Mary     |         2 | Express Delivery        |
|    123 | John     |         2 | Express Delivery        |
|    122 | Agnes    |         2 | Express Delivery        |
|    121 | Brindha  |         2 | Express Delivery        |
|    125 | Lavanya  |         3 | Same-Day Delivery       |
|    124 | Mary     |         3 | Same-Day Delivery       |
|    123 | John     |         3 | Same-Day Delivery       |
|    122 | Agnes    |         3 | Same-Day Delivery       |
|    121 | Brindha  |         3 | Same-Day Delivery       |
|    125 | Lavanya  |         4 | Overnight Delivery      |
|    124 | Mary     |         4 | Overnight Delivery      |
|    123 | John     |         4 | Overnight Delivery      |
|    122 | Agnes    |         4 | Overnight Delivery      |
|    121 | Brindha  |         4 | Overnight Delivery      |
|    125 | Lavanya  |         5 | Eco Saver Delivery      |
|    124 | Mary     |         5 | Eco Saver Delivery      |
|    123 | John     |         5 | Eco Saver Delivery      |
|    122 | Agnes    |         5 | Eco Saver Delivery      |
|    121 | Brindha  |         5 | Eco Saver Delivery      |
|    125 | Lavanya  |         6 | Premium Handling Service |
|    124 | Mary     |         6 | Premium Handling Service |
|    123 | John     |         6 | Premium Handling Service |
|    122 | Agnes    |         6 | Premium Handling Service |
|    121 | Brindha  |         6 | Premium Handling Service |
+--------+----------+-----------+-------------------------+
30 rows in set (0.0035 sec)
```

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

QUERY: SELECT e.EmpID,e.Name AS EmployeeName,l.LocationID,l.LocationName FROM Employee AS e

CROSS JOIN loction AS l;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  /*task-4 ques-37 List all employees and all locations, showing all possible combinations*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  SELECT e.EmpID, e.Name AS EmployeeName, l.LocationID, l.LocationName
                                                    -> FROM Employee AS e CROSS JOIN Location AS l;
+-------+--------------------+------------+----------------------------+
| EmpID | EmployeeName       | LocationID | LocationName               |
+-------+--------------------+------------+----------------------------+
|  1201 | Shakthi            |        839 | Hosur Delivery Express     |
|  1201 | Shakthi            |        838 | Vellore Parcels            |
|  1201 | Shakthi            |        837 | Salem Delivery Point       |
|  1201 | Shakthi            |        836 | Pondy Couriers             |
|  1201 | Shakthi            |        835 | Covai Express Delivery     |
|  1201 | Shakthi            |        834 | Madurai Parcel Services    |
|  1201 | Shakthi            |        833 | Thanjai Courier Point      |
|  1201 | Shakthi            |        832 | Trichy Courier Services    |
|  1201 | Shakthi            |        831 | Kumbakonam Delivery Express |
|  1202 | Manikandan         |        839 | Hosur Delivery Express     |
|  1202 | Manikandan         |        838 | Vellore Parcels            |
|  1202 | Manikandan         |        837 | Salem Delivery Point       |
|  1202 | Manikandan         |        836 | Pondy Couriers             |
|  1202 | Manikandan         |        835 | Covai Express Delivery     |
|  1202 | Manikandan         |        834 | Madurai Parcel Services    |
|  1202 | Manikandan         |        833 | Thanjai Courier Point      |
|  1202 | Manikandan         |        832 | Trichy Courier Services    |
|  1202 | Manikandan         |        831 | Kumbakonam Delivery Express |
|  1203 | Shalini            |        839 | Hosur Delivery Express     |
|  1203 | Shalini            |        838 | Vellore Parcels            |
|  1203 | Shalini            |        837 | Salem Delivery Point       |
|  1203 | Shalini            |        836 | Pondy Couriers             |
|  1203 | Shalini            |        835 | Covai Express Delivery     |
|  1203 | Shalini            |        834 | Madurai Parcel Services    |
|  1203 | Shalini            |        833 | Thanjai Courier Point      |
|  1203 | Shalini            |        832 | Trichy Courier Services    |
|  1203 | Shalini            |        831 | Kumbakonam Delivery Express |
|  1204 | Surya              |        839 | Hosur Delivery Express     |
|  1204 | Surya              |        838 | Vellore Parcels            |
|  1204 | Surya              |        837 | Salem Delivery Point       |
|  1204 | Surya              |        836 | Pondy Couriers             |
|  1204 | Surya              |        835 | Covai Express Delivery     |
|  1204 | Surya              |        834 | Madurai Parcel Services    |
|  1204 | Surya              |        833 | Thanjai Courier Point      |
|  1204 | Surya              |        832 | Trichy Courier Services    |
|  1204 | Surya              |        831 | Kumbakonam Delivery Express |
|  1205 | Shai Sharath       |        839 | Hosur Delivery Express     |
|  1205 | Shai Sharath       |        838 | Vellore Parcels            |
|  1205 | Shai Sharath       |        837 | Salem Delivery Point       |
|  1205 | Shai Sharath       |        836 | Pondy Couriers             |
|  1205 | Shai Sharath       |        835 | Covai Express Delivery     |
|  1205 | Shai Sharath       |        834 | Madurai Parcel Services    |
|  1205 | Shai Sharath       |        833 | Thanjai Courier Point      |
```

```
|  1205 | Shai Sharath       |        832 | Trichy Courier Services    |
|  1205 | Shai Sharath       |        831 | Kumbakonam Delivery Express |
|  1206 | Mukundh            |        839 | Hosur Delivery Express     |
|  1206 | Mukundh            |        838 | Vellore Parcels            |
|  1206 | Mukundh            |        837 | Salem Delivery Point       |
|  1206 | Mukundh            |        836 | Pondy Couriers             |
|  1206 | Mukundh            |        835 | Covai Express Delivery     |
|  1206 | Mukundh            |        834 | Madurai Parcel Services    |
|  1206 | Mukundh            |        833 | Thanjai Courier Point      |
|  1206 | Mukundh            |        832 | Trichy Courier Services    |
|  1206 | Mukundh            |        831 | Kumbakonam Delivery Express |
|  1207 | Marshook           |        839 | Hosur Delivery Express     |
|  1207 | Marshook           |        838 | Vellore Parcels            |
|  1207 | Marshook           |        837 | Salem Delivery Point       |
|  1207 | Marshook           |        836 | Pondy Couriers             |
|  1207 | Marshook           |        835 | Covai Express Delivery     |
|  1207 | Marshook           |        834 | Madurai Parcel Services    |
|  1207 | Marshook           |        833 | Thanjai Courier Point      |
|  1207 | Marshook           |        832 | Trichy Courier Services    |
|  1207 | Marshook           |        831 | Kumbakonam Delivery Express |
|  1208 | John paul          |        839 | Hosur Delivery Express     |
|  1208 | John paul          |        838 | Vellore Parcels            |
|  1208 | John paul          |        837 | Salem Delivery Point       |
|  1208 | John paul          |        836 | Pondy Couriers             |
|  1208 | John paul          |        835 | Covai Express Delivery     |
|  1208 | John paul          |        834 | Madurai Parcel Services    |
|  1208 | John paul          |        833 | Thanjai Courier Point      |
|  1208 | John paul          |        832 | Trichy Courier Services    |
|  1208 | John paul          |        831 | Kumbakonam Delivery Express |
|  1209 | Peter John Francis |        839 | Hosur Delivery Express     |
|  1209 | Peter John Francis |        838 | Vellore Parcels            |
|  1209 | Peter John Francis |        837 | Salem Delivery Point       |
|  1209 | Peter John Francis |        836 | Pondy Couriers             |
|  1209 | Peter John Francis |        835 | Covai Express Delivery     |
|  1209 | Peter John Francis |        834 | Madurai Parcel Services    |
|  1209 | Peter John Francis |        833 | Thanjai Courier Point      |
|  1209 | Peter John Francis |        832 | Trichy Courier Services    |
|  1209 | Peter John Francis |        831 | Kumbakonam Delivery Express |
|  1210 | Kevin John         |        839 | Hosur Delivery Express     |
|  1210 | Kevin John         |        838 | Vellore Parcels            |
|  1210 | Kevin John         |        837 | Salem Delivery Point       |
|  1210 | Kevin John         |        836 | Pondy Couriers             |
|  1210 | Kevin John         |        835 | Covai Express Delivery     |
|  1210 | Kevin John         |        834 | Madurai Parcel Services    |
|  1210 | Kevin John         |        833 | Thanjai Courier Point      |
|  1210 | Kevin John         |        832 | Trichy Courier Services    |
|  1210 | Kevin John         |        831 | Kumbakonam Delivery Express |
+-------+--------------------+------------+----------------------------+
90 rows in set (0.0011 sec)
```

38. Retrieve a list of couriers and their corresponding sender information (if available):

QUERY:

SELECT c.CourierID,u.UserID,u.Name AS SenderName,u.Email,u.ConatctNumber,c.TrackingNumber FROM Courier AS c LEFT JOIN User AS u ON c.UserID=u.UserID;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-38 Retrieve a list of couriers and their corresponding sender information (if available)*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT c.CourierID, u.UserID, u.Name AS SenderName, u.Email, u.ContactNumber, c.TrackingNumber
                                                   -> FROM Courier AS c LEFT JOIN User AS u  ON c.UserID = u.UserID;
+----------+--------+------------+----------------------+---------------+----------------+
| CourierID | UserID | SenderName | Email                | ContactNumber | TrackingNumber |
+----------+--------+------------+----------------------+---------------+----------------+
|      201 |    123 | John       | johnjohn@gmail.com    | 8270465829    | TRK2001        |
|      202 |    121 | Brindha    | brindha10@gmail.com   | 9857679819    | TRK2002        |
|      203 |    125 | Lavanya    | lavanya04@gmail.com   | 7308952618    | TRK2003        |
|      204 |    122 | Agnes      | agnes94@gmail.com     | 9786564872    | TRK2004        |
|      205 |    121 | Brindha    | brindha10@gmail.com   | 9857679819    | TRK2005        |
|      206 |    124 | Mary       | maryjose@gmail.com    | 9896284637    | TRK2006        |
|      207 |    125 | Lavanya    | lavanya04@gmail.com   | 7308952618    | TRK2007        |
|      208 |    121 | Brindha    | brindha10@gmail.com   | 9857679819    | TRK2008        |
|      209 |    123 | John       | johnjohn@gmail.com    | 8270465829    | TRK2009        |
|      210 |    124 | Mary       | maryjose@gmail.com    | 9896284637    | TRK2010        |
|      215 |    121 | Brindha    | brindha10@gmail.com   | 9857679819    | TRK215         |
+----------+--------+------------+----------------------+---------------+----------------+
11 rows in set (0.0013 sec)
```

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

QUERY:

SELECT CourierID,ReceiverName,ReceiverAddress,TrackingNumber,DeliveryDate FROM Courier;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-39  Retrieve a list of couriers and their corresponding receiver information (if available)*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT CourierID, ReceiverName, ReceiverAddress, TrackingNumber, DeliveryDate FROM Courier;
+----------+--------------+-----------------+----------------+--------------+
| CourierID | ReceiverName | ReceiverAddress | TrackingNumber | DeliveryDate |
+----------+--------------+-----------------+----------------+--------------+
|      201 | Kavi         | Hyderabad       | TRK2001        | 2025-06-10   |
|      202 | Revathi      | Delhi           | TRK2002        | 2025-06-14   |
|      203 | Rekha        | Bangalore       | TRK2003        | 2025-06-20   |
|      204 | Deepa        | Pune            | TRK2004        | 2025-06-08   |
|      205 | Meera        | Lucknow         | TRK2005        | 2025-06-05   |
|      206 | Sahana       | Chennai         | TRK2006        | 2025-06-12   |
|      207 | Vijay        | Kolkata         | TRK2007        | 2025-06-22   |
|      208 | Ayesha       | Jaipur          | TRK2008        | 2025-06-11   |
|      209 | Arjun        | Ahmedabad       | TRK2009        | 2025-06-13   |
|      210 | Karthik      | Delhi           | TRK2010        | 2025-06-25   |
|      215 | Arun         | Bangalore       | TRK215         | 2025-06-21   |
+----------+--------------+-----------------+----------------+--------------+
11 rows in set (0.0007 sec)
```

40. Retrieve a list of couriers along with the courier service details (if available):

QUERY:

SELECT c.CourierID,c.TrackingNumber,s.ServiceID,s.ServiceName,s.Cost FROM Courier AS c LEFT JOIN CourierServices AS s ON c.SevriceID=s.ServiceID;
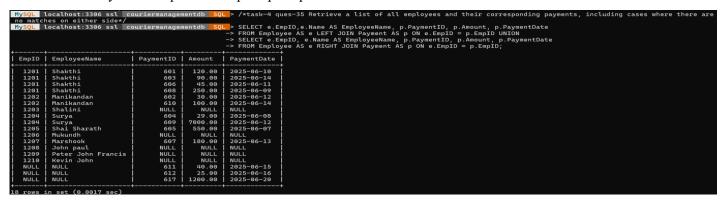
```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*Task-4 ques-40 Retrieve a list of couriers along with the courier service details (if available)*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT c.CourierID, c.TrackingNumber, s.ServiceID, s.ServiceName, s.Cost
                                                   -> FROM Courier AS c LEFT JOIN CourierServices AS s
                                                   -> ON c.ServiceID = s.ServiceID;
+----------+----------------+-----------+-------------------------+--------+
| CourierID | TrackingNumber | ServiceID | ServiceName             | Cost   |
+----------+----------------+-----------+-------------------------+--------+
|      201 | TRK2001        |         1 | Standard Delivery       | 150.00 |
|      202 | TRK2002        |         2 | Express Delivery        | 300.00 |
|      203 | TRK2003        |         1 | Standard Delivery       | 150.00 |
|      204 | TRK2004        |         2 | Express Delivery        | 300.00 |
|      205 | TRK2005        |         1 | Standard Delivery       | 150.00 |
|      206 | TRK2006        |         3 | Same-Day Delivery       | 500.00 |
|      207 | TRK2007        |         4 | Overnight Delivery      | 450.00 |
|      208 | TRK2008        |         5 | Eco Saver Delivery      | 100.00 |
|      209 | TRK2009        |         6 | Premium Handling Service | 650.00 |
|      210 | TRK2010        |      NULL | NULL                    |   NULL |
|      215 | TRK215         |      NULL | NULL                    |   NULL |
+----------+----------------+-----------+-------------------------+--------+
11 rows in set (0.0013 sec)
```

41. Retrieve a list of employees and the number of couriers assigned to each employee:

QUERY:

SELECT e.EmpID,e.Name, COUNT(c.CourierID) AS CouriersHandled FROM Employee AS e LEFT JOIN Courier

AS c ON e.EmpID=c.EmpID GROUP BY e.EmpID,e.Name;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-41 Retrieve a list of couriers along with the courier service details (if available)*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT e.EmpID, e.Name, COUNT(c.CourierID) AS CouriersHandled
                                                   -> FROM Employee AS e LEFT JOIN Courier AS c ON e.EmpID = c.EmpID
                                                   -> GROUP BY e.EmpID, e.Name;
+-------+--------------------+----------------+
| EmpID | Name               | CouriersHandled |
+-------+--------------------+----------------+
|  1201 | Shakthi            |              5 |
|  1202 | Manikandan         |              1 |
|  1203 | Shalini            |              0 |
|  1204 | Surya              |              2 |
|  1205 | Shai Sharath       |              1 |
|  1206 | Mukundh            |              0 |
|  1207 | Marshook           |              1 |
|  1208 | John paul          |              0 |
|  1209 | Peter John Francis |              0 |
|  1210 | Kevin John         |              0 |
+-------+--------------------+----------------+
10 rows in set (0.0017 sec)
```

42. Retrieve a list of locations and the total payment amount received at each location:

QUERY:

SELECT l.LocationID, l.LocationName, SUM(p.Amount) AS TotalPaymentReceived FROM Location AS l JOIN

Payment AS p ON l.LocationID = p.LocationID GROUP BY l.LocationID, l.LocationName;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  /*task-4 ques-42 Retrieve a list of locations and the total payment amount rec
eived at each location*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  SELECT l.LocationID, l.LocationName, SUM(p.Amount) AS TotalPaymentReceived
                                                    -> FROM Location AS l JOIN Payment AS p ON l.LocationID = p.LocationID GROUP
                                                    -> BY l.LocationID, l.LocationName;
+------------+--------------------------+----------------------+
| LocationID | LocationName             | TotalPaymentReceived |
+------------+--------------------------+----------------------+
|        831 | Kumbakonam Delivery Express |              1360.00 |
|        832 | Trichy Courier Services  |               155.00 |
|        833 | Thanjai Courier Point    |                90.00 |
|        834 | Madurai Parcel Services  |                29.00 |
|        835 | Covai Express Delivery   |               550.00 |
|        836 | Pondy Couriers           |                45.00 |
|        837 | Salem Delivery Point     |               180.00 |
|        838 | Vellore Parcels          |               250.00 |
|        839 | Hosur Delivery Express   |              7000.00 |
+------------+--------------------------+----------------------+
9 rows in set (0.0059 sec)
```

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

QUERY:

SELECT * FROM Courier WHERE SenderName IN (SELECT SenderName FROM Courier GROUP BY

SenderName HAVING COUNT(*) > 1);

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  /*Task-4 ques-43 Retrieve all couriers sent by the same sender (based on SenderName)*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL >  SELECT * FROM Courier WHERE SenderName IN (SELECT SenderName
                                                    -> FROM Courier GROUP BY SenderName HAVING COUNT(*) > 1);
+-----------+------------+---------------+--------------+-----------------+--------+-----------+----------------+--------------+--------+------------+-------+------------+-----------+
| CourierID | SenderName | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status    | TrackingNumber | DeliveryDate | UserID | OrderDate  | EmpID | LocationID | ServiceID |
+-----------+------------+---------------+--------------+-----------------+--------+-----------+----------------+--------------+--------+------------+-------+------------+-----------+
|       204 | Lavanya    | Kumbakonam    | Deepa        | Pune            |   4.20 | Delivered | TRK2004        | 2025-06-08   |    122 | 2025-06-06 |  1204 |        833 |         2 |
|       220 | Lavanya    | Kumbakonam    | Meena        | Chennai         |   1.50 | Delivered | TRK220         | 2025-06-21   |    125 | 2025-06-18 |  NULL |        831 |      NULL |
+-----------+------------+---------------+--------------+-----------------+--------+-----------+----------------+--------------+--------+------------+-------+------------+-----------+
2 rows in set (0.0011 sec)
```

44. List all employees who share the same role:

QUERY:

SELECT * FROM Employee WHERE Role IN (SELECT Role FROM Employee GROUP BY Role HAVING COUNT(*) > 1);

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-44 List all employees who share the same role*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Employee WHERE Role IN (SELECT
                                                   -> Role FROM Employee GROUP BY Role HAVING COUNT(*) > 1);
+-------+-------------+-------------------------+---------------+-------------------+----------+
| EmpID | Name        | Email                   | ContactNumber | Role              | Salary   |
+-------+-------------+-------------------------+---------------+-------------------+----------+
|  1201 | Shakthi     | shakthi002@gmail.com    | 9095866437    | Delivery Executive | 22000.00 |
|  1203 | Shalini     | shalini4444@gmail.com   | 7205783480    | Supervisor        | 30000.00 |
|  1204 | Surya       | suryasekar@gmail.com    | 9786453768    | Delivery Executive | 24000.00 |
|  1205 | Shai Sharath| shaisharath@gmail.com   | 9629698774    | Supervisor        | 35000.00 |
|  1207 | Marshook    | marshook09@gmail.com    | 7094555273    | Delivery Executive | 27000.00 |
|  1208 | John paul   | pauljohn@gmail.com      | 9678674587    | Delivery Executive | 29000.00 |
|  1210 | Kevin John  | kevin@gmail.com         | 8234758972    | Delivery Executive | 28000.00 |
+-------+-------------+-------------------------+---------------+-------------------+----------+
7 rows in set (0.0480 sec)
```

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

QUERY:

SELECT p.PaymentID, p.CourierID, p.Amount, p.PaymentDate, c.LocationID FROM Payment AS p JOIN Courier AS c ON p.CourierID = c.CourierID WHERE c.LocationID IN (SELECT LocationID FROM Courier GROUP BY LocationID HAVING COUNT(*) > 1);

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-45 Retrieve all payments made for couriers sent from the same location*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT p.PaymentID, p.CourierID, p.Amount, p.PaymentDate, c.LocationID
                                                   -> FROM Payment AS p JOIN Courier AS c ON p.CourierID = c.CourierID
                                                   -> WHERE c.LocationID IN (SELECT LocationID
                                                   -> FROM Courier GROUP BY LocationID HAVING COUNT(*) > 1);
+-----------+-----------+--------+-------------+------------+
| PaymentID | CourierID | Amount | PaymentDate | LocationID |
+-----------+-----------+--------+-------------+------------+
|       601 |       201 | 120.00 | 2025-06-10  |        831 |
|       603 |       203 |  90.00 | 2025-06-14  |        831 |
+-----------+-----------+--------+-------------+------------+
2 rows in set (0.0020 sec)
```

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

QUERY:

SELECT CourierID,SenderName,SenderAddress, ReceiverName, ReceiverAddress, Weight,Status,TrackingNumber, DeliveryDate FROM Courier WHERE SenderAddress IN (SELECT SenderAddress FROM Courier GROUP BY SenderAddress HAVING COUNT(*) > 1);

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-46 Retrieve all couriers sent from the same location (based on SenderAddress)*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT CourierID,SenderName,SenderAddress, ReceiverName, ReceiverAddress, Weight,Status,TrackingNumber, DeliveryDate
                                                   -> FROM Courier WHERE SenderAddress IN (SELECT SenderAddress FROM
                                                   -> Courier GROUP BY SenderAddress HAVING COUNT(*) > 1);
+-----------+----------------+---------------+--------------+-----------------+--------+----------------+----------------+--------------+
| CourierID | SenderName     | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status         | TrackingNumber | DeliveryDate |
+-----------+----------------+---------------+--------------+-----------------+--------+----------------+----------------+--------------+
|       201 | Mr. Ramachandran| Chennai      | Kavi         | Hyderabad       |   2.80 | Delivered      | TRK2001        | 2025-06-10   |
|       202 | Agnes          | Madurai       | Revathi      | Delhi           |   1.50 | In Transit     | TRK2002        | 2025-06-14   |
|       203 | Naveen         | Coimbatore    | Rekha        | Bangalore       |   3.00 | Yet to Dispatch| TRK2003        | 2025-06-20   |
|       204 | Lavanya        | Kumbakonam    | Deepa        | Pune            |   4.20 | Delivered      | TRK2004        | 2025-06-08   |
|       207 | John           | Coimbatore    | Vijay        | Kolkata         |   3.50 | Yet to Dispatch| TRK2007        | 2025-06-22   |
|       209 | Brindha        | Chennai       | Arjun        | Ahmedabad       |   3.80 | In Transit     | TRK2009        | 2025-06-13   |
|       210 | Sundar         | Madurai       | Karthik      | Delhi           |   1.30 | Yet to Dispatch| TRK2010        | 2025-06-25   |
|       215 | Pooja          | Kumbakonam    | Arun         | Bangalore       |   2.50 | Delivered      | TRK215         | 2025-06-21   |
|       220 | Lavanya        | Kumbakonam    | Meena        | Chennai         |   1.50 | Delivered      | TRK220         | 2025-06-21   |
+-----------+----------------+---------------+--------------+-----------------+--------+----------------+----------------+--------------+
9 rows in set (0.0085 sec)
```

47. List employees and the number of couriers they have delivered:

QUERY:

SELECT e.EmpID, e.Name AS EmployeeName, COUNT(c.CourierID) AS TotalCouriersDelivered FROM Employee AS e LEFT JOIN Courier AS c ON e.EmpID = c.EmpID AND c.Status = 'Delivered' WHERE e.Role = 'Delivery Executive' GROUP BY e.EmpID, e.Name;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-47 List employees and the number of couriers they have delivered*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT e.EmpID, e.Name AS EmployeeName, COUNT(c.CourierID) AS TotalCouriersDelivered
                                  -> FROM Employee AS e LEFT JOIN Courier AS c ON e.EmpID = c.EmpID AND
                                  -> c.Status = 'Delivered' WHERE e.Role = 'Delivery Executive' GROUP BY e.EmpID, e.Name;

+-------+--------------+------------------------+
| EmpID | EmployeeName | TotalCouriersDelivered |
+-------+--------------+------------------------+
|  1201 | Shakthi      |                      2 |
|  1204 | Surya        |                      1 |
|  1207 | Marshook     |                      0 |
|  1208 | John paul    |                      0 |
|  1210 | Kevin John   |                      0 |
+-------+--------------+------------------------+
5 rows in set (0.0058 sec)
```

48. Find couriers that were paid an amount greater than the cost of their respective courier services:

QUERY:

SELECT c.CourierID, c.TrackingNumber, cs.ServiceName, cs.Cost AS ServiceCost, p.Amount AS PaymentAmount FROM Courier AS c JOIN CourierServices AS cs ON c.ServiceID = cs.ServiceID JOIN Payment AS p ON c.CourierID = p.CourierID WHERE p.Amount > cs.Cost;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-48 Find couriers that were paid an amount greater than the cost of their respective courier services*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT c.CourierID, c.TrackingNumber, cs.ServiceName, cs.Cost AS ServiceCost, p.Amount
                                  -> AS PaymentAmount FROM Courier AS c JOIN CourierServices AS cs ON c.ServiceID = cs.ServiceID
                                  -> JOIN Payment AS p ON c.CourierID = p.CourierID WHERE p.Amount > cs.Cost;

+-----------+----------------+------------------------+-------------+---------------+
| CourierID | TrackingNumber | ServiceName            | ServiceCost | PaymentAmount |
+-----------+----------------+------------------------+-------------+---------------+
|       205 | TRK2005        | Standard Delivery      |      150.00 |        550.00 |
|       208 | TRK2008        | Eco Saver Delivery     |      100.00 |        250.00 |
|       209 | TRK2009        | Premium Handling Service|     650.00 |       7000.00 |
+-----------+----------------+------------------------+-------------+---------------+
3 rows in set (0.0079 sec)
```

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

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

QUERY:

SELECT * FROM Courier WHERE Weight> (SELECT AVG(Weight) FROM Courier);

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-49 Find couriers that have a weight greater than the average weight of all couriers*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Courier WHERE Weight> (SELECT AVG(Weight) FROM Courier);

+-----------+----------------+----------------+--------------+-----------------+--------+----------------+----------------+--------------+--------+------------+-------+------------+-----------+
| CourierID | SenderName     | SenderAddress  | ReceiverName | ReceiverAddress | Weight | Status         | TrackingNumber | DeliveryDate | UserID | OrderDate  | EmpID | LocationID | ServiceID |
+-----------+----------------+----------------+--------------+-----------------+--------+----------------+----------------+--------------+--------+------------+-------+------------+-----------+
|       201 | Mr. Ramachandran| Chennai       | Kavi         | Hyderabad       |   2.80 | Delivered      | TRK2001        | 2025-06-10   |   123  | 2025-06-08 | 1201  |        831 |         1 |
|       203 | Naveen         | Coimbatore     | Rekha        | Bangalore       |   3.00 | Yet to Dispatch| TRK2003        | 2025-06-20   |   125  | 2025-06-10 | 1201  |        831 |         1 |
|       204 | Lavanya        | Kumbakonam     | Deepa        | Pune            |   4.20 | Delivered      | TRK2004        | 2025-06-08   |   122  | 2025-06-06 | 1204  |        833 |         2 |
|       205 | Mary           | Tiruchirapalli | Meera        | Lucknow         |   2.70 | Cancelled      | TRK2005        | 2025-06-05   |   121  | 2025-06-05 | 1205  |        834 |         1 |
|       207 | John           | Coimbatore     | Vijay        | Kolkata         |   3.50 | Yet to Dispatch| TRK2007        | 2025-06-22   |   125  | 2025-06-08 | 1207  |        836 |         4 |
|       209 | Brindha        | Chennai        | Arjun        | Ahmedabad       |   3.80 | In Transit     | TRK2009        | 2025-06-13   |   123  | 2025-06-07 | 1204  |        838 |         6 |
+-----------+----------------+----------------+--------------+-----------------+--------+----------------+----------------+--------------+--------+------------+-------+------------+-----------+
6 rows in set (0.0039 sec)
```

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

QUERY:

SELECT EmpID,Name,Salary FROM Employee WHERE Salary>(SELECT AVG(Salary) FROM Employee);

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*Task-4 ques-50 Find the names of all employees who have a salary greater than the average salary*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT EmpID,Name,Salary FROM Employee WHERE Salary>(SELECT AVG(Salary) FROM Employee);
+-------+------------------+----------+
| EmpID | Name             | Salary   |
+-------+------------------+----------+
|  1202 | Manikandan       | 55000.00 |
|  1205 | Shai Sharath     | 35000.00 |
|  1206 | Mukundh          | 45000.00 |
|  1209 | Peter John Francis | 35000.00 |
+-------+------------------+----------+
4 rows in set (0.0018 sec)
```

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

QUERY:

SELECT ServiceName, SUM(Cost) AS TotalCost FROM CourierServices WHERE Cost<(SELECT MAX(Cost) FROM CourierServices) GROUP BY ServiceName;

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*Task-4 ques-51 Find the total cost of all courier services where the cost is less than the maximum cost*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT ServiceName, SUM(Cost) AS TotalCost FROM CourierServices WHERE Cost<(SELECT MAX(Cost) FROM CourierServices) GROUP BY ServiceName;
+-------------------+-----------+
| ServiceName       | TotalCost |
+-------------------+-----------+
| Standard Delivery |    150.00 |
| Express Delivery  |    300.00 |
| Same-Day Delivery |    500.00 |
| Overnight Delivery|    450.00 |
| Eco Saver Delivery|    100.00 |
+-------------------+-----------+
5 rows in set (0.0016 sec)
```

52. Find all couriers that have been paid for:

QUERY:

SELECT * FROM Courier WHERE CourierID IN (SELECT CourierID FROM Payment);

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*task-4 ques-52 Find all couriers that have been paid for*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Courier WHERE CourierID IN (SELECT CourierID FROM Payment);
+----------+-----------------+----------------+--------------+----------------+--------+----------------+----------------+--------------+--------+------------+-------+------------+-----------+
| CourierID| SenderName      | SenderAddress  | ReceiverName | ReceiverAddress| Weight | Status         | TrackingNumber | DeliveryDate | UserID | OrderDate  | EmpID | LocationID | ServiceID |
+----------+-----------------+----------------+--------------+----------------+--------+----------------+----------------+--------------+--------+------------+-------+------------+-----------+
|      201 | Mr. Ramachandran| Chennai        | Kavi         | Hyderabad      |   2.80 | Delivered      | TRK2001        | 2025-06-10   |    123 | 2025-06-08 |  1201 |        831 |         1 |
|      202 | Agnes           | Madurai        | Revathi      | Delhi          |   1.50 | In Transit     | TRK2002        | 2025-06-14   |    121 | 2025-06-09 |  1202 |        832 |         2 |
|      203 | Naveen          | Coimbatore     | Rekha        | Bangalore      |   3.00 | Yet to Dispatch| TRK2003        | 2025-06-20   |    125 | 2025-06-10 |  1201 |        831 |         1 |
|      204 | Lavanya         | Kumbakonam     | Deepa        | Pune           |   4.20 | Delivered      | TRK2004        | 2025-06-08   |    122 | 2025-06-06 |  1204 |        833 |         2 |
|      205 | Mary            | Tiruchirapalli | Meera        | Lucknow        |   2.70 | Cancelled      | TRK2005        | 2025-06-05   |    121 | 2025-06-05 |  1205 |        834 |         1 |
|      206 | Kiran           | Mumbai         | Sahana       | Chennai        |   1.90 | In Transit     | TRK2006        | 2025-06-12   |    124 | 2025-06-07 |  1201 |        835 |         3 |
|      207 | John            | Coimbatore     | Vijay        | Kolkata        |   3.50 | Yet to Dispatch| TRK2007        | 2025-06-22   |    125 | 2025-06-08 |  1207 |        836 |         4 |
|      208 | Ravi            | Trichy         | Ayesha       | Jaipur         |   2.00 | Delivered      | TRK2008        | 2025-06-11   |    121 | 2025-06-06 |  1201 |        837 |         5 |
|      209 | Brindha         | Chennai        | Arjun        | Ahmedabad      |   3.80 | In Transit     | TRK2009        | 2025-06-13   |    123 | 2025-06-07 |  1204 |        838 |         6 |
|      210 | Sundar          | Madurai        | Karthik      | Delhi          |   1.30 | Yet to Dispatch| TRK2010        | 2025-06-25   |    124 | 2025-06-09 |  1201 |        839 |      NULL |
|      215 | Pooja           | Kumbakonam     | Arun         | Bangalore      |   2.50 | Delivered      | TRK215         | 2025-06-21   |    121 | 2025-06-18 |  NULL |       NULL |      NULL |
+----------+-----------------+----------------+--------------+----------------+--------+----------------+----------------+--------------+--------+------------+-------+------------+-----------+
11 rows in set (0.0062 sec)
```

53. Find the locations where the maximum payment amount was made:

QUERY:

SELECT l.LocationID, l.LocationName, p.Amount FROM Payment AS p JOIN Location AS l ON p.LocationID = l.LocationID WHERE p.Amount = (SELECT MAX(Amount) FROM Payment);

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*TASK-4 ques-53 Find the locations where the maximum payment amount was made*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT l.LocationID, l.LocationName, p.Amount FROM Payment AS p JOIN Location
                                                   -> AS l ON p.LocationID = l.LocationID WHERE p.Amount = (SELECT MAX(Amount) FROM Payment);
+------------+-----------------------+---------+
| LocationID | LocationName          | Amount  |
+------------+-----------------------+---------+
|        839 | Hosur Delivery Express| 7000.00 |
+------------+-----------------------+---------+
1 row in set (0.0017 sec)
```

54. Find all couriers whose weight is greater than the weight of all couriers sent by a specific sender (e.g., 'SenderName'):

QUERY:

1. SELECT * FROM Courier WHERE Weight > ALL (SELECT Weight FROM Courier WHERE SenderName = 'Brindha');

2. SELECT * FROM Courier WHERE Weight > ALL (SELECT Weight FROM Courier WHERE SenderName = 'Pooja');

```
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > /*Task-4 ques-54 Find all couriers whose weight is greater than the weight of all couriers sent by a specific sender (e.g., 'SenderName')*/
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Courier WHERE Weight > ALL (SELECT Weight FROM Courier WHERE SenderName = 'Brindha');
+----------+------------+---------------+--------------+----------------+--------+-----------+----------------+--------------+--------+------------+-------+------------+-----------+
| CourierID | SenderName | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status    | TrackingNumber | DeliveryDate | UserID | OrderDate  | EmpID | LocationID | ServiceID |
+----------+------------+---------------+--------------+----------------+--------+-----------+----------------+--------------+--------+------------+-------+------------+-----------+
|      204 | Lavanya    | Kumbakonam    | Deepa        | Pune           |   4.20 | Delivered | TRK2004        | 2025-06-08   |    122 | 2025-06-06 | 1204  |        833 |         2 |
+----------+------------+---------------+--------------+----------------+--------+-----------+----------------+--------------+--------+------------+-------+------------+-----------+
1 row in set (0.0014 sec)
MySQL  localhost:3306 ssl  couriermanagementdb  SQL > SELECT * FROM Courier WHERE Weight > ALL (SELECT Weight FROM Courier WHERE SenderName = 'Pooja');
+----------+----------------+---------------+--------------+----------------+--------+-----------------+----------------+--------------+--------+------------+-------+------------+-----------+
| CourierID | SenderName     | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status          | TrackingNumber | DeliveryDate | UserID | OrderDate  | EmpID | LocationID | ServiceID |
+----------+----------------+---------------+--------------+----------------+--------+-----------------+----------------+--------------+--------+------------+-------+------------+-----------+
|      201 | Mr. Ramachandran | Chennai      | Kavi         | Hyderabad      |   2.80 | Delivered       | TRK2001        | 2025-06-10   |    123 | 2025-06-08 | 1201  |        831 |         1 |
|      203 | Naveen         | Coimbatore    | Rekha        | Bangalore      |   3.00 | Yet to Dispatch | TRK2003        | 2025-06-20   |    125 | 2025-06-10 | 1201  |        831 |         1 |
|      204 | Lavanya        | Kumbakonam    | Deepa        | Pune           |   4.20 | Delivered       | TRK2004        | 2025-06-08   |    122 | 2025-06-06 | 1204  |        833 |         2 |
|      205 | Mary           | Tiruchirapalli | Meera        | Lucknow        |   2.70 | Cancelled       | TRK2005        | 2025-06-05   |    121 | 2025-06-05 | 1205  |        834 |         1 |
|      207 | John           | Coimbatore    | Vijay        | Kolkata        |   3.50 | Yet to Dispatch | TRK2007        | 2025-06-22   |    125 | 2025-06-08 | 1207  |        836 |         4 |
|      209 | Brindha        | Chennai       | Arjun        | Ahmedabad      |   3.80 | In Transit      | TRK2009        | 2025-06-13   |    123 | 2025-06-07 | 1204  |        838 |         6 |
+----------+----------------+---------------+--------------+----------------+--------+-----------------+----------------+--------------+--------+------------+-------+------------+-----------+
6 rows in set (0.0024 sec)
```