

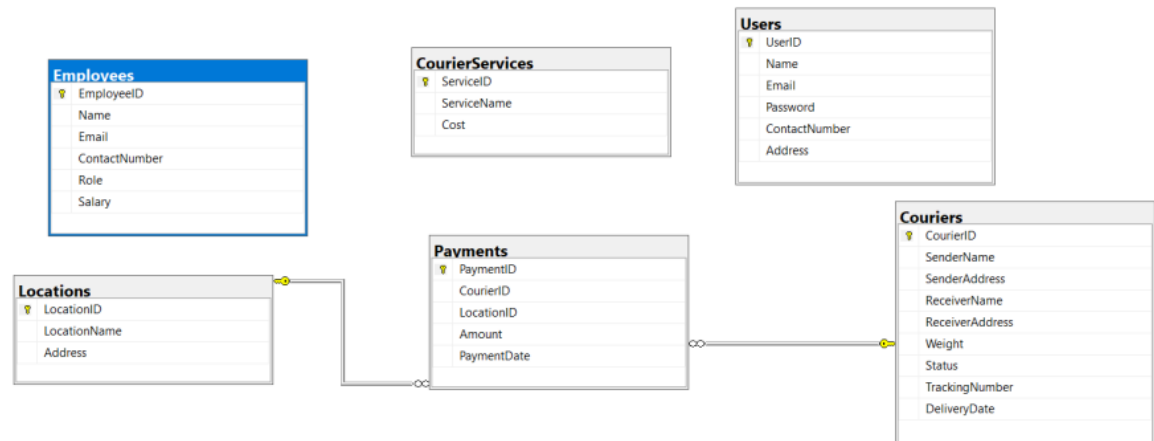
## Assignment – 04

### Task-1 Database Design:

1.

```
mysql> CREATE DATABASE CourierManagementSystem;
Query OK, 1 row affected (0.08 sec)
```

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



2.

```
mysql> CREATE TABLE Users (
    ->     UserID INT PRIMARY KEY,
    ->     Name VARCHAR(255),
    ->     Email VARCHAR(255) UNIQUE,
    ->     Password VARCHAR(255),
    ->     ContactNumber VARCHAR(20),
    ->     Address TEXT
    -> );
Query OK, 0 rows affected (0.13 sec)
```

3.

```
mysql> INSERT INTO Users (UserID, Name, Email, Password, ContactNumber, Address)
    -> VALUES
    -> (1, 'Raj Sharma', 'raj.sharma@email.com', 'password123', '9876543210', '123 Main Street, Delhi'),
    -> (2, 'Priya Patel', 'priya.patel@email.com', 'pass456', '7890123456', '456 Oak Avenue, Mumbai'),
    -> (3, 'Amit Verma', 'amit.verma@email.com', 'amit123', '8765432109', '789 Elm Street, Bangalore'),
    -> (4, 'Neha Reddy', 'neha.reddy@email.com', 'neha456', '7654321098', '101 Pine Avenue, Hyderabad'),
    -> (5, 'Rahul Kapoor', 'rahul.kapoor@email.com', 'rahul567', '6543210987', '202 Oak Street, Kolkata'),
    -> (6, 'Anjali Desai', 'anjali.desai@email.com', 'anjali456', '5432109876', '303 Maple Avenue, Chennai'),
    -> (7, 'Sanjay Mehra', 'sanjay.mehra@email.com', 'sanjay789', '4321098765', '404 Elm Street, Pune'),
    -> (8, 'Meera Iyer', 'meera.iyer@email.com', 'meera987', '3210987654', '505 Pine Avenue, Ahmedabad');
Query OK, 8 rows affected (0.02 sec)
Records: 8 Duplicates: 0 Warnings: 0
```

4.

```
mysql> CREATE TABLE Couriers (
->     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 (0.06 sec)
```

5.

```
mysql> INSERT INTO Couriers (CourierID, SenderName, SenderAddress, ReceiverName, ReceiverAddress, Weight, Status, TrackingNumber, DeliveryDate)
-> VALUES
-> (1, 'Raj Sharma', '789 Pine Street, Delhi', 'Suresh Kumar', '567 Elm Street, Mumbai', 8.5, 'In Transit', 'TN123456', '2023-04-01'),
-> (2, 'Priya Patel', '321 Oak Street, Kolkata', 'Anita Gupta', '456 Maple Street, Bangalore', 6.0, 'Delivered', 'TN789012', '2023-03-28'),
-> (3, 'Jyoti Singh', '111 Pine Street, Hyderabad', 'Alok Gupta', '222 Oak Street, Chennai', 7.0, 'In Transit', 'TN654321', '2023-04-05'),
-> (4, 'Arun Verma', '505 Maple Avenue, Pune', 'Shweta Reddy', '606 Elm Street, Ahmedabad', 4.5, 'Delivered', 'TN987654', '2023-04-02'),
-> (5, 'Kavita Patel', '777 Oak Street, Delhi', 'Vinod Iyer', '888 Maple Avenue, Mumbai', 9.2, 'In Transit', 'TN789002', '2023-04-08'),
-> (6, 'Rohit Deshmukh', '999 Pine Street, Kolkata', 'Sneha Kapoor', '111 Elm Street, Bangalore', 6.8, 'Scheduled', 'TN345678', '2023-04-10'),
-> (7, 'Raj Sharma', '303 Oak Street, Hyderabad', 'Suman Mehra', '404 Maple Avenue, Pune', 5.3, 'Delivered', 'TN012345', '2023-03-30'),
-> (8, 'Sangeeta Iyer', '202 Elm Street, Chennai', 'Vivek Desai', '303 Pine Street, Ahmedabad', 8.0, 'In Transit', 'TN678901', '2023-04-12');
Query OK, 8 rows affected (0.01 sec)
Records: 8 Duplicates: 0 Warnings: 0
```

6.

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

7.

```
mysql> INSERT INTO CourierServices (ServiceID, ServiceName, Cost)
-> VALUES
-> (11, 'Delivery Driver', 20.00),
-> (2, 'Express', 15.00),
-> (3, 'Next Day Delivery', 20.00),
-> (4, 'Two-Day Delivery', 18.00),
-> (5, 'Economy', 12.00),
-> (6, 'Same Day Delivery', 25.00),
-> (7, 'Standard', 15.00),
-> (8, 'Express', 22.00);
Query OK, 8 rows affected (0.01 sec)
Records: 8 Duplicates: 0 Warnings: 0
```

8.

```
mysql> CREATE TABLE Employees (
  ->     EmployeeID INT PRIMARY KEY,
  ->     Name VARCHAR(255),
  ->     Email VARCHAR(255) UNIQUE,
  ->     ContactNumber VARCHAR(20),
  ->     Role VARCHAR(50),
  ->     Salary DECIMAL(10, 2)
  -> );
Query OK, 0 rows affected (0.05 sec)
```

9.

```
mysql> INSERT INTO Employees (EmployeeID, Name, Email, ContactNumber, Role, Salary)
  -> VALUES
  -> (1, 'Rohan Gupta', 'rohan.gupta@email.com', '111-222-3333', 'Delivery Driver', 50000.00),
  -> (2, 'Chitra Iyer', 'chitra.iyer@email.com', '444-333-5555', 'Customer Service', 45000.00),
  -> (3, 'Vikram Singh', 'vikram.singh@email.com', '777-888-1111', 'Warehouse Manager', 55000.00),
  -> (4, 'Pooja Desai', 'pooja.desai@email.com', '444-333-5555', 'Dispatcher', 48000.00),
  -> (5, 'Kunal Kapoor', 'kunal.kapoor@email.com', '111-222-3333', 'Delivery Driver', 52000.00),
  -> (6, 'Aarti Singh', 'aarti.singh@email.com', '666-555-7777', 'Customer Service', 47000.00),
  -> (7, 'Rajat Mehta', 'rajat.mehta@email.com', '888-999-1111', 'Warehouse Staff', 45000.00),
  -> (8, 'Ananya Iyer', 'ananya.iyer@email.com', '222-333-4444', 'Dispatcher', 48000.00);
Query OK, 8 rows affected (0.01 sec)
Records: 8  Duplicates: 0  Warnings: 0
```

10.

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

11.

```
mysql> INSERT INTO Locations (LocationID, LocationName, Address)
  -> VALUES
  -> (1, 'Main Office', '123 Main Street, Delhi'),
  -> (2, 'Branch Office', '456 Oak Avenue, Mumbai'),
  -> (3, 'Warehouse A', '777 Pine Street, Hyderabad'),
  -> (4, 'Warehouse B', '888 Oak Street, Pune'),
  -> (5, 'Branch Office 2', '999 Elm Street, Bangalore'),
  -> (6, 'Branch Office 3', '101 Maple Avenue, Chennai'),
  -> (7, 'Warehouse C', '222 Oak Street, Kolkata'),
  -> (8, 'Branch Office 4', '333 Elm Street, Ahmedabad');
Query OK, 8 rows affected (0.01 sec)
Records: 8  Duplicates: 0  Warnings: 0
```

12.

```
mysql> CREATE TABLE Payments (
  ->     PaymentID INT PRIMARY KEY,
  ->     CourierID INT,
  ->     LocationID INT,
  ->     Amount DECIMAL(10, 2),
  ->     PaymentDate DATE,
  ->     FOREIGN KEY (CourierID) REFERENCES Couriers(CourierID),
  ->     FOREIGN KEY (LocationID) REFERENCES Locations(LocationID)
  -> );
Query OK, 0 rows affected (0.06 sec)
```

13.

```
mysql> INSERT INTO Payments (PaymentID, CourierID, LocationID, Amount, PaymentDate)
-> VALUES
-> (1, 1, 1, 20.00, '2023-03-25'),
-> (2, 2, 2, 30.00, '2023-04-02'),
-> (3, 3, 3, 15.00, '2023-04-01'),
-> (4, 4, 4, 25.00, '2023-04-02'),
-> (5, 5, 5, 18.00, '2023-04-03'),
-> (6, 6, 6, 22.00, '2023-04-04'),
-> (7, 7, 7, 30.00, '2023-04-05'),
-> (8, 8, 8, 20.00, '2023-04-06');
Query OK, 8 rows affected (0.01 sec)
Records: 8 Duplicates: 0 Warnings: 0
```

14.

## Task-2 Select, Where:

Solve the following queries in the Schema that you have created above:

1. List all customers.

```
mysql> SELECT * FROM Users;
```

UserID	Name	Email	Password	ContactNumber	Address
1	Raj Sharma	raj.sharma@email.com	password123	9876543210	123 Main Street, Delhi
2	Priya Patel	priya.patel@email.com	pass456	7890123456	456 Oak Avenue, Mumbai
3	Amit Verma	amit.verma@email.com	amit123	8765432109	789 Elm Street, Bangalore
4	Neha Reddy	neha.reddy@email.com	neha456	7654321098	101 Pine Avenue, Hyderabad
5	Rahul Kapoor	rahul.kapoor@email.com	rahul567	6543210987	202 Oak Street, Kolkata
6	Anjali Desai	anjali.desai@email.com	anjali456	5432109876	303 Maple Avenue, Chennai
7	Sanjay Mehra	sanjay.mehra@email.com	sanjay789	4321098765	404 Elm Street, Pune
8	Meera Iyer	meera.iyer@email.com	meera987	3210987654	505 Pine Avenue, Ahmedabad

8 rows in set (0.00 sec)

2. List all orders for a specific customer.

```
mysql> SELECT * FROM Couriers WHERE SenderName = (SELECT Name FROM Users WHERE UserID = 2) OR ReceiverName = (SELECT Name FROM Users WHERE UserID = 2);
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
2	Priya Patel	321 Oak Street, Kolkata	Anita Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28

1 row in set (0.00 sec)

3. List all couriers:

```
mysql> SELECT * FROM Couriers;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TN123456	2023-04-01
2	Priya Patel	321 Oak Street, Kolkata	Anita Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28
3	Jyoti Singh	111 Pine Street, Hyderabad	Alok Gupta	222 Oak Street, Chennai	7.00	In Transit	TN654321	2023-04-05
4	Arun Verma	505 Maple Avenue, Pune	Shweta Reddy	606 Elm Street, Ahmedabad	4.50	Delivered	TN987654	2023-04-02
5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789002	2023-04-08
6	Rohit Deshmukh	999 Pine Street, Kolkata	Sneha Kapoor	111 Elm Street, Bangalore	6.80	Scheduled	TN345678	2023-04-10
7	Raj Sharma	303 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN012345	2023-03-30
8	Sangeeta Iyer	202 Elm Street, Chennai	Vivek Desai	303 Pine Street, Ahmedabad	8.00	In Transit	TN678901	2023-04-12

8 rows in set (0.00 sec)

4. List all packages for a specific order:

```
mysql> SELECT * FROM Couriers WHERE CourierID = 7;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
7	Raj Sharma	303 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN012345	2023-03-30

5. List all deliveries for a specific courier:

```
mysql> SELECT * FROM Couriers WHERE Status = 'Delivered' AND CourierID = 2;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
2	Priya Patel	321 Oak Street, Kolkata	Anita Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28

1 row in set (0.00 sec)

6. List all undelivered packages:

```
mysql> SELECT * FROM Couriers WHERE Status <> 'Delivered';
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TN123456	2023-04-01
3	Jyoti Singh	111 Pine Street, Hyderabad	Alok Gupta	222 Oak Street, Chennai	7.00	In Transit	TN654321	2023-04-05
5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789002	2023-04-08
6	Rohit Deshmukh	999 Pine Street, Kolkata	Sneha Kapoor	111 Elm Street, Bangalore	6.80	Scheduled	TN345678	2023-04-10
8	Sangeeta Iyer	202 Elm Street, Chennai	Vivek Desai	303 Pine Street, Ahmedabad	8.00	In Transit	TN678901	2023-04-12

5 rows in set (0.00 sec)

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

```
mysql> SELECT * FROM Couriers WHERE DeliveryDate = CURDATE();
```

Empty set (0.00 sec)

```
mysql> SELECT * FROM Couriers WHERE DeliveryDate = '2023-04-01';
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TN123456	2023-04-01

1 row in set (0.00 sec)

8. List all packages with a specific status:

```
mysql> SELECT * FROM Couriers WHERE Status = 'Delivered';
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
2	Priya Patel	321 Oak Street, Kolkata	Anita Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28
4	Arun Verma	505 Maple Avenue, Pune	Shweta Reddy	606 Elm Street, Ahmedabad	4.50	Delivered	TN987654	2023-04-02
7	Raj Sharma	303 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN012345	2023-03-30

3 rows in set (0.00 sec)

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

```
mysql> SELECT CourierID, COUNT(*) AS TotalPackages FROM Couriers GROUP BY CourierID;
```

CourierID	TotalPackages
1	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1

8 rows in set (0.00 sec)

10. Find the average delivery time for each courier

```
mysql> SELECT CourierID, AVG(DATEDIFF(DeliveryDate, '03-01-2023')) AS AvgDeliveryTime FROM Couriers GROUP BY CourierID;
```

CourierID	AvgDeliveryTime
1	NULL
2	NULL
3	NULL
4	NULL
5	NULL
6	NULL
7	NULL
8	NULL

8 rows in set, 8 warnings (0.00 sec)

11. List all packages with a specific weight range:

```
mysql> SELECT * FROM Couriers WHERE Weight BETWEEN 2.0 AND 7.0;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
2	Priya Patel	321 Oak Street, Kolkata	Anita Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28
3	Jyoti Singh	111 Pine Street, Hyderabad	Alok Gupta	222 Oak Street, Chennai	7.00	In Transit	TN654321	2023-04-05
4	Arun Verma	505 Maple Avenue, Pune	Shweta Reddy	606 Elm Street, Ahmedabad	4.50	Delivered	TN987654	2023-04-02
6	Rohit Deshmukh	999 Pine Street, Kolkata	Sneha Kapoor	111 Elm Street, Bangalore	6.80	Scheduled	TN345678	2023-04-10
7	Raj Sharma	303 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN012345	2023-03-30

5 rows in set (0.00 sec)

12. Retrieve employees whose names contain 'John'

```
mysql> SELECT * FROM Employees WHERE Name LIKE '%Raj%';
```

EmployeeID	Name	Email	ContactNumber	Role	Salary
7	Rajat Mehta	rajat.mehta@email.com	888-999-1111	Warehouse Staff	45000.00

1 row in set (0.00 sec)

```
mysql> SELECT * FROM Employees WHERE Name LIKE '%Vishal%';
```

Empty set (0.00 sec)

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

```
mysql> SELECT c.* FROM Couriers c INNER JOIN Payments p ON c.CourierID = p.CourierID WHERE p.Amount > 50;
```

Empty set (0.00 sec)

```
mysql> SELECT c.* FROM Couriers c INNER JOIN Payments p ON c.CourierID = p.CourierID WHERE p.Amount > 10;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TN123456	2023-04-01
2	Priya Patel	321 Oak Street, Kolkata	Anita Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28
3	Jyoti Singh	111 Pine Street, Hyderabad	Alok Gupta	222 Oak Street, Chennai	7.00	In Transit	TN654321	2023-04-05
4	Arun Verma	505 Maple Avenue, Pune	Shweta Reddy	606 Elm Street, Ahmedabad	4.50	Delivered	TN987654	2023-04-02
5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789002	2023-04-08
6	Rohit Deshmukh	999 Pine Street, Kolkata	Sneha Kapoor	111 Elm Street, Bangalore	6.80	Scheduled	TN345678	2023-04-10
7	Raj Sharma	303 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN012345	2023-03-30
8	Sangeeta Iyer	202 Elm Street, Chennai	Vivek Desai	303 Pine Street, Ahmedabad	8.00	In Transit	TN678901	2023-04-12

8 rows in set (0.00 sec)

### Task-3 Group By, Aggregate Functions, Having, Order By, where:

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

```
mysql> SELECT e.Name AS EmployeeName, COUNT(c.CourierID) AS TotalCouriersHandled
-> FROM Employees e
-> JOIN Couriers c ON e.EmployeeID = c.CourierID
-> GROUP BY e.Name;
```

EmployeeName	TotalCouriersHandled
Rohan Gupta	1
Chitra Iyer	1
Vikram Singh	1
Pooja Desai	1
Kunal Kapoor	1
Aarti Singh	1
Rajat Mehta	1
Ananya Iyer	1

8 rows in set (0.01 sec)

15. Calculate the total revenue generated by each location

```
mysql> SELECT l.LocationName, SUM(p.Amount) AS TotalRevenue
-> FROM Locations l
-> LEFT JOIN Payments p ON l.LocationID = p.LocationID
-> GROUP BY l.LocationName;
```

LocationName	TotalRevenue
Main Office	20.00
Branch Office	30.00
Warehouse A	15.00
Warehouse B	25.00
Branch Office 2	18.00
Branch Office 3	22.00
Warehouse C	30.00
Branch Office 4	20.00

8 rows in set (0.00 sec)

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

```
mysql> SELECT l.LocationName, COUNT(c.CourierID) AS TotalCouriersDelivered
-> FROM Locations l
-> LEFT JOIN Couriers c ON l.LocationName = 'Kolkata'
-> GROUP BY l.LocationName;
```

LocationName	TotalCouriersDelivered
Main Office	0
Branch Office	0
Warehouse A	0
Warehouse B	0
Branch Office 2	0
Branch Office 3	0
Warehouse C	0
Branch Office 4	0

8 rows in set (0.01 sec)

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

```
mysql> SELECT CourierID, AVG(DATEDIFF(DeliveryDate, '05-01-2023')) AS AvgDeliveryTime
-> FROM Couriers
-> GROUP BY CourierID
-> ORDER BY AvgDeliveryTime DESC LIMIT 1;
```

CourierID	AvgDeliveryTime
1	NULL

1 row in set, 8 warnings (0.00 sec)

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

```
mysql> SELECT l.LocationName, SUM(p.Amount) AS TotalPayments
-> FROM Locations l
-> LEFT JOIN Payments p ON l.LocationID = p.LocationID
-> GROUP BY l.LocationName
-> HAVING SUM(p.Amount) < 20;
```

LocationName	TotalPayments
Warehouse A	15.00
Branch Office 2	18.00

2 rows in set (0.00 sec)

19. Calculate Total Payments per Location

```
mysql> SELECT l.LocationName, SUM(p.Amount) AS TotalPayments
-> FROM Locations l
-> LEFT JOIN Payments p ON l.LocationID = p.LocationID
-> GROUP BY l.LocationName;
```

LocationName	TotalPayments
Main Office	20.00
Branch Office	30.00
Warehouse A	15.00
Warehouse B	25.00
Branch Office 2	18.00
Branch Office 3	22.00
Warehouse C	30.00
Branch Office 4	20.00

8 rows in set (0.00 sec)

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

```
mysql> SELECT c.CourierID, c.ReceiverName, SUM(p.Amount) AS TotalPayments
-> FROM Couriers c
-> JOIN Payments p ON c.CourierID = p.CourierID
-> WHERE p.LocationID = 5
-> GROUP BY c.CourierID, c.ReceiverName
-> HAVING SUM(p.Amount) > 10;
```

CourierID	ReceiverName	TotalPayments
5	Vinod Iyer	18.00

1 row in set (0.00 sec)

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

```
mysql> SELECT c.CourierID, c.ReceiverName, SUM(p.Amount) AS TotalPayments
-> FROM Couriers c
-> JOIN Payments p ON c.CourierID = p.CourierID
-> WHERE p.PaymentDate > '2023-04-01'
-> GROUP BY c.CourierID, c.ReceiverName
-> HAVING SUM(p.Amount) > 10;
```

CourierID	ReceiverName	TotalPayments
2	Anita Gupta	30.00
4	Shweta Reddy	25.00
5	Vinod Iyer	18.00
6	Sneha Kapoor	22.00
7	Suman Mehra	30.00
8	Vivek Desai	20.00

6 rows in set (0.00 sec)

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

```
mysql> SELECT l.LocationName, SUM(p.Amount) AS TotalPayments
-> FROM Locations l
-> JOIN Payments p ON l.LocationID = p.LocationID
-> WHERE p.PaymentDate < '2023-05-01'
-> GROUP BY l.LocationName
-> HAVING SUM(p.Amount) > 20;
```

LocationName	TotalPayments
Branch Office	30.00
Warehouse B	25.00
Branch Office 3	22.00
Warehouse C	30.00

4 rows in set (0.00 sec)



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

### 23. Retrieve Payments with Courier Information

```
mysql> SELECT * FROM PAYMENTS p
-> INNER JOIN Couriers c ON p.CourierID = c.CourierID;
```

PaymentID	CourierID	LocationID	Amount	PaymentDate	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1	1	1	20.00	2023-03-25	1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TM123456	2023-04-01
2	2	2	30.00	2023-04-02	2	Priya Patel	321 Oak Street, Kolkata	Anika Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28
3	3	3	15.00	2023-04-01	3	Jyoti Singh	111 Pine Street, Hyderabad	Alok Gupta	222 Oak Street, Chennai	7.00	In Transit	TN654321	2023-04-05
4	4	4	25.00	2023-04-02	4	Arun Verma	565 Maple Avenue, Pune	Sheeta Reddy	686 Elm Street, Ahmedabad	4.50	Delivered	TN987654	2023-04-02
5	5	5	18.00	2023-04-03	5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789082	2023-04-08
6	6	6	22.00	2023-04-04	6	Rohit Deshmukh	999 Pine Street, Kolkata	Sneha Kapoor	111 Elm Street, Bangalore	6.80	Scheduled	TN345678	2023-04-10
7	7	7	30.00	2023-04-05	7	Raj Sharma	383 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN012345	2023-03-30
8	8	8	20.00	2023-04-06	8	Sangeeta Iyer	202 Elm Street, Chennai	Vivek Desai	303 Pine Street, Ahmedabad	8.00	In Transit	TN678901	2023-04-12

8 rows in set (0.00 sec)

### 24. Retrieve Payments with Location Information

```
mysql> SELECT * FROM PAYMENTS p
-> INNER JOIN Locations l ON p.LocationID = l.LocationID;
```

PaymentID	CourierID	LocationID	Amount	PaymentDate	LocationID	LocationName	Address
1	1	1	20.00	2023-03-25	1	Main Office	123 Main Street, Delhi
2	2	2	30.00	2023-04-02	2	Branch Office	456 Oak Avenue, Mumbai
3	3	3	15.00	2023-04-01	3	Warehouse A	777 Pine Street, Hyderabad
4	4	4	25.00	2023-04-02	4	Warehouse B	888 Oak Street, Pune
5	5	5	18.00	2023-04-03	5	Branch Office 2	999 Elm Street, Bangalore
6	6	6	22.00	2023-04-04	6	Branch Office 3	101 Maple Avenue, Chennai
7	7	7	30.00	2023-04-05	7	Warehouse C	222 Oak Street, Kolkata
8	8	8	20.00	2023-04-06	8	Branch Office 4	333 Elm Street, Ahmedabad

8 rows in set (0.00 sec)

### 25. Retrieve Payments with Courier and Location Information

```
mysql> SELECT * FROM PAYMENTS p
-> INNER JOIN Couriers c ON p.CourierID = c.CourierID
-> INNER JOIN Locations l ON p.LocationID = l.LocationID;
```

PaymentID	CourierID	LocationID	Amount	PaymentDate	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate	LocationID	LocationName	Address
1	1	1	20.00	2023-03-25	1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TM123456	2023-04-01	1	Main Office	123 Main Street, Delhi
2	2	2	30.00	2023-04-02	2	Priya Patel	321 Oak Street, Kolkata	Anika Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28	2	Branch Office	456 Oak Avenue, Mumbai
3	3	3	15.00	2023-04-01	3	Jyoti Singh	111 Pine Street, Hyderabad	Alok Gupta	222 Oak Street, Chennai	7.00	In Transit	TN654321	2023-04-05	3	Warehouse A	777 Pine Street, Hyderabad
4	4	4	25.00	2023-04-02	4	Arun Verma	565 Maple Avenue, Pune	Sheeta Reddy	686 Elm Street, Ahmedabad	4.50	Delivered	TN987654	2023-04-02	4	Warehouse B	888 Oak Street, Pune
5	5	5	18.00	2023-04-03	5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789082	2023-04-08	5	Branch Office 2	999 Elm Street, Bangalore
6	6	6	22.00	2023-04-04	6	Rohit Deshmukh	999 Pine Street, Kolkata	Sneha Kapoor	111 Elm Street, Bangalore	6.80	Scheduled	TN345678	2023-04-10	6	Branch Office 3	101 Maple Avenue, Chennai
7	7	7	30.00	2023-04-05	7	Raj Sharma	383 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN012345	2023-03-30	7	Warehouse C	222 Oak Street, Kolkata
8	8	8	20.00	2023-04-06	8	Sangeeta Iyer	202 Elm Street, Chennai	Vivek Desai	303 Pine Street, Ahmedabad	8.00	In Transit	TN678901	2023-04-12	8	Branch Office 4	333 Elm Street, Ahmedabad

8 rows in set (0.00 sec)

### 26. List all payments with courier details

```
mysql> SELECT p.*, c.* FROM Payments p
-> INNER JOIN Couriers c ON p.CourierID = c.CourierID;
```

PaymentID	CourierID	LocationID	Amount	PaymentDate	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1	1	1	20.00	2023-03-25	1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TM123456	2023-04-01
2	2	2	30.00	2023-04-02	2	Priya Patel	321 Oak Street, Kolkata	Anika Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28
3	3	3	15.00	2023-04-01	3	Jyoti Singh	111 Pine Street, Hyderabad	Alok Gupta	222 Oak Street, Chennai	7.00	In Transit	TN654321	2023-04-05
4	4	4	25.00	2023-04-02	4	Arun Verma	565 Maple Avenue, Pune	Sheeta Reddy	686 Elm Street, Ahmedabad	4.50	Delivered	TN987654	2023-04-02
5	5	5	18.00	2023-04-03	5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789082	2023-04-08
6	6	6	22.00	2023-04-04	6	Rohit Deshmukh	999 Pine Street, Kolkata	Sneha Kapoor	111 Elm Street, Bangalore	6.80	Scheduled	TN345678	2023-04-10
7	7	7	30.00	2023-04-05	7	Raj Sharma	383 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN012345	2023-03-30
8	8	8	20.00	2023-04-06	8	Sangeeta Iyer	202 Elm Street, Chennai	Vivek Desai	303 Pine Street, Ahmedabad	8.00	In Transit	TN678901	2023-04-12

8 rows in set (0.00 sec)

### 27. Total payments received for each courier

```
mysql> SELECT c.CourierID, SUM(p.Amount) AS TotalPayments FROM Couriers c
-> LEFT JOIN Payments p ON c.CourierID = p.CourierID GROUP BY c.CourierID;
```

CourierID	TotalPayments
1	20.00
2	30.00
3	15.00
4	25.00
5	18.00
6	22.00
7	30.00
8	20.00

8 rows in set (0.00 sec)

### 28. List payments made on a specific date

```
mysql> SELECT * FROM Payments
-> WHERE PaymentDate = '2023-03-25';
```

PaymentID	CourierID	LocationID	Amount	PaymentDate
1	1	1	20.00	2023-03-25

1 row in set (0.00 sec)

### 29. Get Courier Information for Each Payment

```
mysql> SELECT p.*, c.* FROM Payments p
-> LEFT JOIN Couriers c ON p.CourierID = c.CourierID;
```

PaymentID	CourierID	LocationID	Amount	PaymentDate	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1	1	1	20.00	2023-03-25	1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TM123456	2023-04-01
2	2	2	30.00	2023-04-02	2	Priya Patel	321 Oak Street, Kolkata	Anika Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28
3	3	3	15.00	2023-04-01	3	Jyoti Singh	111 Pine Street, Hyderabad	Alok Gupta	222 Oak Street, Chennai	7.00	In Transit	TN654321	2023-04-05
4	4	4	25.00	2023-04-02	4	Arun Verma	565 Maple Avenue, Pune	Sheeta Reddy	686 Elm Street, Ahmedabad	4.50	Delivered	TN987654	2023-04-02
5	5	5	18.00	2023-04-03	5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789082	2023-04-08
6	6	6	22.00	2023-04-04	6	Rohit Deshmukh	999 Pine Street, Kolkata	Sneha Kapoor	111 Elm Street, Bangalore	6.80	Scheduled	TN345678	2023-04-10
7	7	7	30.00	2023-04-05	7	Raj Sharma	383 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN012345	2023-03-30
8	8	8	20.00	2023-04-06	8	Sangeeta Iyer	202 Elm Street, Chennai	Vivek Desai	303 Pine Street, Ahmedabad	8.00	In Transit	TN678901	2023-04-12

8 rows in set (0.00 sec)

### 30. Get Payment Details with Location

```
mysql> SELECT p.*, l.* FROM Payments p
-> LEFT JOIN Locations l ON p.LocationID = l.LocationID;
```

PaymentID	CourierID	LocationID	Amount	PaymentDate	LocationID	LocationName	Address
1	1	1	20.00	2023-03-25	1	Main Office	123 Main Street, Delhi
2	2	2	30.00	2023-04-02	2	Branch Office	456 Oak Avenue, Mumbai
3	3	3	15.00	2023-04-01	3	Warehouse A	777 Pine Street, Hyderabad
4	4	4	25.00	2023-04-02	4	Warehouse B	888 Oak Street, Pune
5	5	5	18.00	2023-04-03	5	Branch Office 2	999 Elm Street, Bangalore
6	6	6	22.00	2023-04-04	6	Branch Office 3	101 Maple Avenue, Chennai
7	7	7	30.00	2023-04-05	7	Warehouse C	222 Oak Street, Kolkata
8	8	8	20.00	2023-04-06	8	Branch Office 4	333 Elm Street, Ahmedabad

8 rows in set (0.00 sec)

### 31. Calculating Total Payments for Each Courier

```
mysql> SELECT c.CourierID, c.SenderName, SUM(p.Amount) AS TotalPayments
-> FROM Couriers c
-> LEFT JOIN Payments p ON c.CourierID = p.CourierID GROUP BY c.CourierID, c.SenderName;
```

CourierID	SenderName	TotalPayments
1	Raj Sharma	20.00
2	Priya Patel	30.00
3	Jyoti Singh	15.00
4	Arun Verma	25.00
5	Kavita Patel	18.00
6	Rohit Deshmukh	22.00
7	Raj Sharma	30.00
8	Sangeeta Iyer	20.00

8 rows in set (0.00 sec)

### 32. List Payments Within a Date Range

```
mysql> SELECT * FROM Payments
-> WHERE PaymentDate BETWEEN '2023-04-01' AND '2023-05-01';
```

PaymentID	CourierID	LocationID	Amount	PaymentDate
2	2	2	30.00	2023-04-02
3	3	3	15.00	2023-04-01
4	4	4	25.00	2023-04-02
5	5	5	18.00	2023-04-03
6	6	6	22.00	2023-04-04
7	7	7	30.00	2023-04-05
8	8	8	20.00	2023-04-06

7 rows in set (0.00 sec)

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

```
mysql> SELECT u.*, c.*
-> FROM Users u JOIN Couriers c ON u.Name = c.SenderName OR u.Name=c.ReceiverName;
```

UserID	Name	Email	Password	ContactNumber	Address	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1	Raj Sharma	raj.sharma@email.com	passw0rd123	9876543210	123 Main Street, Delhi	1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TN123456	2023-04-01
2	Priya Patel	priya.patel@email.com	pass456	7890123456	456 Oak Avenue, Mumbai	2	Priya Patel	321 Oak Street, Kolkata	Anita Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28
1	Raj Sharma	raj.sharma@email.com	password123	9876543210	123 Main Street, Delhi	7	Raj Sharma	303 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN012345	2023-03-20

3 rows in set (0.01 sec)

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

```
mysql> SELECT c.*, cs.* FROM Couriers c
-> JOIN CourierServices cs ON c.CourierID = cs.ServiceID;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate	ServiceID	ServiceName	Cost
2	Priya Patel	321 Oak Street, Kolkata	Anita Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28	2	Express	15.00
3	Jyoti Singh	111 Pine Street, Hyderabad	Alak Gupta	222 Oak Street, Chennai	7.00	In Transit	TN654321	2023-04-05	3	Next Day Delivery	20.00
4	Arun Verma	505 Maple Avenue, Pune	Shweta Reddy	606 Elm Street, Ahmedabad	4.50	Delivered	TN007654	2023-04-02	4	Two-Day Delivery	15.00
5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789002	2023-04-08	5	Economy	12.00
6	Rohit Deshmukh	999 Pine Street, Kolkata	Sneha Kapoor	111 Elm Street, Bangalore	6.80	Scheduled	TN345678	2023-04-10	6	Same Day Delivery	25.00
7	Raj Sharma	303 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN012345	2023-03-20	7	Standard	15.00
8	Sangeeta Iyer	202 Elm Street, Chennai	Vivok Desai	303 Pine Street, Ahmedabad	8.00	In Transit	TN678901	2023-04-12	8	Express	22.00

7 rows in set (0.00 sec)

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

mysql> SELECT e.\*, p.\* FROM Employees e  
-> CROSS JOIN Payments p;

EmployeeID	Name	Email	ContactNumber	Role	Salary	PaymentID	CourierID	LocationID	Amount	PaymentDate
8	Ananya Iyer	ananya.iyer@gmail.com	222-333-4444	Dispatcher	48900.00	1	1	1	20.00	2023-03-25
7	Rajat Raut	rajat.raut@gmail.com	888-999-1111	Warehouse Staff	45000.00	1	1	1	20.00	2023-03-25
6	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Outsource Service	47000.00	1	1	1	20.00	2023-03-25
5	Munal Kapoor	munal.kapoor@gmail.com	111-222-3333	Delivery Driver	52000.00	1	1	1	20.00	2023-03-25
4	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48900.00	1	1	1	20.00	2023-03-25
3	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	1	1	1	20.00	2023-03-25
2	Chitra Iyer	chitra.iyer@gmail.com	444-333-5555	Outsource Service	45000.00	1	1	1	20.00	2023-03-25
1	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	1	1	1	20.00	2023-03-25
8	Ananya Iyer	ananya.iyer@gmail.com	222-333-4444	Dispatcher	48900.00	2	2	2	30.00	2023-04-02
7	Rajat Raut	rajat.raut@gmail.com	888-999-1111	Warehouse Staff	45000.00	2	2	2	30.00	2023-04-02
6	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Outsource Service	47000.00	2	2	2	30.00	2023-04-02
5	Munal Kapoor	munal.kapoor@gmail.com	111-222-3333	Delivery Driver	52000.00	2	2	2	30.00	2023-04-02
4	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48900.00	2	2	2	30.00	2023-04-02
3	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	2	2	2	30.00	2023-04-02
2	Chitra Iyer	chitra.iyer@gmail.com	444-333-5555	Outsource Service	45000.00	2	2	2	30.00	2023-04-02
1	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	2	2	2	30.00	2023-04-02
8	Ananya Iyer	ananya.iyer@gmail.com	222-333-4444	Dispatcher	48900.00	3	3	3	15.00	2023-04-01
7	Rajat Raut	rajat.raut@gmail.com	888-999-1111	Warehouse Staff	45000.00	3	3	3	15.00	2023-04-01
6	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Outsource Service	47000.00	3	3	3	15.00	2023-04-01
5	Munal Kapoor	munal.kapoor@gmail.com	111-222-3333	Delivery Driver	52000.00	3	3	3	15.00	2023-04-01
4	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48900.00	3	3	3	15.00	2023-04-01
3	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	3	3	3	15.00	2023-04-01
2	Chitra Iyer	chitra.iyer@gmail.com	444-333-5555	Outsource Service	45000.00	3	3	3	15.00	2023-04-01
1	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	3	3	3	15.00	2023-04-01
8	Ananya Iyer	ananya.iyer@gmail.com	222-333-4444	Dispatcher	48900.00	4	4	4	25.00	2023-04-02
7	Rajat Raut	rajat.raut@gmail.com	888-999-1111	Warehouse Staff	45000.00	4	4	4	25.00	2023-04-02
6	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Outsource Service	47000.00	4	4	4	25.00	2023-04-02
5	Munal Kapoor	munal.kapoor@gmail.com	111-222-3333	Delivery Driver	52000.00	4	4	4	25.00	2023-04-02
4	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48900.00	4	4	4	25.00	2023-04-02
3	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	4	4	4	25.00	2023-04-02
2	Chitra Iyer	chitra.iyer@gmail.com	444-333-5555	Outsource Service	45000.00	4	4	4	25.00	2023-04-02
1	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	4	4	4	25.00	2023-04-02
8	Ananya Iyer	ananya.iyer@gmail.com	222-333-4444	Dispatcher	48900.00	5	5	5	18.00	2023-04-03
7	Rajat Raut	rajat.raut@gmail.com	888-999-1111	Warehouse Staff	45000.00	5	5	5	18.00	2023-04-03
6	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Outsource Service	47000.00	5	5	5	18.00	2023-04-03
5	Munal Kapoor	munal.kapoor@gmail.com	111-222-3333	Delivery Driver	52000.00	5	5	5	18.00	2023-04-03
4	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48900.00	5	5	5	18.00	2023-04-03
3	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	5	5	5	18.00	2023-04-03
2	Chitra Iyer	chitra.iyer@gmail.com	444-333-5555	Outsource Service	45000.00	5	5	5	18.00	2023-04-03
1	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	5	5	5	18.00	2023-04-03
8	Ananya Iyer	ananya.iyer@gmail.com	222-333-4444	Dispatcher	48900.00	6	6	6	22.00	2023-04-04
7	Rajat Raut	rajat.raut@gmail.com	888-999-1111	Warehouse Staff	45000.00	6	6	6	22.00	2023-04-04
6	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Outsource Service	47000.00	6	6	6	22.00	2023-04-04
5	Munal Kapoor	munal.kapoor@gmail.com	111-222-3333	Delivery Driver	52000.00	6	6	6	22.00	2023-04-04
4	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48900.00	6	6	6	22.00	2023-04-04
3	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	6	6	6	22.00	2023-04-04
2	Chitra Iyer	chitra.iyer@gmail.com	444-333-5555	Outsource Service	45000.00	6	6	6	22.00	2023-04-04
1	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	6	6	6	22.00	2023-04-04
8	Ananya Iyer	ananya.iyer@gmail.com	222-333-4444	Dispatcher	48900.00	7	7	7	30.00	2023-04-05
7	Rajat Raut	rajat.raut@gmail.com	888-999-1111	Warehouse Staff	45000.00	7	7	7	30.00	2023-04-05
6	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Outsource Service	47000.00	7	7	7	30.00	2023-04-05
5	Munal Kapoor	munal.kapoor@gmail.com	111-222-3333	Delivery Driver	52000.00	7	7	7	30.00	2023-04-05
4	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48900.00	7	7	7	30.00	2023-04-05
3	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	7	7	7	30.00	2023-04-05
2	Chitra Iyer	chitra.iyer@gmail.com	444-333-5555	Outsource Service	45000.00	7	7	7	30.00	2023-04-05
1	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	7	7	7	30.00	2023-04-05
8	Ananya Iyer	ananya.iyer@gmail.com	222-333-4444	Dispatcher	48900.00	8	8	8	20.00	2023-04-06
7	Rajat Raut	rajat.raut@gmail.com	888-999-1111	Warehouse Staff	45000.00	8	8	8	20.00	2023-04-06
6	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Outsource Service	47000.00	8	8	8	20.00	2023-04-06
5	Munal Kapoor	munal.kapoor@gmail.com	111-222-3333	Delivery Driver	52000.00	8	8	8	20.00	2023-04-06
4	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48900.00	8	8	8	20.00	2023-04-06
3	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	8	8	8	20.00	2023-04-06
2	Chitra Iyer	chitra.iyer@gmail.com	444-333-5555	Outsource Service	45000.00	8	8	8	20.00	2023-04-06
1	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	8	8	8	20.00	2023-04-06

64 rows in set (0.01 sec)

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

```
mysql> Select * from users
--> CROSS JOIN CourierServices;
```

UserID	Name	Email	Password	ContactNumber	Address	ServiceID	ServiceName	Cost
8	Meera Iyer	meera.iyer@gmail.com	meera987	3210987654	505 Pine Avenue, Ahmedabad	2	Express	15.00
7	Sanjay Mehra	sanjay.mehra@gmail.com	sanjay789	4321098765	404 Elm Street, Pune	2	Express	15.00
6	Anjali Desai	anjali.desai@gmail.com	anjali456	5432109876	303 Maple Avenue, Chennai	2	Express	15.00
5	Rahul Kapoor	rahul.kapoor@gmail.com	rahul567	6543210987	202 Oak Street, Kolkata	2	Express	15.00
4	Neha Reddy	neha.reddy@gmail.com	neha567	7654321098	101 Pine Avenue, Hyderabad	2	Express	15.00
3	Anit Verma	anit.verma@gmail.com	anit123	8765432109	709 Elm Street, Bangalore	2	Express	15.00
2	Priya Patel	priya.patel@gmail.com	pass456	7890123456	456 Oak Avenue, Mumbai	2	Express	15.00
1	Raj Sharma	raj.sharma@gmail.com	password123	9876543210	123 Main Street, Delhi	2	Express	15.00
8	Meera Iyer	meera.iyer@gmail.com	meera987	3210987654	505 Pine Avenue, Ahmedabad	3	Next Day Delivery	20.00
7	Sanjay Mehra	sanjay.mehra@gmail.com	sanjay789	4321098765	404 Elm Street, Pune	3	Next Day Delivery	20.00
6	Anjali Desai	anjali.desai@gmail.com	anjali456	5432109876	303 Maple Avenue, Chennai	3	Next Day Delivery	20.00
5	Rahul Kapoor	rahul.kapoor@gmail.com	rahul567	6543210987	202 Oak Street, Kolkata	3	Next Day Delivery	20.00
4	Neha Reddy	neha.reddy@gmail.com	neha567	7654321098	101 Pine Avenue, Hyderabad	3	Next Day Delivery	20.00
3	Anit Verma	anit.verma@gmail.com	anit123	8765432109	709 Elm Street, Bangalore	3	Next Day Delivery	20.00
2	Priya Patel	priya.patel@gmail.com	pass456	7890123456	456 Oak Avenue, Mumbai	3	Next Day Delivery	20.00
1	Raj Sharma	raj.sharma@gmail.com	password123	9876543210	123 Main Street, Delhi	3	Next Day Delivery	20.00
8	Meera Iyer	meera.iyer@gmail.com	meera987	3210987654	505 Pine Avenue, Ahmedabad	4	Two-Day Delivery	18.00
7	Sanjay Mehra	sanjay.mehra@gmail.com	sanjay789	4321098765	404 Elm Street, Pune	4	Two-Day Delivery	18.00
6	Anjali Desai	anjali.desai@gmail.com	anjali456	5432109876	303 Maple Avenue, Chennai	4	Two-Day Delivery	18.00
5	Rahul Kapoor	rahul.kapoor@gmail.com	rahul567	6543210987	202 Oak Street, Kolkata	4	Two-Day Delivery	18.00
4	Neha Reddy	neha.reddy@gmail.com	neha567	7654321098	101 Pine Avenue, Hyderabad	4	Two-Day Delivery	18.00
3	Anit Verma	anit.verma@gmail.com	anit123	8765432109	709 Elm Street, Bangalore	4	Two-Day Delivery	18.00
2	Priya Patel	priya.patel@gmail.com	pass456	7890123456	456 Oak Avenue, Mumbai	4	Two-Day Delivery	18.00
1	Raj Sharma	raj.sharma@gmail.com	password123	9876543210	123 Main Street, Delhi	4	Two-Day Delivery	18.00
8	Meera Iyer	meera.iyer@gmail.com	meera987	3210987654	505 Pine Avenue, Ahmedabad	5	Economy	12.00
7	Sanjay Mehra	sanjay.mehra@gmail.com	sanjay789	4321098765	404 Elm Street, Pune	5	Economy	12.00
6	Anjali Desai	anjali.desai@gmail.com	anjali456	5432109876	303 Maple Avenue, Chennai	5	Economy	12.00
5	Rahul Kapoor	rahul.kapoor@gmail.com	rahul567	6543210987	202 Oak Street, Kolkata	5	Economy	12.00
4	Neha Reddy	neha.reddy@gmail.com	neha567	7654321098	101 Pine Avenue, Hyderabad	5	Economy	12.00
3	Anit Verma	anit.verma@gmail.com	anit123	8765432109	709 Elm Street, Bangalore	5	Economy	12.00
2	Priya Patel	priya.patel@gmail.com	pass456	7890123456	456 Oak Avenue, Mumbai	5	Economy	12.00
1	Raj Sharma	raj.sharma@gmail.com	password123	9876543210	123 Main Street, Delhi	5	Economy	12.00
8	Meera Iyer	meera.iyer@gmail.com	meera987	3210987654	505 Pine Avenue, Ahmedabad	6	Same Day Delivery	25.00
7	Sanjay Mehra	sanjay.mehra@gmail.com	sanjay789	4321098765	404 Elm Street, Pune	6	Same Day Delivery	25.00
6	Anjali Desai	anjali.desai@gmail.com	anjali456	5432109876	303 Maple Avenue, Chennai	6	Same Day Delivery	25.00
5	Rahul Kapoor	rahul.kapoor@gmail.com	rahul567	6543210987	202 Oak Street, Kolkata	6	Same Day Delivery	25.00
4	Neha Reddy	neha.reddy@gmail.com	neha567	7654321098	101 Pine Avenue, Hyderabad	6	Same Day Delivery	25.00
3	Anit Verma	anit.verma@gmail.com	anit123	8765432109	709 Elm Street, Bangalore	6	Same Day Delivery	25.00
2	Priya Patel	priya.patel@gmail.com	pass456	7890123456	456 Oak Avenue, Mumbai	6	Same Day Delivery	25.00
1	Raj Sharma	raj.sharma@gmail.com	password123	9876543210	123 Main Street, Delhi	6	Same Day Delivery	25.00
8	Meera Iyer	meera.iyer@gmail.com	meera987	3210987654	505 Pine Avenue, Ahmedabad	7	Standard	15.00
7	Sanjay Mehra	sanjay.mehra@gmail.com	sanjay789	4321098765	404 Elm Street, Pune	7	Standard	15.00
6	Anjali Desai	anjali.desai@gmail.com	anjali456	5432109876	303 Maple Avenue, Chennai	7	Standard	15.00
5	Rahul Kapoor	rahul.kapoor@gmail.com	rahul567	6543210987	202 Oak Street, Kolkata	7	Standard	15.00
4	Neha Reddy	neha.reddy@gmail.com	neha567	7654321098	101 Pine Avenue, Hyderabad	7	Standard	15.00
3	Anit Verma	anit.verma@gmail.com	anit123	8765432109	709 Elm Street, Bangalore	7	Standard	15.00
2	Priya Patel	priya.patel@gmail.com	pass456	7890123456	456 Oak Avenue, Mumbai	7	Standard	15.00
1	Raj Sharma	raj.sharma@gmail.com	password123	9876543210	123 Main Street, Delhi	7	Standard	15.00
8	Meera Iyer	meera.iyer@gmail.com	meera987	3210987654	505 Pine Avenue, Ahmedabad	8	Express	22.00
7	Sanjay Mehra	sanjay.mehra@gmail.com	sanjay789	4321098765	404 Elm Street, Pune	8	Express	22.00
6	Anjali Desai	anjali.desai@gmail.com	anjali456	5432109876	303 Maple Avenue, Chennai	8	Express	22.00
5	Rahul Kapoor	rahul.kapoor@gmail.com	rahul567	6543210987	202 Oak Street, Kolkata	8	Express	22.00
4	Neha Reddy	neha.reddy@gmail.com	neha567	7654321098	101 Pine Avenue, Hyderabad	8	Express	22.00
3	Anit Verma	anit.verma@gmail.com	anit123	8765432109	709 Elm Street, Bangalore	8	Express	22.00
2	Priya Patel	priya.patel@gmail.com	pass456	7890123456	456 Oak Avenue, Mumbai	8	Express	22.00
1	Raj Sharma	raj.sharma@gmail.com	password123	9876543210	123 Main Street, Delhi	8	Express	22.00
8	Meera Iyer	meera.iyer@gmail.com	meera987	3210987654	505 Pine Avenue	9	Delivery Driver	20.00
7	Sanjay Mehra	sanjay.mehra@gmail.com	sanjay789	4321098765	404 Elm Street, Pune	11	Delivery Driver	20.00
6	Anjali Desai	anjali.desai@gmail.com	anjali456	5432109876	303 Maple Avenue, Chennai	11	Delivery Driver	20.00
5	Rahul Kapoor	rahul.kapoor@gmail.com	rahul567	6543210987	202 Oak Street, Kolkata	11	Delivery Driver	20.00
4	Neha Reddy	neha.reddy@gmail.com	neha567	7654321098	101 Pine Avenue, Hyderabad	11	Delivery Driver	20.00
3	Anit Verma	anit.verma@gmail.com	anit123	8765432109	709 Elm Street, Bangalore	11	Delivery Driver	20.00
2	Priya Patel	priya.patel@gmail.com	pass456	7890123456	456 Oak Avenue, Mumbai	11	Delivery Driver	20.00
1	Raj Sharma	raj.sharma@gmail.com	password123	9876543210	123 Main Street, Delhi	11	Delivery Driver	20.00

64 rows in set (0.00 sec)

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

```
mysql> Select * from employees
-> cross join locations;
```

EmployeeID	Name	Email	ContactNumber	Role	Salary	LocationID	LocationName	Address
1	Ananya Iyer	ananya.iyer@gmail.com	222-333-4000	Dispatcher	48000.00	1	Main Office	123 Main Street, Delhi
2	Rajesh Kumar	rajesh.k@gmail.com	567-890-1234	Warehouse Staff	45000.00	1	Main Office	123 Main Street, Delhi
3	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Customer Service	47000.00	1	Main Office	123 Main Street, Delhi
4	Kunal Kapoor	kunal.kapoor@gmail.com	777-888-1111	Warehouse Manager	55000.00	1	Main Office	123 Main Street, Delhi
5	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48000.00	1	Main Office	123 Main Street, Delhi
6	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	1	Main Office	123 Main Street, Delhi
7	Chitra Iyer	chitra.iyer@gmail.com	666-555-7777	Customer Service	47000.00	1	Main Office	123 Main Street, Delhi
8	Ananya Iyer	ananya.iyer@gmail.com	222-333-4000	Dispatcher	48000.00	2	Branch Office	456 Oak Avenue, Mumbai
9	Rajesh Kumar	rajesh.k@gmail.com	567-890-1234	Warehouse Staff	45000.00	2	Branch Office	456 Oak Avenue, Mumbai
10	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Customer Service	47000.00	2	Branch Office	456 Oak Avenue, Mumbai
11	Kunal Kapoor	kunal.kapoor@gmail.com	777-888-1111	Warehouse Manager	55000.00	2	Branch Office	456 Oak Avenue, Mumbai
12	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48000.00	2	Branch Office	456 Oak Avenue, Mumbai
13	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	2	Branch Office	456 Oak Avenue, Mumbai
14	Chitra Iyer	chitra.iyer@gmail.com	666-555-7777	Customer Service	47000.00	2	Branch Office	456 Oak Avenue, Mumbai
15	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	3	Warehouse A	777 Pine Street, Hyderabad
16	Ananya Iyer	ananya.iyer@gmail.com	222-333-4000	Dispatcher	48000.00	3	Warehouse A	777 Pine Street, Hyderabad
17	Rajesh Kumar	rajesh.k@gmail.com	567-890-1234	Warehouse Staff	45000.00	3	Warehouse A	777 Pine Street, Hyderabad
18	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Customer Service	47000.00	3	Warehouse A	777 Pine Street, Hyderabad
19	Kunal Kapoor	kunal.kapoor@gmail.com	777-888-1111	Warehouse Manager	55000.00	3	Warehouse A	777 Pine Street, Hyderabad
20	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48000.00	3	Warehouse A	777 Pine Street, Hyderabad
21	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	3	Warehouse A	777 Pine Street, Hyderabad
22	Chitra Iyer	chitra.iyer@gmail.com	666-555-7777	Customer Service	47000.00	3	Warehouse A	777 Pine Street, Hyderabad
23	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	4	Warehouse B	888 Oak Street, Pune
24	Ananya Iyer	ananya.iyer@gmail.com	222-333-4000	Dispatcher	48000.00	4	Warehouse B	888 Oak Street, Pune
25	Rajesh Kumar	rajesh.k@gmail.com	567-890-1234	Warehouse Staff	45000.00	4	Warehouse B	888 Oak Street, Pune
26	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Customer Service	47000.00	4	Warehouse B	888 Oak Street, Pune
27	Kunal Kapoor	kunal.kapoor@gmail.com	777-888-1111	Warehouse Manager	55000.00	4	Warehouse B	888 Oak Street, Pune
28	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48000.00	4	Warehouse B	888 Oak Street, Pune
29	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	4	Warehouse B	888 Oak Street, Pune
30	Chitra Iyer	chitra.iyer@gmail.com	666-555-7777	Customer Service	47000.00	4	Warehouse B	888 Oak Street, Pune
31	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	5	Branch Office 2	999 Elm Street, Bangalore
32	Ananya Iyer	ananya.iyer@gmail.com	222-333-4000	Dispatcher	48000.00	5	Branch Office 2	999 Elm Street, Bangalore
33	Rajesh Kumar	rajesh.k@gmail.com	567-890-1234	Warehouse Staff	45000.00	5	Branch Office 2	999 Elm Street, Bangalore
34	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Customer Service	47000.00	5	Branch Office 2	999 Elm Street, Bangalore
35	Kunal Kapoor	kunal.kapoor@gmail.com	777-888-1111	Warehouse Manager	55000.00	5	Branch Office 2	999 Elm Street, Bangalore
36	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48000.00	5	Branch Office 2	999 Elm Street, Bangalore
37	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	5	Branch Office 2	999 Elm Street, Bangalore
38	Chitra Iyer	chitra.iyer@gmail.com	666-555-7777	Customer Service	47000.00	5	Branch Office 2	999 Elm Street, Bangalore
39	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	6	Branch Office 3	101 Maple Avenue, Chennai
40	Ananya Iyer	ananya.iyer@gmail.com	222-333-4000	Dispatcher	48000.00	6	Branch Office 3	101 Maple Avenue, Chennai
41	Rajesh Kumar	rajesh.k@gmail.com	567-890-1234	Warehouse Staff	45000.00	6	Branch Office 3	101 Maple Avenue, Chennai
42	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Customer Service	47000.00	6	Branch Office 3	101 Maple Avenue, Chennai
43	Kunal Kapoor	kunal.kapoor@gmail.com	777-888-1111	Warehouse Manager	55000.00	6	Branch Office 3	101 Maple Avenue, Chennai
44	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48000.00	6	Branch Office 3	101 Maple Avenue, Chennai
45	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	6	Branch Office 3	101 Maple Avenue, Chennai
46	Chitra Iyer	chitra.iyer@gmail.com	666-555-7777	Customer Service	47000.00	6	Branch Office 3	101 Maple Avenue, Chennai
47	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	7	Warehouse C	222 Oak Street, Kolkata
48	Ananya Iyer	ananya.iyer@gmail.com	222-333-4000	Dispatcher	48000.00	7	Warehouse C	222 Oak Street, Kolkata
49	Rajesh Kumar	rajesh.k@gmail.com	567-890-1234	Warehouse Staff	45000.00	7	Warehouse C	222 Oak Street, Kolkata
50	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Customer Service	47000.00	7	Warehouse C	222 Oak Street, Kolkata
51	Kunal Kapoor	kunal.kapoor@gmail.com	777-888-1111	Warehouse Manager	55000.00	7	Warehouse C	222 Oak Street, Kolkata
52	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48000.00	7	Warehouse C	222 Oak Street, Kolkata
53	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	7	Warehouse C	222 Oak Street, Kolkata
54	Chitra Iyer	chitra.iyer@gmail.com	666-555-7777	Customer Service	47000.00	7	Warehouse C	222 Oak Street, Kolkata
55	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	8	Branch Office 4	333 Elm Street, Ahmedabad
56	Ananya Iyer	ananya.iyer@gmail.com	222-333-4000	Dispatcher	48000.00	8	Branch Office 4	333 Elm Street, Ahmedabad
57	Rajesh Kumar	rajesh.k@gmail.com	567-890-1234	Warehouse Staff	45000.00	8	Branch Office 4	333 Elm Street, Ahmedabad
58	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Customer Service	47000.00	8	Branch Office 4	333 Elm Street, Ahmedabad
59	Kunal Kapoor	kunal.kapoor@gmail.com	777-888-1111	Warehouse Manager	55000.00	8	Branch Office 4	333 Elm Street, Ahmedabad
60	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48000.00	8	Branch Office 4	333 Elm Street, Ahmedabad
61	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	8	Branch Office 4	333 Elm Street, Ahmedabad
62	Chitra Iyer	chitra.iyer@gmail.com	666-555-7777	Customer Service	47000.00	8	Branch Office 4	333 Elm Street, Ahmedabad
63	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	8	Branch Office 4	333 Elm Street, Ahmedabad

60 rows in set (0.00 sec)

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

```
mysql> SELECT c.*, u.* from Couriers c
-> LEFT JOIN Users u ON c.SenderName = u.Name;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate	UserID	Name	Email	Password	ContactNumber	Address
1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TN123456	2023-04-01	1	Raj Sharma	raj.sharma@gmail.com	password123	9876543210	123 Main Street, Delhi
2	Priya Patel	321 Oak Street, Kolkata	Anita Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28	2	Priya Patel	priya.patel@gmail.com	passw06	7890123456	456 Oak Avenue, Mumbai
3	Jyoti Singh	111 Pine Street, Hyderabad	Alok Gupta	222 Oak Street, Chennai	7.00	In Transit	TN654321	2023-04-05	NUL	NUL	NUL	NUL	NUL	NUL
4	Arun Verma	585 Maple Avenue, Pune	Shweta Reddy	686 Elm Street, Ahmedabad	4.50	Delivered	TN987654	2023-04-02	NUL	NUL	NUL	NUL	NUL	NUL
5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789012	2023-04-08	NUL	NUL	NUL	NUL	NUL	NUL
6	Rohit Deshmukh	999 Pine Street, Kolkata	Sneha Kapoor	111 Elm Street, Bangalore	6.80	Scheduled	TN345678	2023-04-10	NUL	NUL	NUL	NUL	NUL	NUL
7	Raj Sharma	383 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN612345	2023-03-30	1	Raj Sharma	raj.sharma@gmail.com	password123	9876543210	123 Main Street, Delhi
8	Sangeeta Iyer	202 Elm Street, Chennai	Vivek Desai	383 Pine Street, Ahmedabad	8.00	In Transit	TN678901	2023-04-12	NUL	NUL	NUL	NUL	NUL	NUL

8 rows in set (0.00 sec)

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

```
mysql> SELECT c.*, u.* from Couriers c
-> LEFT JOIN Users u ON c.ReceiverName = u.Name;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate	UserID	Name	Email	Password	ContactNumber	Address
1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TN123456	2023-04-01	NUL	NUL	NUL	NUL	NUL	NUL
2	Priya Patel	321 Oak Street, Kolkata	Anita Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28	2	Priya Patel	priya.patel@gmail.com	passw06	7890123456	456 Oak Avenue, Mumbai
3	Jyoti Singh	111 Pine Street, Hyderabad	Alok Gupta	222 Oak Street, Chennai	7.00	In Transit	TN654321	2023-04-05	NUL	NUL	NUL	NUL	NUL	NUL
4	Arun Verma	585 Maple Avenue, Pune	Shweta Reddy	686 Elm Street, Ahmedabad	4.50	Delivered	TN987654	2023-04-02	NUL	NUL	NUL	NUL	NUL	NUL
5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789012	2023-04-08	NUL	NUL	NUL	NUL	NUL	NUL
6	Rohit Deshmukh	999 Pine Street, Kolkata	Sneha Kapoor	111 Elm Street, Bangalore	6.80	Scheduled	TN345678	2023-04-10	NUL	NUL	NUL	NUL	NUL	NUL
7	Raj Sharma	383 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN612345	2023-03-30	NUL	NUL	NUL	NUL	NUL	NUL
8	Sangeeta Iyer	202 Elm Street, Chennai	Vivek Desai	383 Pine Street, Ahmedabad	8.00	In Transit	TN678901	2023-04-12	NUL	NUL	NUL	NUL	NUL	NUL

8 rows in set (0.00 sec)

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

```
mysql> SELECT c.*, cs.*
-> FROM Couriers c
-> LEFT JOIN CourierServices cs ON c.CourierID = cs.ServiceID;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate	ServiceID	ServiceName	Cost
1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TN123456	2023-04-01	NUL	NUL	NUL
2	Priya Patel	321 Oak Street, Kolkata	Anita Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28	2	Express	15.00
3	Jyoti Singh	111 Pine Street, Hyderabad	Alok Gupta	222 Oak Street, Chennai	7.00	In Transit	TN654321	2023-04-05	3	Next Day Delivery	20.00
4	Arun Verma	585 Maple Avenue, Pune	Shweta Reddy	686 Elm Street, Ahmedabad	4.50	Delivered	TN987654	2023-04-02	4	Two-Day Delivery	18.00
5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789012	2023-04-08	5	Economy	12.00
6	Rohit Deshmukh	999 Pine Street, Kolkata	Sneha Kapoor	111 Elm Street, Bangalore	6.80	Scheduled	TN345678	2023-04-10	6	Same Day Delivery	25.00
7	Raj Sharma	383 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN612345	2023-03-30	7	Standard	15.00
8	Sangeeta Iyer	202 Elm Street, Chennai	Vivek Desai	383 Pine Street, Ahmedabad	8.00	In Transit	TN678901	2023-04-12	8	Express	22.00

8 rows in set (0.00 sec)

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

```
mysql> SELECT e.*, COUNT(c.CourierID) AS TotalCouriersAssigned
-> FROM Employees e JOIN Couriers c ON e.EmployeeID = c.CourierID
-> GROUP BY e.EmployeeID;
```

EmployeeID	Name	Email	ContactNumber	Role	Salary	TotalCouriersAssigned
1	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	50000.00	1
2	Chitra Iyer	chitra.iyer@gmail.com	444-333-5555	Customer Service	45000.00	1
3	Vikram Singh	vikram.singh@gmail.com	777-888-1111	Warehouse Manager	55000.00	1
4	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48000.00	1
5	Kunal Kapoor	kunal.kapoor@gmail.com	111-222-3333	Delivery Driver	50000.00	1
6	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Customer Service	47000.00	1
7	Rajesh Kumar	rajesh.k@gmail.com	567-890-1234	Warehouse Staff	45000.00	1
8	Ananya Iyer	ananya.iyer@gmail.com	222-333-4000	Dispatcher	48000.00	1

8 rows in set (0.00 sec)

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

```
mysql> SELECT LocationName, SUM(p.Amount) AS TotalPayments
-> FROM Locations l
-> LEFT JOIN Payments p ON l.LocationID = p.LocationID
-> GROUP BY l.LocationID;
```

LocationName	TotalPayments
Main Office	20.00
Branch Office	30.00
Warehouse A	15.00
Warehouse B	25.00
Branch Office 2	18.00
Branch Office 3	22.00
Warehouse C	30.00
Branch Office 4	20.00

8 rows in set (0.00 sec)

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

```
mysql> SELECT c.*, u.Name AS SenderName
-> FROM Couriers c JOIN Users u ON u.Name = c.SenderName
-> WHERE c.SenderName IS NOT NULL;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate	SenderName
7	Raj Sharma	383 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN012345	2023-03-30	Raj Sharma
2	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TN123456	2023-04-01	Raj Sharma
2	Priya Patel	321 Oak Street, Kolkata	Anita Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28	Priya Patel

3 rows in set (0.00 sec)

44. List all employees who share the same role.

```
mysql> SELECT e1.*, e2.* FROM Employees e1
-> JOIN Employees e2 ON e1.Role = e2.Role AND e1.EmployeeID <> e2.EmployeeID;
```

EmployeeID	Name	Email	ContactNumber	Role	Salary	EmployeeID	Name	Email	ContactNumber	Role	Salary
5	Kunal Kapoor	kunal.kapoor@gmail.com	111-222-3333	Delivery Driver	52000.00	1	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	58000.00
6	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Customer Service	47000.00	2	Chitra Iyer	chitra.iyer@gmail.com	444-333-5555	Customer Service	45000.00
8	Ananya Iyer	ananya.iyer@gmail.com	222-333-4444	Dispatcher	48000.00	4	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48000.00
1	Rohan Gupta	rohan.gupta@gmail.com	111-222-3333	Delivery Driver	58000.00	5	Kunal Kapoor	kunal.kapoor@gmail.com	111-222-3333	Delivery Driver	52000.00
2	Chitra Iyer	chitra.iyer@gmail.com	444-333-5555	Customer Service	45000.00	6	Aarti Singh	aarti.singh@gmail.com	666-555-7777	Customer Service	47000.00
4	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48000.00	8	Ananya Iyer	ananya.iyer@gmail.com	222-333-4444	Dispatcher	48000.00

6 rows in set (0.00 sec)

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

```
mysql> SELECT p.*, l.LocationName
-> FROM Payments p
-> LEFT JOIN Locations l ON p.LocationID = l.LocationID
-> WHERE p.LocationID IS NOT NULL;
```

PaymentID	CourierID	LocationID	Amount	PaymentDate	LocationName
1	1	1	20.00	2023-03-25	Main Office
2	2	2	30.00	2023-04-02	Branch Office
3	3	3	15.00	2023-04-01	Warehouse A
4	4	4	25.00	2023-04-02	Warehouse B
5	5	5	18.00	2023-04-03	Branch Office 2
6	6	6	22.00	2023-04-04	Branch Office 3
7	7	7	30.00	2023-04-05	Warehouse C
8	8	8	20.00	2023-04-06	Branch Office 4

8 rows in set (0.00 sec)

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

```
mysql> SELECT c.*, l.LocationName AS SenderLocation
-> FROM Couriers c
-> LEFT JOIN Locations l ON c.CourierID = l.LocationID
-> WHERE c.CourierID IS NOT NULL;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate	SenderLocation
1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TN123456	2023-04-01	Main Office
2	Priya Patel	321 Oak Street, Kolkata	Anita Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28	Branch Office
3	Jyoti Singh	111 Pine Street, Hyderabad	Alak Gupta	222 Oak Street, Chennai	7.00	In Transit	TN654321	2023-04-05	Warehouse A
4	Arun Verma	585 Maple Avenue, Pune	Shweta Reddy	606 Elm Street, Ahmedabad	4.50	Delivered	TN987654	2023-04-02	Warehouse B
5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789002	2023-04-08	Branch Office 2
6	Rohit Deshmukh	999 Pine Street, Kolkata	Sneha Kapoor	111 Elm Street, Bangalore	6.80	Scheduled	TN345678	2023-04-10	Branch Office 3
7	Raj Sharma	383 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN012345	2023-03-30	Warehouse C
8	Sangeeta Iyer	202 Elm Street, Chennai	Vivek Desai	303 Pine Street, Ahmedabad	8.00	In Transit	TN678901	2023-04-12	Branch Office 4

8 rows in set (0.00 sec)

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

```
mysql> SELECT e.*, COUNT(c.CourierID) AS TotalCouriersDelivered
-> FROM Employees e
-> LEFT JOIN Couriers c ON e.EmployeeID = c.CourierID
-> WHERE c.Status = 'Delivered'
-> GROUP BY e.EmployeeID;
```

EmployeeID	Name	Email	ContactNumber	Role	Salary	TotalCouriersDelivered
2	Chitra Iyer	chitra.iyer@gmail.com	444-333-5555	Customer Service	45000.00	1
4	Pooja Desai	pooja.desai@gmail.com	444-333-5555	Dispatcher	48000.00	1
7	Rajat Mehta	rajat.mehta@gmail.com	888-999-1111	Warehouse Staff	45000.00	1

3 rows in set (0.00 sec)

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

```
mysql> SELECT c.*, p.Amount, cs.Cost AS ServiceCost
-> FROM Couriers c
-> LEFT JOIN Payments p ON c.CourierID = p.CourierID
-> LEFT JOIN CourierServices cs ON c.CourierID = cs.ServiceID
-> WHERE p.Amount > cs.Cost;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate	Amount	ServiceCost
2	Priya Patel	321 Oak Street, Kolkata	Anita Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28	30.00	15.00
4	Arun Verma	585 Maple Avenue, Pune	Shweta Reddy	606 Elm Street, Ahmedabad	4.50	Delivered	TN987654	2023-04-02	25.00	18.00
5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789002	2023-04-08	18.00	12.00
7	Raj Sharma	383 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN012345	2023-03-30	30.00	15.00

4 rows in set (0.00 sec)

## Task-5 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

```
mysql> SELECT * FROM Couriers
-> WHERE Weight > (SELECT AVG(Weight) FROM Couriers);
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TN123456	2023-04-01
3	Jyoti Singh	111 Pine Street, Hyderabad	Alok Gupta	222 Oak Street, Chennai	7.00	In Transit	TN654321	2023-04-05
5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789002	2023-04-08
8	Sangeeta Iyer	202 Elm Street, Chennai	Vivek Desai	303 Pine Street, Ahmedabad	8.00	In Transit	TN678901	2023-04-12

4 rows in set (0.00 sec)

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

```
mysql> SELECT Name FROM Employees
-> WHERE Salary > (SELECT AVG(Salary) FROM Employees);
```

Name
Rohan Gupta
Vikram Singh
Kunal Kapoor

3 rows in set (0.00 sec)

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

```
mysql> SELECT SUM(Cost) AS TotalCost
-> FROM CourierServices
-> WHERE Cost < (SELECT MAX(Cost) FROM CourierServices);
```

TotalCost
122.00

1 row in set (0.00 sec)

52. Find all couriers that have been paid for

```
mysql> SELECT c.*
-> FROM Couriers c
-> INNER JOIN Payments p ON c.CourierID = p.CourierID;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TN123456	2023-04-01
2	Priya Patel	321 Oak Street, Kolkata	Anita Gupta	456 Maple Street, Bangalore	6.00	Delivered	TN789012	2023-03-28
3	Jyoti Singh	111 Pine Street, Hyderabad	Alok Gupta	222 Oak Street, Chennai	7.00	In Transit	TN654321	2023-04-05
4	Arun Verma	505 Maple Avenue, Pune	Shweta Reddy	606 Elm Street, Ahmedabad	4.50	Delivered	TN987654	2023-04-02
5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789002	2023-04-08
6	Rohit Deshmukh	999 Pine Street, Kolkata	Sneha Kapoor	111 Elm Street, Bangalore	6.80	Scheduled	TN345678	2023-04-10
7	Raj Sharma	303 Oak Street, Hyderabad	Suman Mehra	404 Maple Avenue, Pune	5.30	Delivered	TN012345	2023-03-30
8	Sangeeta Iyer	202 Elm Street, Chennai	Vivek Desai	303 Pine Street, Ahmedabad	8.00	In Transit	TN678901	2023-04-12

8 rows in set (0.00 sec)

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

```
mysql> SELECT l.LocationName FROM Locations l
-> WHERE LocationID = (SELECT LocationID FROM Payments ORDER BY Amount DESC LIMIT 1);
```

LocationName
Branch Office

1 row in set (0.00 sec)

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

```
mysql> SELECT c.* FROM Couriers c
-> WHERE Weight > ALL (SELECT Weight FROM Couriers WHERE SenderName = 'Jyoti Singh');
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1	Raj Sharma	789 Pine Street, Delhi	Suresh Kumar	567 Elm Street, Mumbai	8.50	In Transit	TN123456	2023-04-01
5	Kavita Patel	777 Oak Street, Delhi	Vinod Iyer	888 Maple Avenue, Mumbai	9.20	In Transit	TN789002	2023-04-08
8	Sangeeta Iyer	202 Elm Street, Chennai	Vivek Desai	303 Pine Street, Ahmedabad	8.00	In Transit	TN678901	2023-04-12

3 rows in set (0.00 sec)