

Assignment_4 - Courier Management System

Task1 Database Design

- Define the Database Schema • Create SQL tables for entities such as User, Courier, Employee, Location, Payment

MySQL 8.0 Command Line Client

```
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.35 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database CourierManagementSystem;
Query OK, 1 row affected (0.05 sec)

mysql> use CourierManagementSystem;
Database changed
mysql> 
```

MySQL 8.0 Command Line Client

```
mysql> 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 (0.12 sec)

```
mysql> 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 (0.03 sec)

```
mysql> create table Courier(CourierID INT PRIMARY KEY,
-> SenderName VARCHAR(255),
-> SenderAddress TEXT,
-> ReceiverName VARCHAR(255),
-> ReceiverAddress TEXT,
-> Weight DECIMAL(5, 2),
-> Status VARCHAR(50),
-> TrackingNumber VARCHAR(20) UNIQUE,
-> DeliveryDate DATE);
```

Query OK, 0 rows affected (0.05 sec)

```
mysql> desc Courier;
```

Field	Type	Null	Key	Default	Extra
CourierID	int	NO	PRI	NULL	
SenderName	varchar(255)	YES		NULL	
SenderAddress	text	YES		NULL	
ReceiverName	varchar(255)	YES		NULL	
ReceiverAddress	text	YES		NULL	
Weight	decimal(5,2)	YES		NULL	
Status	varchar(50)	YES		NULL	
TrackingNumber	varchar(20)	YES	UNI	NULL	
DeliveryDate	date	YES		NULL	

9 rows in set (0.00 sec)

MySQL 8.0 Command Line Client

```
-> (ServiceID INT PRIMARY KEY,  
-> ServiceName VARCHAR(100),  
-> Cost DECIMAL(8, 2));
```

Query OK, 0 rows affected (0.01 sec)

mysql> desc CourierServices;

Field	Type	Null	Key	Default	Extra
ServiceID	int	NO	PRI	NULL	
ServiceName	varchar(100)	YES		NULL	
Cost	decimal(8,2)	YES		NULL	

3 rows in set (0.00 sec)

mysql> create table Employee

```
-> (EmployeeID INT PRIMARY KEY,  
-> Name VARCHAR(255),  
-> Email VARCHAR(255) UNIQUE,  
-> ContactNumber VARCHAR(20),  
-> Role VARCHAR(50),  
-> Salary DECIMAL(10, 2));
```

Query OK, 0 rows affected (0.05 sec)

mysql> desc Employee;

Field	Type	Null	Key	Default	Extra
EmployeeID	int	NO	PRI	NULL	
Name	varchar(255)	YES		NULL	
Email	varchar(255)	YES	UNI	NULL	
ContactNumber	varchar(20)	YES		NULL	
Role	varchar(50)	YES		NULL	
Salary	decimal(10,2)	YES		NULL	

6 rows in set (0.00 sec)

```
mysql> create table Location(LocationID INT PRIMARY KEY,  
-> LocationName VARCHAR(100), Address TEXT);
```

Query OK, 0 rows affected (0.01 sec)

mysql> desc Location;

Field	Type	Null	Key	Default	Extra
LocationID	int	NO	PRI	NULL	
LocationName	varchar(100)	YES		NULL	
Address	text	YES		NULL	

3 rows in set (0.00 sec)

MySQL 8.0 Command Line Client

```
mysql> 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 (0.06 sec)
```

```
mysql> desc Payment;
```

Field	Type	Null	Key	Default	Extra
PaymentID	int	NO	PRI	NULL	
CourierID	int	YES	MUL	NULL	
LocationID	int	YES	MUL	NULL	
Amount	decimal(10,2)	YES		NULL	
PaymentDate	date	YES		NULL	

```
5 rows in set (0.00 sec)
```

```
mysql> _
```

- Populate Sample Data • Insert sample data into the tables to simulate real-world scenarios.

MySQL 8.0 Command Line Client

```
mysql> INSERT INTO User (UserID, Name, Email, Password, ContactNumber, Address)
-> VALUES
-> (1, 'Astha Raj', 'astha.raj@gmail.com', 'passWord123', '7036987450', '123 Motihari, Bihar'),
-> (2, 'Asmita Si', 'asmita.si@gmail.com', 'passWord123@12', '9002500456', '748 salt lake'),
-> (3, 'Prateeti Maji', 'prateeti.maji@gmail.com', '456passWord', '3960256025', '254 Durgapur'),
-> (4, 'Monu Sharma', 'monu.sharma@gmail.com', 'passWord99@#', '9098885502', '32 Rohini Delhi'),
-> (5, 'Alice Doe', 'alice.doe@gmail.com', 'securepass123', '9934567890', '123 lake St, Village'),
-> (6, 'Bob Smith', 'bob.smith@gmail.com', 'mypassword456##', '9988552233', '456 Main St, Town'),
-> (7, 'John Smith', 'john.smith@gmail.com', 'secret1234@', '9988555533', '123 Pine St'),
-> (8, 'Harry Smith', 'harry.smith@gmail.com', 'harry123456@', '9900552233', '897 Oak St'),
-> (9, 'Julie Anthony', 'julie.anthony@gmail.com', 'juliestrong999', '9088552233', '55 Berlin'),
-> (10, 'Cooper Ana', 'cooper.ana@gmail.com', 'cooper123ana@#', '9988550233', '44 London');
```

```
Query OK, 10 rows affected (0.01 sec)
```

```
Records: 10 Duplicates: 0 Warnings: 0
```

```
mysql> select * from users;
```

```
ERROR 1146 (42S02): Table 'couriermanagementsystem.users' doesn't exist
```

```
mysql> select * from user;
```

UserID	Name	Email	Password	ContactNumber	Address
1	Astha Raj	astha.raj@gmail.com	passWord123	7036987450	123 Motihari, Bihar
2	Asmita Si	asmita.si@gmail.com	passWord123@12	9002500456	748 salt lake
3	Prateeti Maji	prateeti.maji@gmail.com	456passWord	3960256025	254 Durgapur
4	Monu Sharma	monu.sharma@gmail.com	passWord99@#	9098885502	32 Rohini Delhi
5	Alice Doe	alice.doe@gmail.com	securepass123	9934567890	123 lake St, Village
6	Bob Smith	bob.smith@gmail.com	mypassword456##	9988552233	456 Main St, Town
7	John Smith	john.smith@gmail.com	secret1234@	9988555533	123 Pine St
8	Harry Smith	harry.smith@gmail.com	harry123456@	9900552233	897 Oak St
9	Julie Anthony	julie.anthony@gmail.com	juliestrong999	9088552233	55 Berlin
10	Cooper Ana	cooper.ana@gmail.com	cooper123ana@#	9988550233	44 London

```
10 rows in set (0.00 sec)
```

```
mysql>
```

MySQL 8.0 Command Line Client

```
-> (19, 'Mia Anderson', '777 Warehouse St, Berlin', 'julie Anthony', '55 Berlin', 4.00, 'Cancelled', 'TN123456', '2024-02-28'),
-> (20, 'Oliver Martinez', '999 St, London', 'Cooper Ana', '44 London', 1.90, 'Processing', 'TN567890', '2024-02-07');
Query OK, 4 rows affected (0.00 sec)
Records: 4 Duplicates: 0 Warnings: 0
```

mysql> select * from Courier;

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21
12	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered	TN901234	2024-01-10
13	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled	TN234567	2024-02-08
14	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing	TN678901	2024-02-03
15	Liam Wilson	999 Maple St, Village	Alice Doe	123 lake St, Village	2.50	Delivered	TN445678	2024-01-04
16	Ava Smith	111 Cedar St, Town	Bob Smith	456 Main St, Town	3.80	Cancelled	TN012345	2024-03-08
17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing	TN789012	2024-02-05
18	Isabella Wilson	555 Oak St	Harry Smith	897 Oak St	2.20	Delivered	TN450789	2024-01-06
19	Mia Anderson	777 Warehouse St, Berlin	Julie Anthony	55 Berlin	4.00	Cancelled	TN123456	2024-02-28
20	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing	TN567890	2024-02-07

10 rows in set (0.00 sec)

mysql>

MySQL 8.0 Command Line Client

```
-> (56, 'Standard Delivery', 40.00),
-> (57, 'Ekart Delivery', 100.00),
-> (58, 'Standard Delivery', 40.00),
-> (59, 'Ekart Delivery', 100.00),
-> (60, 'Standard Delivery', 40.00);
Query OK, 7 rows affected (0.00 sec)
Records: 7 Duplicates: 0 Warnings: 0
```

mysql> select * from CourierServices;

ServiceID	ServiceName	Cost
51	Standard Delivery	40.00
52	Ekart Delivery	100.00
53	Same-Day Delivery	900.00
54	Standard Delivery	40.00
55	Standard Delivery	40.00
56	Standard Delivery	40.00
57	Ekart Delivery	100.00
58	Standard Delivery	40.00
59	Ekart Delivery	100.00
60	Standard Delivery	40.00

10 rows in set (0.00 sec)

mysql>

MySQL 8.0 Command Line Client

```
mysql> select * from employee;
```

EmployeeID	Name	Email	ContactNumber	Role	Salary
101	Ishita Sharma	ishita.sharma@gmail.com	9876512365	Courier Driver	31000.00
102	Advait Kumar	advait.kumar@gmail.com	9876578956	Customer Support	34000.00
103	Sanvi Khanna	sanvi.khanna@gmail.com	9876511124	Manager	53000.00

```
3 rows in set (0.00 sec)
```

```
mysql> INSERT INTO Employee (EmployeeID, Name, Email, ContactNumber, Role, Salary)
```

```
-> VALUES(104, 'Aarav Sharma', 'aarav.sharma@gmail.com', '9876536999', 'Manager', 55000.00),
-> (105, 'Diya Patel', 'diya.patel@gmail.com', '9876514771', 'Courier Driver', 32000.00),
-> (106, 'Arjun Gupta', 'arjun.gupta@gmail.com', '9876525896', 'Customer Support', 35000.00),
-> (107, 'Ananya Das', 'ananya.das@gmail.com', '9876512369', 'Manager', 52000.00),
-> (108, 'John Kapoor', 'john.kapoor@gmail.com', '9876574158', 'Courier Driver', 30000.00),
-> (109, 'Priya Singh', 'priya.singh@gmail.com', '9876598746', 'Customer Support', 33000.00),
-> (110, 'Aryan Patel', 'aryan.patel@gmail.com', '9876514796', 'Courier Driver', 22000.00);
```

```
Query OK, 7 rows affected (0.00 sec)
```

```
Records: 7 Duplicates: 0 Warnings: 0
```

```
mysql> select * from employee;
```

EmployeeID	Name	Email	ContactNumber	Role	Salary
101	Ishita Sharma	ishita.sharma@gmail.com	9876512365	Courier Driver	31000.00
102	Advait Kumar	advait.kumar@gmail.com	9876578956	Customer Support	34000.00
103	Sanvi Khanna	sanvi.khanna@gmail.com	9876511124	Manager	53000.00
104	Aarav Sharma	aarav.sharma@gmail.com	9876536999	Manager	55000.00
105	Diya Patel	diya.patel@gmail.com	9876514771	Courier Driver	32000.00
106	Arjun Gupta	arjun.gupta@gmail.com	9876525896	Customer Support	35000.00
107	Ananya Das	ananya.das@gmail.com	9876512369	Manager	52000.00
108	John Kapoor	john.kapoor@gmail.com	9876574158	Courier Driver	30000.00
109	Priya Singh	priya.singh@gmail.com	9876598746	Customer Support	33000.00
110	Aryan Patel	aryan.patel@gmail.com	9876514796	Courier Driver	22000.00

```
10 rows in set (0.00 sec)
```

MySQL 8.0 Command Line Client

10 rows in set (0.00 sec)

```
mysql> INSERT INTO Location (LocationID, LocationName, Address)
-> VALUES
-> (21, 'Central town', '111 Motihari, Bihar'),
-> (22, 'North lake', '333 salt lake'),
-> (23, 'South Branch', '555 St, Durgapur'),
-> (24, 'East Office', '777 Elm St, Delhi'),
-> (25, 'West Maple', '999 Maple St, Village'),
-> (26, 'Cedar St Center', '111 Cedar St, Town'),
-> (27, 'Riverside Pine', '333 Pine St'),
-> (28, 'Oak Facility', '555 Oak St'),
-> (29, 'Berlin Park', '777 Warehouse St, Berlin'),
-> (30, 'London Office', '999 St, London');
```

Query OK, 10 rows affected (0.01 sec)

Records: 10 Duplicates: 0 Warnings: 0

```
mysql> select * from location;
```

LocationID	LocationName	Address
21	Central town	111 Motihari, Bihar
22	North lake	333 salt lake
23	South Branch	555 St, Durgapur
24	East Office	777 Elm St, Delhi
25	West Maple	999 Maple St, Village
26	Cedar St Center	111 Cedar St, Town
27	Riverside Pine	333 Pine St
28	Oak Facility	555 Oak St
29	Berlin Park	777 Warehouse St, Berlin
30	London Office	999 St, London

10 rows in set (0.00 sec)

```
mysql> INSERT INTO Payment (PaymentID, CourierID, LocationId, Amount, PaymentDate)
-> VALUES
-> (1001, 11, 21, 40.00, '2024-01-05'),
-> (1002, 12, 22, 100.00, '2024-01-06'),
-> (1003, 13, 23, 900.00, '2024-02-08'),
-> (1004, 14, 24, 40.00, '2024-01-03'),
-> (1005, 15, 25, 40.00, '2024-01-01'),
-> (1006, 16, 26, 40.00, '2024-01-04'),
-> (1007, 17, 27, 100.00, '2024-01-17'),
-> (1008, 18, 28, 40.00, '2024-01-02'),
-> (1009, 19, 29, 100.00, '2024-01-11'),
-> (1010, 20, 30, 40.00, '2024-01-16');
```

Query OK, 10 rows affected (0.01 sec)

Records: 10 Duplicates: 0 Warnings: 0

```
mysql> select * from payment;
```

PaymentID	CourierID	LocationId	Amount	PaymentDate
1001	11	21	40.00	2024-01-05
1002	12	22	100.00	2024-01-06
1003	13	23	900.00	2024-02-08
1004	14	24	40.00	2024-01-03
1005	15	25	40.00	2024-01-01
1006	16	26	40.00	2024-01-04
1007	17	27	100.00	2024-01-17
1008	18	28	40.00	2024-01-02
1009	19	29	100.00	2024-01-11
1010	20	30	40.00	2024-01-16

10 rows in set (0.00 sec)

```
mysql>
```

- Define relationships between these tables (one-to-many, many-to-many, etc.).

Answer - >

In terms of relationships:

1. Customers and Orders : One- to- Many
A customer can place multiple orders and each order is associated with one customer.
2. Couriers and Orders : One-to-Many.
A courier can be associated with multiple orders, but each order is assigned to one courier.
3. Orders and Parcels: One-to-Many.
An order can consist of multiple parcels but each parcel belongs to one specific order.
4. Courier Service Employees and Couriers: One-to-Many.
Each courier service employee is associated with one courier, but a courier can have multiple service employees.

These relationships are established through the use of foreign keys, which link the primary key in one table to the corresponding field in another table, ensuring data integrity and maintaining the relationships between entities in the Courier Management System.

Task 2: Select,Where

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

1. List all customers:

```
mysql> select * from users;
ERROR 1146 (42S02): Table 'couriermanagementsystem.users' doesn't exist
mysql> select * from user;
```

UserID	Name	Email	Password	ContactNumber	Address
1	Astha Raj	astha.raj@gmail.com	passWord123	7036987450	123 Motihari, Bihar
2	Asmita Si	asmita.si@gmail.com	passWord123@12	9002500456	748 salt lake
3	Prateeti Maji	prateeti.maji@gmail.com	456passWord	3960256025	254 Durgapur
4	Monu Sharma	monu.sharma@gmail.com	passWord99@#	9098885502	32 Rohini Delhi
5	Alice Doe	alice.doe@gmail.com	securepass123	9934567890	123 lake St, Village
6	Bob Smith	bob.smith@gmail.com	mypassword456##	9988552233	456 Main St, Town
7	John Smith	john.smith@gmail.com	secret1234@	9988555533	123 Pine St
8	Harry Smith	harry.smith@gmail.com	harry123456@	9900552233	897 Oak St
9	julie Anthony	julie.anthony@gmail.com	juliestrong999	9088552233	55 Berlin
10	Cooper Ana	cooper.ana@gmail.com	cooper123ana@#	9988550233	44 London

```
10 rows in set (0.00 sec)

mysql>
```

2. List all orders for a specific customer:

MySQL 8.0 Command Line Client

9 rows in set (0.00 sec)

```
mysql> select * from courier where receivername = 'Asmita Si';
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
12	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered	TN901234	2024-01-10

1 row in set (0.00 sec)

mysql>

3. List all couriers:

MySQL 8.0 Command Line Client

```
mysql> select * from courier;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21
12	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered	TN901234	2024-01-10
13	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled	TN234567	2024-02-08
14	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing	TN678901	2024-02-03
15	Liam Wilson	999 Maple St, Village	Alice Doe	123 lake St, Village	2.50	Delivered	TN445678	2024-01-04
16	Ava Smith	111 Cedar St, Town	Bob Smith	456 Main St, Town	3.80	Cancelled	TN012345	2024-03-08
17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing	TN789012	2024-02-05
18	Isabella Wilson	555 Oak St	Harry Smith	897 Oak St	2.20	Delivered	TN450789	2024-01-06
19	Mia Anderson	777 Warehouse St, Berlin	Julie Anthony	55 Berlin	4.00	Cancelled	TN123456	2024-02-28
20	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing	TN567890	2024-02-07

10 rows in set (0.00 sec)

mysql>

4. List all packages for a specific order:

MySQL 8.0 Command Line Client

```
mysql> SELECT *  
-> FROM Courier  
-> WHERE CourierID = 12;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
12	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered	TN901234	2024-01-10

1 row in set (0.00 sec)

mysql>

5. List all deliveries for a specific courier:

MySQL 8.0 Command Line Client

```
mysql> SELECT * FROM Courier  
-> WHERE CourierID = 11;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21

1 row in set (0.00 sec)

mysql>

6. List all undelivered packages:

```
MySQL 8.0 Command Line Client
1 row in set (0.00 sec)

mysql> select * from courier where status <> 'Delivered';
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21
13	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled	TN234567	2024-02-08
14	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing	TN678901	2024-02-03
16	Ava Smith	111 Cedar St, Town	Bob Smith	456 Main St, Town	3.80	Cancelled	TN012345	2024-03-08
17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing	TN789012	2024-02-05
19	Mia Anderson	777 Warehouse St, Berlin	Julie Anthony	55 Berlin	4.00	Cancelled	TN123456	2024-02-28
20	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing	TN567890	2024-02-07

```
7 rows in set (0.00 sec)

mysql>
```

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

```
MySQL 8.0 Command Line Client

mysql> SELECT * FROM Courier
-> WHERE DATE(DeliveryDate) = CURDATE();
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21

```
1 row in set (0.00 sec)

mysql>
```

8. List all packages with a specific status:

```
MySQL 8.0 Command Line Client

mysql> select * from courier where status = 'Processing';
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21
14	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing	TN678901	2024-02-03
17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing	TN789012	2024-02-05
20	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing	TN567890	2024-02-07

```
4 rows in set (0.00 sec)

mysql>
```

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

```
MySQL 8.0 Command Line Client

4 rows in set (0.00 sec)

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

CourierID	TotalPackages
11	1
12	1
13	1
14	1
15	1
16	1
17	1
18	1
19	1
20	1

```
10 rows in set (0.00 sec)
```

10. Find the average delivery time for each courier.

MySQL 8.0 Command Line Client

10 rows in set (0.00 sec)

```
mysql> SELECT p.CourierID, AVG(DATEDIFF(c.DeliveryDate, p.PaymentDate)) AS AverageDeliveryPaymentTime
-> FROM Courier c
-> JOIN Payment p ON c.CourierID = p.CourierID
-> GROUP BY p.CourierID;
```

CourierID	AverageDeliveryPaymentTime
11	16.0000
12	4.0000
13	0.0000
14	31.0000
15	3.0000
16	64.0000
17	19.0000
18	4.0000
19	48.0000
20	22.0000

10 rows in set (0.00 sec)

11. List all packages with a specific weight range:

MySQL 8.0 Command Line Client

```
mysql> SELECT * FROM Courier WHERE Weight BETWEEN 1.5 AND 3.0;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
12	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered	TN901234	2024-01-10
13	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled	TN234567	2024-02-08
14	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing	TN678901	2024-02-03
15	Liam Wilson	999 Maple St, Village	Alice Doe	123 lake St, Village	2.50	Delivered	TN445678	2024-01-04
17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing	TN789012	2024-02-05
18	Isabella Wilson	555 Oak St	Harry Smith	897 Oak St	2.20	Delivered	TN450789	2024-01-06
20	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing	TN567890	2024-02-07

7 rows in set (0.00 sec)

mysql>

12. Retrieve employees whose names contain 'John'.

MySQL 8.0 Command Line Client

```
mysql> SELECT * FROM Employee WHERE Name LIKE '%john%';
```

EmployeeID	Name	Email	ContactNumber	Role	Salary
108	John Kapoor	john.kapoor@gmail.com	9876574158	Courier Driver	30000.00

1 row in set (0.00 sec)

mysql>

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

MySQL 8.0 Command Line Client

1 row in set (0.00 sec)

```
mysql> SELECT c.* FROM Courier c JOIN Payment p ON c.CourierID = p.CourierID
-> WHERE p.Amount > 50.00;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
12	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered	TN901234	2024-01-10
13	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled	TN234567	2024-02-08
17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing	TN789012	2024-02-05
19	Mia Anderson	777 Warehouse St, Berlin	julie Anthony	55 Berlin	4.00	Cancelled	TN123456	2024-02-28

4 rows in set (0.00 sec)

mysql>

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

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

15. Calculate the total revenue generated by each location

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

LocationID	LocationName	TotalRevenue
21	Central town	40.00
22	North lake	100.00
23	South Branch	900.00
24	East Office	40.00
25	West Maple	40.00
26	Cedar St Center	40.00
27	Riverside Pine	100.00
28	Oak Facility	40.00
29	Berlin Park	100.00
30	London Office	40.00

10 rows in set (0.00 sec)

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

```
MySQL 8.0 Command Line Client

mysql> SELECT l.LocationID, l.LocationName, COUNT(DISTINCT p.CourierID) AS TotalCouriersDelivered
-> FROM Location l
-> JOIN Payment p ON l.LocationID = p.LocationID
-> JOIN Courier c ON p.CourierID = c.CourierID
-> GROUP BY l.LocationID, l.LocationName;
```

LocationID	LocationName	TotalCouriersDelivered
21	Central town	1
22	North lake	1
23	South Branch	1
24	East Office	1
25	West Maple	1
26	Cedar St Center	1
27	Riverside Pine	1
28	Oak Facility	1
29	Berlin Park	1
30	London Office	1

10 rows in set (0.00 sec)

```
mysql>
```

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

```
mysql> SELECT p.CourierID, AVG(DATEDIFF(c.DeliveryDate, p.PaymentDate)) AS AverageDeliveryPaymentTime
-> FROM Courier c
-> JOIN Payment p ON c.CourierID = p.CourierID
-> GROUP BY p.CourierID
-> ORDER BY AverageDeliveryPaymentTime DESC
-> LIMIT 1;
+-----+-----+
| CourierID | AverageDeliveryPaymentTime |
+-----+-----+
| 16 | 64.0000 |
+-----+-----+
1 row in set (0.00 sec)

mysql>
```

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

```
MySQL 8.0 Command Line Client
9 rows in set (0.00 sec)

mysql> SELECT l.LocationID, l.LocationName, SUM(p.Amount) AS TotalPayments
-> FROM Location l
-> JOIN Payment p ON l.LocationID = p.LocationID
-> GROUP BY l.LocationID, l.LocationName
-> HAVING TotalPayments < 100.00;
+-----+-----+-----+
| LocationID | LocationName | TotalPayments |
+-----+-----+-----+
| 21 | Central town | 40.00 |
| 24 | East Office | 40.00 |
| 25 | West Maple | 40.00 |
| 26 | Cedar St Center | 40.00 |
| 28 | Oak Facility | 40.00 |
| 30 | London Office | 40.00 |
+-----+-----+-----+
6 rows in set (0.00 sec)

mysql> _
```

19. Calculate Total Payments per Location

```
mysql> SELECT l.LocationID, l.LocationName, SUM(Amount) AS TotalPayments
-> FROM Location l
-> JOIN Payment p on p.LocationID = l.LocationID
-> GROUP BY l.LocationID, l.LocationName;
+-----+-----+-----+
| LocationID | LocationName | TotalPayments |
+-----+-----+-----+
| 21 | Central town | 40.00 |
| 22 | North lake | 100.00 |
| 23 | South Branch | 900.00 |
| 24 | East Office | 40.00 |
| 25 | West Maple | 40.00 |
| 26 | Cedar St Center | 40.00 |
| 27 | Riverside Pine | 100.00 |
| 28 | Oak Facility | 40.00 |
| 29 | Berlin Park | 100.00 |
| 30 | London Office | 40.00 |
+-----+-----+-----+
10 rows in set (0.00 sec)

mysql> _
```

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

```

ERROR 1054 (42S22): Unknown column 'c.DeliveryLocationID' in 'where clause'
mysql> SELECT c.CourierID, c.SenderName, c.ReceiverName, c.Status, SUM(p.Amount) AS TotalPayments
-> FROM Courier c
-> JOIN Payment p ON c.CourierID = p.CourierID
-> WHERE p.LocationID = 21
-> GROUP BY c.CourierID, c.SenderName, c.ReceiverName, c.Status
-> HAVING TotalPayments > 1000.00;
Empty set (0.00 sec)

mysql>

```

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

```

mysql> SELECT c.CourierID, c.SenderName, c.ReceiverName, c.Status, SUM(p.Amount) AS TotalPayments
-> FROM Courier c
-> JOIN Payment p ON c.CourierID = p.CourierID
-> WHERE p.PaymentDate > '2024-01-06'
-> GROUP BY c.CourierID, c.SenderName, c.ReceiverName, c.Status
-> HAVING TotalPayments > 100.00;
+-----+-----+-----+-----+-----+
| CourierID | SenderName | ReceiverName | Status | TotalPayments |
+-----+-----+-----+-----+-----+
| 13 | Alex Turner | Prateeti Maji | Cancelled | 900.00 |
+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql>

```

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

```

mysql> SELECT l.LocationID, l.LocationName, SUM(p.Amount) AS TotalAmountReceived
-> FROM Location l
-> JOIN Payment p ON l.LocationID = p.LocationID
-> WHERE p.PaymentDate > '2024-01-06'
-> GROUP BY l.LocationID, l.LocationName
-> HAVING TotalAmountReceived > 5000.00;
Empty set (0.00 sec)

mysql>

```

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

23. Retrieve Payments with Courier Information.

```

mysql> SELECT p.PaymentID, p.CourierID, p.LocationID, p.Amount, p.PaymentDate,
-> c.SenderName, c.SenderAddress, c.ReceiverName, c.ReceiverAddress, c.Weight,
-> c.Status, c.TrackingNumber, c.DeliveryDate
-> FROM Payment p
-> JOIN Courier c ON p.CourierID = c.CourierID;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| PaymentID | CourierID | LocationID | Amount | PaymentDate | SenderName | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status | TrackingNumber | DeliveryDate |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1001 | 11 | 21 | 40.00 | 2024-01-05 | Mark Anderson | 111 Motihari, Bihar | Astha Raj | 123 Motihari, Bihar | 4.20 | Processing | TN345678 | 2024-01-21 |
| 1002 | 12 | 22 | 100.00 | 2024-01-06 | Sophia Martinez | 333 salt lake | Asmita Si | 748 salt lake | 1.57 | Delivered | TN981234 | 2024-01-18 |
| 1003 | 13 | 23 | 900.00 | 2024-02-08 | Alex Turner | 555 St, Durgapur | Prateeti Maji | 254 Durgapur | 2.80 | Cancelled | TN234567 | 2024-02-08 |
| 1004 | 14 | 24 | 40.00 | 2024-01-03 | Emma Moore | 777 Elm St, Delhi | Monu Sharma | 32 Rohini Delhi | 3.00 | Processing | TN678901 | 2024-02-03 |
| 1005 | 15 | 25 | 40.00 | 2024-01-01 | Liam Wilson | 999 Maple St, Village | Alice Doe | 123 lake St, Village | 2.50 | Delivered | TN445678 | 2024-01-04 |
| 1006 | 16 | 26 | 40.00 | 2024-01-04 | Ava Smith | 111 Cedar St, Town | Bob Smith | 456 Main St, Town | 3.80 | Cancelled | TN012345 | 2024-03-08 |
| 1007 | 17 | 27 | 100.00 | 2024-01-17 | Noah Turner | 333 Pine St | John Smith | 123 Pine St | 1.70 | Processing | TN789012 | 2024-02-05 |
| 1008 | 18 | 28 | 40.00 | 2024-01-02 | Isabella Wilson | 555 Oak St | Harry Smith | 897 Oak St | 2.20 | Delivered | TN450789 | 2024-01-06 |
| 1009 | 19 | 29 | 100.00 | 2024-01-11 | Mia Anderson | 777 Warehouse St, Berlin | Julie Anthony | 55 Berlin | 4.00 | Cancelled | TN123456 | 2024-02-28 |
| 1010 | 20 | 30 | 40.00 | 2024-01-16 | Oliver Martinez | 999 St, London | Cooper Ana | 44 London | 1.90 | Processing | TN567890 | 2024-02-07 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)

mysql>

```

24. Retrieve Payments with Location Information

MySQL 8.0 Command Line Client

```
mysql> SELECT
->   p.PaymentID, p.CourierID, p.LocationID, p.Amount, p.PaymentDate,
->   l.LocationName, l.Address AS LocationAddress
-> FROM Payment p
-> JOIN Location l ON p.LocationID = l.LocationID;
```

PaymentID	CourierID	LocationID	Amount	PaymentDate	LocationName	LocationAddress
1001	11	21	40.00	2024-01-05	Central town	111 Motihari, Bihar
1002	12	22	100.00	2024-01-06	North lake	333 salt lake
1003	13	23	900.00	2024-02-08	South Branch	555 St, Durgapur
1004	14	24	40.00	2024-01-03	East Office	777 Elm St, Delhi
1005	15	25	40.00	2024-01-01	West Maple	999 Maple St, Village
1006	16	26	40.00	2024-01-04	Cedar St Center	111 Cedar St, Town
1007	17	27	100.00	2024-01-17	Riverside Pine	333 Pine St
1008	18	28	40.00	2024-01-02	Oak Facility	555 Oak St
1009	19	29	100.00	2024-01-11	Berlin Park	777 Warehouse St, Berlin
1010	20	30	40.00	2024-01-16	London Office	999 St, London

```
10 rows in set (0.00 sec)

mysql>
```

25. Retrieve Payments with Courier and Location Information

```
mysql> SELECT p.PaymentID, p.CourierID, p.LocationID, p.Amount, p.PaymentDate,
->   c.SenderName, c.SenderAddress, c.ReceiverName, c.ReceiverAddress, c.Weight,
->   c.Status, c.TrackingNumber, c.DeliveryDate,
->   l.LocationName, l.Address AS LocationAddress
-> FROM Payment p
-> JOIN Courier c ON p.CourierID = c.CourierID
-> JOIN Location l ON p.LocationID = l.LocationID;
```

PaymentID	CourierID	LocationID	Amount	PaymentDate	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate	LocationName	LocationAddress
1001	11	21	40.00	2024-01-05	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21	Central town	111 Motihari, Bihar
1002	12	22	100.00	2024-01-06	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered	TN901234	2024-01-10	North lake	333 salt lake
1003	13	23	900.00	2024-02-08	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled	TN234567	2024-02-08	South Branch	555 St, Durgapur
1004	14	24	40.00	2024-01-03	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing	TN678901	2024-02-03	East Office	777 Elm St, Delhi
1005	15	25	40.00	2024-01-01	Liam Wilson	999 Maple St, Village	Alice Doe	123 lake St, Village	2.50	Delivered	TN445678	2024-01-04	West Maple	999 Maple St, Village
1006	16	26	40.00	2024-01-04	Ava Smith	111 Cedar St, Town	Bob Smith	456 Main St, Town	3.80	Cancelled	TN012345	2024-03-08	Cedar St Center	111 Cedar St, Town
1007	17	27	100.00	2024-01-17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing	TN789012	2024-02-05	Riverside Pine	333 Pine St
1008	18	28	40.00	2024-01-02	Isabella Wilson	555 Oak St	Harry Smith	897 Oak St	2.20	Delivered	TN450789	2024-01-06	Oak Facility	555 Oak St
1009	19	29	100.00	2024-01-11	Mia Anderson	777 Warehouse St, Berlin	Julie Anthony	55 Berlin	4.00	Cancelled	TN123456	2024-02-28	Berlin Park	777 Warehouse St, Berlin
1010	20	30	40.00	2024-01-16	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing	TN567890	2024-02-07	London Office	999 St, London

```
10 rows in set (0.00 sec)

mysql>
```

26. List all payments with courier details .

```
mysql> SELECT p.PaymentID, p.CourierID, p.LocationID, p.Amount, p.PaymentDate,
->   c.SenderName, c.SenderAddress, c.ReceiverName, c.ReceiverAddress, c.Weight,
->   c.Status, c.TrackingNumber, c.DeliveryDate
-> FROM Payment p
-> JOIN Courier c ON p.CourierID = c.CourierID;
```

PaymentID	CourierID	LocationID	Amount	PaymentDate	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1001	11	21	40.00	2024-01-05	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21
1002	12	22	100.00	2024-01-06	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered	TN901234	2024-01-10
1003	13	23	900.00	2024-02-08	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled	TN234567	2024-02-08
1004	14	24	40.00	2024-01-03	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing	TN678901	2024-02-03
1005	15	25	40.00	2024-01-01	Liam Wilson	999 Maple St, Village	Alice Doe	123 lake St, Village	2.50	Delivered	TN445678	2024-01-04
1006	16	26	40.00	2024-01-04	Ava Smith	111 Cedar St, Town	Bob Smith	456 Main St, Town	3.80	Cancelled	TN012345	2024-03-08
1007	17	27	100.00	2024-01-17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing	TN789012	2024-02-05
1008	18	28	40.00	2024-01-02	Isabella Wilson	555 Oak St	Harry Smith	897 Oak St	2.20	Delivered	TN450789	2024-01-06
1009	19	29	100.00	2024-01-11	Mia Anderson	777 Warehouse St, Berlin	Julie Anthony	55 Berlin	4.00	Cancelled	TN123456	2024-02-28
1010	20	30	40.00	2024-01-16	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing	TN567890	2024-02-07

```
10 rows in set (0.00 sec)

mysql>
```

27. Total payments received for each courier .

MySQL 8.0 Command Line Client

```
mysql> SELECT c.CourierID, c.SenderName, c.ReceiverName, SUM(p.Amount) AS TotalPaymentsReceived
-> FROM Courier c
-> JOIN Payment p ON c.CourierID = p.CourierID
-> GROUP BY c.CourierID, c.SenderName, c.ReceiverName;
```

CourierID	SenderName	ReceiverName	TotalPaymentsReceived
11	Mark Anderson	Astha Raj	40.00
12	Sophia Martinez	Asmita Si	100.00
13	Alex Turner	Prateeti Maji	900.00
14	Emma Moore	Monu Sharma	40.00
15	Liam Wilson	Alice Doe	40.00
16	Ava Smith	Bob Smith	40.00
17	Noah Turner	John Smith	100.00
18	Isabella Wilson	Harry Smith	40.00
19	Mia Anderson	julie Anthony	100.00
20	Oliver Martinez	Cooper Ana	40.00

10 rows in set (0.00 sec)

mysql>

28. List payments made on a specific date

MySQL 8.0 Command Line Client

```
mysql> SELECT
-> PaymentID, CourierID, LocationID, Amount, PaymentDate
-> FROM Payment
-> WHERE PaymentDate = '2024-01-03';
```

PaymentID	CourierID	LocationID	Amount	PaymentDate
1004	14	24	40.00	2024-01-03

1 row in set (0.00 sec)

mysql> _

29. Get Courier Information for Each Payment.

MySQL 8.0 Command Line Client

1 row in set (0.00 sec)

```
mysql> SELECT p.PaymentID, p.CourierID, c.SenderName, c.SenderAddress, c.ReceiverName, c.ReceiverAddress, c.Weight, c.Status, c.TrackingNumber, c.DeliveryDate
-> FROM Payment p
-> JOIN Courier c ON p.CourierID = c.CourierID;
```

PaymentID	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1001	11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21
1002	12	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered	TN901234	2024-01-10
1003	13	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled	TN234567	2024-02-08
1004	14	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing	TN678901	2024-02-03
1005	15	Liam Wilson	999 Maple St, Village	Alice Doe	123 lake St, Village	2.50	Delivered	TN445678	2024-01-04
1006	16	Ava Smith	111 Cedar St, Town	Bob Smith	456 Main St, Town	3.80	Cancelled	TN012345	2024-03-08
1007	17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing	TN789012	2024-02-05
1008	18	Isabella Wilson	555 Oak St	Harry Smith	897 Oak St	2.20	Delivered	TN450789	2024-01-06
1009	19	Mia Anderson	777 Warehouse St, Berlin	julie Anthony	55 Berlin	4.00	Cancelled	TN123456	2024-02-28
1010	20	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing	TN567890	2024-02-07

10 rows in set (0.00 sec)

mysql> _

30. Get Payment Details with Location

MySQL 8.0 Command Line Client

```
mysql> SELECT
```

```
-> p.PaymentID, p.CourierID, p.LocationID, p.Amount, p.PaymentDate,  
-> l.LocationName, l.Address AS LocationAddress  
-> FROM Payment p  
-> JOIN Location l ON p.LocationID = l.LocationID;
```

PaymentID	CourierID	LocationID	Amount	PaymentDate	LocationName	LocationAddress
1001	11	21	40.00	2024-01-05	Central town	111 Motihari, Bihar
1002	12	22	100.00	2024-01-06	North lake	333 salt lake
1003	13	23	900.00	2024-02-08	South Branch	555 St, Durgapur
1004	14	24	40.00	2024-01-03	East Office	777 Elm St, Delhi
1005	15	25	40.00	2024-01-01	West Maple	999 Maple St, Village
1006	16	26	40.00	2024-01-04	Cedar St Center	111 Cedar St, Town
1007	17	27	100.00	2024-01-17	Riverside Pine	333 Pine St
1008	18	28	40.00	2024-01-02	Oak Facility	555 Oak St
1009	19	29	100.00	2024-01-11	Berlin Park	777 Warehouse St, Berlin
1010	20	30	40.00	2024-01-16	London Office	999 St, London

10 rows in set (0.00 sec)

```
mysql>
```

31. Calculating Total Payments for Each Courier.

MySQL 8.0 Command Line Client

```
mysql> SELECT
```

```
-> c.CourierID, c.SenderName, c.ReceiverName, SUM(p.Amount) AS TotalPayments  
-> FROM Courier c  
-> JOIN Payment p ON c.CourierID = p.CourierID  
-> GROUP BY c.CourierID, c.SenderName, c.ReceiverName;
```

CourierID	SenderName	ReceiverName	TotalPayments
11	Mark Anderson	Astha Raj	40.00
12	Sophia Martinez	Asmita Si	100.00
13	Alex Turner	Prateeti Maji	900.00
14	Emma Moore	Monu Sharma	40.00
15	Liam Wilson	Alice Doe	40.00
16	Ava Smith	Bob Smith	40.00
17	Noah Turner	John Smith	100.00
18	Isabella Wilson	Harry Smith	40.00
19	Mia Anderson	julie Anthony	100.00
20	Oliver Martinez	Cooper Ana	40.00

10 rows in set (0.00 sec)

```
mysql>
```

32. List Payments Within a Date Range

```
MySQL 8.0 Command Line Client
mysql> SELECT PaymentID, CourierID, LocationID, Amount, PaymentDate
-> FROM Payment
-> WHERE PaymentDate BETWEEN '2024-01-04' AND '2024-01-17';
```

PaymentID	CourierID	LocationID	Amount	PaymentDate
1001	11	21	40.00	2024-01-05
1002	12	22	100.00	2024-01-06
1006	16	26	40.00	2024-01-04
1007	17	27	100.00	2024-01-17
1009	19	29	100.00	2024-01-11
1010	20	30	40.00	2024-01-16

```
6 rows in set (0.00 sec)

mysql>
```

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

```
MySQL 8.0 Command Line Client
mysql> SELECT
-> u.UserID, u.Name AS UserName, u.Email, u.ContactNumber, u.Address AS UserAddress,
-> c.CourierID, c.SenderName, c.SenderAddress, c.ReceiverName, c.ReceiverAddress,
-> c.Weight, c.Status, c.TrackingNumber, c.DeliveryDate
-> FROM User u
-> LEFT JOIN Courier c ON u.Name = c.SenderName OR u.Name = c.ReceiverName;
```

UserID	UserName	Email	ContactNumber	UserAddress	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status
1	Astha Raj	astha.raj@gmail.com	7036987450	123 Motihari, Bihar	11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing
2	Asmita Si	asmita.si@gmail.com	9002500456	748 salt lake	12	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered
3	Prateeti Maji	prateeti.maji@gmail.com	3960256025	254 Durgapur	13	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled
4	Monu Sharma	monu.sharma@gmail.com	9098885502	32 Rohini Delhi	14	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing
5	Alice Doe	alice.doe@gmail.com	9934567890	123 lake St, Village	15	Liam Wilson	999 Maple St, Village	Alice Doe	123 lake St, Village	2.50	Delivered
6	Bob Smith	bob.smith@gmail.com	9988552233	456 Main St, Town	16	Ava Smith	111 Cedar St, Town	Bob Smith	456 Main St, Town	3.80	Cancelled
7	John Smith	john.smith@gmail.com	9988555533	123 Pine St	17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing
8	Harry Smith	harry.smith@gmail.com	9900552233	897 Oak St	18	Isabella Wilson	555 Oak St	Harry Smith	897 Oak St	2.20	Delivered
9	Julie Anthony	julie.anthony@gmail.com	9088552233	55 Berlin	19	Mia Anderson	777 Warehouse St, Berlin	Julie Anthony	55 Berlin	4.00	Cancelled
10	Cooper Ana	cooper.ana@gmail.com	9988550233	44 London	20	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing

```
10 rows in set (0.00 sec)

mysql>
mysql>
```

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

MySQL 8.0 Command Line Client

mysql> SELECT

```
-> c.CourierID,
-> c.SenderName,
-> c.ReceiverName,
-> c.Weight,
-> c.Status,
-> c.TrackingNumber,
-> c.DeliveryDate,
-> cs.ServiceID,
-> cs.ServiceName,
-> cs.Cost
-> FROM
-> Courier c
-> CROSS JOIN
-> CourierServices cs;
```

CourierID	SenderName	ReceiverName	Weight	Status	TrackingNumber	DeliveryDate	ServiceID	ServiceName	Cost
20	Oliver Martinez	Cooper Ana	1.90	Processing	TN567890	2024-02-07	51	Standard Delivery	40.00
19	Mia Anderson	julie Anthony	4.00	Cancelled	TN123456	2024-02-28	51	Standard Delivery	40.00
18	Isabella Wilson	Harry Smith	2.20	Delivered	TN450789	2024-01-06	51	Standard Delivery	40.00
17	Noah Turner	John Smith	1.70	Processing	TN789012	2024-02-05	51	Standard Delivery	40.00
16	Ava Smith	Bob Smith	3.80	Cancelled	TN012345	2024-03-08	51	Standard Delivery	40.00
15	Liam Wilson	Alice Doe	2.50	Delivered	TN445678	2024-01-04	51	Standard Delivery	40.00
14	Emma Moore	Monu Sharma	3.00	Processing	TN678901	2024-02-03	51	Standard Delivery	40.00
13	Alex Turner	Prateeti Maji	2.80	Cancelled	TN234567	2024-02-08	51	Standard Delivery	40.00
12	Sophia Martinez	Asmita Si	1.57	Delivered	TN901234	2024-01-10	51	Standard Delivery	40.00
11	Mark Anderson	Astha Raj	4.20	Processing	TN345678	2024-01-21	51	Standard Delivery	40.00
20	Oliver Martinez	Cooper Ana	1.90	Processing	TN567890	2024-02-07	52	Ekart Delivery	100.00
19	Mia Anderson	julie Anthony	4.00	Cancelled	TN123456	2024-02-28	52	Ekart Delivery	100.00
18	Isabella Wilson	Harry Smith	2.20	Delivered	TN450789	2024-01-06	52	Ekart Delivery	100.00
17	Noah Turner	John Smith	1.70	Processing	TN789012	2024-02-05	52	Ekart Delivery	100.00
16	Ava Smith	Bob Smith	3.80	Cancelled	TN012345	2024-03-08	52	Ekart Delivery	100.00
15	Liam Wilson	Alice Doe	2.50	Delivered	TN445678	2024-01-04	52	Ekart Delivery	100.00
14	Emma Moore	Monu Sharma	3.00	Processing	TN678901	2024-02-03	52	Ekart Delivery	100.00
13	Alex Turner	Prateeti Maji	2.80	Cancelled	TN234567	2024-02-08	52	Ekart Delivery	100.00
12	Sophia Martinez	Asmita Si	1.57	Delivered	TN901234	2024-01-10	52	Ekart Delivery	100.00
11	Mark Anderson	Astha Raj	4.20	Processing	TN345678	2024-01-21	52	Ekart Delivery	100.00
20	Oliver Martinez	Cooper Ana	1.90	Processing	TN567890	2024-02-07	53	Same-Day Delivery	900.00
19	Mia Anderson	julie Anthony	4.00	Cancelled	TN123456	2024-02-28	53	Same-Day Delivery	900.00
18	Isabella Wilson	Harry Smith	2.20	Delivered	TN450789	2024-01-06	53	Same-Day Delivery	900.00
17	Noah Turner	John Smith	1.70	Processing	TN789012	2024-02-05	53	Same-Day Delivery	900.00
16	Ava Smith	Bob Smith	3.80	Cancelled	TN012345	2024-03-08	53	Same-Day Delivery	900.00
15	Liam Wilson	Alice Doe	2.50	Delivered	TN445678	2024-01-04	53	Same-Day Delivery	900.00
14	Emma Moore	Monu Sharma	3.00	Processing	TN678901	2024-02-03	53	Same-Day Delivery	900.00
13	Alex Turner	Prateeti Maji	2.80	Cancelled	TN234567	2024-02-08	53	Same-Day Delivery	900.00
12	Sophia Martinez	Asmita Si	1.57	Delivered	TN901234	2024-01-10	53	Same-Day Delivery	900.00
11	Mark Anderson	Astha Raj	4.20	Processing	TN345678	2024-01-21	53	Same-Day Delivery	900.00
20	Oliver Martinez	Cooper Ana	1.90	Processing	TN567890	2024-02-07	54	Standard Delivery	40.00
19	Mia Anderson	julie Anthony	4.00	Cancelled	TN123456	2024-02-28	54	Standard Delivery	40.00

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

```
mysql> SELECT
-> e.EmployeeID,
-> e.Name AS EmployeeName,
-> e.Email,
-> e.ContactNumber,
-> e.Role,
-> e.Salary,
-> p.PaymentID,
-> p.CourierID,
-> p.LocationID,
-> p.Amount,
-> p.PaymentDate
-> FROM
-> Employee e
-> CROSS JOIN
-> Payment p;
```

EmployeeID	EmployeeName	Email	ContactNumber	Role	Salary	PaymentID	CourierID	LocationID	Amount	PaymentDate
110	Aryan Patel	aryan.patel@gmail.com	9876514796	Courier Driver	22000.00	1001	11	21	40.00	2024-01-05
109	Priya Singh	priya.singh@gmail.com	9876598746	Customer Support	33000.00	1001	11	21	40.00	2024-01-05
108	John Kapoor	john.kapoor@gmail.com	9876574158	Courier Driver	30000.00	1001	11	21	40.00	2024-01-05
107	Ananya Das	ananya.das@gmail.com	9876512369	Manager	52000.00	1001	11	21	40.00	2024-01-05
106	Arjun Gupta	arjun.gupta@gmail.com	9876525896	Customer Support	35000.00	1001	11	21	40.00	2024-01-05
105	Diya Patel	diya.patel@gmail.com	9876514771	Courier Driver	32000.00	1001	11	21	40.00	2024-01-05
104	Aarav Sharma	aarav.sharma@gmail.com	9876536999	Manager	55000.00	1001	11	21	40.00	2024-01-05
103	Sanvi Khanna	sanvi.khanna@gmail.com	9876511124	Manager	53000.00	1001	11	21	40.00	2024-01-05
102	Advait Kumar	advait.kumar@gmail.com	9876578956	Customer Support	34000.00	1001	11	21	40.00	2024-01-05
101	Ishita Sharma	ishita.sharma@gmail.com	9876512365	Courier Driver	31000.00	1001	11	21	40.00	2024-01-05
110	Aryan Patel	aryan.patel@gmail.com	9876514796	Courier Driver	22000.00	1002	12	22	100.00	2024-01-06
109	Priya Singh	priya.singh@gmail.com	9876598746	Customer Support	33000.00	1002	12	22	100.00	2024-01-06
108	John Kapoor	john.kapoor@gmail.com	9876574158	Courier Driver	30000.00	1002	12	22	100.00	2024-01-06
107	Ananya Das	ananya.das@gmail.com	9876512369	Manager	52000.00	1002	12	22	100.00	2024-01-06
106	Arjun Gupta	arjun.gupta@gmail.com	9876525896	Customer Support	35000.00	1002	12	22	100.00	2024-01-06
105	Diya Patel	diya.patel@gmail.com	9876514771	Courier Driver	32000.00	1002	12	22	100.00	2024-01-06
104	Aarav Sharma	aarav.sharma@gmail.com	9876536999	Manager	55000.00	1002	12	22	100.00	2024-01-06
103	Sanvi Khanna	sanvi.khanna@gmail.com	9876511124	Manager	53000.00	1002	12	22	100.00	2024-01-06
102	Advait Kumar	advait.kumar@gmail.com	9876578956	Customer Support	34000.00	1002	12	22	100.00	2024-01-06
101	Ishita Sharma	ishita.sharma@gmail.com	9876512365	Courier Driver	31000.00	1002	12	22	100.00	2024-01-06
110	Aryan Patel	aryan.patel@gmail.com	9876514796	Courier Driver	22000.00	1003	13	23	900.00	2024-02-08
109	Priya Singh	priya.singh@gmail.com	9876598746	Customer Support	33000.00	1003	13	23	900.00	2024-02-08
108	John Kapoor	john.kapoor@gmail.com	9876574158	Courier Driver	30000.00	1003	13	23	900.00	2024-02-08
107	Ananya Das	ananya.das@gmail.com	9876512369	Manager	52000.00	1003	13	23	900.00	2024-02-08
106	Arjun Gupta	arjun.gupta@gmail.com	9876525896	Customer Support	35000.00	1003	13	23	900.00	2024-02-08
105	Diya Patel	diya.patel@gmail.com	9876514771	Courier Driver	32000.00	1003	13	23	900.00	2024-02-08
104	Aarav Sharma	aarav.sharma@gmail.com	9876536999	Manager	55000.00	1003	13	23	900.00	2024-02-08
103	Sanvi Khanna	sanvi.khanna@gmail.com	9876511124	Manager	53000.00	1003	13	23	900.00	2024-02-08
102	Advait Kumar	advait.kumar@gmail.com	9876578956	Customer Support	34000.00	1003	13	23	900.00	2024-02-08

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

```
MySQL 8.0 Command Line Client
100 rows in set (0.00 sec)

mysql> SELECT
-> u.UserID,
-> u.Name AS UserName,
-> u.Email,
-> u.ContactNumber,
-> u.Address AS UserAddress,
-> cs.ServiceID,
-> cs.ServiceName,
-> cs.Cost
-> FROM
-> User u
-> CROSS JOIN
-> CourierServices cs;
```

UserID	UserName	Email	ContactNumber	UserAddress	ServiceID	ServiceName	Cost
10	Cooper Ana	cooper.ana@gmail.com	9988550233	44 London	51	Standard Delivery	40.00
9	julie Anthony	julie.anthony@gmail.com	9088552233	55 Berlin	51	Standard Delivery	40.00
8	Harry Smith	harry.smith@gmail.com	9900552233	897 Oak St	51	Standard Delivery	40.00
7	John Smith	john.smith@gmail.com	9988555533	123 Pine St	51	Standard Delivery	40.00
6	Bob Smith	bob.smith@gmail.com	9988552233	456 Main St, Town	51	Standard Delivery	40.00
5	Alice Doe	alice.doe@gmail.com	9934567890	123 lake St, Village	51	Standard Delivery	40.00
4	Monu Sharma	monu.sharma@gmail.com	9098885502	32 Rohini Delhi	51	Standard Delivery	40.00
3	Prateeti Maji	prateeti.maji@gmail.com	3960256025	254 Durgapur	51	Standard Delivery	40.00
2	Asmita Si	asmita.si@gmail.com	9002500456	748 salt lake	51	Standard Delivery	40.00
1	Astha Raj	astha.raj@gmail.com	7036987450	123 Motihari, Bihar	51	Standard Delivery	40.00
10	Cooper Ana	cooper.ana@gmail.com	9988550233	44 London	52	Ekart Delivery	100.00
9	julie Anthony	julie.anthony@gmail.com	9088552233	55 Berlin	52	Ekart Delivery	100.00
8	Harry Smith	harry.smith@gmail.com	9900552233	897 Oak St	52	Ekart Delivery	100.00
7	John Smith	john.smith@gmail.com	9988555533	123 Pine St	52	Ekart Delivery	100.00
6	Bob Smith	bob.smith@gmail.com	9988552233	456 Main St, Town	52	Ekart Delivery	100.00
5	Alice Doe	alice.doe@gmail.com	9934567890	123 lake St, Village	52	Ekart Delivery	100.00
4	Monu Sharma	monu.sharma@gmail.com	9098885502	32 Rohini Delhi	52	Ekart Delivery	100.00
3	Prateeti Maji	prateeti.maji@gmail.com	3960256025	254 Durgapur	52	Ekart Delivery	100.00
2	Asmita Si	asmita.si@gmail.com	9002500456	748 salt lake	52	Ekart Delivery	100.00
1	Astha Raj	astha.raj@gmail.com	7036987450	123 Motihari, Bihar	52	Ekart Delivery	100.00
10	Cooper Ana	cooper.ana@gmail.com	9988550233	44 London	53	Same-Day Delivery	900.00
9	julie Anthony	julie.anthony@gmail.com	9088552233	55 Berlin	53	Same-Day Delivery	900.00
8	Harry Smith	harry.smith@gmail.com	9900552233	897 Oak St	53	Same-Day Delivery	900.00
7	John Smith	john.smith@gmail.com	9988555533	123 Pine St	53	Same-Day Delivery	900.00
6	Bob Smith	bob.smith@gmail.com	9988552233	456 Main St, Town	53	Same-Day Delivery	900.00
5	Alice Doe	alice.doe@gmail.com	9934567890	123 lake St, Village	53	Same-Day Delivery	900.00
4	Monu Sharma	monu.sharma@gmail.com	9098885502	32 Rohini Delhi	53	Same-Day Delivery	900.00
3	Prateeti Maji	prateeti.maji@gmail.com	3960256025	254 Durgapur	53	Same-Day Delivery	900.00
2	Asmita Si	asmita.si@gmail.com	9002500456	748 salt lake	53	Same-Day Delivery	900.00
1	Astha Raj	astha.raj@gmail.com	7036987450	123 Motihari, Bihar	53	Same-Day Delivery	900.00
10	Cooper Ana	cooper.ana@gmail.com	9988550233	44 London	54	Standard Delivery	40.00
9	julie Anthony	julie.anthony@gmail.com	9088552233	55 Berlin	54	Standard Delivery	40.00

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

```
mysql> SELECT
-> e.EmployeeID,
-> e.Name AS EmployeeName,
-> e.Email,
-> e.ContactNumber,
-> e.Role,
-> e.Salary,
-> l.LocationID,
-> l.LocationName,
-> l.Address AS LocationAddress
-> FROM
-> Employee e
-> CROSS JOIN
-> Location l;
```

EmployeeID	EmployeeName	Email	ContactNumber	Role	Salary	LocationID	LocationName	LocationAddress
110	Aryan Patel	aryan.patel@gmail.com	9876514796	Courier Driver	22000.00	21	Central town	111 Motihari, Bihar
109	Priya Singh	priya.singh@gmail.com	9876598746	Customer Support	33000.00	21	Central town	111 Motihari, Bihar
108	John Kapoor	john.kapoor@gmail.com	9876574158	Courier Driver	30000.00	21	Central town	111 Motihari, Bihar
107	Ananya Das	ananya.das@gmail.com	9876512369	Manager	52000.00	21	Central town	111 Motihari, Bihar
106	Arjun Gupta	arjun.gupta@gmail.com	9876525896	Customer Support	35000.00	21	Central town	111 Motihari, Bihar
105	Diya Patel	diya.patel@gmail.com	9876514771	Courier Driver	32000.00	21	Central town	111 Motihari, Bihar
104	Aarav Sharma	aarav.sharma@gmail.com	9876536999	Manager	55000.00	21	Central town	111 Motihari, Bihar
103	Sanvi Khanna	sanvi.khanna@gmail.com	9876511124	Manager	53000.00	21	Central town	111 Motihari, Bihar
102	Advait Kumar	advait.kumar@gmail.com	9876578956	Customer Support	34000.00	21	Central town	111 Motihari, Bihar
101	Ishita Sharma	ishita.sharma@gmail.com	9876512365	Courier Driver	31000.00	21	Central town	111 Motihari, Bihar
110	Aryan Patel	aryan.patel@gmail.com	9876514796	Courier Driver	22000.00	22	North lake	333 salt lake
109	Priya Singh	priya.singh@gmail.com	9876598746	Customer Support	33000.00	22	North lake	333 salt lake
108	John Kapoor	john.kapoor@gmail.com	9876574158	Courier Driver	30000.00	22	North lake	333 salt lake
107	Ananya Das	ananya.das@gmail.com	9876512369	Manager	52000.00	22	North lake	333 salt lake
106	Arjun Gupta	arjun.gupta@gmail.com	9876525896	Customer Support	35000.00	22	North lake	333 salt lake
105	Diya Patel	diya.patel@gmail.com	9876514771	Courier Driver	32000.00	22	North lake	333 salt lake
104	Aarav Sharma	aarav.sharma@gmail.com	9876536999	Manager	55000.00	22	North lake	333 salt lake
103	Sanvi Khanna	sanvi.khanna@gmail.com	9876511124	Manager	53000.00	22	North lake	333 salt lake
102	Advait Kumar	advait.kumar@gmail.com	9876578956	Customer Support	34000.00	22	North lake	333 salt lake
101	Ishita Sharma	ishita.sharma@gmail.com	9876512365	Courier Driver	31000.00	22	North lake	333 salt lake
110	Aryan Patel	aryan.patel@gmail.com	9876514796	Courier Driver	22000.00	23	South Branch	555 St, Durgapur
109	Priya Singh	priya.singh@gmail.com	9876598746	Customer Support	33000.00	23	South Branch	555 St, Durgapur
108	John Kapoor	john.kapoor@gmail.com	9876574158	Courier Driver	30000.00	23	South Branch	555 St, Durgapur
107	Ananya Das	ananya.das@gmail.com	9876512369	Manager	52000.00	23	South Branch	555 St, Durgapur
106	Arjun Gupta	arjun.gupta@gmail.com	9876525896	Customer Support	35000.00	23	South Branch	555 St, Durgapur
105	Diya Patel	diya.patel@gmail.com	9876514771	Courier Driver	32000.00	23	South Branch	555 St, Durgapur
104	Aarav Sharma	aarav.sharma@gmail.com	9876536999	Manager	55000.00	23	South Branch	555 St, Durgapur
103	Sanvi Khanna	sanvi.khanna@gmail.com	9876511124	Manager	53000.00	23	South Branch	555 St, Durgapur
102	Advait Kumar	advait.kumar@gmail.com	9876578956	Customer Support	34000.00	23	South Branch	555 St, Durgapur
101	Ishita Sharma	ishita.sharma@gmail.com	9876512365	Courier Driver	31000.00	23	South Branch	555 St, Durgapur
110	Aryan Patel	aryan.patel@gmail.com	9876514796	Courier Driver	22000.00	24	East Office	777 Elm St, Delhi
109	Priya Singh	priya.singh@gmail.com	9876598746	Customer Support	33000.00	24	East Office	777 Elm St, Delhi

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

```
MySQL 8.0 Command Line Client
mysql> SELECT
-> c.CourierID,
-> c.SenderName AS CourierSenderName,
-> c.SenderAddress AS CourierSenderAddress,
-> c.ReceiverName,
-> c.ReceiverAddress,
-> c.Weight,
-> c.Status,
-> c.TrackingNumber,
-> c.DeliveryDate,
-> u.UserID AS SenderUserID,
-> u.Name AS SenderName,
-> u.Email AS SenderEmail,
-> u.ContactNumber AS SenderContactNumber,
-> u.Address AS SenderAddress
-> FROM
-> Courier c
-> LEFT JOIN
-> User u ON c.SenderName = u.Name;
```

CourierID	CourierSenderName	CourierSenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate	SenderUserID	SenderName	SenderEmail	SenderContactNumber
11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TH345678	2024-01-21	NULL	NULL	NULL	NULL
12	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered	TH901234	2024-01-10	NULL	NULL	NULL	NULL
13	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled	TH234567	2024-02-08	NULL	NULL	NULL	NULL
14	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing	TH678901	2024-02-03	NULL	NULL	NULL	NULL
15	Liam Wilson	999 Maple St, Village	Alice Doe	123 lake St, Village	2.50	Delivered	TH445678	2024-01-04	NULL	NULL	NULL	NULL
16	Ava Smith	111 Cedar St, Town	Bob Smith	456 Main St, Town	3.80	Cancelled	TH012345	2024-03-08	NULL	NULL	NULL	NULL
17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing	TH789012	2024-02-05	NULL	NULL	NULL	NULL
18	Isabella Wilson	555 Oak St	Harry Smith	897 Oak St	2.20	Delivered	TH450789	2024-01-06	NULL	NULL	NULL	NULL
19	Mia Anderson	777 Warehouse St, Berlin	Julie Anthony	55 Berlin	4.00	Cancelled	TH123456	2024-02-28	NULL	NULL	NULL	NULL
20	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing	TH567890	2024-02-07	NULL	NULL	NULL	NULL

18 rows in set (0.00 sec)

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

```
MySQL 8.0 Command Line Client
mysql> SELECT
-> c.CourierID,
-> c.SenderName,
-> c.SenderAddress,
-> c.ReceiverName AS CourierReceiverName,
-> c.ReceiverAddress AS CourierReceiverAddress,
-> c.Weight,
-> c.Status,
-> c.TrackingNumber,
-> c.DeliveryDate,
-> u.UserID AS ReceiverUserID,
-> u.Name AS ReceiverName,
-> u.Email AS ReceiverEmail,
-> u.ContactNumber AS ReceiverContactNumber,
-> u.Address AS ReceiverAddress
-> FROM
-> Courier c
-> LEFT JOIN
-> User u ON c.ReceiverName = u.Name;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate	ReceiverUserID	ReceiverName	ReceiverEmail
11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21	1	Astha Raj	astha.raj@gmail.co
12	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered	TN901234	2024-01-10	2	Asmita Si	asmita.si@gmail.co
13	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled	TN234567	2024-02-08	3	Prateeti Maji	prateeti.maji@gmail
14	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing	TN678901	2024-02-03	4	Monu Sharma	monu.sharma@gmail.
15	Liam Wilson	999 Maple St, Village	Alice Doe	123 lake St, Village	2.50	Delivered	TN445678	2024-01-04	5	Alice Doe	alice.doe@gmail.co
16	Ava Smith	111 Cedar St, Town	Bob Smith	456 Main St, Town	3.80	Cancelled	TN012345	2024-03-08	6	Bob Smith	bob.smith@gmail.co
17	Noah Turner	333 Pine St, Town	John Smith	123 Pine St	1.70	Processing	TN789012	2024-02-05	7	John Smith	john.smith@gmail.c
18	Isabella Wilson	555 Oak St	Harry Smith	897 Oak St	2.20	Delivered	TN456789	2024-01-06	8	Harry Smith	harry.smith@gmail.
19	Mia Anderson	777 Warehouse St, Berlin	Julie Anthony	55 Berlin	4.00	Cancelled	TN123456	2024-02-28	9	Julie Anthony	julie.anthony@gmail
20	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing	TN567890	2024-02-07	10	Cooper Ana	cooper.ana@gmail.c

10 rows in set (0.00 sec)

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

```
mysql> SELECT
-> c.CourierID, c.SenderName, c.SenderAddress, c.ReceiverName, c.ReceiverAddress,
-> c.Weight, c.Status, c.TrackingNumber, c.DeliveryDate,
-> cs.ServiceID, cs.ServiceName, cs.Cost
-> FROM Courier c
-> CROSS JOIN
-> CourierServices cs;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate	ServiceID	ServiceName	Cost
20	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing	TN567890	2024-02-07	51	Standard Delivery	40.00
19	Mia Anderson	777 Warehouse St, Berlin	Julie Anthony	55 Berlin	4.00	Cancelled	TN123456	2024-02-28	51	Standard Delivery	40.00
18	Isabella Wilson	555 Oak St	Harry Smith	897 Oak St	2.20	Delivered	TN456789	2024-01-06	51	Standard Delivery	40.00
17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing	TN789012	2024-02-05	51	Standard Delivery	40.00
16	Ava Smith	111 Cedar St, Town	Bob Smith	456 Main St, Town	3.80	Cancelled	TN012345	2024-03-08	51	Standard Delivery	40.00
15	Liam Wilson	999 Maple St, Village	Alice Doe	123 lake St, Village	2.50	Delivered	TN445678	2024-01-04	51	Standard Delivery	40.00
14	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing	TN678901	2024-02-03	51	Standard Delivery	40.00
13	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled	TN234567	2024-02-08	51	Standard Delivery	40.00
12	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered	TN901234	2024-01-10	51	Standard Delivery	40.00
11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21	51	Standard Delivery	40.00
20	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing	TN567890	2024-02-07	52	Ekart Delivery	100.00
19	Mia Anderson	777 Warehouse St, Berlin	Julie Anthony	55 Berlin	4.00	Cancelled	TN123456	2024-02-28	52	Ekart Delivery	100.00
18	Isabella Wilson	555 Oak St	Harry Smith	897 Oak St	2.20	Delivered	TN456789	2024-01-06	52	Ekart Delivery	100.00
17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing	TN789012	2024-02-05	52	Ekart Delivery	100.00
16	Ava Smith	111 Cedar St, Town	Bob Smith	456 Main St, Town	3.80	Cancelled	TN012345	2024-03-08	52	Ekart Delivery	100.00
15	Liam Wilson	999 Maple St, Village	Alice Doe	123 lake St, Village	2.50	Delivered	TN445678	2024-01-04	52	Ekart Delivery	100.00
14	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing	TN678901	2024-02-03	52	Ekart Delivery	100.00
13	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled	TN234567	2024-02-08	52	Ekart Delivery	100.00
12	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered	TN901234	2024-01-10	52	Ekart Delivery	100.00
11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21	52	Ekart Delivery	100.00
20	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing	TN567890	2024-02-07	53	Same-Day Delivery	900.00
19	Mia Anderson	777 Warehouse St, Berlin	Julie Anthony	55 Berlin	4.00	Cancelled	TN123456	2024-02-28	53	Same-Day Delivery	900.00
18	Isabella Wilson	555 Oak St	Harry Smith	897 Oak St	2.20	Delivered	TN456789	2024-01-06	53	Same-Day Delivery	900.00
17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing	TN789012	2024-02-05	53	Same-Day Delivery	900.00
16	Ava Smith	111 Cedar St, Town	Bob Smith	456 Main St, Town	3.80	Cancelled	TN012345	2024-03-08	53	Same-Day Delivery	900.00
15	Liam Wilson	999 Maple St, Village	Alice Doe	123 lake St, Village	2.50	Delivered	TN445678	2024-01-04	53	Same-Day Delivery	900.00
14	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing	TN678901	2024-02-03	53	Same-Day Delivery	900.00
13	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled	TN234567	2024-02-08	53	Same-Day Delivery	900.00
12	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered	TN901234	2024-01-10	53	Same-Day Delivery	900.00
11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21	53	Same-Day Delivery	900.00
20	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing	TN567890	2024-02-07	54	Standard Delivery	40.00
19	Mia Anderson	777 Warehouse St, Berlin	Julie Anthony	55 Berlin	4.00	Cancelled	TN123456	2024-02-28	54	Standard Delivery	40.00
18	Isabella Wilson	555 Oak St	Harry Smith	897 Oak St	2.20	Delivered	TN456789	2024-01-06	54	Standard Delivery	40.00
17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing	TN789012	2024-02-05	54	Standard Delivery	40.00
16	Ava Smith	111 Cedar St, Town	Bob Smith	456 Main St, Town	3.80	Cancelled	TN012345	2024-03-08	54	Standard Delivery	40.00
15	Liam Wilson	999 Maple St, Village	Alice Doe	123 lake St, Village	2.50	Delivered	TN445678	2024-01-04	54	Standard Delivery	40.00
14	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing	TN678901	2024-02-03	54	Standard Delivery	40.00
13	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled	TN234567	2024-02-08	54	Standard Delivery	40.00

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

```
mysql> SELECT
->     e.EmployeeID,
->     e.Name AS EmployeeName,
->     e.Email,
->     e.ContactNumber,
->     e.Role,
->     e.Salary,
->     COUNT(c.CourierID) AS NumberOfCouriers
-> FROM
->     Employee e
-> LEFT JOIN
->     Courier c ON e.Name = c.SenderName
-> GROUP BY
->     e.EmployeeID, e.Name, e.Email, e.ContactNumber, e.Role, e.Salary;
```

EmployeeID	EmployeeName	Email	ContactNumber	Role	Salary	NumberOfCouriers
101	Ishita Sharma	ishita.sharma@gmail.com	9876512365	Courier Driver	31000.00	0
102	Advait Kumar	advait.kumar@gmail.com	9876578956	Customer Support	34000.00	0
103	Sanvi Khanna	sanvi.khanna@gmail.com	9876511124	Manager	53000.00	0
104	Aarav Sharma	aarav.sharma@gmail.com	9876536999	Manager	55000.00	0
105	Diya Patel	diya.patel@gmail.com	9876514771	Courier Driver	32000.00	0
106	Arjun Gupta	arjun.gupta@gmail.com	9876525896	Customer Support	35000.00	0
107	Ananya Das	ananya.das@gmail.com	9876512369	Manager	52000.00	0
108	John Kapoor	john.kapoor@gmail.com	9876574158	Courier Driver	30000.00	0
109	Priya Singh	priya.singh@gmail.com	9876598746	Customer Support	33000.00	0
110	Aryan Patel	aryan.patel@gmail.com	9876514796	Courier Driver	22000.00	0

10 rows in set (0.00 sec)

```
mysql>
```

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

MySQL 8.0 Command Line Client

```
mysql> SELECT
->     l.LocationID,
->     l.LocationName,
->     l.Address,
->     SUM(p.Amount) AS TotalPaymentAmount
-> FROM
->     Location l
-> LEFT JOIN
->     Payment p ON l.LocationID = p.LocationID
-> GROUP BY
->     l.LocationID, l.LocationName, l.Address;
```

LocationID	LocationName	Address	TotalPaymentAmount
21	Central town	111 Motihari, Bihar	40.00
22	North lake	333 salt lake	100.00
23	South Branch	555 St, Durgapur	900.00
24	East Office	777 Elm St, Delhi	40.00
25	West Maple	999 Maple St, Village	40.00
26	Cedar St Center	111 Cedar St, Town	40.00
27	Riverside Pine	333 Pine St	100.00
28	Oak Facility	555 Oak St	40.00
29	Berlin Park	777 Warehouse St, Berlin	100.00
30	London Office	999 St, London	40.00

10 rows in set (0.00 sec)

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

```
MySQL 8.0 Command Line Client

mysql> SELECT * FROM Courier
-> WHERE SenderName = 'Mark Anderson';
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21

```
1 row in set (0.00 sec)
```

44. List all employees who share the same role.

```
MySQL 8.0 Command Line Client

mysql> SELECT
-> Role,
-> COUNT(*) AS EmployeeCount,
-> GROUP_CONCAT(Name) AS EmployeeNames
-> FROM
-> Employee
-> GROUP BY
-> Role
-> HAVING
-> COUNT(*) > 1;
```

Role	EmployeeCount	EmployeeNames
Courier Driver	4	Ishita Sharma,Diya Patel,John Kapoor,Aryan Patel
Customer Support	3	Advait Kumar,Arjun Gupta,Priya Singh
Manager	3	Sanvi Khanna,Aarav Sharma,Ananya Das

```
3 rows in set (0.00 sec)

mysql>
```

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

```
MySQL 8.0 Command Line Client

mysql> SELECT
-> p.*,c.*
-> FROM Payment p
-> JOIN Courier c ON p.CourierID = c.CourierID
-> JOIN
-> Location l ON p.LocationID = l.LocationID;
```

PaymentID	CourierID	LocationID	Amount	PaymentDate	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1001	11	21	40.00	2024-01-05	11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21
1002	12	22	100.00	2024-01-06	12	Sophia Martinez	333 salt lake	Asmita Si	748 salt lake	1.57	Delivered	TN901234	2024-01-10
1003	13	23	900.00	2024-02-08	13	Alex Turner	555 St, Durgapur	Prateeti Maji	254 Durgapur	2.80	Cancelled	TN234567	2024-02-08
1004	14	24	40.00	2024-01-03	14	Emma Moore	777 Elm St, Delhi	Monu Sharma	32 Rohini Delhi	3.00	Processing	TN678901	2024-02-03
1005	15	25	40.00	2024-01-01	15	Liam Wilson	999 Maple St, Village	Alice Doe	123 lake St, Village	2.50	Delivered	TN445678	2024-01-04
1006	16	26	40.00	2024-01-04	16	Ava Smith	111 Cedar St, Town	Bob Smith	456 Main St, Town	3.80	Cancelled	TN012345	2024-03-08
1007	17	27	100.00	2024-01-17	17	Noah Turner	333 Pine St	John Smith	123 Pine St	1.70	Processing	TN789012	2024-02-05
1008	18	28	40.00	2024-01-02	18	Isabella Wilson	555 Oak St	Harry Smith	897 Oak St	2.20	Delivered	TN450789	2024-01-06
1009	19	29	100.00	2024-01-11	19	Mia Anderson	777 Warehouse St, Berlin	Julie Anthony	55 Berlin	4.00	Cancelled	TN123456	2024-02-28
1010	20	30	40.00	2024-01-16	20	Oliver Martinez	999 St, London	Cooper Ana	44 London	1.90	Processing	TN567890	2024-02-07

```
10 rows in set (0.00 sec)

mysql>
```

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

MySQL 8.0 Command Line Client

```
mysql> SELECT
->   c.CourierID,
->   c.SenderName,
->   c.SenderAddress,
->   c.ReceiverName,
->   c.ReceiverAddress,
->   c.Weight,
->   c.Status,
->   c.TrackingNumber,
->   c.DeliveryDate
-> FROM
->   Courier c
-> JOIN
->   User u ON c.SenderAddress = u.Address
-> WHERE
->   c.SenderAddress IS NOT NULL;
Empty set (0.00 sec)

mysql>
```

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

MySQL 8.0 Command Line Client

ERROR 1054 (42S22): Unknown column 'c.EmployeeID' in 'on clause'

```
mysql> SELECT
->   e.EmployeeID,
->   e.Name AS EmployeeName,
->   e.Email,
->   e.ContactNumber,
->   e.Role,
->   e.Salary,
->   COUNT(c.CourierID) AS DeliveredCouriers
-> FROM
->   Employee e
-> LEFT JOIN
->   Courier c ON e.Name = c.SenderName OR e.Name = c.ReceiverName
-> GROUP BY
->   e.EmployeeID, e.Name, e.Email, e.ContactNumber, e.Role, e.Salary;
```

EmployeeID	EmployeeName	Email	ContactNumber	Role	Salary	DeliveredCouriers
101	Ishita Sharma	ishita.sharma@gmail.com	9876512365	Courier Driver	31000.00	0
102	Advait Kumar	advait.kumar@gmail.com	9876578956	Customer Support	34000.00	0
103	Sanvi Khanna	sanvi.khanna@gmail.com	9876511124	Manager	53000.00	0
104	Aarav Sharma	aarav.sharma@gmail.com	9876536999	Manager	55000.00	0
105	Diya Patel	diya.patel@gmail.com	9876514771	Courier Driver	32000.00	0
106	Arjun Gupta	arjun.gupta@gmail.com	9876525896	Customer Support	35000.00	0
107	Ananya Das	ananya.das@gmail.com	9876512369	Manager	52000.00	0
108	John Kapoor	john.kapoor@gmail.com	9876574158	Courier Driver	30000.00	0
109	Priya Singh	priya.singh@gmail.com	9876598746	Customer Support	33000.00	0
110	Aryan Patel	aryan.patel@gmail.com	9876514796	Courier Driver	22000.00	0

10 rows in set (0.00 sec)

mysql>

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

MySQL 8.0 Command Line Client

```
mysql> SELECT
->   c.*,
->   c.DeliveryDate,
->   p.PaymentID,
->   p.Amount AS PaymentAmount,
->   cs.Cost AS ServiceCost
-> FROM
->   Courier c
-> JOIN
->   Payment p ON c.CourierID = p.CourierID
-> JOIN
->   CourierServices cs ON c.SenderName = cs.ServiceName
-> WHERE
->   p.Amount > cs.Cost;
Empty set (0.00 sec)

mysql>
```

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 8.0 Command Line Client

```
mysql> SELECT
->   CourierID,
->   SenderName,
->   SenderAddress,
->   ReceiverName,
->   ReceiverAddress,
->   Weight,
->   Status,
->   TrackingNumber,
->   DeliveryDate
-> FROM
->   Courier
-> WHERE
->   Weight > (SELECT AVG(Weight) FROM Courier);
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| CourierID | SenderName | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status | TrackingNumber | DeliveryDate |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 11 | Mark Anderson | 111 Motihari, Bihar | Astha Raj | 123 Motihari, Bihar | 4.20 | Processing | TN345678 | 2024-01-21 |
| 13 | Alex Turner | 555 St, Durgapur | Prateeti Maji | 254 Durgapur | 2.80 | Cancelled | TN234567 | 2024-02-08 |
| 14 | Emma Moore | 777 Elm St, Delhi | Monu Sharma | 32 Rohini Delhi | 3.00 | Processing | TN678901 | 2024-02-03 |
| 16 | Ava Smith | 111 Cedar St, Town | Bob Smith | 456 Main St, Town | 3.80 | Cancelled | TN012345 | 2024-03-08 |
| 19 | Mia Anderson | 777 Warehouse St, Berlin | Julie Anthony | 55 Berlin | 4.00 | Cancelled | TN123456 | 2024-02-28 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql>
```

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

```
mysql> SELECT
->   e.*
-> FROM
->   Employee e
-> WHERE
->   Salary > (SELECT AVG(Salary) FROM Employee);
+-----+-----+-----+-----+-----+-----+
| EmployeeID | Name | Email | ContactNumber | Role | Salary |
+-----+-----+-----+-----+-----+-----+
| 103 | Sanvi Khanna | sanvi.khanna@gmail.com | 9876511124 | Manager | 53000.00 |
| 104 | Aarav Sharma | aarav.sharma@gmail.com | 9876536999 | Manager | 55000.00 |
| 107 | Ananya Das | ananya.das@gmail.com | 9876512369 | Manager | 52000.00 |
+-----+-----+-----+-----+-----+-----+
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 8.0 Command Line Client

```
mysql> SELECT
->     SUM(Cost) AS TotalCost
-> FROM
->     CourierServices
-> WHERE
->     Cost < (SELECT MAX(Cost) FROM CourierServices);
+-----+
| TotalCost |
+-----+
|    540.00 |
+-----+
1 row in set (0.00 sec)

mysql>
```

52. Find all couriers that have been paid for

MySQL 8.0 Command Line Client

```
mysql> SELECT
->     c.*
-> FROM
->     Courier c
-> JOIN
->     Payment p ON c.CourierID = p.CourierID;
+-----+-----+-----+-----+-----+-----+-----+-----+
| CourierID | SenderName | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status | TrackingNumber | DeliveryDate |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 11 | Mark Anderson | 111 Motihari, Bihar | Astha Raj | 123 Motihari, Bihar | 4.20 | Processing | TN345678 | 2024-01-21 |
| 12 | Sophia Martinez | 333 salt lake | Asmita Si | 748 salt lake | 1.57 | Delivered | TN901234 | 2024-01-10 |
| 13 | Alex Turner | 555 St, Durgapur | Prateeti Maji | 254 Durgapur | 2.80 | Cancelled | TN234567 | 2024-02-08 |
| 14 | Emma Moore | 777 Elm St, Delhi | Monu Sharma | 32 Rohini Delhi | 3.00 | Processing | TN678901 | 2024-02-03 |
| 15 | Liam Wilson | 999 Maple St, Village | Alice Doe | 123 lake St, Village | 2.50 | Delivered | TN445678 | 2024-01-04 |
| 16 | Ava Smith | 111 Cedar St, Town | Bob Smith | 456 Main St, Town | 3.80 | Cancelled | TN012345 | 2024-03-08 |
| 17 | Noah Turner | 333 Pine St | John Smith | 123 Pine St | 1.70 | Processing | TN789012 | 2024-02-05 |
| 18 | Isabella Wilson | 555 Oak St | Harry Smith | 897 Oak St | 2.20 | Delivered | TN450789 | 2024-01-06 |
| 19 | Mia Anderson | 777 Warehouse St, Berlin | Julie Anthony | 55 Berlin | 4.00 | Cancelled | TN123456 | 2024-02-28 |
| 20 | Oliver Martinez | 999 St, London | Cooper Ana | 44 London | 1.90 | Processing | TN567890 | 2024-02-07 |
+-----+-----+-----+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)

mysql>
```

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

MySQL 8.0 Command Line Client

```
mysql> SELECT
->     l.LocationID,
->     l.LocationName,
->     l.Address,
->     p.MaximumPaymentAmount
-> FROM
->     Location l
-> JOIN
->     (SELECT LocationID, MAX(Amount) AS MaximumPaymentAmount
->      FROM Payment
->      GROUP BY LocationID) p ON l.LocationID = p.LocationID;
+-----+-----+-----+-----+
| LocationID | LocationName | Address | MaximumPaymentAmount |
+-----+-----+-----+-----+
| 21 | Central town | 111 Motihari, Bihar | 40.00 |
| 22 | North lake | 333 salt lake | 100.00 |
| 23 | South Branch | 555 St, Durgapur | 900.00 |
| 24 | East Office | 777 Elm St, Delhi | 40.00 |
| 25 | West Maple | 999 Maple St, Village | 40.00 |
| 26 | Cedar St Center | 111 Cedar St, Town | 40.00 |
| 27 | Riverside Pine | 333 Pine St | 100.00 |
| 28 | Oak Facility | 555 Oak St | 40.00 |
| 29 | Berlin Park | 777 Warehouse St, Berlin | 100.00 |
| 30 | London Office | 999 St, London | 40.00 |
+-----+-----+-----+-----+
10 rows in set (0.00 sec)

mysql>
```

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

MySQL 8.0 Command Line Client

```
mysql> SELECT c.*
-> FROM Courier c
-> WHERE c.Weight > (
->   SELECT MAX(c2.Weight)
->   FROM Courier c2
->   WHERE c2.SenderName = 'Emma Moore');
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
11	Mark Anderson	111 Motihari, Bihar	Astha Raj	123 Motihari, Bihar	4.20	Processing	TN345678	2024-01-21
16	Ava Smith	111 Cedar St, Town	Bob Smith	456 Main St, Town	3.80	Cancelled	TN012345	2024-03-08
19	Mia Anderson	777 Warehouse St, Berlin	Julie Anthony	55 Berlin	4.00	Cancelled	TN123456	2024-02-28

3 rows in set (0.00 sec)

mysql>