Gautam Sharma

ASSIGNMENT-3

1)

```
mysql> create table user (UserID INT PRIMARY KEY,
    -> Name VARCHAR(255),
    -> Email VARCHAR(255) UNIQUE,
    -> Password VARCHAR(255),
    -> ContactNumber VARCHAR(20),
    -> Address TEXT
    -> );
INSERT INTO user (UserID, Name, Email, Password, ContactNumber, Address)
    -> VALUES
    -> (1, 'John', 'john@example.com', 'password123', '123-456-7890', 'City1'),
    -> (2, 'Jane', 'jane@example.com', 'pass456', '987-654-3210', 'City2'),
    -> (3, 'Bob', 'bob@example.com', 'securePass', '111-222-3333', 'City3'),
    -> (4, 'Alice', 'aliceexample.com', 'mySecret', '555-444-7777', 'City4');
```

```
+--------+-------+-------------------+-------------+---------------+---------+
| UserID | Name  | Email             | Password    | ContactNumber | Address |
+--------+-------+-------------------+-------------+---------------+---------+
|      1 | John  | john@example.com  | password123 | 123-456-7890  | City1   |
|      2 | Jane  | jane@example.com  | pass456     | 987-654-3210  | City2   |
|      3 | Bob   | bob@example.com   | securePass  | 111-222-3333  | City3   |
|      4 | Alice | aliceexample.com  | mySecret    | 555-444-7777  | City4   |
+--------+-------+-------------------+-------------+---------------+---------+
```

2)

```
> 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);
INSERT INTO Courier (CourierID, SenderName, SenderAddress, ReceiverName,
    -> ReceiverAddress, Weight, Status, TrackingNumber, DeliveryDate)
    -> VALUES
```

```
    -> (1, 'John ', ' City1', ' Smith', 'City2', 2.5, 'In Transit', 'ABC123', '2023-01-10'),

    -> (2, 'Alice ', 'City4', ' Johnson', 'City3', 1.8, 'Delivered', 'DEF456', '2023-01-15'),

    -> (3, 'Charlie ', 'City5', ' Davis', 'City6', 3.0, 'Pending', 'GHI789', NULL),

    -> (4, 'Frank ', 'City7', ' Miller', 'City8', 4.2, 'In Transit', 'JKL012', '2023-01-20');
```

3)

```
create table CourierServices
 (ServiceID INT PRIMARY KEY,
ServiceName VARCHAR(100),
 Cost DECIMAL(8, 2));
INSERT INTO CourierServices (ServiceID, ServiceName, Cost)
    -> VALUES
    -> (1, 'Standard Delivery', 10.99),
    -> (2, 'Express Delivery', 24.99),
    -> (3, 'Same Day Delivery', 39.99),
    -> (4, 'International Shipping', 49.99),
    -> (5, 'Overnight Delivery', 29.99);
```

```
+-----------+-----------------------+-------+
| ServiceID | ServiceName           | Cost  |
+-----------+-----------------------+-------+
|         1 | Standard Delivery     | 10.99 |
|         2 | Express Delivery      | 24.99 |
|         3 | Same Day Delivery     | 39.99 |
|         4 | International Shipping | 49.99 |
|         5 | Overnight Delivery    | 29.99 |
+-----------+-----------------------+-------+
```

4)

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

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

    -> VALUES

    -> (1, 'Manager A', 'managerA@gmail.com', '5551112222', 'Manager', 60000.00),

    -> (2, 'Courier Driver B', 'driverB@gmail.com', '555334444', 'Driver', 45000.00),

    -> (3, 'Office Staff C', 'staffC@gmail.com', '5555556666', 'Office Staff', 35000.00),

    -> (4, 'Courier Driver D', 'driverD@gmail.com', '5557778888', 'Driver', 47000.00),

    -> (5, 'Manager E', 'managerE@gmail.com', '5559990000', 'Manager', 62000.00);
```

```
+------------+-----------------+--------------------+---------------+--------------+----------+
| EmployeeID | Name            | Email              | ContactNumber | Role         | Salary   |
+------------+-----------------+--------------------+---------------+--------------+----------+
|          1 | Manager A       | managerA@gmail.com | 5551112222    | Manager      | 60000.00 |
|          2 | Courier Driver B| driverB@gmail.com  | 555334444     | Driver       | 45000.00 |
|          3 | Office Staff C  | staffC@gmail.com   | 5555556666    | Office Staff | 35000.00 |
|          4 | Courier Driver D| driverD@gmail.com  | 5557778888    | Driver       | 47000.00 |
|          5 | Manager E       | managerE@gmail.com | 5559990000    | Manager      | 62000.00 |
+------------+-----------------+--------------------+---------------+--------------+----------+
```

5)

```
create table Location

    -> (LocationID INT PRIMARY KEY,

    -> LocationName VARCHAR(100),

    -> Address TEXT);
```

```
INSERT INTO Location (LocationID, LocationName, Address)

    -> VALUES

    -> (1, 'City1 ', '123 , City1'),

    -> (2, 'City2 ', '456 , City2'),

    -> (3, 'City3 ', '789 , City3'),

    -> (4, 'City4 ', '101 , City4'),

    -> (5, 'City5 ', '202 , City5');
```

```
+------------+--------------+--------------+
| LocationID | LocationName | Address      |
+------------+--------------+--------------+
|          1 | City1        | 123 , City1  |
|          2 | City2        | 456 , City2  |
|          3 | City3        | 789 , City3  |
|          4 | City4        | 101 , City4  |
|          5 | City5        | 202 , City5  |
+------------+--------------+--------------+
```

Gautam Sharma

6)

mysql> create table Payment

   -> (PaymentID INT PRIMARY KEY,

   -> CourierID INT,

   -> LocationId INT,

   -> Amount DECIMAL(10, 2),

   -> PaymentDate DATE,

   -> FOREIGN KEY (CourierID) REFERENCES Couriers(CourierID),

   -> FOREIGN KEY (LocationID) REFERENCES Location(LocationID));

mysql> INSERT INTO Payment (PaymentID, CourierID, LocationID, Amount, PaymentDate)

   -> VALUES

   -> (1, 1, 2, 15.99, '2023-01-12'),

   -> (2, 2, 4, 20.50, '2023-01-18'),

   -> (3, 3, 1, 29.99, '2023-01-22'),

   -> (4, 4, 3, 25.00, '2023-01-28'),

   -> (5, 5, 5, 12.75, '2023-02-01');

```
+-----------+-----------+------------+--------+-------------+
| PaymentID | CourierID | LocationId | Amount | PaymentDate |
+-----------+-----------+------------+--------+-------------+
|         1 |         1 |          2 |  15.99 | 2023-01-12  |
|         2 |         2 |          4 |  20.50 | 2023-01-18  |
|         3 |         3 |          1 |  29.99 | 2023-01-22  |
|         4 |         4 |          3 |  25.00 | 2023-01-28  |
|         5 |         5 |          5 |  12.75 | 2023-02-01  |
+-----------+-----------+------------+--------+-------------+
```

Gautam Sharma

Task-2

1) SELECT * FROM Users;

```
+----------+------------+---------------+--------------+----------------+--------+------------+----------------+--------------+
| CourierID | SenderName | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status     | TrackingNumber | DeliveryDate |
+----------+------------+---------------+--------------+----------------+--------+------------+----------------+--------------+
|        1 | John       | City1         | Smith        | City2          |   2.50 | In Transit | ABC123         | 2023-01-10   |
|        2 | Alice      | City4         | Johnson      | City3          |   1.80 | Delivered  | DEF456         | 2023-01-15   |
|        3 | Charlie    | City5         | Davis        | City6          |   3.00 | Pending    | GHI789         | NULL         |
|        4 | Frank      | City7         | Miller       | City8          |   4.20 | In Transit | JKL012         | 2023-01-20   |
+----------+------------+---------------+--------------+----------------+--------+------------+----------------+--------------+
```

2) SELECT * FROM courier where SenderName = 'john';

3) SELECT * FROM courier;

```
+------------+--------------+
| SenderName | ReceiverName |
+------------+--------------+
| John       | Smith        |
| Alice      | Johnson      |
| Charlie    | Davis        |
| Frank      | Miller       |
+------------+--------------+
```

4)

SELECT * FROM courier where TrackingNumber = 'DEF456';

```
+----------+------------+---------------+--------------+----------------+--------+-----------+----------------+--------------+
| CourierID | SenderName | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status    | TrackingNumber | DeliveryDate |
+----------+------------+---------------+--------------+----------------+--------+-----------+----------------+--------------+
|        2 | Alice      | City4         | Johnson      | City3          |   1.80 | Delivered | DEF456         | 2023-01-15   |
+----------+------------+---------------+--------------+----------------+--------+-----------+----------------+--------------+
```

5)

SELECT * FROM courier where CourierId = 4;

```
+----------+------------+---------------+--------------+----------------+--------+------------+----------------+--------------+
| CourierID | SenderName | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status     | TrackingNumber | DeliveryDate |
+----------+------------+---------------+--------------+----------------+--------+------------+----------------+--------------+
|        4 | Frank      | City7         | Miller       | City8          |   4.20 | In Transit | JKL012         | 2023-01-20   |
+----------+------------+---------------+--------------+----------------+--------+------------+----------------+--------------+
```

6)

SELECT * FROM courier where status != 'Delivered';

```
+----------+------------+---------------+--------------+----------------+--------+------------+----------------+--------------+
| CourierID | SenderName | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status     | TrackingNumber | DeliveryDate |
+----------+------------+---------------+--------------+----------------+--------+------------+----------------+--------------+
|        1 | John       | City1         | Smith        | City2          |   2.50 | In Transit | ABC123         | 2023-01-10   |
|        3 | Charlie    | City5         | Davis        | City6          |   3.00 | Pending    | GHI789         | NULL         |
|        4 | Frank      | City7         | Miller       | City8          |   4.20 | In Transit | JKL012         | 2023-01-20   |
+----------+------------+---------------+--------------+----------------+--------+------------+----------------+--------------+
```

7)

SELECT * FROM courier where DeliveryDate = current_date();

```
mysql> SELECT * FROM courier where DeliveryDate = current_date();
Empty set (0.00 sec)
```

8)

SELECT * FROM courier where status = "Shipped";

```
mysql> SELECT * FROM courier where status ="Shipped";
Empty set (0.00 sec)
```

9)

SELECT CourierId, TrackingNumber (SELECT count(*) from c2 where c2.CourierId = Couriers.CourierId) AS TotalPackages from couriers;

10)

11) SELECT * FROM Courier where weight >= 5;

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1	John	City1	Smith	City2	2.50	In Transit	ABC123	2023-01-10
2	Alice	City4	Johnson	City3	1.80	Delivered	DEF456	2023-01-15
3	Charlie	City5	Davis	City6	3.00	Pending	GHI789	NULL
4	Frank	City7	Miller	City8	4.20	In Transit	JKL012	2023-01-20

12)

SELECT * from employee where Name = 'John';

14)

SELECT EmployeeID, COUNT(CourierID) AS TotalCouriersHandled FROM Courier GROUP BY EmployeeID;

15)

select l.locationid, l.locationname, sum(p.amount) as totalrevenue

    -> from location l left join payment p on l.locationid = p.locationid

    -> group by l.locationid, l.locationname;

locationid	locationname	totalrevenue
1	City1	29.99
2	City2	15.99
3	City3	25.00
4	City4	20.50
5	City5	12.75

16)

select receiveraddress as location, count(*) as couriercount

   -> from courier group by receiveraddress;

```
+----------+--------------+
| location | couriercount |
+----------+--------------+
| City2    |            1 |
| City3    |            1 |
| City6    |            1 |
| City8    |            1 |
+----------+--------------+
```

18)

select locationid, sum(amount) as totalpayments

   -> from payment group by locationid having totalpayments < 120;

```
+------------+---------------+
| locationid | totalpayments |
+------------+---------------+
|          1 |         29.99 |
|          2 |         15.99 |
|          3 |         25.00 |
|          4 |         20.50 |
|          5 |         12.75 |
+------------+---------------+
```

19)

select locationid, sum(amount) as totalpayments

   -> from payment group by locationid;

```
+------------+----------------+
| locationid | totalpayments  |
+------------+----------------+
|          1 |          29.99 |
|          2 |          15.99 |
|          3 |          25.00 |
|          4 |          20.50 |
|          5 |          12.75 |
+------------+----------------+
```

20)

```
mysql> select c.courierid, c.sendername, c.receivername, sum(p.a
mount) as totalpayments
    -> from courier c join payment p on c.courierid = p.courieri
d
    -> where p.locationid = 1 group by c.courierid having totalp
ayments > 10000;
Empty set (0.00 sec)
```

21)

```
mysql> Select c.courierID, c.senderName, c.senderaddress ,
    -> sum(p.amount) as totalamount from courier c join payment
p on c.courierid = p.courierid
    -> where p.paymentdate > '2023-01-01' group by c.courierid h
aving totalamount>1000;
Empty set (0.00 sec)
```

22)

```
mysql> select l.locationid, l.locationname, sum(p.amount) as tot
alpayments from location l join payment p on l.locationid = p.lo
cationid where p.paymentdate > '2023-01-01' group by l.locationi
d having totalpayments > 5000;
Empty set (0.00 sec)
```

23)

select p.paymentid, p.courierid, c.sendername as sender, c.senderaddress as

   -> senderaddress, c.receivername as receiver, c.receiveraddress as

   -> receiveraddress, c.weight, c.status, c.trackingnumber, c.deliverydate, p.locationid,

-> p.amount, p.paymentdate

-> from payment p join courier c on p.courierid = c.courierid

-> ;

```
+-----------+-----------+-----------+
| paymentid | courierid | sender    | senderaddress | receiver | receiveraddress | weight | status     | trackingnumber | deliverydate
| locationid | amount  | paymentdate |
+-----------+-----------+-----------+---------------+----------+-----------------+--------+------------+----------------+-------------
|         1 |         1 | John      | City1         | Smith    | City2           |   2.50 | In Transit | ABC123         | 2023-01-10
|         2 | 15.99 | 2023-01-12 |
|         2 |         2 | Alice     | City4         | Johnson  | City3           |   1.80 | Delivered  | DEF456         | 2023-01-15
|         4 | 20.50 | 2023-01-18 |
|         3 |         3 | Charlie   | City5         | Davis    | City6           |   3.00 | Pending    | GHI789         | NULL
|         1 | 29.99 | 2023-01-22 |
|         4 |         4 | Frank     | City7         | Miller   | City8           |   4.20 | In Transit | JKL012         | 2023-01-20
|         3 | 25.00 | 2023-01-28 |
+-----------+-----------+-----------+
```

24)

select p.paymentid, p.courierid, l.locationid, l.address, l.locationname, p.amount,

-> p.paymentdate from payment p join location l on p.locationid = l.locationid;

```
+-----------+-----------+------------+------------+--------------+--------+------------+
| paymentid | courierid | locationid | address    | locationname | amount | paymentdate |
+-----------+-----------+------------+------------+--------------+--------+------------+
|         1 |         1 |          2 | 456 , City2 | City2        |  15.99 | 2023-01-12 |
|         2 |         2 |          4 | 101 , City4 | City4        |  20.50 | 2023-01-18 |
|         3 |         3 |          1 | 123 , City1 | City1        |  29.99 | 2023-01-22 |
|         4 |         4 |          3 | 789 , City3 | City3        |  25.00 | 2023-01-28 |
|         5 |         5 |          5 | 202 , City5 | City5        |  12.75 | 2023-02-01 |
+-----------+-----------+------------+------------+--------------+--------+------------+
```

25)

select p.paymentid, p.courierid, l.locationid, c.sendername as sender,

-> c.receivername , c.trackingnumber, c.deliverydate, l.locationname, l.address from

-> payment p join courier c on p.courierid = c.courierid join location l on p.locationid =

-> l.locationid;

```
+-----------+-----------+------------+---------+--------------+----------------+--------------+--------------+-----------+
| paymentid | courierid | locationid | sender  | receivername | trackingnumber | deliverydate | locationname | address   |
+-----------+-----------+------------+---------+--------------+----------------+--------------+--------------+-----------+
|         1 |         1 |          2 | John    | Smith        | ABC123         | 2023-01-10   | City2        | 456 , City2 |
|         2 |         2 |          4 | Alice   | Johnson      | DEF456         | 2023-01-15   | City4        | 101 , City4 |
|         3 |         3 |          1 | Charlie | Davis        | GHI789         | NULL         | City1        | 123 , City1 |
|         4 |         4 |          3 | Frank   | Miller       | JKL012         | 2023-01-20   | City3        | 789 , City3 |
+-----------+-----------+------------+---------+--------------+----------------+--------------+--------------+-----------+
```

26)

SELECT c.CourierID, c.TrackingNumber, c.SenderName, c.ReceiverName, c.Weight,

    -> c.Status, c.DeliveryDate, SUM(p.Amount) AS TotalPayments

    -> FROM Courier c

    -> JOIN Payment p ON c.CourierID = p.CourierID

    -> GROUP BY c.CourierID, c.TrackingNumber, c.SenderName, c.ReceiverName, c.Weight,

    -> c.Status, c.DeliveryDate;

mysql> select p.paymentid, p.courierid, c.sendername, c.senderaddress, c.receivername,

    -> c.receiveraddress , c.weight, c.status, c.trackingnumber,

    -> c.deliverydate , p.locationid, p.amount, p.paymentdate

    -> from payment p inner join courier c on p.courierid = c.courierid;

```
+-----------+-----------+------------+---------------+--------------+---------------+--------+------------+----------------+-------
| paymentid | courierid | sendername | senderaddress | receivername | receiveraddress | weight | status     | trackingnumber | delive
rydate | locationid | amount | paymentdate |
+-----------+-----------+------------+---------------+--------------+---------------+--------+------------+----------------+-------
|         1 |         1 | John       | City1         | Smith        | City2         |   2.50 | In Transit | ABC123         | 2023-0
1-10   |          2 |  15.99 | 2023-01-12  |
|         2 |         2 | Alice      | City4         | Johnson      | City3         |   1.80 | Delivered  | DEF456         | 2023-0
1-15   |          4 |  20.50 | 2023-01-18  |
|         3 |         3 | Charlie    | City5         | Davis        | City6         |   3.00 | Pending    | GHI789         | NULL
|          1 |  29.99 | 2023-01-22  |
|         4 |         4 | Frank      | City7         | Miller       | City8         |   4.20 | In Transit | JKL012         | 2023-0
1-20   |          3 |  25.00 | 2023-01-28  |
+-----------+-----------+------------+---------------+--------------+---------------+--------+------------+----------------+-------
```


27)

```
+----------+----------------+------------+--------------+--------+------------+--------------+---------------+
| CourierID | TrackingNumber | SenderName | ReceiverName | Weight | Status     | DeliveryDate | TotalPayments |
+----------+----------------+------------+--------------+--------+------------+--------------+---------------+
|        1 | ABC123         | John       | Smith        |   2.50 | In Transit | 2023-01-10   |         15.99 |
|        2 | DEF456         | Alice      | Johnson      |   1.80 | Delivered  | 2023-01-15   |         20.50 |
|        3 | GHI789         | Charlie    | Davis        |   3.00 | Pending    | NULL         |         29.99 |
|        4 | JKL012         | Frank      | Miller       |   4.20 | In Transit | 2023-01-20   |         25.00 |
+----------+----------------+------------+--------------+--------+------------+--------------+---------------+
4 rows in set (0.00 sec)
```

28)

select p.paymentid, p.courierid, p.locationid, p.amount, p.paymentdate,

    -> c.sendername, c.receivername from courier c right join payment p on

    -> c.courierid = p.courierid

    -> where p.paymentdate = '2023-01-12';

```
+------------+-----------+------------+--------+-------------+------------+--------------+
| paymentid  | courierid | locationid | amount | paymentdate | sendername | receivername |
+------------+-----------+------------+--------+-------------+------------+--------------+
|          1 |         1 |          2 |  15.99 | 2023-01-12  | John       | Smith        |
+------------+-----------+------------+--------+-------------+------------+--------------+
```

29)

select * from payment p join courier c on p.courierid = c.courierid;

```
+-----------+-----------+------------+--------+-------------+-----------+------------+---------------+--------------+---------------+
| PaymentID | CourierID | LocationId | Amount | PaymentDate | CourierID | SenderName | SenderAddress | ReceiverName | ReceiverAddress
| Weight    | Status    | TrackingNumber | DeliveryDate |
+-----------+-----------+------------+--------+-------------+-----------+------------+---------------+--------------+---------------+
|         1 |         1 |          2 |  15.99 | 2023-01-12  |         1 | John       | City1         | Smith        | City2
|    2.50 | In Transit | ABC123     | 2023-01-10  |
|         2 |         2 |          4 |  20.50 | 2023-01-18  |         2 | Alice      | City4         | Johnson      | City3
|    1.80 | Delivered  | DEF456     | 2023-01-15  |
|         3 |         3 |          1 |  29.99 | 2023-01-22  |         3 | Charlie    | City5         | Davis        | City6
|    3.00 | Pending    | GHI789     | NULL        |
|         4 |         4 |          3 |  25.00 | 2023-01-28  |         4 | Frank      | City7         | Miller       | City8
|    4.20 | In Transit | JKL012     | 2023-01-20  |
```

30)

mysql> SELECT CourierID, MAX(AVG(DeliveryTime)) AS HighestAverageDeliveryTime

   -> FROM (SELECT CourierID, AVG(DATEDIFF(DeliveryDate, OrderDate)) AS DeliveryTime FROM Orders

   -> GROUP BY CourierID) AS AvgDeliveryTimes;

ERROR 1054 (42S22): Unknown column 'CourierID' in 'field list'

mysql> SELECT p.PaymentID, p.Amount, p.PaymentDate, l.LocationID,l.LocationName

   -> FROM Payment p JOIN Location l ON p.LocationID = l.LocationID;

```
+-----------+--------+-------------+------------+--------------+
| PaymentID | Amount | PaymentDate | LocationID | LocationName |
+-----------+--------+-------------+------------+--------------+
|         1 |  15.99 | 2023-01-12  |          2 | City2        |
|         2 |  20.50 | 2023-01-18  |          4 | City4        |
|         3 |  29.99 | 2023-01-22  |          1 | City1        |
|         4 |  25.00 | 2023-01-28  |          3 | City3        |
|         5 |  12.75 | 2023-02-01  |          5 | City5        |
+-----------+--------+-------------+------------+--------------+
```

31)

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

```
+-----------+----------------+----------------+
| CourierID | TrackingNumber | TotalPayments  |
+-----------+----------------+----------------+
|         1 | ABC123         |          15.99 |
|         2 | DEF456         |          20.50 |
|         3 | GHI789         |          29.99 |
|         4 | JKL012         |          25.00 |
+-----------+----------------+----------------+
4 rows in set (0.00 sec)
```

32)

select p.paymentid, p.courierid, p.locationid, p.amount, p.paymentdate,

   -> c.sendername, c.receivername

   -> from payment p left join courier c on p.courierid = c.courierid

   -> where p.paymentdate between '2023-01-01' and '2023-12-12';

```
+-----------+-----------+------------+--------+-------------+------------+--------------+
| paymentid | courierid | locationid | amount | paymentdate | sendername | receivername |
+-----------+-----------+------------+--------+-------------+------------+--------------+
|         1 |         1 |          2 |  15.99 | 2023-01-12  | John       | Smith        |
|         2 |         2 |          4 |  20.50 | 2023-01-18  | Alice      | Johnson      |
|         3 |         3 |          1 |  29.99 | 2023-01-22  | Charlie    | Davis        |
|         4 |         4 |          3 |  25.00 | 2023-01-28  | Frank      | Miller       |
|         5 |         5 |          5 |  12.75 | 2023-02-01  | NULL       | NULL         |
+-----------+-----------+------------+--------+-------------+------------+--------------+
```

33)

select u.userid, u.username, c.courierid, c.sendername, c.receivername, c.weight, c.status, c.trackingnumber, c.deliverydate from users u outer join on courier c u.userid = c.userid

36)

select u.userid, u.name, c.serviceid, c.serviceid,c.servicename

   -> from user u

   -> cross join courierservices c;

```
+--------+-------+-----------+-----------+----------------------+
| userid | name  | serviceid | serviceid | servicename          |
|        |       |           |           |                      |
+--------+-------+-----------+-----------+----------------------+
|      4 | Alice |         1 |         1 | Standard Delivery    |
|      3 | Bob   |         1 |         1 | Standard Delivery    |
|      2 | Jane  |         1 |         1 | Standard Delivery    |
|      1 | John  |         1 |         1 | Standard Delivery    |
|      4 | Alice |         2 |         2 | Express Delivery     |
|      3 | Bob   |         2 |         2 | Express Delivery     |
|      2 | Jane  |         2 |         2 | Express Delivery     |
|      1 | John  |         2 |         2 | Express Delivery     |
|      4 | Alice |         3 |         3 | Same Day Delivery    |
|      3 | Bob   |         3 |         3 | Same Day Delivery    |
|      2 | Jane  |         3 |         3 | Same Day Delivery    |
|      1 | John  |         3 |         3 | Same Day Delivery    |
|      4 | Alice |         4 |         4 | International Shipping |
|      3 | Bob   |         4 |         4 | International Shipping |
|      2 | Jane  |         4 |         4 | International Shipping |
|      1 | John  |         4 |         4 | International Shipping |
|      4 | Alice |         5 |         5 | Overnight Delivery   |
|      3 | Bob   |         5 |         5 | Overnight Delivery   |
|      2 | Jane  |         5 |         5 | Overnight Delivery   |
|      1 | John  |         5 |         5 | Overnight Delivery   |
+--------+-------+-----------+-----------+----------------------+
```

37)

select * from employee cross join location ;

```
+------------+------------------+-------------------+---------------+-------------+----------+------------+--------------+----------------+
| EmployeeID | Name             | Email             | ContactNumber | Role        | Salary   | LocationID | LocationName | Address        |
+------------+------------------+-------------------+---------------+-------------+----------+------------+--------------+----------------+
|          5 | Manager E        | managerE@gmail.com | 5559990000    | Manager     | 62000.00 |          1 | City1        | 123 , City1    |
|          4 | Courier Driver D | driverD@gmail.com | 5557778888    | Driver      | 47000.00 |          1 | City1        | 123 , City1    |
|          3 | Office Staff C   | staffC@gmail.com  | 5555556666    | Office Staff | 35000.00 |          1 | City1        | 123 , City1    |
|          2 | Courier Driver B | driverB@gmail.com | 5553344444    | Driver      | 45000.00 |          1 | City1        | 123 , City1    |
|          1 | Manager A        | managerA@gmail.com | 5551112222    | Manager     | 60000.00 |          1 | City1        | 123 , City1    |
|          5 | Manager E        | managerE@gmail.com | 5559990000    | Manager     | 62000.00 |          2 | City2        | 456 , City2    |
|          4 | Courier Driver D | driverD@gmail.com | 5557778888    | Driver      | 47000.00 |          2 | City2        | 456 , City2    |
|          3 | Office Staff C   | staffC@gmail.com  | 5555556666    | Office Staff | 35000.00 |          2 | City2        | 456 , City2    |
|          2 | Courier Driver B | driverB@gmail.com | 5553344444    | Driver      | 45000.00 |          2 | City2        | 456 , City2    |
|          1 | Manager A        | managerA@gmail.com | 5551112222    | Manager     | 60000.00 |          2 | City2        | 456 , City2    |
|          5 | Manager E        | managerE@gmail.com | 5559990000    | Manager     | 62000.00 |          3 | City3        | 789 , City3    |
|          4 | Courier Driver D | driverD@gmail.com | 5557778888    | Driver      | 47000.00 |          3 | City3        | 789 , City3    |
|          3 | Office Staff C   | staffC@gmail.com  | 5555556666    | Office Staff | 35000.00 |          3 | City3        | 789 , City3    |
|          2 | Courier Driver B | driverB@gmail.com | 5553344444    | Driver      | 45000.00 |          3 | City3        | 789 , City3    |
|          1 | Manager A        | managerA@gmail.com | 5551112222    | Manager     | 60000.00 |          3 | City3        | 789 , City3    |
|          5 | Manager E        | managerE@gmail.com | 5559990000    | Manager     | 62000.00 |          4 | City4        | 101 , City4    |
|          4 | Courier Driver D | driverD@gmail.com | 5557778888    | Driver      | 47000.00 |          4 | City4        | 101 , City4    |
|          3 | Office Staff C   | staffC@gmail.com  | 5555556666    | Office Staff | 35000.00 |          4 | City4        | 101 , City4    |
|          2 | Courier Driver B | driverB@gmail.com | 5553344444    | Driver      | 45000.00 |          4 | City4        | 101 , City4    |
|          1 | Manager A        | managerA@gmail.com | 5551112222    | Manager     | 60000.00 |          4 | City4        | 101 , City4    |
|          5 | Manager E        | managerE@gmail.com | 5559990000    | Manager     | 62000.00 |          5 | City5        | 202 , City5    |
|          4 | Courier Driver D | driverD@gmail.com | 5557778888    | Driver      | 47000.00 |          5 | City5        | 202 , City5    |
|          3 | Office Staff C   | staffC@gmail.com  | 5555556666    | Office Staff | 35000.00 |          5 | City5        | 202 , City5    |
|          2 | Courier Driver B | driverB@gmail.com | 5553344444    | Driver      | 45000.00 |          5 | City5        | 202 , City5    |
|          1 | Manager A        | managerA@gmail.com | 5551112222    | Manager     | 60000.00 |          5 | City5        | 202 , City5    |
+------------+------------------+-------------------+---------------+-------------+----------+------------+--------------+----------------+
25 rows in set (0.00 sec)
```

38)

Select * from courier left join user as sender on courier.sendername = sender.name;

```
+----------+-----------+-------------+--------------+----------------+--------+------------+----------------+--------------+--------+------+-------+----------+---------------+---------+
| CourierID| SenderName| SenderAddress| ReceiverName| ReceiverAddress| Weight | Status     | TrackingNumber | DeliveryDate | UserID | Name | Email | Password | ContactNumber | Address |
+----------+-----------+-------------+--------------+----------------+--------+------------+----------------+--------------+--------+------+-------+----------+---------------+---------+
|        1 | John      | City1       | Smith        | City2          |   2.50 | In Transit | ABC123         | 2023-01-10   | NULL   | NULL | NULL  | NULL     | NULL          | NULL    |
|        2 | Alice     | City4       | Johnson      | City3          |   1.80 | Delivered  | DEF456         | 2023-01-15   | NULL   | NULL | NULL  | NULL     | NULL          | NULL    |
|        3 | Charlie   | City5       | Davis        | City6          |   3.00 | Pending    | GHI789         | NULL         | NULL   | NULL | NULL  | NULL     | NULL          | NULL    |
|        4 | Frank     | City7       | Miller       | City8          |   4.20 | In Transit | JKL012         | 2023-01-20   | NULL   | NULL | NULL  | NULL     | NULL          | NULL    |
+----------+-----------+-------------+--------------+----------------+--------+------------+----------------+--------------+--------+------+-------+----------+---------------+---------+
```

39)

Select * from courier left join user as receiver on courier.receivername = receiver.name;

```
+----------+-----------+-------------+--------------+----------------+--------+------------+----------------+--------------+--------+------+-------+----------+---------------+---------+
| CourierID| SenderName| SenderAddress| ReceiverName| ReceiverAddress| Weight | Status     | TrackingNumber | DeliveryDate | UserID | Name | Email | Password | ContactNumber | Address |
+----------+-----------+-------------+--------------+----------------+--------+------------+----------------+--------------+--------+------+-------+----------+---------------+---------+
|        1 | John      | City1       | Smith        | City2          |   2.50 | In Transit | ABC123         | 2023-01-10   | NULL   | NULL | NULL  | NULL     | NULL          | NULL    |
|        2 | Alice     | City4       | Johnson      | City3          |   1.80 | Delivered  | DEF456         | 2023-01-15   | NULL   | NULL | NULL  | NULL     | NULL          | NULL    |
|        3 | Charlie   | City5       | Davis        | City6          |   3.00 | Pending    | GHI789         | NULL         | NULL   | NULL | NULL  | NULL     | NULL          | NULL    |
|        4 | Frank     | City7       | Miller       | City8          |   4.20 | In Transit | JKL012         | 2023-01-20   | NULL   | NULL | NULL  | NULL     | NULL          | NULL    |
+----------+-----------+-------------+--------------+----------------+--------+------------+----------------+--------------+--------+------+-------+----------+---------------+---------+
```

42) select l.locationid, l.locationname, sum(p.amount), as totalpayments from location l left join payment p on l.locationid = p.locationid group by l.locationid;

43)

```
mysql> select * from courier inner join courier as samesender on courier.sendername =
    -> samesender.sendername and courier.courierid <> samesender.courierid;
Empty set (0.00 sec)
```

44)

SELECT * from employee where role="Manager";

```
+------------+-----------+-------------------+---------------+---------+----------+
| EmployeeID | Name      | Email             | ContactNumber | Role    | Salary   |
+------------+-----------+-------------------+---------------+---------+----------+
|          1 | Manager A | managerA@gmail.com| 5551112222    | Manager | 60000.00 |
|          5 | Manager E | managerE@gmail.com| 5559990000    | Manager | 62000.00 |
+------------+-----------+-------------------+---------------+---------+----------+
```

45)

mysql> select * from payment inner join courier on payment.courierid = courier.courierid inner join courier as samelocation on courier.senderaddress = samelocation.senderaddress and courier.courierid <> samelocation.courierid;

```
mysql> select * from payment inner join courier on payment.courierid = cour
ier.courierid inner join courier as samelocation on courier.senderaddress =
 samelocation.senderaddress and courier.courierid <> samelocation.courierid
;
Empty set (0.00 sec)
```

46)

SELECT CourierID,TrackingNumber,SenderName,SenderAddress,ReceiverName,ReceiverAddress,

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

```
mysql> SELECT CourierID,TrackingNumber,SenderName,SenderAddress,ReceiverNam
e,ReceiverAddress,
    -> Weight,Status,DeliveryDate FROM Courier WHERE SenderAddress IN (SELE
CT SenderAddress FROM Courier GROUP BY SenderAddress HAVING COUNT(*) > 1);
Empty set (0.00 sec)
```

49)

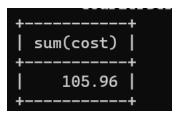select * from courier where weight > (select avg(weight) from courier);

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
3	Charlie	City5	Davis	City6	3.00	Pending	GHI789	NULL
4	Frank	City7	Miller	City8	4.20	In Transit	JKL012	2023-01-20

50)

select name from employee where salary> (select avg(salary) from employee) ;

```
+-----------+
| name      |
+-----------+
| Manager A |
| Manager E |
+-----------+
```

51)

select sum(cost) from courierservices where cost < (select max(cost) from

-> courierservices);

```
+------------+
| sum(cost)  |
+------------+
|     105.96 |
+------------+
```

52)

mysql> select * from courier where status in ('in Transit','Delivered');

```
+----------+------------+---------------+--------------+-----------------+--------+------------+----------------+--------------+
| CourierID | SenderName | SenderAddress | ReceiverName | ReceiverAddress | Weight | Status     | TrackingNumber | DeliveryDate |
+----------+------------+---------------+--------------+-----------------+--------+------------+----------------+--------------+
|        1 | John       | City1         | Smith        | City2           |   2.50 | In Transit | ABC123         | 2023-01-10   |
|        2 | Alice      | City4         | Johnson      | City3           |   1.80 | Delivered  | DEF456         | 2023-01-15   |
|        4 | Frank      | City7         | Miller       | City8           |   4.20 | In Transit | JKL012         | 2023-01-20   |
+----------+------------+---------------+--------------+-----------------+--------+------------+----------------+--------------+
```

53)

select l.locationid, l.locationname, l.address, max(p.amount) as maxamount

-> from location l join payment p on l.locationid = p.locationid

-> group by l.locationid having max(p.amount) is not null;

```
+------------+--------------+--------------+-----------+
| locationid | locationname | address      | maxamount |
+------------+--------------+--------------+-----------+
|          1 | City1        | 123 , City1  |     29.99 |
|          2 | City2        | 456 , City2  |     15.99 |
|          3 | City3        | 789 , City3  |     25.00 |
|          4 | City4        | 101 , City4  |     20.50 |
|          5 | City5        | 202 , City5  |     12.75 |
+------------+--------------+--------------+-----------+
```

54)

```
mysql> select * from courier where weight > (select max(weight) from courier where
    -> sendername = 'Frank');
Empty set (0.00 sec)
```