ASSIGNMENT : COURIER MANAGEMENT SYSTEM

PRIYADARSHINI S

DAY 3

**Task 2**

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

10. Find the average delivery time for each courier

**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

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

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

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

19. Calculate Total Payments per Location

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

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

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

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

mysql> select SenderID, COUNT(\*) AS TotalPackages

-> from courier

-> group by senderid;

+----------+---------------+

| SenderID | TotalPackages |

+----------+---------------+

| 1 | 1 |

| 2 | 1 |

| 3 | 1 |

| 4 | 1 |

| 5 | 1 |

| 6 | 1 |

| 7 | 1 |

+----------+---------------+

7 rows in set (0.01 sec)

mysql> select receiverid, COUNT(\*) AS totalpackages

-> FROM Courier

-> GROUP BY ReceiverID;

+------------+---------------+

| ReceiverID | TotalPackages |

+------------+---------------+

| 1 | 1 |

| 2 | 1 |

| 3 | 1 |

| 4 | 1 |

| 5 | 1 |

| 6 | 1 |

| 7 | 1 |

+------------+---------------+

7 rows in set (0.00 sec)

mysql> select COUNT(\*) AS TotalPackages FROM Courier;

+---------------+

| TotalPackages |

+---------------+

| 7 |

+---------------+

1 row in set (0.00 sec)

10. Find the average delivery time for each courier

mysql> select CourierID, AVG(DATEDIFF(DeliveryDate, NOW())) AS AvgDeliveryTime

-> FROM Courier

-> GROUP BY CourierID;

+-----------+-----------------+

| CourierID | AvgDeliveryTime |

+-----------+-----------------+

| 101 | 3.0000 |

| 102 | 1.0000 |

| 103 | 5.0000 |

| 104 | 2.0000 |

| 105 | 4.0000 |

| 106 | 0.0000 |

| 107 | 6.0000 |

+-----------+-----------------+

7 rows in set (0.00 sec)

mysql> select

-> courierid,

-> concat(avg(datediff(deliverydate, now())), ' minutes') as `avgdeliverytime (minutes)`

-> from courier

-> group by courierid;

+-----------+---------------------------+

| CourierID | AvgDeliveryTime (minutes) |

+-----------+---------------------------+

| 101 | 3.0000 minutes |

| 102 | 1.0000 minutes |

| 103 | 5.0000 minutes |

| 104 | 2.0000 minutes |

| 105 | 4.0000 minutes |

| 106 | 0.0000 minutes |

| 107 | 6.0000 minutes |

+-----------+---------------------------+

7 rows in set (0.00 sec)

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

mysql> select HandledByEmployeeID AS EmployeeID, COUNT(\*) AS TotalCouriers

-> FROM Courier

-> GROUP BY HandledByEmployeeID;

+------------+---------------+

| EmployeeID | TotalCouriers |

+------------+---------------+

| 301 | 1 |

| 302 | 1 |

| 303 | 1 |

| NULL | 4 |

+------------+---------------+

15. Calculate the total revenue generated by each location

mysql> select locationid, sum(amount) as totalrevenue

-> from payment

-> group by locationid;

+------------+--------------+

| LocationID | TotalRevenue |

+------------+--------------+

| 401 | 24.97 |

| 402 | 18.98 |

| 403 | 18.98 |

+------------+--------------+

3 rows in set (0.00 sec)

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

mysql> select receiverid, count(\*) as totalcouriersdelivered

-> from courier

-> where status = 'delivered'

-> group by receiverid;

+------------+------------------------+

| ReceiverID | TotalCouriersDelivered |

+------------+------------------------+

| 3 | 1 |

| 5 | 1 |

+------------+------------------------+

2 rows in set (0.00 sec)

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

mysql> select courierid, datediff(deliverydate, sentdate) as deliverytime

-> from courier

-> order by deliverytime desc

-> limit 1;

+-----------+--------------+

| CourierID | DeliveryTime |

+-----------+--------------+

| 103 | 22 |

+-----------+--------------+

1 row in set (0.00 sec)

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

mysql> select locationid, sum(amount) as totalpayments

-> from payment

-> group by locationid

-> having totalpayments < 20;

+------------+---------------+

| LocationID | TotalPayments |

+------------+---------------+

| 402 | 18.98 |

| 403 | 18.98 |

+------------+---------------+

2 rows in set (0.00 sec)

19. Calculate Total Payments per Location

mysql> select locationid, sum(amount) as totalpayments

-> from payment

-> group by locationid;

+------------+---------------+

| LocationID | TotalPayments |

+------------+---------------+

| 401 | 24.97 |

| 402 | 18.98 |

| 403 | 18.98 |

+------------+---------------+

3 rows in set (0.00 sec)

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

mysql> select courierid, sum(amount) as totalpayments

-> from payment

-> where locationid = 401

-> group by courierid

-> having totalpayments > 10;

+-----------+---------------+

| CourierID | TotalPayments |

+-----------+---------------+

| 104 | 12.99 |

+-----------+---------------+

1 row in set (0.00 sec)

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

mysql> select courierid, sum(amount) as totalpayments

-> from payment

-> where paymentdate > '2025-03-28'

-> group by courierid

-> having totalpayments > 10;

+-----------+---------------+

| CourierID | TotalPayments |

+-----------+---------------+

| 106 | 12.99 |

+-----------+---------------+

1 row in set (0.00 sec)

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

mysql> select locationid, sum(amount) as totalamount

-> from payment

-> where paymentdate < '2025-03-30'

-> group by locationid

-> having totalamount > 10;

+------------+-------------+

| LocationID | TotalAmount |

+------------+-------------+

| 401 | 18.98 |

| 402 | 18.98 |

+------------+-------------+

2 rows in set (0.00 sec)

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

23. Retrieve Payments with Courier Information

24. Retrieve Payments with Location Information

25. Retrieve Payments with Courier and Location Information

26. List all payments with courier details

27. Total payments received for each courier

28. List payments made on a specific date

29. Get Courier Information for Each Payment

30. Get Payment Details with Location

23. Retrieve Payments with Courier Information

mysql> select p.paymentid, p.courierid, p.amount, p.paymentdate,

-> c.trackingnumber, c.status, c.deliverydate

-> from payment p

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

+-----------+-----------+--------+-------------+----------------+------------+--------------+

| PaymentID | CourierID | Amount | PaymentDate | TrackingNumber | Status | DeliveryDate |

+-----------+-----------+--------+-------------+----------------+------------+--------------+

| 501 | 101 | 5.99 | 2025-03-25 | TRK987654 | Shipped | 2025-03-30 |

| 502 | 102 | 12.99 | 2025-03-26 | TRK876543 | Delivered | 2025-03-28 |

| 503 | 103 | 5.99 | 2025-03-27 | TRK765432 | Pending | 2025-04-01 |

| 504 | 104 | 12.99 | 2025-03-28 | TRK654321 | Shipped | 2025-03-29 |

| 505 | 105 | 5.99 | 2025-03-29 | TRK543210 | In Transit | 2025-03-31 |

| 506 | 106 | 12.99 | 2025-03-30 | TRK432109 | Delivered | 2025-03-27 |

| 507 | 107 | 5.99 | 2025-03-31 | TRK321098 | Pending | 2025-04-02 |

+-----------+-----------+--------+-------------+----------------+------------+--------------+

7 rows in set (0.00 sec)

24. Retrieve Payments with Location Information

mysql> select P.PaymentID, P.CourierID, P.Amount, P.PaymentDate,

-> L.LocationName, L.Address

-> from payment p

-> inner join location l on p.locationid = l.locationid;

+-----------+-----------+--------+-------------+--------------+-----------+

| PaymentID | CourierID | Amount | PaymentDate | LocationName | Address |

+-----------+-----------+--------+-------------+--------------+-----------+

| 501 | 101 | 5.99 | 2025-03-25 | WH B | Chennai |

| 504 | 104 | 12.99 | 2025-03-28 | WH B | Chennai |

| 507 | 107 | 5.99 | 2025-03-31 | WH B | Chennai |

| 502 | 102 | 12.99 | 2025-03-26 | WH C | Mumbai |

| 505 | 105 | 5.99 | 2025-03-29 | WH C | Mumbai |

| 503 | 103 | 5.99 | 2025-03-27 | WH D | Hyderabad |

| 506 | 106 | 12.99 | 2025-03-30 | WH D | Hyderabad |

+-----------+-----------+--------+-------------+--------------+-----------+

7 rows in set (0.00 sec)

25. Retrieve Payments with Courier and Location Information

mysql> select p.paymentid, p.courierid, p.amount, p.paymentdate,

-> c.trackingnumber, c.status, l.locationname

-> from payment p

-> inner join courier c on p.courierid = c.courierid

-> inner join location l on p.locationid = l.locationid;

+-----------+-----------+--------+-------------+----------------+------------+--------------+

| PaymentID | CourierID | Amount | PaymentDate | TrackingNumber | Status | LocationName |

+-----------+-----------+--------+-------------+----------------+------------+--------------+

| 501 | 101 | 5.99 | 2025-03-25 | TRK987654 | Shipped | WH B |

| 504 | 104 | 12.99 | 2025-03-28 | TRK654321 | Shipped | WH B |

| 507 | 107 | 5.99 | 2025-03-31 | TRK321098 | Pending | WH B |

| 502 | 102 | 12.99 | 2025-03-26 | TRK876543 | Delivered | WH C |

| 505 | 105 | 5.99 | 2025-03-29 | TRK543210 | In Transit | WH C |

| 503 | 103 | 5.99 | 2025-03-27 | TRK765432 | Pending | WH D |

| 506 | 106 | 12.99 | 2025-03-30 | TRK432109 | Delivered | WH D |

+-----------+-----------+--------+-------------+----------------+------------+--------------+

7 rows in set (0.01 sec)

26. List all payments with courier details

mysql> select P.\*, C.TrackingNumber, C.Status

-> from payment p

-> left join courier c on p.courierid = c.courierid;

+-----------+-----------+------------+--------+-------------+----------------+------------+

| PaymentID | CourierID | LocationID | Amount | PaymentDate | TrackingNumber | Status |

+-----------+-----------+------------+--------+-------------+----------------+------------+

| 501 | 101 | 401 | 5.99 | 2025-03-25 | TRK987654 | Shipped |

| 502 | 102 | 402 | 12.99 | 2025-03-26 | TRK876543 | Delivered |

| 503 | 103 | 403 | 5.99 | 2025-03-27 | TRK765432 | Pending |

| 504 | 104 | 401 | 12.99 | 2025-03-28 | TRK654321 | Shipped |

| 505 | 105 | 402 | 5.99 | 2025-03-29 | TRK543210 | In Transit |

| 506 | 106 | 403 | 12.99 | 2025-03-30 | TRK432109 | Delivered |

| 507 | 107 | 401 | 5.99 | 2025-03-31 | TRK321098 | Pending |

+-----------+-----------+------------+--------+-------------+----------------+------------+

7 rows in set (0.00 sec)

27. Total payments received for each courier

mysql> select CourierID, SUM(Amount) AS TotalPayments

-> from payment

-> group by courierid;

+-----------+---------------+

| CourierID | TotalPayments |

+-----------+---------------+

| 101 | 5.99 |

| 102 | 12.99 |

| 103 | 5.99 |

| 104 | 12.99 |

| 105 | 5.99 |

| 106 | 12.99 |

| 107 | 5.99 |

7 rows in set (0.00 sec)

28. List payments made on a specific date

mysql> select \* from payment where paymentdate = '2025-03-30';

+-----------+-----------+------------+--------+-------------+

| PaymentID | CourierID | LocationID | Amount | PaymentDate |

+-----------+-----------+------------+--------+-------------+

| 506 | 106 | 403 | 12.99 | 2025-03-30 |

+-----------+-----------+------------+--------+-------------+

1 row in set (0.00 sec)

29. Get Courier Information for Each Payment

mysql> select p.paymentid, c.trackingnumber, c.status, c.deliverydate

-> from payment p

-> left join courier c on p.courierid = c.courierid;

+-----------+----------------+------------+--------------+

| PaymentID | TrackingNumber | Status | DeliveryDate |

+-----------+----------------+------------+--------------+

| 501 | TRK987654 | Shipped | 2025-03-30 |

| 502 | TRK876543 | Delivered | 2025-03-28 |

| 503 | TRK765432 | Pending | 2025-04-01 |

| 504 | TRK654321 | Shipped | 2025-03-29 |

| 505 | TRK543210 | In Transit | 2025-03-31 |

| 506 | TRK432109 | Delivered | 2025-03-27 |

| 507 | TRK321098 | Pending | 2025-04-02 |

+-----------+----------------+------------+--------------+

7 rows in set (0.00 sec)

30. Get Payment Details with Location

mysql> select p.paymentid, p.amount, p.paymentdate, l.locationname

-> from payment p

-> left join location l on p.locationid = l.locationid;

+-----------+--------+-------------+--------------+

| PaymentID | Amount | PaymentDate | LocationName |

+-----------+--------+-------------+--------------+

| 501 | 5.99 | 2025-03-25 | WH B |

| 502 | 12.99 | 2025-03-26 | WH C |

| 503 | 5.99 | 2025-03-27 | WH D |

| 504 | 12.99 | 2025-03-28 | WH B |

| 505 | 5.99 | 2025-03-29 | WH C |

| 506 | 12.99 | 2025-03-30 | WH D |

| 507 | 5.99 | 2025-03-31 | WH B |

+-----------+--------+-------------+--------------+

7 rows in set (0.00 sec)

31. Calculating Total Payments for Each Courier

32. List Payments Within a Date Range

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

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

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

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

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

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

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

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

31. Calculating Total Payments for Each Courier

mysql> select c.courierid, c.trackingnumber, sum(p.amount) as totalpayment

-> from courier c

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

-> group by c.courierid, c.trackingnumber;

ERROR 2013 (HY000): Lost connection to MySQL server during query

No connection. Trying to reconnect...

Connection id: 119

Current database: CourierManagement

+-----------+----------------+--------------+

| CourierID | TrackingNumber | TotalPayment |

+-----------+----------------+--------------+

| 107 | TRK321098 | 5.99 |

| 106 | TRK432109 | 12.99 |

| 105 | TRK543210 | 5.99 |

| 104 | TRK654321 | 12.99 |

| 103 | TRK765432 | 5.99 |

| 102 | TRK876543 | 12.99 |

| 101 | TRK987654 | 5.99 |

+-----------+----------------+--------------+

7 rows in set (0.20 sec)

32. List Payments Within a Date Range

mysql> SELECT \* FROM Payment

-> WHERE PaymentDate BETWEEN '2025-03-25' AND '2025-03-30';

+-----------+-----------+------------+--------+-------------+

| PaymentID | CourierID | LocationID | Amount | PaymentDate |

+-----------+-----------+------------+--------+-------------+

| 501 | 101 | 401 | 5.99 | 2025-03-25 |

| 502 | 102 | 402 | 12.99 | 2025-03-26 |

| 503 | 103 | 403 | 5.99 | 2025-03-27 |

| 504 | 104 | 401 | 12.99 | 2025-03-28 |

| 505 | 105 | 402 | 5.99 | 2025-03-29 |

| 506 | 106 | 403 | 12.99 | 2025-03-30 |

+-----------+-----------+------------+--------+-------------+

6 rows in set (0.00 sec)

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

Mysql> select u.userid, u.name, c.courierid, c.trackingnumber

-> from user u

-> left join courier c on u.userid = c.senderid

-> union

-> select u.userid, u.name, c.courierid, c.trackingnumber

-> from user u

-> right join courier c on u.userid = c.senderid;

+--------+--------+-----------+----------------+

| UserID | Name | CourierID | TrackingNumber |

+--------+--------+-----------+----------------+

| 1 | Raj | 101 | TRK987654 |

| 2 | Ani | 105 | TRK543210 |

| 3 | Sam | 102 | TRK876543 |

| 4 | Kiran | 103 | TRK765432 |

| 5 | Meera | 107 | TRK321098 |

| 6 | Vikram | 104 | TRK654321 |

| 7 | Sita | 106 | TRK432109 |

+--------+--------+-----------+----------------+

7 rows in set (0.03 sec)

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

mysql> select c.courierid, c.trackingnumber, cs.serviceid, cs.servicename, cs.cost

-> from courier c

-> left join courierservices cs on c.courierid = cs.serviceid

-> union

-> select c.courierid, c.trackingnumber, cs.serviceid, cs.servicename, cs.cost

-> from courier c

-> right join courierservices cs on c.courierid = cs.serviceid;

+-----------+----------------+-----------+-------------+-------+

| courierid | trackingnumber | serviceid | servicename | cost |

+-----------+----------------+-----------+-------------+-------+

| 107 | TRK321098 | NULL | NULL | NULL |

| 106 | TRK432109 | NULL | NULL | NULL |

| 105 | TRK543210 | NULL | NULL | NULL |

| 104 | TRK654321 | NULL | NULL | NULL |

| 103 | TRK765432 | NULL | NULL | NULL |

| 102 | TRK876543 | NULL | NULL | NULL |

| 101 | TRK987654 | NULL | NULL | NULL |

| NULL | NULL | 201 | Standard | 5.99 |

| NULL | NULL | 202 | Express | 12.99 |

+-----------+----------------+-----------+-------------+-------+

9 rows in set (0.02 sec)

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

mysql> select e.employeeid, e.name, p.paymentid, p.amount, p.paymentdate

-> from employee e

-> left join payment p on e.employeeid = p.paymentid

-> union

-> select e.employeeid, e.name, p.paymentid, p.amount, p.paymentdate

-> from employee e

-> right join payment p on e.employeeid = p.paymentid;

+------------+--------+-----------+--------+-------------+

| employeeid | name | paymentid | amount | paymentdate |

+------------+--------+-----------+--------+-------------+

| 301 | Amit | NULL | NULL | NULL |

| 302 | Neha | NULL | NULL | NULL |

| 303 | Suresh | NULL | NULL | NULL |

| NULL | NULL | 501 | 5.99 | 2025-03-25 |

| NULL | NULL | 502 | 12.99 | 2025-03-26 |

| NULL | NULL | 503 | 5.99 | 2025-03-27 |

| NULL | NULL | 504 | 12.99 | 2025-03-28 |

| NULL | NULL | 505 | 5.99 | 2025-03-29 |

| NULL | NULL | 506 | 12.99 | 2025-03-30 |

| NULL | NULL | 507 | 5.99 | 2025-03-31 |

+------------+--------+-----------+--------+-------------+

10 rows in set (0.01 sec)

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

mysql> select u.userid, u.name, cs.serviceid, cs.servicename

-> from user u

-> cross join courierservices cs;

+--------+--------+-----------+-------------+

| userid | name | serviceid | servicename |

+--------+--------+-----------+-------------+

| 1 | Raj | 202 | Express |

| 1 | Raj | 201 | Standard |

| 2 | Ani | 202 | Express |

| 2 | Ani | 201 | Standard |

| 3 | Sam | 202 | Express |

| 3 | Sam | 201 | Standard |

| 4 | Kiran | 202 | Express |

| 4 | Kiran | 201 | Standard |

| 5 | Meera | 202 | Express |

| 5 | Meera | 201 | Standard |

| 6 | Vikram | 202 | Express |

| 6 | Vikram | 201 | Standard |

| 7 | Sita | 202 | Express |

| 7 | Sita | 201 | Standard |

+--------+--------+-----------+-------------+

14 rows in set (0.00 sec)

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

mysql> select e.employeeid, e.name, l.locationid, l.locationname

-> from employee e

-> cross join location l;

+------------+--------+------------+--------------+

| employeeid | name | locationid | locationname |

+------------+--------+------------+--------------+

| 303 | Suresh | 401 | WH B |

| 302 | Neha | 401 | WH B |

| 301 | Amit | 401 | WH B |

| 303 | Suresh | 402 | WH C |

| 302 | Neha | 402 | WH C |

| 301 | Amit | 402 | WH C |

| 303 | Suresh | 403 | WH D |

| 302 | Neha | 403 | WH D |

| 301 | Amit | 403 | WH D |

+------------+--------+------------+--------------+

9 rows in set (0.01 sec)

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

mysql> select c.courierid, c.trackingnumber, u.userid as senderid, u.name as sendername, u.address

-> from courier c

-> left join user u on c.senderid = u.userid;

+-----------+----------------+----------+------------+-----------+

| courierid | trackingnumber | senderid | sendername | address |

+-----------+----------------+----------+------------+-----------+

| 101 | TRK987654 | 1 | Raj | Delhi |

| 102 | TRK876543 | 3 | Sam | Kolkata |

| 103 | TRK765432 | 4 | Kiran | Chennai |

| 104 | TRK654321 | 6 | Vikram | Pune |

| 105 | TRK543210 | 2 | Ani | Mumbai |

| 106 | TRK432109 | 7 | Sita | Bangalore |

| 107 | TRK321098 | 5 | Meera | Hyderabad |

+-----------+----------------+----------+------------+-----------+

7 rows in set (0.00 sec)

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

mysql> select c.courierid, c.trackingnumber, u.userid as receiverid, u.name as receivername, u.address

-> from courier c

-> left join user u on c.receiverid = u.userid;

+-----------+----------------+------------+--------------+-----------+

| courierid | trackingnumber | receiverid | receivername | address |

+-----------+----------------+------------+--------------+-----------+

| 101 | TRK987654 | 2 | Ani | Mumbai |

| 102 | TRK876543 | 5 | Meera | Hyderabad |

| 103 | TRK765432 | 7 | Sita | Bangalore |

| 104 | TRK654321 | 1 | Raj | Delhi |

| 105 | TRK543210 | 4 | Kiran | Chennai |

| 106 | TRK432109 | 3 | Sam | Kolkata |

| 107 | TRK321098 | 6 | Vikram | Pune |

+-----------+----------------+------------+--------------+-----------+

7 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.trackingnumber, cs.serviceid, cs.servicename, cs.cost

-> from courier c

-> left join courierservices cs on c.courierid = cs.serviceid;

+-----------+----------------+-----------+-------------+------+

| courierid | trackingnumber | serviceid | servicename | cost |

+-----------+----------------+-----------+-------------+------+

| 107 | TRK321098 | NULL | NULL | NULL |

| 106 | TRK432109 | NULL | NULL | NULL |

| 105 | TRK543210 | NULL | NULL | NULL |

| 104 | TRK654321 | NULL | NULL | NULL |

| 103 | TRK765432 | NULL | NULL | NULL |

| 102 | TRK876543 | NULL | NULL | NULL |

| 101 | TRK987654 | NULL | NULL | NULL |

+-----------+----------------+-----------+-------------+------+7 rows in set (0.00 sec)

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

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

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

44. List all employees who share the same role.

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

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

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

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

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

mysql> select e.employeeid, e.name, count(c.courierid) as total\_couriers

-> from employee e

-> left join courier c on e.employeeid = c.handledbyemployeeid

-> group by e.employeeid, e.name;

+------------+--------+----------------+

| employeeid | name | total\_couriers |

+------------+--------+----------------+

| 301 | Amit | 1 |

| 302 | Neha | 1 |

| 303 | Suresh | 1 |

+------------+--------+----------------+

3 rows in set (0.00 sec)

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

mysql> select l.locationid, l.locationname, sum(p.amount) as total\_payments

-> from location l

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

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

+------------+--------------+----------------+

| locationid | locationname | total\_payments |

+------------+--------------+----------------+

| 401 | WH B | 24.97 |

| 402 | WH C | 18.98 |

| 403 | WH D | 18.98 |

+------------+--------------+----------------+

3 rows in set (0.00 sec)

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

mysql> select c1.courierid, c1.trackingnumber, c1.senderid, u.name as sendername

-> from courier c1

-> join courier c2 on c1.senderid = c2.senderid and c1.courierid <> c2.courierid

-> left join user u on c1.senderid = u.userid;

Empty set (0.00 sec)

44. List all employees who share the same role.

mysql> select e1.employeeid, e1.name, e1.role

-> from employee e1

-> join employee e2 on e1.role = e2.role and e1.employeeid <> e2.employeeid;

Empty set (0.00 sec)

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

mysql> select p.paymentid, p.amount, p.paymentdate, c.senderid, u.address as sender\_location

-> from payment p

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

-> join user u on c.senderid = u.userid;

+-----------+--------+-------------+----------+-----------------+

| paymentid | amount | paymentdate | senderid | sender\_location |

+-----------+--------+-------------+----------+-----------------+

| 501 | 5.99 | 2025-03-25 | 1 | Delhi |

| 502 | 12.99 | 2025-03-26 | 3 | Kolkata |

| 503 | 5.99 | 2025-03-27 | 4 | Chennai |

| 504 | 12.99 | 2025-03-28 | 6 | Pune |

| 505 | 5.99 | 2025-03-29 | 2 | Mumbai |

| 506 | 12.99 | 2025-03-30 | 7 | Bangalore |

| 507 | 5.99 | 2025-03-31 | 5 | Hyderabad |

+-----------+--------+-------------+----------+-----------------+

7 rows in set (0.00 sec)

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

mysql> select c1.courierid, c1.trackingnumber, c1.senderid, u.address as sender\_address

-> from courier c1

-> join courier c2 on c1.senderid = c2.senderid and c1.courierid <> c2.courierid

-> left join user u on c1.senderid = u.userid;

Empty set (0.00 sec)

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

mysql> select e.employeeid, e.name, count(c.courierid) as delivered\_couriers

-> from employee e

-> left join courier c on e.employeeid = c.handledbyemployeeid

-> where c.status = 'delivered'

-> group by e.employeeid, e.name;

+------------+------+--------------------+

| employeeid | name | delivered\_couriers |

+------------+------+--------------------+

| 302 | Neha | 1 |

+------------+------+--------------------+

1 row in set (0.00 sec)

mysql> select e.employeeid, e.name, count(c.courierid) as delivered\_couriers

-> from employee e

-> left join courier c on e.employeeid = c.handledbyemployeeid and c.status = 'delivered'

-> group by e.employeeid, e.name;

+------------+--------+--------------------+

| employeeid | name | delivered\_couriers |

+------------+--------+--------------------+

| 301 | Amit | 0 |

| 302 | Neha | 1 |

| 303 | Suresh | 0 |

+------------+--------+--------------------+

3 rows in set (0.00 sec)

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

mysql> select p.paymentid, p.courierid, p.amount, cs.cost

-> from payment p

-> join courierservices cs on p.courierid = cs.serviceid

-> where p.amount > cs.cost;

Empty set (0.00 sec)