# **Hexaware Foundation Training 2025**

## Sql / Java Assignments

### **Courier Management System**

28/03/2025

Karthikeyan M

#### Task 4

#### 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
- 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):
- 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

#### 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
- 50. Find the names of all employees who have a salary greater than the average salary:
- 51. Find the total cost of all courier services where the cost is less than the maximum cost
- 52. Find all couriers that have been paid for
- 53. Find the locations where the maximum payment amount was made
- 54. Find all couriers whose weight is greater than the weight of all couriers sent by a specific sender (e.g., 'SenderName'):

```
Query:
-- 23
SELECT Courier.SenderName, Courier.ReceiverName, SUM(Payment.Amount) AS Total
FROM Payment
JOIN Courier ON Payment.Courierid = Courier.Courierid
WHERE Payment.Paymentdate > '2023-12-24'
GROUP BY Courier.CourierID
HAVING Total < 1000;
-- 24
SELECT *
FROM Payment
INNER JOIN Location ON Payment.LocationID = Location.LocationID;
-- 25
SELECT *
FROM Payment
INNER JOIN Courier ON Payment.CourierID = Courier.CourierID
INNER JOIN Location ON Payment.LocationID = Location.LocationID;
-- 26
SELECT *
FROM Payment
LEFT JOIN Courier ON Payment.CourierID = Courier.CourierID;
-- 27
SELECT CourierID, SUM(Amount) AS Total
FROM Payment
GROUP BY CourierID;
SELECT * FROM Payment WHERE PaymentDate = '2024-08-19';
-- 29
SELECT *
FROM Payment
INNER JOIN Courier ON Payment.CourierID = Courier.CourierID;
-- 30
SELECT *
FROM Payment
INNER JOIN Location ON Payment.LocationID = Location.LocationID;
-- 31
SELECT CourierID, SUM(Amount) AS Total
FROM Payment
GROUP BY CourierID;
SELECT * FROM Payment WHERE PaymentDate BETWEEN '2024-10-09' AND '2024-08-11';
-- 33
SELECT *
```

FROM User

LEFT JOIN Courier ON User. UserID = Courier.courierid; -- 34 SELECT \* FROM Courier LEFT JOIN CourierServices ON Courier.CourierID = CourierServices.ServiceID; -- 35 SELECT \* FROM Employee LEFT JOIN Payment ON Employee. EmployeeID = Payment. PaymentID; SELECT \* FROM User CROSS JOIN CourierServices: -- 37 SELECT \* FROM Employee CROSS JOIN Location; -- 38 SELECT CourierID, SenderName, SenderAddress FROM Courier; SELECT CourierID, ReceiverName, ReceiverAddress FROM Courier; -- 40 SELECT \* FROM Courier LEFT JOIN CourierServices ON Courier.CourierID = CourierServices.ServiceID; -- 41 SELECT Employee.EmployeeID, Employee.Name, COUNT(Courier.CourierID) AS Total FROM Employee LEFT JOIN Courier ON Employee.EmployeeID = Courier.CourierID GROUP BY Employee. EmployeeID, Employee. Name; -- 42 SELECT 1.LocationID, 1.LocationName, SUM(p.Amount) AS total FROM Payment p JOIN Location 1 ON p.LocationID = 1.LocationID GROUP BY 1.LocationID, 1.LocationName; -- 43 SELECT SenderName, COUNT(CourierID) AS Total FROM Courier GROUP BY SenderName: -- 44 SELECT Role, COUNT(EmployeeID) AS total FROM Employee GROUP BY Role; -- 45 SELECT Courier.SenderAddress, SUM(Payment.Amount) AS total FROM Courier c JOIN Payment p ON Courier.CourierID = Payment.CourierID

GROUP BY Courier.SenderAddress:

-- 46

SELECT SenderAddress, COUNT(CourierID) AS TotalCouriers

FROM Courier

GROUP BY SenderAddress;

-- 47

 $SELECT\ Employee. EmployeeID,\ Employee. Name,\ COUNT(Courier. CourierID)\ AS\ total$ 

FROM Employee

LEFT JOIN Courier ON Employee.EmployeeID = Courier.CourierID

WHERE Courier.Status = 'Delivered'

GROUP BY Employee. EmployeeID, Employee. Name;

-- 48

SELECT Courier.CourierID, Payment.Amount, CourierServices.Cost

FROM Payment

JOIN Courier ON Payment.CourierID = Courier.CourierID

JOIN CourierServices ON Courier.CourierID = CourierServices.ServiceID

WHERE Payment. Amount > CourierServices. Cost;

-- 49

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

-- 50

SELECT \* FROM Employee WHERE Salary > (SELECT AVG(Salary) FROM Employee);

-- 51

SELECT SUM(Cost) AS total FROM CourierServices WHERE Cost < (SELECT MAX(Cost) FROM CourierServices);

-- 52

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

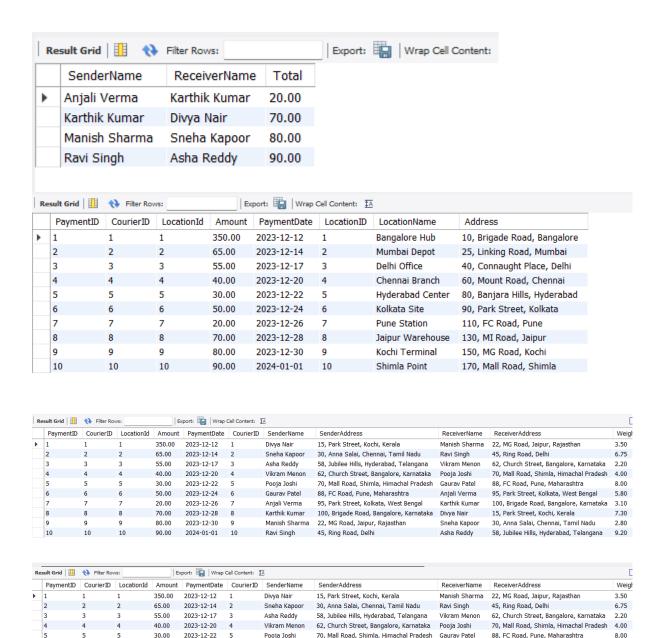
-- 53

SELECT LocationID, MAX(Amount) AS max FROM Payment GROUP BY LocationID;

-- 54

SELECT \* FROM Courier WHERE Weight > ALL (SELECT Weight FROM Courier WHERE SenderName = 'Alice Johnson');

Result Grid		National Property of the Prope		Export: Wrap Cell Content: 🚻			<u> </u>	
	PaymentID	CourierID	LocationId	Amount	PaymentDate	LocationID	LocationName	Address
•	1	1	1	350.00	2023-12-12	1	Bangalore Hub	10, Brigade Road, Bangalore
	2	2	2	65.00	2023-12-14	2	Mumbai Depot	25, Linking Road, Mumbai
	3	3	3	55.00	2023-12-17	3	Delhi Office	40, Connaught Place, Delhi
	4	4	4	40.00	2023-12-20	4	Chennai Branch	60, Mount Road, Chennai
	5	5	5	30.00	2023-12-22	5	Hyderabad Center	80, Banjara Hills, Hyderabad
	6	6	6	50.00	2023-12-24	6	Kolkata Site	90, Park Street, Kolkata
	7	7	7	20.00	2023-12-26	7	Pune Station	110, FC Road, Pune
	8	8	8	70.00	2023-12-28	8	Jaipur Warehouse	130, MI Road, Jaipur
	9	9	9	80.00	2023-12-30	9	Kochi Terminal	150, MG Road, Kochi
	10	10	10	90.00	2024-01-01	10	Shimla Point	170, Mall Road, Shimla



Gaurav Patel

Anjali Verma

Karthik Kumar

Ravi Singh

Manish Sharma

88, FC Road, Pune, Maharashtra

22, MG Road, Jaipur, Rajasthan

45, Ring Road, Delhi

95, Park Street, Kolkata, West Bengal

100, Brigade Road, Bangalore, Karnataka

Anjali Verma

Karthik Kumar

Sneha Kapoor

Asha Reddy

Divya Nair

5.80

3.10

7.30

2.80

9.20

95, Park Street, Kolkata, West Bengal

30, Anna Salai, Chennai, Tamil Nadu

58, Jubilee Hills, Hyderabad, Telangana

15, Park Street, Kochi, Kerala

100, Brigade Road, Bangalore, Karnataka

2023-12-24

2023-12-26

2023-12-28

2023-12-30

2024-01-01

10

50.00

20.00

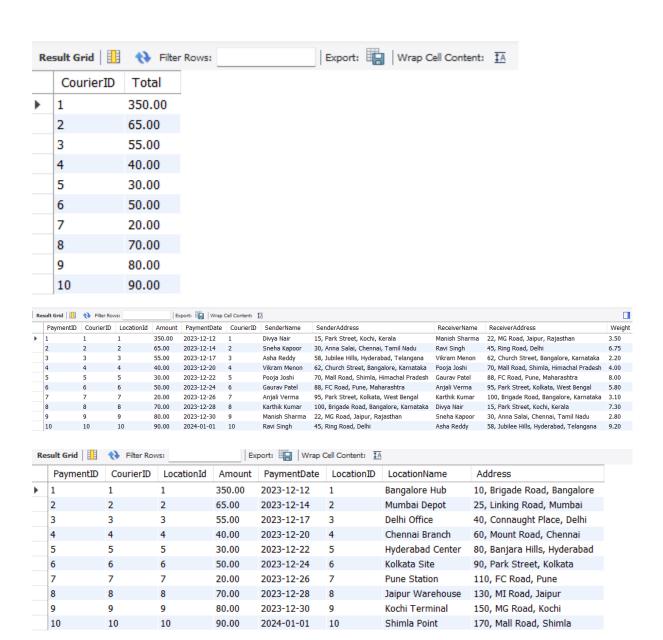
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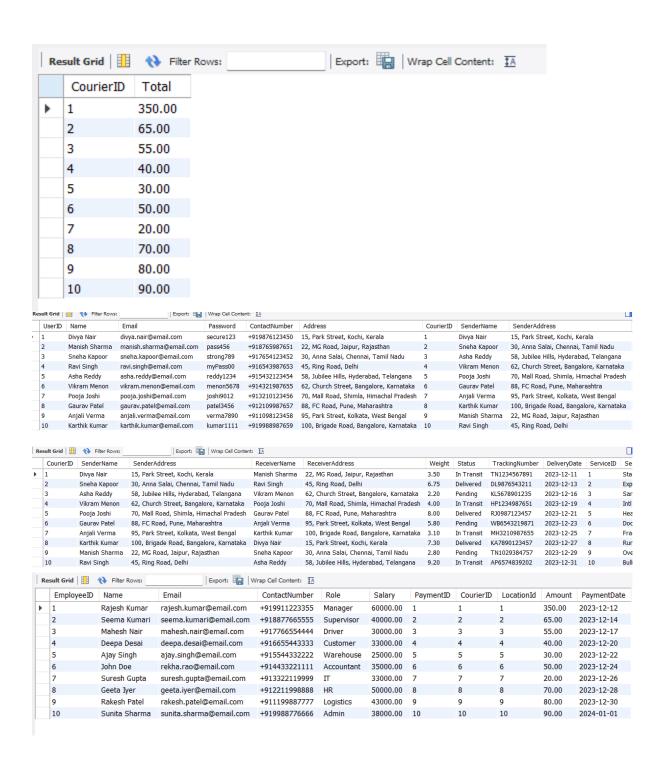
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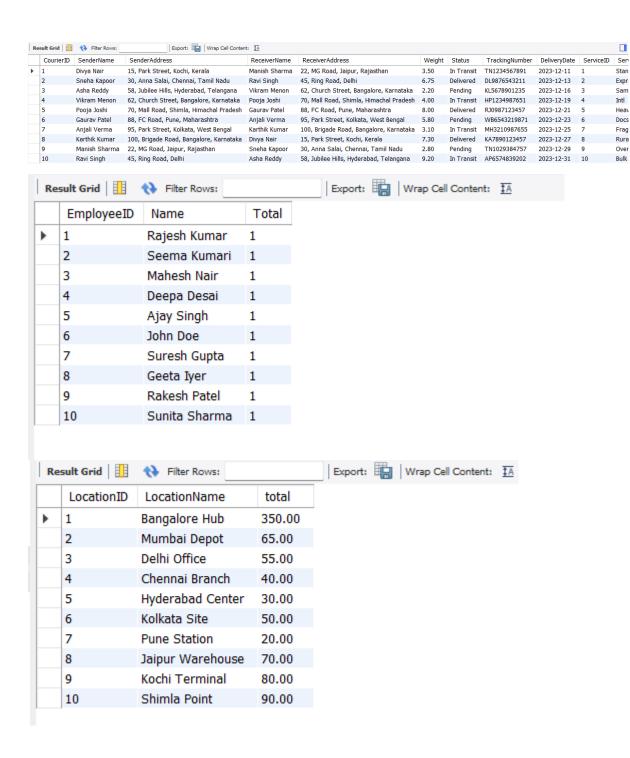
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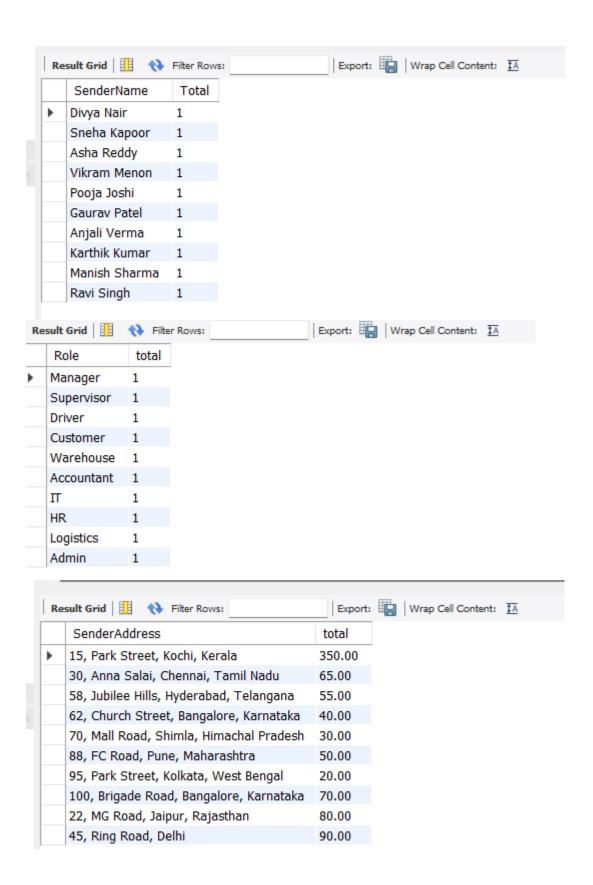
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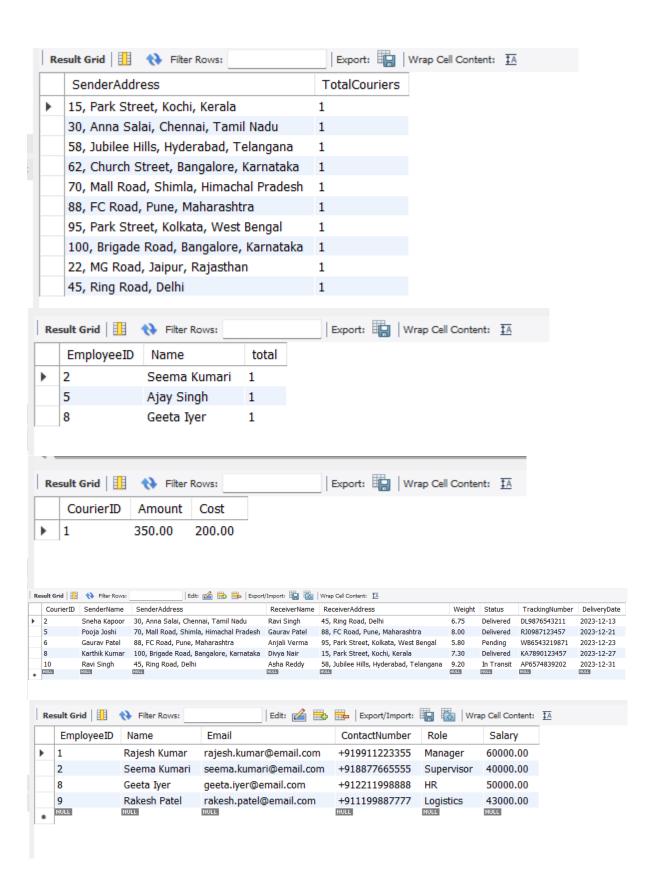
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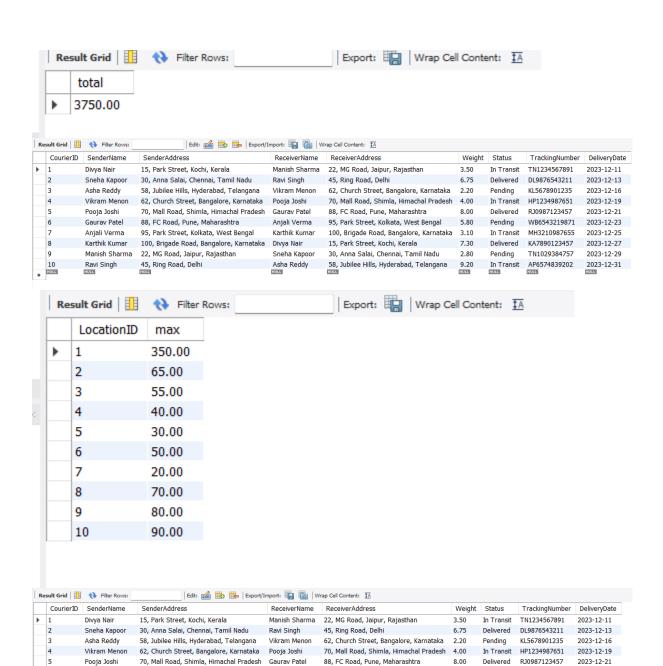
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95, Park Street, Kolkata, West Bengal

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15, Park Street, Kochi, Kerala

100, Brigade Road, Bangalore, Karnataka

5.80

3.10

7 30

2.80

9.20

Pending

In Transit

Delivered

Pending

WB6543219871

MH3210987655

KA7890123457

TN1029384757

In Transit AP6574839202

2023-12-23

2023-12-25

2023-12-27

2023-12-29

2023-12-31

6

8

10

Gaurav Patel

Anjali Verma

Karthik Kumar

Manish Sharma

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