ASSIGNMENT 4- COURIER MANAGEMENT SYSTEM

TASK 3

GroupBy, Aggregate Functions, Having, Order By, where

(Executed on Mysql Workbench)

For effectively answering the following questions I have inserted more values onto the table. The table with new inserted values are listed below:

1. SELECT * FROM user;

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

UserID	Name	Email	Password	ContactNumber	Address
1	Alice Johnson	alice@example.com	password123	9876543210	123 Main St, NY
2	Bob Smith	bob@example.com	password456	9876543211	456 Elm St, CA
3	Charlie Brown	charlie@example.com	password789	9876543212	789 Pine St, TX
4	David Miller	david@example.com	password321	9876543213	101 Oak St, FL
5	Emma Wilson	emma@example.com	password654	9876543214	202 Maple St, IL
6	Frank Thomas	frank@example.com	password987	9876543215	303 Birch St, WA
7	Grace Lee	grace@example.com	password111	9876543216	404 Cedar St, NV
NULL	NULL	NULL	NULL	NULL	NULL

2. Select * from courier;

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate	EmployeeID	SenderID	ReceiverID	ServiceID
1	Alice Johnson	123 Main St, NY	Bob Smith	456 Elm St, CA	5.50	Delivered	TRK001	2024-03-20	1	1	2	1
2	Bob Smith	456 Elm St, CA	Charlie Brown	789 Pine St, TX	10.00	In Transit	TRK002	2024-03-21	3	2	3	2
3	Charlie Brown	789 Pine St, TX	David Miller	101 Oak St, FL	7.20	Delivered	TRK003	2024-03-22	5	3	4	3
4	David Miller	101 Oak St, FL	Emma Wilson	202 Maple St, IL	12.50	Pending	TRK004	2024-03-23	1	4	5	1
5	Emma Wilson	202 Maple St, IL	Frank Thomas	303 Birch St, WA	6.80	Delivered	TRK005	2024-03-24	3	5	6	2
6	Frank Thomas	303 Birch St, WA	Grace Lee	404 Cedar St, NV	9.30	In Transit	TRK006	2024-03-25	5	6	7	3
7	Grace Lee	404 Cedar St, NV	Alice Johnson	123 Main St, NY	11.40	Delivered	TRK007	2024-03-26	1	7	1	1
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

3. Select * from courierservices;

Result Grid | Filter Rows:

ServiceID	ServiceName	Cost
1	Express Delivery	20.00
2	Same-Day Delivery	25.00
3	Standard Delivery	15.00
4	International Shipping	50.00
5	Overnight Delivery	30.00
6	Priority Shipping	35.00
7	Bulk Shipping	40.00
NULL	NULL	NULL

4. Select * from employee_table;

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

EmployeeID	Name	Email	ContactNumber	Role	Salary
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00
2	Jane Smith	jane@example.com	9876500002	Delivery Manager	55000.00
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00
4	Emily Davis	emily@example.com	9876500004	Logistics Coordinator	60000.00
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00
6	Sarah Johnson	sarah@example.com	9876500006	Logistics Coordinator	62000.00
7	Daniel Lee	daniel@example.com	9876500007	Courier Handler	48000.00
NULL	NULL	NULL	NULL	NULL	NULL

5. SELECT * FROM location_table

Result Grid | Filter Rows: | Edit:

LocationID	LocationName	Address
1	New York Hub	500 Madison Ave, NY
2	Los Angeles Hub	600 Sunset Blvd, CA
3	Chicago Hub	700 Michigan Ave, IL
4	Houston Hub	800 Main St, TX
5	Miami Hub	900 Ocean Dr, FL
6	Seattle Hub	100 Pine St, WA
7	Las Vegas Hub	200 Strip Blvd, NV
NULL	NULL	NULL

6. SELECT * FROM PAYMENT_TABLE;

Result Grid | Filter Rows: | Edit:

PaymentId	CourierId	LocationId	Amount	PaymentDate
1	1	1	50.00	2024-03-20
2	2	2	75.00	2024-03-20
3	3	3	100.00	2024-03-22
4	4	1	125.00	2024-03-22
5	5	2	150.00	2024-03-21
6	6	3	175.00	2024-03-23
7	7	1	200.00	2024-03-26
NULL	NULL	NULL	NULL	NULL

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

SELECT e.Name, c.EmployeeId, count(c.CourierId) as total_couriers from courier c INNER JOIN employee_table e where e.employeeId=c.employeeId group by e.EmployeeId, e.name;

Name	EmployeeId	total_couriers
John Doe	1	3
Robert Brown	3	2
Michael Wilson	5	2

15. Calculate the total revenue generated by each location

SELECT p.LocationId, l.LocationName, sum(p.amount) as amount from payment_table as p INNER JOIN location_table as l where p.LocationId=l.LocationId group by p.LocationId,l.Locationname;

Result Grid | Filter Rows:

LocationId	LocationName	amount
1	New York Hub	375.00
2	Los Angeles Hub	225.00
3	Chicago Hub	275.00

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

SELECT ReceiverAddress, count(courierId) as total_couriers from courier group by ReceiverAddress;

Result Grid | Filter Rows:

ReceiverAddress	total_couriers
456 Elm St, CA	1
789 Pine St, TX	1
101 Oak St, FL	1
202 Maple St, IL	1
303 Birch St, WA	1
404 Cedar St, NV	1
123 Main St, NY	1

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

Only the courier with highest average delivery time:

SELECT c.CourierId,AVG(DATEDIFF(c.DeliveryDate,p.PaymentDate)) as Average_Delivery_Time from courier c INNER JOIN payment_table p where c.CourierId=p.CourierId Group by c.CourierId ORDER BY Average_Delivery_Time DESC LIMIT 1;

CourierId	Average_Delivery_Time
5	3.0000

Entire Average delivery time:

(0 means same day delivery)

SELECT c.CourierId,AVG(DATEDIFF(c.DeliveryDate,p.PaymentDate)) as Average_Delivery_Time from courier c INNER JOIN payment_table p where c.CourierId=p.CourierId Group by c.CourierId ORDER BY Average_Delivery_Time DESC;

CourierId	Average_Delivery_Time
5	3.0000
6	2.0000
2	1.0000
4	1.0000
1	0.0000
3	0.0000
7	0.0000

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

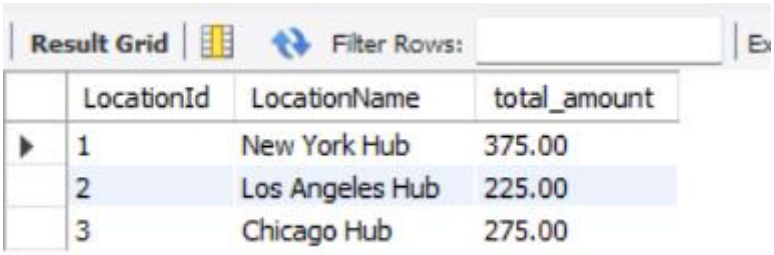
Select p.LocationId,l.LocationName, sum(p.amount) as total_amount from payment_table p INNER JOIN Location_table l where l.locationId=p.locationId Group by LocationId HAVING total_amount<300;

Result Grid Filter Rows:

LocationId	LocationName	total_amount
2	Los Angeles Hub	225.00
3	Chicago Hub	275.00

19. Calculate Total Payments Per Location

Select p.LocationId,l.LocationName, sum(p.amount) as total_amount from payment_table p INNER JOIN Location_table l where l.locationId=p.locationId Group by LocationId;



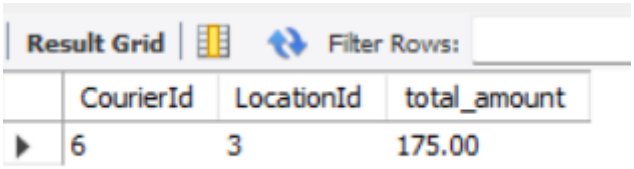
Result Grid | Filter Rows:

LocationId	LocationName	total_amount
1	New York Hub	375.00
2	Los Angeles Hub	225.00
3	Chicago Hub	275.00

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

According to my data I am changing $1000 to 100

Select CourierId, LocationId, sum(amount) as total_amount from payment_table where LocationId=3 Group by courierId,LocationId HAVING total_amount>100;



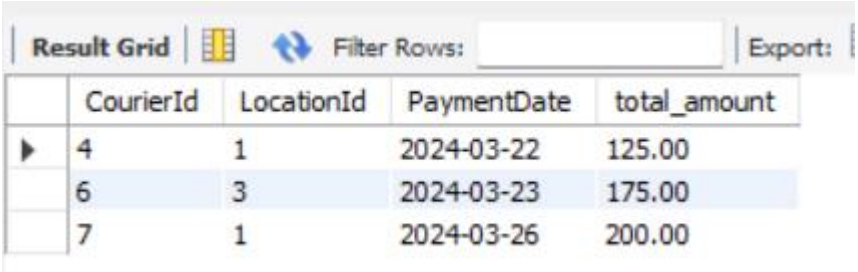
Result Grid | Filter Rows:

CourierId	LocationId	total_amount
6	3	175.00

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

According to my data I am changing $1000 to 100

Select CourierId, PaymentDate, sum(amount) as total_amount from payment_table where PaymentDate > '2024-03-21' Group by courierId,PaymentDate HAVING total_amount>100;



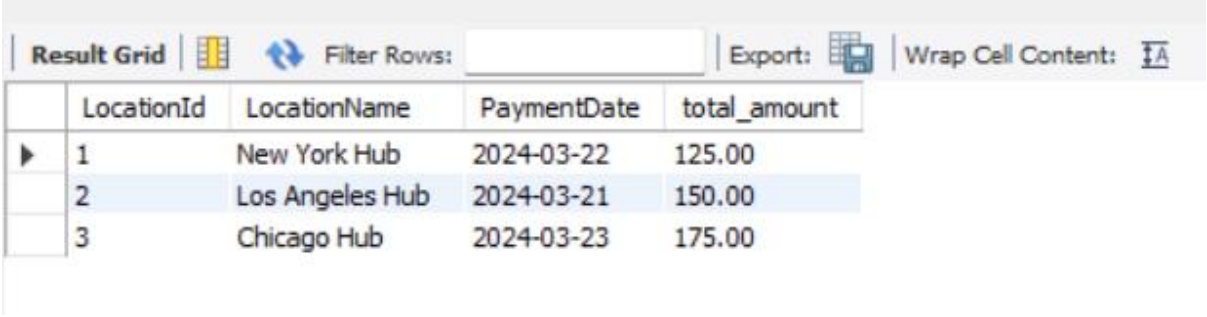
Result Grid | Filter Rows: | Export:

CourierId	LocationId	PaymentDate	total_amount
4	1	2024-03-22	125.00
6	3	2024-03-23	175.00
7	1	2024-03-26	200.00

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

According to my data I am changing $5000 to 100

SELECT l.LocationId, l.LocationName, p.PaymentDate, SUM(p.Amount) AS total_amount FROM payment_table p INNER JOIN location_table l ON p.LocationId = l.LocationId WHERE p.PaymentDate < '2024-03-25' GROUP BY l.LocationId, l.LocationName, p.paymentDate HAVING total_amount > 100;



LocationId	LocationName	PaymentDate	total_amount
1	New York Hub	2024-03-22	125.00
2	Los Angeles Hub	2024-03-21	150.00
3	Chicago Hub	2024-03-23	175.00