ASSIGNMENT 4- COURIER MANAGEMENT SYSTEM

TASK 4

Inner Join, Full Outer Join, Cross Join, Left Outer Join, Right Outer Join

23. Retrieve Payments with Courier Information

SELECT c.CourierId, c.SenderName, c.SenderAddress, c.ReceiverName, c.ReceiverAddress, c.Weight, c.Status, c.DeliveryDate, p.amount, p.PaymentDate from courier c INNER JOIN payment_table p where c.courierId=p.CourierId;

CourierId	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	DeliveryDate	amount	PaymentDate
1	Alice Johnson	123 Main St, NY	Bob Smith	456 Elm St, CA	5.50	Delivered	2024-03-20	50.00	2024-03-20
2	Bob Smith	456 Elm St, CA	Charlie Brown	789 Pine St, TX	10.00	In Transit	2024-03-21	75.00	2024-03-20
3	Charlie Brown	789 Pine St, TX	David Miller	101 Oak St, FL	7.20	Delivered	2024-03-22	100.00	2024-03-22
4	David Miller	101 Oak St, FL	Emma Wilson	202 Maple St, IL	12.50	Pending	2024-03-23	125.00	2024-03-22
5	Emma Wilson	202 Maple St, IL	Frank Thomas	303 Birch St, WA	6.80	Delivered	2024-03-24	150.00	2024-03-21
6	Frank Thomas	303 Birch St, WA	Grace Lee	404 Cedar St, NV	9.30	In Transit	2024-03-25	175.00	2024-03-23
7	Grace Lee	404 Cedar St, NV	Alice Johnson	123 Main St, NY	11.40	Delivered	2024-03-26	200.00	2024-03-26

24. Retrieve Payments with Location Information

SELECT l.LocationId, l.LocationName, l.Address, p.Amount, p.PaymentDate from Location_table l INNER JOIN payment_table p where l.locationId=p.LocationId;

LocationId	LocationName	Address	Amount	PaymentDate
1	New York Hub	500 Madison Ave, NY	50.00	2024-03-20
2	Los Angeles Hub	600 Sunset Blvd, CA	75.00	2024-03-20
3	Chicago Hub	700 Michigan Ave, IL	100.00	2024-03-22
1	New York Hub	500 Madison Ave, NY	125.00	2024-03-22
2	Los Angeles Hub	600 Sunset Blvd, CA	150.00	2024-03-21
3	Chicago Hub	700 Michigan Ave, IL	175.00	2024-03-23
1	New York Hub	500 Madison Ave, NY	200.00	2024-03-26

25. Retrieve Payments with Courier and Location Information

SELECT p.PaymentId, c.SenderName, c.ReceiverName, l.LocationName, p.Amount, p.PaymentDate from payment_table p JOIN courier c ON c.CourierId=p.CourierId JOIN location_table l ON l.locationId=p.locationId;

	PaymentId	SenderName	ReceiverName	LocationName	Amount	PaymentDate
▶	1	Alice Johnson	Bob Smith	New York Hub	50.00	2024-03-20
	2	Bob Smith	Charlie Brown	Los Angeles Hub	75.00	2024-03-20
	3	Charlie Brown	David Miller	Chicago Hub	100.00	2024-03-22
	4	David Miller	Emma Wilson	New York Hub	125.00	2024-03-22
	5	Emma Wilson	Frank Thomas	Los Angeles Hub	150.00	2024-03-21
	6	Frank Thomas	Grace Lee	Chicago Hub	175.00	2024-03-23
	7	Grace Lee	Alice Johnson	New York Hub	200.00	2024-03-26

26. List all payments with courier details

SELECT c.CourierId, c.SenderName, c.SenderAddress, c.ReceiverName, c.ReceiverAddress, c.Weight, c.Status, c.DeliveryDate, p.amount, p.PaymentDate from courier c INNER JOIN payment_table p ON c.courierId=p.CourierId;

Result Grid		Filter Rows:		Export:	Wrap Cell Content: IA					
	CourierId	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	DeliveryDate	amount	PaymentDate
▶	1	Alice Johnson	123 Main St, NY	Bob Smith	456 Elm St, CA	5.50	Delivered	2024-03-20	50.00	2024-03-20
	2	Bob Smith	456 Elm St, CA	Charlie Brown	789 Pine St, TX	10.00	In Transit	2024-03-21	75.00	2024-03-20
	3	Charlie Brown	789 Pine St, TX	David Miller	101 Oak St, FL	7.20	Delivered	2024-03-22	100.00	2024-03-22
	4	David Miller	101 Oak St, FL	Emma Wilson	202 Maple St, IL	12.50	Pending	2024-03-23	125.00	2024-03-22
	5	Emma Wilson	202 Maple St, IL	Frank Thomas	303 Birch St, WA	6.80	Delivered	2024-03-24	150.00	2024-03-21
	6	Frank Thomas	303 Birch St, WA	Grace Lee	404 Cedar St, NV	9.30	In Transit	2024-03-25	175.00	2024-03-23
	7	Grace Lee	404 Cedar St, NV	Alice Johnson	123 Main St, NY	11.40	Delivered	2024-03-26	200.00	2024-03-26

27. Total payments received for each courier

SELECT c.CourierId,c.SenderName,c.ReceiverName, Sum(p.amount) as Total_Payment from courier c INNER JOIN payment_table p ON c.CourierId=p.CourierId group by c.courierId,c.SenderName,c.ReceiverName;

	CourierId	SenderName	ReceiverName	Total_Payment
▶	1	Alice Johnson	Bob Smith	50.00
	2	Bob Smith	Charlie Brown	75.00
	3	Charlie Brown	David Miller	100.00
	4	David Miller	Emma Wilson	125.00
	5	Emma Wilson	Frank Thomas	150.00
	6	Frank Thomas	Grace Lee	175.00
	7	Grace Lee	Alice Johnson	200.00

28. List payments made on a specific date

Select * from payment_table where PaymentDate='2024-03-22';

PaymentId	CourierId	LocationId	Amount	PaymentDate
3	3	3	100.00	2024-03-22
4	4	1	125.00	2024-03-22
NULL	NULL	NULL	NULL	NULL

29. Get Courier Information for Each Payment

SELECT c.CourierId, c.SenderName, c.SenderAddress, c.ReceiverName, c.ReceiverAddress, c.Weight, c.Status, c.DeliveryDate, p.amount, p.PaymentDate from courier c INNER JOIN payment_table p ON c.courierId=p.CourierId;

CourierId	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	DeliveryDate	amount	PaymentDate
1	Alice Johnson	123 Main St, NY	Bob Smith	456 Elm St, CA	5.50	Delivered	2024-03-20	50.00	2024-03-20
2	Bob Smith	456 Elm St, CA	Charlie Brown	789 Pine St, TX	10.00	In Transit	2024-03-21	75.00	2024-03-20
3	Charlie Brown	789 Pine St, TX	David Miller	101 Oak St, FL	7.20	Delivered	2024-03-22	100.00	2024-03-22
4	David Miller	101 Oak St, FL	Emma Wilson	202 Maple St, IL	12.50	Pending	2024-03-23	125.00	2024-03-22
5	Emma Wilson	202 Maple St, IL	Frank Thomas	303 Birch St, WA	6.80	Delivered	2024-03-24	150.00	2024-03-21
6	Frank Thomas	303 Birch St, WA	Grace Lee	404 Cedar St, NV	9.30	In Transit	2024-03-25	175.00	2024-03-23
7	Grace Lee	404 Cedar St, NV	Alice Johnson	123 Main St, NY	11.40	Delivered	2024-03-26	200.00	2024-03-26

30. Get Payment Details with Location

SELECT l.LocationId, l.LocationName, l.Address, p.Amount, p.PaymentDate from Location_table l INNER JOIN payment_table p ON l.locationId=p.LocationId;

LocationId	LocationName	Address	Amount	PaymentDate
1	New York Hub	500 Madison Ave, NY	50.00	2024-03-20
2	Los Angeles Hub	600 Sunset Blvd, CA	75.00	2024-03-20
3	Chicago Hub	700 Michigan Ave, IL	100.00	2024-03-22
1	New York Hub	500 Madison Ave, NY	125.00	2024-03-22
2	Los Angeles Hub	600 Sunset Blvd, CA	150.00	2024-03-21
3	Chicago Hub	700 Michigan Ave, IL	175.00	2024-03-23
1	New York Hub	500 Madison Ave, NY	200.00	2024-03-26

31. Calculating Total Payments for Each Courier

SELECT c.CourierId,c.SenderName,c.ReceiverName, Sum(p.amount) as Total_Payment from courier c INNER JOIN payment_table p ON c.CourierId=p.CourierId group by c.courierId,c.SenderName,c.ReceiverName;

CourierId	SenderName	ReceiverName	Total_Payment
1	Alice Johnson	Bob Smith	50.00
2	Bob Smith	Charlie Brown	75.00
3	Charlie Brown	David Miller	100.00
4	David Miller	Emma Wilson	125.00
5	Emma Wilson	Frank Thomas	150.00
6	Frank Thomas	Grace Lee	175.00
7	Grace Lee	Alice Johnson	200.00

32. List Payments Within a Date Range

SELECT * from payment_table where PaymentDate between '2024-03-20' AND '2024-03-22';

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
NULL	NULL	NULL	NULL	NULL

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

SELECT u.UserId, u.Name, u.Email, u.Password, u.ContactNumber,u.Address, c.CourierId, c.SenderName, c.ReceiverName, c.Weight, c.Status, c.TrackingNumber, c.DeliveryDate from User u LEFT JOIN Courier c ON u.UserId=c.SenderId OR u.UserId=c.ReceiverId

UNION

 SELECT u.UserId, u.Name, u.Email, u.Password, u.ContactNumber,u.Address, c.CourierId, c.SenderName, c.ReceiverName, c.Weight, c.Status,

c.TrackingNumber, c.DeliveryDate from User u RIGHT JOIN Courier c ON
u.UserId=c.SenderId OR u.UserId=c.ReceiverId;

UserId	Name	Email	Password	ContactNumber	Address	CourierId	SenderName	ReceiverName	Weight	Status	TrackingNumber	DeliveryDate
1	Alice Johnson	alice@example.com	password123	9876543210	123 Main St, NY	1	Alice Johnson	Bob Smith	5.50	Delivered	TRK001	2024-03-20
1	Alice Johnson	alice@example.com	password123	9876543210	123 Main St, NY	7	Grace Lee	Alice Johnson	11.40	Delivered	TRK007	2024-03-26
2	Bob Smith	bob@example.com	password456	9876543211	456 Elm St, CA	1	Alice Johnson	Bob Smith	5.50	Delivered	TRK001	2024-03-20
2	Bob Smith	bob@example.com	password456	9876543211	456 Elm St, CA	2	Bob Smith	Charlie Brown	10.00	In Transit	TRK002	2024-03-21
3	Charlie Brown	charlie@example.com	password789	9876543212	789 Pine St, TX	2	Bob Smith	Charlie Brown	10.00	In Transit	TRK002	2024-03-21
3	Charlie Brown	charlie@example.com	password789	9876543212	789 Pine St, TX	3	Charlie Brown	David Miller	7.20	Delivered	TRK003	2024-03-22
4	David Miller	david@example.com	password321	9876543213	101 Oak St, FL	3	Charlie Brown	David Miller	7.20	Delivered	TRK003	2024-03-22
4	David Miller	david@example.com	password321	9876543213	101 Oak St, FL	4	David Miller	Emma Wilson	12.50	Pending	TRK004	2024-03-23
5	Emma Wilson	emma@example.com	password654	9876543214	202 Maple St, IL	4	David Miller	Emma Wilson	12.50	Pending	TRK004	2024-03-23
5	Emma Wilson	emma@example.com	password654	9876543214	202 Maple St, IL	5	Emma Wilson	Frank Thomas	6.80	Delivered	TRK005	2024-03-24
6	Frank Thomas	frank@example.com	password987	9876543215	303 Birch St, WA	5	Emma Wilson	Frank Thomas	6.80	Delivered	TRK005	2024-03-24
6	Frank Thomas	frank@example.com	password987	9876543215	303 Birch St, WA	6	Frank Thomas	Grace Lee	9.30	In Transit	TRK006	2024-03-25
7	Grace Lee	grace@example.com	password111	9876543216	404 Cedar St, NV	6	Frank Thomas	Grace Lee	9.30	In Transit	TRK006	2024-03-25
7	Grace Lee	grace@example.com	password111	9876543216	404 Cedar St, NV	7	Grace Lee	Alice Johnson	11.40	Delivered	TRK007	2024-03-26

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

SELECT c.CourierId, c.SenderName,c.SenderAddress,c.ReceiverName,
c.ReceiverAddress,c.Weight,c.Status,c.TrackingNumber,c.DeliveryDate,c.Servi
ceId as Courier_ServiceId, s.ServiceId, s.ServiceName,s.cost from courier c
LEFT JOIN courierservices s ON c.serviceId=s.ServiceId

UNION

 SELECT c.CourierId, c.SenderName,c.SenderAddress,c.ReceiverName,
c.ReceiverAddress,c.Weight,c.Status,c.TrackingNumber,c.DeliveryDate,c.Servi
ceId as Courier_ServiceId, s.ServiceId, s.ServiceName,s.cost from courier c
RIGHT JOIN courierservices s ON c.serviceId=s.ServiceId;

CourierId	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate	Courier_ServiceId	ServiceId	ServiceName	cost
1	Alice Johnson	123 Main St, NY	Bob Smith	456 Elm St, CA	5.50	Delivered	TRK001	2024-03-20	1	1	Express Delivery	20.00
2	Bob Smith	456 Elm St, CA	Charlie Brown	789 Pine St, TX	10.00	In Transit	TRK002	2024-03-21	2	2	Same-Day Delivery	25.00
3	Charlie Brown	789 Pine St, TX	David Miller	101 Oak St, FL	7.20	Delivered	TRK003	2024-03-22	3	3	Standard Delivery	15.00
4	David Miller	101 Oak St, FL	Emma Wilson	202 Maple St, IL	12.50	Pending	TRK004	2024-03-23	1	1	Express Delivery	20.00
5	Emma Wilson	202 Maple St, IL	Frank Thomas	303 Birch St, WA	6.80	Delivered	TRK005	2024-03-24	2	2	Same-Day Delivery	25.00
6	Frank Thomas	303 Birch St, WA	Grace Lee	404 Cedar St, NV	9.30	In Transit	TRK006	2024-03-25	3	3	Standard Delivery	15.00
7	Grace Lee	404 Cedar St, NV	Alice Johnson	123 Main St, NY	11.40	Delivered	TRK007	2024-03-26	1	1	Express Delivery	20.00
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	4	International Shipping	50.00
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	5	Overnight Delivery	30.00
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	6	Priority Shipping	35.00
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	7	Bulk Shipping	40.00

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

(By using Union we can remove duplicate data and can get unique results)

SELECT e.EmployeeId, e.Name AS Employee_Name, e.Email,
e.ContactNumber, e.Role, e.Salary, p.PaymentId, p.CourierId, p.Amount,
p.PaymentDate FROM courier c LEFT JOIN Employee_table e ON
c.EmployeeId = e.EmployeeId LEFT JOIN Payment_table p ON p.CourierId =
c.CourierId

UNION

SELECT e.EmployeeId, e.Name AS Employee_Name, e.Email, e.ContactNumber, e.Role, e.Salary, p.PaymentId, p.CourierId, p.Amount, p.PaymentDate FROM Employee_table e LEFT JOIN courier c ON e.EmployeeId = c.EmployeeId LEFT JOIN Payment_table p ON p.CourierId = c.CourierId;

EmployeeId	Employee_Name	Email	ContactNumber	Role	Salary	PaymentId	CourierId	Amount	PaymentDate
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	1	1	50.00	2024-03-20
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	4	4	125.00	2024-03-22
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	7	7	200.00	2024-03-26
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00	2	2	75.00	2024-03-20
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00	5	5	150.00	2024-03-21
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00	3	3	100.00	2024-03-22
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00	6	6	175.00	2024-03-23
2	Jane Smith	jane@example.com	9876500002	Delivery Manager	55000.00	NULL	NULL	NULL	NULL
4	Emily Davis	emily@example.com	9876500004	Logistics Coordinator	60000.00	NULL	NULL	NULL	NULL
6	Sarah Johnson	sarah@example.com	9876500006	Logistics Coordinator	62000.00	NULL	NULL	NULL	NULL
7	Daniel Lee	daniel@example.com	9876500007	Courier Handler	48000.00	NULL	NULL	NULL	NULL

(By using UNION ALL)

SELECT e.EmployeeId, e.Name AS Employee_Name, e.Email, e.ContactNumber, e.Role, e.Salary, p.PaymentId, p.CourierId, p.Amount, p.PaymentDate FROM courier c LEFT JOIN Employee_table e ON c.EmployeeId = e.EmployeeId LEFT JOIN Payment_table p ON p.CourierId = c.CourierId

UNION ALL

SELECT e.EmployeeId, e.Name AS Employee_Name, e.Email, e.ContactNumber, e.Role, e.Salary, p.PaymentId, p.CourierId, p.Amount, p.PaymentDate FROM Employee_table e LEFT JOIN courier c ON e.EmployeeId = c.EmployeeId LEFT JOIN Payment_table p ON p.CourierId = c.CourierId;

EmployeeId	Employee_Name	Email	ContactNumber	Role	Salary	PaymentId	CourierId	Amount	PaymentDate
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	1	1	50.00	2024-03-20
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	4	4	125.00	2024-03-22
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	7	7	200.00	2024-03-26
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00	2	2	75.00	2024-03-20
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00	5	5	150.00	2024-03-21
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00	3	3	100.00	2024-03-22
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00	6	6	175.00	2024-03-23
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	1	1	50.00	2024-03-20
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	4	4	125.00	2024-03-22
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	7	7	200.00	2024-03-26
2	Jane Smith	jane@example.com	9876500002	Delivery Manager	55000.00	NULL	NULL	NULL	NULL
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00	2	2	75.00	2024-03-20
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00	5	5	150.00	2024-03-21
4	Emily Davis	emily@example.com	9876500004	Logistics Coordinator	60000.00	NULL	NULL	NULL	NULL
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00	3	3	100.00	2024-03-22
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00	6	6	175.00	2024-03-23
6	Sarah Johnson	sarah@example.com	9876500006	Logistics Coordinator	62000.00	NULL	NULL	NULL	NULL
7	Daniel Lee	daniel@example.com	9876500007	Courier Handler	48000.00	NULL	NULL	NULL	NULL

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

To get all possible combination CROSS JOIN can be used which results in producing of more inconsistent data.

Query:

SELECT u.UserId, u.Name, u.Email,u.Password,u.ContactNumber,u.Address, s.ServiceID, s.ServiceName,s.Cost from user u CROSS JOIN courierServices s;

```
+--------+---------------+---------------------+-------------+---------------+-------------------+-----------+----------------------+-------+
| UserId | Name          | Email               | Password    | ContactNumber | Address           | ServiceID | ServiceName          | Cost  |
+--------+---------------+---------------------+-------------+---------------+-------------------+-----------+----------------------+-------+
|      7 | Grace Lee     | grace@example.com   | password111 | 9876543216    | 404 Cedar St, NV  |         1 | Express Delivery     | 20.00 |
|      6 | Frank Thomas  | frank@example.com   | password987 | 9876543215    | 303 Birch St, WA  |         1 | Express Delivery     | 20.00 |
|      5 | Emma Wilson   | emma@example.com    | password654 | 9876543214    | 202 Maple St, IL  |         1 | Express Delivery     | 20.00 |
|      4 | David Miller  | david@example.com   | password321 | 9876543213    | 101 Oak St, FL    |         1 | Express Delivery     | 20.00 |
|      3 | Charlie Brown | charlie@example.com | password789 | 9876543212    | 789 Pine St, TX   |         1 | Express Delivery     | 20.00 |
|      2 | Bob Smith     | bob@example.com     | password456 | 9876543211    | 456 Elm St, CA    |         1 | Express Delivery     | 20.00 |
|      1 | Alice Johnson | alice@example.com   | password123 | 9876543210    | 123 Main St, NY   |         1 | Express Delivery     | 20.00 |
|      7 | Grace Lee     | grace@example.com   | password111 | 9876543216    | 404 Cedar St, NV  |         2 | Same-Day Delivery    | 25.00 |
|      6 | Frank Thomas  | frank@example.com   | password987 | 9876543215    | 303 Birch St, WA  |         2 | Same-Day Delivery    | 25.00 |
|      5 | Emma Wilson   | emma@example.com    | password654 | 9876543214    | 202 Maple St, IL  |         2 | Same-Day Delivery    | 25.00 |
|      4 | David Miller  | david@example.com   | password321 | 9876543213    | 101 Oak St, FL    |         2 | Same-Day Delivery    | 25.00 |
|      3 | Charlie Brown | charlie@example.com | password789 | 9876543212    | 789 Pine St, TX   |         2 | Same-Day Delivery    | 25.00 |
|      2 | Bob Smith     | bob@example.com     | password456 | 9876543211    | 456 Elm St, CA    |         2 | Same-Day Delivery    | 25.00 |
|      1 | Alice Johnson | alice@example.com   | password123 | 9876543210    | 123 Main St, NY   |         2 | Same-Day Delivery    | 25.00 |
|      7 | Grace Lee     | grace@example.com   | password111 | 9876543216    | 404 Cedar St, NV  |         3 | Standard Delivery    | 15.00 |
|      6 | Frank Thomas  | frank@example.com   | password987 | 9876543215    | 303 Birch St, WA  |         3 | Standard Delivery    | 15.00 |
|      5 | Emma Wilson   | emma@example.com    | password654 | 9876543214    | 202 Maple St, IL  |         3 | Standard Delivery    | 15.00 |
|      4 | David Miller  | david@example.com   | password321 | 9876543213    | 101 Oak St, FL    |         3 | Standard Delivery    | 15.00 |
|      3 | Charlie Brown | charlie@example.com | password789 | 9876543212    | 789 Pine St, TX   |         3 | Standard Delivery    | 15.00 |
|      2 | Bob Smith     | bob@example.com     | password456 | 9876543211    | 456 Elm St, CA    |         3 | Standard Delivery    | 15.00 |
|      1 | Alice Johnson | alice@example.com   | password123 | 9876543210    | 123 Main St, NY   |         3 | Standard Delivery    | 15.00 |
|      7 | Grace Lee     | grace@example.com   | password111 | 9876543216    | 404 Cedar St, NV  |         4 | International Shipping| 50.00 |
|      6 | Frank Thomas  | frank@example.com   | password987 | 9876543215    | 303 Birch St, WA  |         4 | International Shipping| 50.00 |
|      5 | Emma Wilson   | emma@example.com    | password654 | 9876543214    | 202 Maple St, IL  |         4 | International Shipping| 50.00 |
|      4 | David Miller  | david@example.com   | password321 | 9876543213    | 101 Oak St, FL    |         4 | International Shipping| 50.00 |
|      3 | Charlie Brown | charlie@example.com | password789 | 9876543212    | 789 Pine St, TX   |         4 | International Shipping| 50.00 |
|      2 | Bob Smith     | bob@example.com     | password456 | 9876543211    | 456 Elm St, CA    |         4 | International Shipping| 50.00 |
|      1 | Alice Johnson | alice@example.com   | password123 | 9876543210    | 123 Main St, NY   |         4 | International Shipping| 50.00 |
|      7 | Grace Lee     | grace@example.com   | password111 | 9876543216    | 404 Cedar St, NV  |         5 | Overnight Delivery   | 30.00 |
|      6 | Frank Thomas  | frank@example.com   | password987 | 9876543215    | 303 Birch St, WA  |         5 | Overnight Delivery   | 30.00 |
|      5 | Emma Wilson   | emma@example.com    | password654 | 9876543214    | 202 Maple St, IL  |         5 | Overnight Delivery   | 30.00 |
|      4 | David Miller  | david@example.com   | password321 | 9876543213    | 101 Oak St, FL    |         5 | Overnight Delivery   | 30.00 |
|      3 | Charlie Brown | charlie@example.com | password789 | 9876543212    | 789 Pine St, TX   |         5 | Overnight Delivery   | 30.00 |
|      2 | Bob Smith     | bob@example.com     | password456 | 9876543211    | 456 Elm St, CA    |         5 | Overnight Delivery   | 30.00 |
|      1 | Alice Johnson | alice@example.com   | password123 | 9876543210    | 123 Main St, NY   |         5 | Overnight Delivery   | 30.00 |
|      7 | Grace Lee     | grace@example.com   | password111 | 9876543216    | 404 Cedar St, NV  |         6 | Priority Shipping    | 35.00 |
|      6 | Frank Thomas  | frank@example.com   | password987 | 9876543215    | 303 Birch St, WA  |         6 | Priority Shipping    | 35.00 |
|      5 | Emma Wilson   | emma@example.com    | password654 | 9876543214    | 202 Maple St, IL  |         6 | Priority Shipping    | 35.00 |
|      4 | David Miller  | david@example.com   | password321 | 9876543213    | 101 Oak St, FL    |         6 | Priority Shipping    | 35.00 |
|      3 | Charlie Brown | charlie@example.com | password789 | 9876543212    | 789 Pine St, TX   |         6 | Priority Shipping    | 35.00 |
|      2 | Bob Smith     | bob@example.com     | password456 | 9876543211    | 456 Elm St, CA    |         6 | Priority Shipping    | 35.00 |
|      1 | Alice Johnson | alice@example.com   | password123 | 9876543210    | 123 Main St, NY   |         6 | Priority Shipping    | 35.00 |
|      7 | Grace Lee     | grace@example.com   | password111 | 9876543216    | 404 Cedar St, NV  |         7 | Bulk Shipping        | 40.00 |
|      6 | Frank Thomas  | frank@example.com   | password987 | 9876543215    | 303 Birch St, WA  |         7 | Bulk Shipping        | 40.00 |
|      5 | Emma Wilson   | emma@example.com    | password654 | 9876543214    | 202 Maple St, IL  |         7 | Bulk Shipping        | 40.00 |
|      4 | David Miller  | david@example.com   | password321 | 9876543213    | 101 Oak St, FL    |         7 | Bulk Shipping        | 40.00 |
|      3 | Charlie Brown | charlie@example.com | password789 | 9876543212    | 789 Pine St, TX   |         7 | Bulk Shipping        | 40.00 |
|      2 | Bob Smith     | bob@example.com     | password456 | 9876543211    | 456 Elm St, CA    |         7 | Bulk Shipping        | 40.00 |
|      1 | Alice Johnson | alice@example.com   | password123 | 9876543210    | 123 Main St, NY   |         7 | Bulk Shipping        | 40.00 |
+--------+---------------+---------------------+-------------+---------------+-------------------+-----------+----------------------+-------+
49 rows in set (0.00 sec)
```

INNER JOIN to display combinations of only those users who have actually used a courier service.

Query:

SELECT u.UserId, u.Name, u.Email,u.Password,u.ContactNumber,u.Address, s.ServiceID, s.ServiceName,s.Cost from user u INNER JOIN courier c ON u.UserId=c.SenderId INNER JOIN courierservices s ON c.ServiceId=s.ServiceId;

UserId	Name	Email	Password	ContactNumber	Address	ServiceID	ServiceName	Cost
1	Alice Johnson	alice@example.com	password123	9876543210	123 Main St, NY	1	Express Delivery	20.00
2	Bob Smith	bob@example.com	password456	9876543211	456 Elm St, CA	2	Same-Day Delivery	25.00
3	Charlie Brown	charlie@example.com	password789	9876543212	789 Pine St, TX	3	Standard Delivery	15.00
4	David Miller	david@example.com	password321	9876543213	101 Oak St, FL	1	Express Delivery	20.00
5	Emma Wilson	emma@example.com	password654	9876543214	202 Maple St, IL	2	Same-Day Delivery	25.00
6	Frank Thomas	frank@example.com	password987	9876543215	303 Birch St, WA	3	Standard Delivery	15.00
7	Grace Lee	grace@example.com	password111	9876543216	404 Cedar St, NV	1	Express Delivery	20.00

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

INNER JOIN to display combinations of only those users who have actually used a courier service. **Query:**

SELECT e.EmployeeID, e.Name AS Employee_Name, e.Email, e.ContactNumber, e.Role, e.Salary,l.LocationID, l.LocationName, l.Address FROM employee_table e INNER JOIN courier c ON e.EmployeeID = c.EmployeeID INNER JOIN payment_table p ON c.CourierID = p.CourierID INNER JOIN location_table l ON p.LocationID = l.LocationID;

EmployeeID	Employee_Name	Email	ContactNumber	Role	Salary	LocationID	LocationName	Address
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	1	New York Hub	500 Madison Ave, NY
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	1	New York Hub	500 Madison Ave, NY
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	1	New York Hub	500 Madison Ave, NY
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00	2	Los Angeles Hub	600 Sunset Blvd, CA
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00	2	Los Angeles Hub	600 Sunset Blvd, CA
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00	3	Chicago Hub	700 Michigan Ave, IL
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00	3	Chicago Hub	700 Michigan Ave, IL

To get all possible combination CROSS JOIN can be used which results in producing of more inconsistent data. **Query:**

SELECT e.EmployeeID, e.Name AS Employee_Name, e.Email, e.ContactNumber, e.Role, e.Salary,l.LocationID, l.LocationName, l.Address FROM employee_table e CROSS join location_table l;

EmployeeID	Employee_Name	Email	ContactNumber	Role	Salary	LocationID	LocationName	Address
7	Daniel Lee	daniel@example.com	9876500007	Courier Handler	48000.00	1	New York Hub	500 Madison Ave, NY
6	Sarah Johnson	sarah@example.com	9876500006	Logistics Coordinator	62000.00	1	New York Hub	500 Madison Ave, NY
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00	1	New York Hub	500 Madison Ave, NY
4	Emily Davis	emily@example.com	9876500004	Logistics Coordinator	60000.00	1	New York Hub	500 Madison Ave, NY
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00	1	New York Hub	500 Madison Ave, NY
2	Jane Smith	jane@example.com	9876500002	Delivery Manager	55000.00	1	New York Hub	500 Madison Ave, NY
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	1	New York Hub	500 Madison Ave, NY
7	Daniel Lee	daniel@example.com	9876500007	Courier Handler	48000.00	2	Los Angeles Hub	600 Sunset Blvd, CA
6	Sarah Johnson	sarah@example.com	9876500006	Logistics Coordinator	62000.00	2	Los Angeles Hub	600 Sunset Blvd, CA
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00	2	Los Angeles Hub	600 Sunset Blvd, CA
4	Emily Davis	emily@example.com	9876500004	Logistics Coordinator	60000.00	2	Los Angeles Hub	600 Sunset Blvd, CA
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00	2	Los Angeles Hub	600 Sunset Blvd, CA
2	Jane Smith	jane@example.com	9876500002	Delivery Manager	55000.00	2	Los Angeles Hub	600 Sunset Blvd, CA
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	2	Los Angeles Hub	600 Sunset Blvd, CA
7	Daniel Lee	daniel@example.com	9876500007	Courier Handler	48000.00	3	Chicago Hub	700 Michigan Ave, IL
6	Sarah Johnson	sarah@example.com	9876500006	Logistics Coordinator	62000.00	3	Chicago Hub	700 Michigan Ave, IL
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00	3	Chicago Hub	700 Michigan Ave, IL
4	Emily Davis	emily@example.com	9876500004	Logistics Coordinator	60000.00	3	Chicago Hub	700 Michigan Ave, IL
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00	3	Chicago Hub	700 Michigan Ave, IL
2	Jane Smith	jane@example.com	9876500002	Delivery Manager	55000.00	3	Chicago Hub	700 Michigan Ave, IL
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	3	Chicago Hub	700 Michigan Ave, IL
7	Daniel Lee	daniel@example.com	9876500007	Courier Handler	48000.00	4	Houston Hub	800 Main St, TX
6	Sarah Johnson	sarah@example.com	9876500006	Logistics Coordinator	62000.00	4	Houston Hub	800 Main St, TX
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00	4	Houston Hub	800 Main St, TX
4	Emily Davis	emily@example.com	9876500004	Logistics Coordinator	60000.00	4	Houston Hub	800 Main St, TX
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00	4	Houston Hub	800 Main St, TX
2	Jane Smith	jane@example.com	9876500002	Delivery Manager	55000.00	4	Houston Hub	800 Main St, TX
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	4	Houston Hub	800 Main St, TX
7	Daniel Lee	daniel@example.com	9876500007	Courier Handler	48000.00	5	Miami Hub	900 Ocean Dr, FL
6	Sarah Johnson	sarah@example.com	9876500006	Logistics Coordinator	62000.00	5	Miami Hub	900 Ocean Dr, FL
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00	5	Miami Hub	900 Ocean Dr, FL
4	Emily Davis	emily@example.com	9876500004	Logistics Coordinator	60000.00	5	Miami Hub	900 Ocean Dr, FL
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00	5	Miami Hub	900 Ocean Dr, FL
2	Jane Smith	jane@example.com	9876500002	Delivery Manager	55000.00	5	Miami Hub	900 Ocean Dr, FL
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	5	Miami Hub	900 Ocean Dr, FL
7	Daniel Lee	daniel@example.com	9876500007	Courier Handler	48000.00	6	Seattle Hub	100 Pine St, WA
6	Sarah Johnson	sarah@example.com	9876500006	Logistics Coordinator	62000.00	6	Seattle Hub	100 Pine St, WA
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00	6	Seattle Hub	100 Pine St, WA
4	Emily Davis	emily@example.com	9876500004	Logistics Coordinator	60000.00	6	Seattle Hub	100 Pine St, WA
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00	6	Seattle Hub	100 Pine St, WA
2	Jane Smith	jane@example.com	9876500002	Delivery Manager	55000.00	6	Seattle Hub	100 Pine St, WA
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	6	Seattle Hub	100 Pine St, WA
7	Daniel Lee	daniel@example.com	9876500007	Courier Handler	48000.00	7	Las Vegas Hub	200 Strip Blvd, NV
6	Sarah Johnson	sarah@example.com	9876500006	Logistics Coordinator	62000.00	7	Las Vegas Hub	200 Strip Blvd, NV
5	Michael Wilson	michael@example.com	9876500005	Courier Handler	46000.00	7	Las Vegas Hub	200 Strip Blvd, NV
4	Emily Davis	emily@example.com	9876500004	Logistics Coordinator	60000.00	7	Las Vegas Hub	200 Strip Blvd, NV
3	Robert Brown	robert@example.com	9876500003	Courier Handler	47000.00	7	Las Vegas Hub	200 Strip Blvd, NV
2	Jane Smith	jane@example.com	9876500002	Delivery Manager	55000.00	7	Las Vegas Hub	200 Strip Blvd, NV
1	John Doe	john@example.com	9876500001	Courier Handler	45000.00	7	Las Vegas Hub	200 Strip Blvd, NV

49 rows in set (0.00 sec)

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

SELECT c.CourierId, c.SenderName,c.SenderAddress, c.Weight, c.Status, c.TrackingNumber, p.PaymentDate, c.DeliveryDate, p.Amount From courier c LEFT JOIN Payment_Table p on c.CourierId=p.CourierId;

CourierId	SenderName	SenderAddress	Weight	Status	TrackingNumber	PaymentDate	DeliveryDate	Amount
1	Alice Johnson	123 Main St, NY	5.50	Delivered	TRK001	2024-03-20	2024-03-20	50.00
2	Bob Smith	456 Elm St, CA	10.00	In Transit	TRK002	2024-03-20	2024-03-21	75.00
3	Charlie Brown	789 Pine St, TX	7.20	Delivered	TRK003	2024-03-22	2024-03-22	100.00
4	David Miller	101 Oak St, FL	12.50	Pending	TRK004	2024-03-22	2024-03-23	125.00
5	Emma Wilson	202 Maple St, IL	6.80	Delivered	TRK005	2024-03-21	2024-03-24	150.00
6	Frank Thomas	303 Birch St, WA	9.30	In Transit	TRK006	2024-03-23	2024-03-25	175.00
7	Grace Lee	404 Cedar St, NV	11.40	Delivered	TRK007		2024-03-26	200.00

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

SELECT c.CourierId, c.ReceiverName,c.ReceiverAddress, c.Weight, c.Status, c.TrackingNumber, p.PaymentDate, c.DeliveryDate, p.Amount From courier c LEFT JOIN Payment_Table p on c.CourierId=p.CourierId;

CourierId	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	PaymentDate	DeliveryDate	Amount
1	Bob Smith	456 Elm St, CA	5.50	Delivered	TRK001	2024-03-20	2024-03-20	50.00
2	Charlie Brown	789 Pine St, TX	10.00	In Transit	TRK002	2024-03-20	2024-03-21	75.00
3	David Miller	101 Oak St, FL	7.20	Delivered	TRK003	2024-03-22	2024-03-22	100.00
4	Emma Wilson	202 Maple St, IL	12.50	Pending	TRK004	2024-03-22	2024-03-23	125.00
5	Frank Thomas	303 Birch St, WA	6.80	Delivered	TRK005	2024-03-21	2024-03-24	150.00
6	Grace Lee	404 Cedar St, NV	9.30	In Transit	TRK006	2024-03-23	2024-03-25	175.00
7	Alice Johnson	123 Main St, NY	11.40	Delivered	TRK007		2024-03-26	200.00

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

SELECT c.CourierId, c.ReceiverName,c.ReceiverAddress, c.Weight, c.Status, c.TrackingNumber, c.DeliveryDate, s.ServiceId, s.ServiceName, s.Cost from Courier c LEFT JOIN courierservices s ON c.ServiceId=s.ServiceId;

CourierId	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate	ServiceId	ServiceName	Cost
1	Bob Smith	456 Elm St, CA	5.50	Delivered	TRK001	2024-03-20	1	Express Delivery	20.00
2	Charlie Brown	789 Pine St, TX	10.00	In Transit	TRK002	2024-03-21	2	Same-Day Delivery	25.00
3	David Miller	101 Oak St, FL	7.20	Delivered	TRK003	2024-03-22	3	Standard Delivery	15.00
4	Emma Wilson	202 Maple St, IL	12.50	Pending	TRK004	2024-03-23	1	Express Delivery	20.00
5	Frank Thomas	303 Birch St, WA	6.80	Delivered	TRK005	2024-03-24	2	Same-Day Delivery	25.00
6	Grace Lee	404 Cedar St, NV	9.30	In Transit	TRK006	2024-03-25	3	Standard Delivery	15.00
7	Alice Johnson	123 Main St, NY	11.40	Delivered	TRK007	2024-03-26	1	Express Delivery	20.00

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

Select e.EmployeeId, e.Name, e.Email,e.ContactNumber,e.Role, count(c.CourierId) from employee_table e Inner Join courier c ON c.EmployeeId=e.EmployeeId GROUP BY EmployeeId;

	EmployeeId	Name	Email	ContactNumber	Role	count(c.CourierId)
▶	1	John Doe	john@example.com	9876500001	Courier Handler	3
	3	Robert Brown	robert@example.com	9876500003	Courier Handler	2
	5	Michael Wilson	michael@example.com	9876500005	Courier Handler	2

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

SELECT l.LocationId, l.LocationName,l.Address, sum(p.amount) from location_table l INNER Join Payment_table p ON l.LocationId=p.LocationId GROUP BY l.LocationId, l.LocationName,l.Address;

Result Grid | Filter Rows: | Export: | Wrap Cell

	LocationId	LocationName	Address	sum(p.amount)
▶	1	New York Hub	500 Madison Ave, NY	375.00
	2	Los Angeles Hub	600 Sunset Blvd, CA	225.00
	3	Chicago Hub	700 Michigan Ave, IL	275.00

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

SELECT c1.CourierId, c1.SenderName, c1.SenderAddress, c1.ReceiverName, c1.ReceiverAddress, c1.Weight, c1.Status, c1.TrackingNumber, c1.DeliveryDate From courier c1 JOIN courier c2 ON c1.SenderName=c2.SenderName AND c1.CourierID!=c2.CourierID ORDER BY c1.SenderName;

(Since I have unique data, each sender appears to have sent only one courier (all SenderName values are unique). That's why I am getting an empty set when trying to find senders with multiple couriers.)

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

CourierId	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate

44. List all employees who share the same role.

SELECT e1.EmployeeID AS Emp1_ID, e1.Name AS Emp1_Name,
e1.Role,e2.EmployeeID AS Emp2_ID, e2.Name AS Emp2_Name from
employee_table e1 JOIN employee_table e2 ON e1.role=e2.Role AND
e1.EmployeeId<e2.EmployeeId ORDER BY e1.Role, e1.EmployeeID,
e2.EmployeeID;

Emp1_ID	Emp1_Name	Role	Emp2_ID	Emp2_Name
1	John Doe	Courier Handler	3	Robert Brown
1	John Doe	Courier Handler	5	Michael Wilson
1	John Doe	Courier Handler	7	Daniel Lee
3	Robert Brown	Courier Handler	5	Michael Wilson
3	Robert Brown	Courier Handler	7	Daniel Lee
5	Michael Wilson	Courier Handler	7	Daniel Lee
4	Emily Davis	Logistics Coordinator	6	Sarah Johnson

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

SELECT p1.PaymentId AS Payment1_ID, p1.Amount AS Amount1,
p1.PaymentDate AS PaymentDate1, p1.LocationId, l.LocationName,
p2.PaymentId AS Payment2_ID, p2.Amount AS Amount2, p2.PaymentDate
AS PaymentDate2 FROM payment_table p1 JOIN payment_table p2 ON
p1.LocationId = p2.LocationId AND p1.PaymentId < p2.PaymentId JOIN
location_table l ON p1.LocationId = l.LocationId ORDER BY p1.LocationId,
p1.PaymentId, p2.PaymentId;

Payment1_ID	Amount1	PaymentDate1	LocationId	LocationName	Payment2_ID	Amount2	PaymentDate2
1	50.00	2024-03-20	1	New York Hub	4	125.00	2024-03-22
1	50.00	2024-03-20	1	New York Hub	7	200.00	2024-03-26
4	125.00	2024-03-22	1	New York Hub	7	200.00	2024-03-26
2	75.00	2024-03-20	2	Los Angeles Hub	5	150.00	2024-03-21
3	100.00	2024-03-22	3	Chicago Hub	6	175.00	2024-03-23

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

SELECT c1.CourierId AS Courier1_ID, c1.SenderName AS Sender1,
c1.SenderAddress, c1.ReceiverName AS Receiver1, c2.CourierId AS
Courier2_ID, c2.SenderName AS Sender2, c2.ReceiverName AS Receiver2
FROM courier c1 JOIN courier c2 ON c1.SenderAddress = c2.SenderAddress

AND c1.CourierId < c2.CourierId ORDER BY c1.SenderAddress, c1.CourierId, c2.CourierId;

(Since I have unique data, each sender appears to have sent only one courier (all SenderAddress values are unique). That's why I am getting an empty set when trying to find SenderAddress with multiple couriers.)

Courier1_ID	Sender1	SenderAddress	Receiver1	Courier2_ID	Sender2	Receiver2

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

SELECT e.EmployeeId, e.Name, e.Email, COUNT(c.CourierId) AS Number_Of_Delivered_Couriers FROM employee_table e LEFT JOIN courier c ON e.EmployeeId = c.EmployeeId AND c.Status = 'Delivered' GROUP BY e.EmployeeId, e.Name, e.Email;

EmployeeId	Name	Email	Number_Of_Delivered_Couriers
1	John Doe	john@example.com	2
2	Jane Smith	jane@example.com	0
3	Robert Brown	robert@example.com	1
4	Emily Davis	emily@example.com	0
5	Michael Wilson	michael@example.com	1
6	Sarah Johnson	sarah@example.com	0
7	Daniel Lee	daniel@example.com	0

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

SELECT c.CourierId, c.SenderName, c.ReceiverName, cs.ServiceName, cs.Cost AS ServiceCost, p.Amount AS PaidAmount, (p.Amount - cs.Cost) AS Overpayment FROM courier c JOIN payment_table p ON c.CourierId = p.CourierId JOIN courierservices cs ON c.ServiceID = cs.ServiceID WHERE p.Amount > cs.Cost;

	CourierId	SenderName	ReceiverName	ServiceName	ServiceCost	PaidAmount	Overpayment
▶	1	Alice Johnson	Bob Smith	Express Delivery	20.00	50.00	30.00
	2	Bob Smith	Charlie Brown	Same-Day Delivery	25.00	75.00	50.00
	3	Charlie Brown	David Miller	Standard Delivery	15.00	100.00	85.00
	4	David Miller	Emma Wilson	Express Delivery	20.00	125.00	105.00
	5	Emma Wilson	Frank Thomas	Same-Day Delivery	25.00	150.00	125.00
	6	Frank Thomas	Grace Lee	Standard Delivery	15.00	175.00	160.00
	7	Grace Lee	Alice Johnson	Express Delivery	20.00	200.00	180.00