

## SQL ASSIGNMENT COURIER MANAGEMENT SYSTEM

NAME: KARTHICK M

**Task1: Database Design** a SQL schema for a Courier Management System with tables for Customers, Couriers, Orders, and Parcels. Define the relationships between these tables using appropriate foreign keys.

```
create table users
(
  UserID int primary key,
  Name varchar(255),
  Email varchar(255) unique,
  Password varchar(255),
  ContactNumber varchar(20),
  Address text
)

create table CourierServices
(
  ServiceId int primary key,
  ServiceName varchar(100),
  Cost decimal(8,2)
)

create table Employee
(
  EmployeeId int primary key,
  Name varchar(255),
  Email varchar(255),
  ContactNumber varchar(20),
  Role varchar(50),
  Salary decimal(10,2)
)

create table Location
(
  LocationID int primary key,
  LocationName varchar(100),
  Address text
)

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,
  LocationID int,
  EmployeeID int,
  ServiceID int,
  CONSTRAINT FK_Couriers_Location FOREIGN KEY (LocationID) REFERENCES
  Location(LocationID),
  CONSTRAINT FK_Couriers_Employee FOREIGN KEY (EmployeeID) REFERENCES
  Employee(EmployeeID),
  CONSTRAINT FK_Couriers_Service FOREIGN KEY (ServiceID) REFERENCES
  CourierServices(ServiceID) )
```

```

create table Payment
(
PaymentID int primary key,
CourierID int,
LocationID int,
Amount decimal(10,2),
PaymentDate date,
EmployeeID int,
FOREIGN KEY (CourierID) REFERENCES Courier(CourierID),
FOREIGN KEY (LocationID) REFERENCES Location(LocationID),
FOREIGN KEY (EmployeeID) REFERENCES Employee(EmployeeID)
)

```

```

insert into users (UserID, Name, Email, Password, ContactNumber, Address)
values(1, 'Ram kumar', 'ram.kumar@email.com', 'password123', '8912354678',
'11,mothilal street Chennai'),
(2, 'Rahavan', 'rahavan@email.com', 'password456', '6754327689', '34 Kothvari
Street,Bangalore'),
(3, 'Amit Patel', 'amit.patel@email.com', 'password789', '7654321098', '56 Krishna
Lane, Hyderabad'),
(4, 'Ananya Singh', 'ananya.singh@email.com', 'passwordabc', '6543210987', '78
Vindhya Nagar,Coimbatore')

```

```

insert into CourierServices (ServiceID, ServiceName, Cost)
values(1, 'Standard', 10.00),
(2, 'Express', 15.00)

```

```

insert into Employee (EmployeeID, Name, Email, ContactNumber, Role, Salary)
values(1, 'arnav', 'arnav@email.com', '1112223333', 'Manager', 50000.00),
(2, 'kaushik', 'kaushik@email.com', '4445556666', 'Delivery Person', 30000.00),
(3, 'karthick', 'karthick@email.com', '5556667777', 'Delivery Person', 30000.00)

```

```

insert into Location (LocationID, LocationName, Address)
values (1, 'Warehouse1', '789 Storage St, Chennai'),
(2, 'Warehouse2', '456 Logistics Ave, Bangalore'),
(3, 'Warehouse3', '123 Distribution Rd, Hyderabad')

```

```

insert into Courier (CourierID, SenderName, SenderAddress, ReceiverName,
ReceiverAddress, Weight,
Status, TrackingNumber, DeliveryDate,LocationID,EmployeeID,ServiceID)
values (1, 'Rajesh Kumar', '12 Gandhi Nagar, Chennai', 'Ananya Singh', '78 Vindhya
Nagar, Coimbatore',
2.5, 'In Transit', 'TN123456', '2025-03-01',1,2,1),
(2, 'Priya Sharma', '34 Kaveri Street, Bangalore', 'Amit Patel', '56 Krishna Lane,
Hyderabad', 1.8,
'Delivered', 'TN789012', '2025-03-02',1,2,2),
(3, 'Amit Patel', '56 Krishna Lane, Hyderabad', 'Priya Sharma', '34 Kaveri Street,
Bangalore', 3.0,
'In Transit', 'TN345678', '2025-03-03',2,3,2),
(4, 'Ananya Singh', '78 Vindhya Nagar, Coimbatore', 'Rajesh Kumar', '12 Gandhi Nagar,
Chennai', 4.0,
'In Transit', 'TN345679', '2025-03-17',2,3,2)

```

```

insert into Payment (PaymentID, CourierID, LocationID, Amount,
PaymentDate,EmployeeID)
values(1, 1, 1, 10000.00, '2024-03-03',2),
(2, 2, 2, 1500.00, '2024-03-04',2),
(3, 3, 3, 1200.50, '2024-03-05',3)

```

```

insert into users (UserID, Name, Email, Password, ContactNumber, Address)
values(5, 'Sara Khan', 'sara.khan@email.com', 'passwordxyz', '5432109876', '90 Yamuna
Road, Delhi'),
(6, 'Michael Johnson', 'michael.johnson@email.com', 'password123', '6547893210', '23
Park Street,Mumbai'),
(7, 'Ram kumar', 'ramkumar@email.com', 'password765', '7896543210', '45 Lake Avenue,
Kolkata'),
(8, 'David Lee', 'david.lee@email.com', 'password432', '9876543210', '67 Forest Lane,
Pune'),
(9, 'Sophia', 'sophia@email.com', 'password278', '8765432109', '89 Ocean View, Goa')

insert into Employee (EmployeeID, Name, Email, ContactNumber, Role, Salary)
values(4, 'Johncena', 'john.cena@email.com', '1234567890', 'Manager', 60000.00),
(5, 'Johnson', 'johnson@email.com', '9876543210', 'Clerk', 45000.00)

insert into Courier (CourierID, SenderName, SenderAddress, ReceiverName,
ReceiverAddress, Weight,
Status, TrackingNumber, DeliveryDate,LocationID,EmployeeID,ServiceID)
values(5, 'Sara Khan', '90 Yamuna Road, Delhi', 'David Lee', '67 Forest Lane, Pune',
2.0, 'In Transit',
'TN234567', '2025-03-04', 1, 2, 2),
(6, 'Michael Johnson', '23 Park Street, Mumbai', 'Emma Wilson', '45 Lake Avenue,
Kolkata', 1.5,
'Delivered', 'TN345688', '2025-03-05', 2, 3, 1),
(7, 'Emma Wilson', '45 Lake Avenue, Kolkata', 'Michael Johnson', '23 Park Street,
Mumbai', 3.5, 'In
Transit', 'TN456789', '2025-03-06', 3, 2, 2),
(8, 'David Lee', '67 Forest Lane, Pune', 'Sara Khan', '90 Yamuna Road, Delhi', 4.5,
'In Transit',
'TN567890', '2025-03-07', 3, 2, 1),
(9, 'Rajesh Kumar', '12 Gandhi Nagar, Chennai', 'Sara Khan', '90 Yamuna Road, Delhi',
2.8, 'Delivered', 'TN678901', '2025-03-08', 2, 3, 2)

insert into Payment (PaymentID, CourierID, LocationID, Amount, PaymentDate,EmployeeID)
(4, 4, 1, 1500.00, '2024-03-06', 2),
(5, 5, 2, 1000.00, '2024-03-07', 3),
(6, 6, 3, 25000.00, '2024-03-08', 2),
(7, 7, 1, 2000.00, '2024-03-09', 3),
(8, 8, 2, 1200.50, '2024-03-10', 2),
(9, 9, 2, 1200.50, '2024-03-10', 2)

```

## Task 2: Select, Where

### 1. List all customers:

```
select * from users
```

	UserID	Name	Email	Password	ContactNumber	Address
3	3	Amit Patel	amit.patel@email.com	password789	7654321098	56 Krishna Lane, Hyderabad
4	4	Ananya Singh	ananya.singh@email.com	passwordabc	6543210987	78 Vindhya Nagar,Coimbatore
5	5	Sara Khan	sara.khan@email.com	passwordxyz	5432109876	90 Yamuna Road, Delhi
6	6	Michael Johnson	michael.johnson@email.com	password123	6547893210	23 Park Street,Mumbai
7	7	Ram kumar	ramkumar@email.com	password765	7896543210	45 Lake Avenue, Kolkata
8	8	David Lee	david.lee@email.com	password432	9876543210	67 Forest Lane, Pune
9	9	Sophia	sophia@email.com	password278	8765432109	89 Ocean View, Goa

## 2. List all orders for a specific customer:

```
select * from Courier where SenderName = 'Rajesh kumar'
```

Results		Messages										
	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	status	TrackingNumber	DeliveryDate	LocationID	EmployeeID	ServiceID
1	1	Rajesh Kumar	12 Gandhi Nagar, Chennai	Ananya Singh	78 Vindhya Nagar, Coimbatore	2.50	In Transit	TN123456	2025-03-01	1	2	1
2	9	Rajesh Kumar	12 Gandhi Nagar, Chennai	Sara Khan	90 Yamuna Road, Delhi	2.80	Delivered	TN678901	2025-03-08	2	3	2

## 3. List all couriers:

```
select * from Courier
```

Results		Messages										
	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	status	TrackingNumber	DeliveryDate	LocationID	EmployeeID	ServiceID
1	1	Rajesh Kumar	12 Gandhi Nagar, Chennai	Ananya Singh	78 Vindhya Nagar, Coimbatore	2.50	In Transit	TN123456	2025-03-01	1	2	1
2	2	Priya Sharma	34 Kaveri Street, Bangalore	Amit Patel	56 Krishna Lane, Hyderabad	1.80	Delivered	TN789012	2025-03-02	1	2	2
3	3	Amit Patel	56 Krishna Lane, Hyderabad	Priya Sharma	34 Kaveri Street, Bangalore	3.00	In Transit	TN345678	2025-03-03	2	3	2
4	4	Ananya Singh	78 Vindhya Nagar, Coimbatore	Rajesh Kumar	12 Gandhi Nagar, Chennai	4.00	In Transit	TN345679	2025-03-17	2	3	2
5	5	Sara Khan	90 Yamuna Road, Delhi	David Lee	67 Forest Lane, Pune	2.00	In Transit	TN234567	2025-03-04	1	2	2
6	6	Michael Johnson	23 Park Street, Mumbai	Emma Wilson	45 Lake Avenue, Kolkata	1.50	Delivered	TN345688	2025-03-05	2	3	1
7	7	Emma Wilson	45 Lake Avenue, Kolkata	Michael Johnson	23 Park Street, Mumbai	3.50	In Transit	TN456789	2025-03-06	3	2	2
8	8	David Lee	67 Forest Lane, Pune	Sara Khan	90 Yamuna Road, Delhi	4.50	In Transit	TN567890	2025-03-07	3	2	1
9	9	Rajesh Kumar	12 Gandhi Nagar, Chennai	Sara Khan	90 Yamuna Road, Delhi	2.80	Delivered	TN678901	2025-03-08	2	3	2

## 4. List all packages for a specific order:

```
select * FROM Courier where CourierID = 1
```

100 %												
Results		Messages										
	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	status	TrackingNumber	DeliveryDate	LocationID	EmployeeID	ServiceID
1	1	Rajesh Kumar	12 Gandhi Nagar, Chennai	Ananya Singh	78 Vindhya Nagar, Coimbatore	2.50	In Transit	TN123456	2025-03-01	1	2	1

## 5. List all deliveries for a specific courier:

```
select * from Courier where CourierID = 2
```

100 %												
Results		Messages										
	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	status	TrackingNumber	DeliveryDate	LocationID	EmployeeID	ServiceID
1	2	Priya Sharma	34 Kaveri Street, Bangalore	Amit Patel	56 Krishna Lane, Hyderabad	1.80	Delivered	TN789012	2025-03-02	1	2	2

## 6. List all undelivered packages:

```
select * from Courier where status != 'Delivered'
```

100 %

ResultsMessages

	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	status	TrackingNumber	DeliveryDate	LocationID	EmployeeID	ServiceID
1	1	Rajesh Kumar	12 Gandhi Nagar, Chennai	Ananya Singh	78 Vindhya Nagar, Coimbatore	2.50	In Transit	TN123456	2025-03-01	1	2	1
2	3	Amit Patel	56 Krishna Lane, Hyderabad	Priya Shama	34 Kaveri Street, Bangalore	3.00	In Transit	TN345678	2025-03-03	2	3	2
3	4	Ananya Singh	78 Vindhya Nagar, Coimbatore	Rajesh Kumar	12 Gandhi Nagar, Chennai	4.00	In Transit	TN345679	2025-03-17	2	3	2
4	5	Sara Khan	90 Yamuna Road, Delhi	David Lee	67 Forest Lane, Pune	2.00	In Transit	TN234567	2025-03-04	1	2	2
5	7	Emma Wilson	45 Lake Avenue, Kolkata	Michael Johnson	23 Park Street, Mumbai	3.50	In Transit	TN456789	2025-03-06	3	2	2
6	8	David Lee	67 Forest Lane, Pune	Sara Khan	90 Yamuna Road, Delhi	4.50	In Transit	TN567890	2025-03-07	3	2	1

### 7. List all packages that are scheduled for delivery today:

```
select * from Courier where DeliveryDate = CAST(GETDATE() AS DATE)
```

100 %

Results

Messages

	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	status	TrackingNumber	DeliveryDate	LocationID	EmployeeID	ServiceID
1	4	Ananya Singh	78 Vindhya Nagar, Coimbatore	Rajesh Kumar	12 Gandhi Nagar, Chennai	4.00	In Transit	TN345679	2025-03-17	2	3	2

### 8. List all packages with a specific status:

```
select * from Courier where status = 'In Transit'
```

Results		Messages										
	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	status	TrackingNumber	DeliveryDate	LocationID	EmployeeID	ServiceID
1	1	Rajesh Kumar	12 Gandhi Nagar, Chennai	Ananya Singh	78 Vindhya Nagar, Coimbatore	2.50	In Transit	TN123456	2025-03-01	1	2	1
2	3	Amit Patel	56 Krishna Lane, Hyderabad	Priya Shama	34 Kaveri Street, Bangalore	3.00	In Transit	TN345678	2025-03-03	2	3	2
3	4	Ananya Singh	78 Vindhya Nagar, Coimbatore	Rajesh Kumar	12 Gandhi Nagar, Chennai	4.00	In Transit	TN345679	2025-03-17	2	3	2
4	5	Sara Khan	90 Yamuna Road, Delhi	David Lee	67 Forest Lane, Pune	2.00	In Transit	TN234567	2025-03-04	1	2	2
5	8	David Lee	67 Forest Lane, Pune	Sara Khan	90 Yamuna Road, Delhi	4.50	In Transit	TN567890	2025-03-07	3	2	1

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

```
select CourierID, count(*) AS TotalPackages from Courier group by CourierID
```

Results

Messages

	CourierID	TotalPackages
1	1	1
2	5	1
3	3	1
4	4	1
5	6	1
6	7	1
7	8	1
8	9	1
9	2	1

### 10. Find the average delivery time for each courier

```
select c.CourierID, AVG(DATEDIFF(day, p.PaymentDate, c.DeliveryDate)) as
AvgDeliveryTime from Courier c join Payment p on c.CourierID = p.CourierID
group by c.CourierID
```

	CourierID	AvgDeliveryTime
1	1	363
2	2	363
3	3	363
4	4	376
5	5	362
6	6	362
7	7	362
8	8	362
9	9	363

### 11. Find the average delivery time for each courier

```
select * from Courier where weight between 2.0 and 4.0
```

	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	status	TrackingNumber	DeliveryDate	LocationID	EmployeeID	Service
1	1	Rajesh Kumar	12 Gandhi Nagar, Chennai	Ananya Singh	78 Vindhya Nagar, Coimbatore	2.50	In Transit	TN123456	2025-03-01	1	2	1
2	3	Amit Patel	56 Krishna Lane, Hyderabad	Priya Sharma	34 Kaveri Street, Bangalore	3.00	In Transit	TN345678	2025-03-03	2	3	2
3	4	Ananya Singh	78 Vindhya Nagar, Coimbatore	Rajesh Kumar	12 Gandhi Nagar, Chennai	4.00	In Transit	TN345679	2025-03-17	2	3	2
4	5	Sara Khan	90 Yamuna Road, Delhi	David Lee	67 Forest Lane, Pune	2.00	In Transit	TN234567	2025-03-04	1	2	2
5	7	Emma Wilson	45 Lake Avenue, Kolkata	Michael Johnson	23 Park Street, Mumbai	3.50	In Transit	TN456789	2025-03-06	3	2	2
6	9	Rajesh Kumar	12 Gandhi Nagar, Chennai	Sara Khan	90 Yamuna Road, Delhi	2.80	Delivered	TN678901	2025-03-08	2	3	2

### 12. Retrieve employees whose names contain 'John'

```
select * from Employee where Name like '%John%'
```

	EmployeeID	Name	Email	ContactNumber	Role	Salary
1	4	Johncena	john.cena@email.com	1234567890	Manager	60000.00
2	5	Johnson	johnson@email.com	9876543210	Clerk	45000.00

### 13. Retrieve all courier records with payments greater than \$50

```
select * from Payment where Amount > 50.00
```

	PaymentID	CourierID	LocationID	Amount	PaymentDate	EmployeeID
1	1	1	1	10000.00	2024-03-03	2
2	2	2	2	1500.00	2024-03-04	2
3	3	3	3	1200.50	2024-03-05	3
4	4	4	1	1500.00	2024-03-06	2
5	5	5	2	1000.00	2024-03-07	3
6	6	6	3	25000.00	2024-03-08	2
7	7	7	1	2000.00	2024-03-09	3
8	8	8	2	1200.50	2024-03-10	2
9	9	9	2	1200.50	2024-03-10	2

### Task 3: Group By, Aggregate Functions, Having, Order By, where

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

```
select e.EmployeeID, e.Name, count(p.CourierID) AS TotalCouriersHandled from
Employee e
left join Courier p ON e.EmployeeID = p.EmployeeID group by e.EmployeeID, e.Name
```

	EmployeeID	Name	TotalCouriersHandled
1	1	amav	0
2	2	kaushik	5
3	3	karthick	4
4	4	Johncena	0
5	5	Johnson	0

#### 15. Calculate the total revenue generated by each location

```
select l.LocationID, l.LocationName, sum(py.Amount) as TotalRevenue from
Location l
left join Payment py on l.LocationID = py.LocationID group by l.LocationID,
l.LocationName
```

	LocationID	LocationName	TotalRevenue
1	1	Warehouse1	13500.00
2	2	Warehouse2	4901.00
3	3	Warehouse3	26200.50

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

```
select LocationID, count(*) as TotalCouriersDelivered
from Courier
where Status = 'Delivered'
group by LocationID
```

	LocationID	TotalCouriersDelivered
1	1	1
2	2	2

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

```
select top 1 c.CourierID, avg(datediff(day, p.PaymentDate, c.DeliveryDate)) as
AvgDeliveryTime
from Courier c
join Payment p on c.CourierID = p.CourierID
where c.Status = 'Delivered'
group by c.CourierID order by AvgDeliveryTime desc
```

Results Messages		
	CourierID	AvgDeliveryTime
1	2	363

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

```
select LocationID, LocationName from Location where LocationID
in (select LocationID from Payment group by LocationID having sum(Amount) < 5000)
```

Results Messages		
	LocationID	LocationName
1	2	Warehouse2

## 19. Calculate Total Payments per Location

```
select LocationID, sum(Amount) as TotalPayments from Payment group by LocationID
```

Results Messages		
	LocationID	TotalPayments
1	1	13500.00
2	2	4901.00
3	3	26200.50

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

```
select p.CourierID, c.SenderName, c.ReceiverName, p.LocationID, sum(p.Amount)
as TotalPayments
from Payment p join Courier c on p.CourierID = c.CourierID where p.LocationID = 1
group by p.CourierID, c.SenderName, c.ReceiverName, p.LocationID having sum (p.Amount)
> 1000
```

Results Messages					
	CourierID	SenderName	ReceiverName	LocationID	TotalPayments
1	1	Rajesh Kumar	Ananya Singh	1	10000.00
2	4	Ananya Singh	Rajesh Kumar	1	1500.00
3	7	Emma Wilson	Michael Johnson	1	2000.00

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

```
select p.CourierID, c.SenderName, c.ReceiverName, sum(p.Amount) as TotalPayments
from Payment p JOIN Courier c on p.CourierID = c.CourierID
where p.PaymentDate > '2024-03-04'
group by p.CourierID, c.SenderName, c.ReceiverName having sum(p.Amount) > 1000
```



Results Messages				
	CourierID	SenderName	ReceiverName	TotalPayments
1	3	Amit Patel	Priya Sharma	1200.50
2	4	Ananya Singh	Rajesh Kumar	1500.00
3	6	Michael Johnson	Emma Wilson	25000.00
4	7	Emma Wilson	Michael Johnson	2000.00
5	8	David Lee	Sara Khan	1200.50
6	9	Rajesh Kumar	Sara Khan	1200.50

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


```
select l.LocationID, l.LocationName, sum(p.Amount) as TotalAmountReceived from
Location l join Payment p on l.LocationID = p.LocationID
where p.PaymentDate > '2024-03-04' group by l.LocationID, l.LocationName having
sum(p.Amount) > 5000
```

Results Messages			
	LocationID	LocationName	TotalAmountReceived
1	3	Warehouse3	26200.50

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

**23. Retrieve Payments with Courier Information**

```
select p.*, c.* from Payment p inner join Courier c on p.CourierID = c.CourierID
```

Results 														
	PaymentID	CourierID	LocationID	Amount	PaymentDate	EmployeeID	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	status	TrackingNumber
1	1	1	1	10000.00	2024-03-03	2	1	Rajesh Kumar	12 Gandhi Nagar, Chennai	Ananya Singh	78 Vindhya Nagar, Coimbatore	2.50	In Transit	TN123456
2	2	2	2	1500.00	2024-03-04	2	2	Priya Shama	34 Kaveri Street, Bangalore	Amit Patel	56 Krishna Lane, Hyderabad	1.80	Delivered	TN789012
3	3	3	3	1200.50	2024-03-05	3	3	Amit Patel	56 Krishna Lane, Hyderabad	Priya Shama	34 Kaveri Street, Bangalore	3.00	In Transit	TN345678
4	4	4	1	1500.00	2024-03-06	2	4	Ananya Singh	78 Vindhya Nagar, Coimbatore	Rajesh Kumar	12 Gandhi Nagar, Chennai	4.00	In Transit	TN345679
5	5	5	2	1000.00	2024-03-07	3	5	Sara Khan	90 Yamuna Road, Delhi	David Lee	67 Forest Lane, Pune	2.00	In Transit	TN234567
6	6	6	3	25000.00	2024-03-08	2	6	Michael Johnson	23 Park Street, Mumbai	Emma Wilson	45 Lake Avenue, Kolkata	1.50	Delivered	TN345688
7	7	7	1	2000.00	2024-03-09	3	7	Emma Wilson	45 Lake Avenue, Kolkata	Michael Johnson	23 Park Street, Mumbai	3.50	In Transit	TN456789
8	8	8	2	1200.50	2024-03-10	2	8	David Lee	67 Forest Lane, Pune	Sara Khan	90 Yamuna Road, Delhi	4.50	In Transit	TN567890
9	9	9	2	1200.50	2024-03-10	2	9	Rajesh Kumar	12 Gandhi Nagar, Chennai	Sara Khan	90 Yamuna Road, Delhi	2.80	Delivered	TN678901

DeliveryDate	LocationID	EmployeeID	ServiceID
2025-03-01	1	2	1
2025-03-02	1	2	2
2025-03-03	2	3	2
2025-03-17	2	3	2
2025-03-04	1	2	2
2025-03-05	2	3	1
2025-03-06	3	2	2
2025-03-07	3	2	1
2025-03-08	2	3	2

## 24. Retrieve Payments with Location Information

```
select p.*, l.* from Payment p inner join location l on p.LocationID = l.LocationID
```

Results

Messages

	PaymentID	CourierID	LocationID	Amount	PaymentDate	EmployeeID	LocationID	LocationName	Address
1	1	1	1	10000.00	2024-03-03	2	1	Warehouse1	789 Storage St, Chennai
2	2	2	2	1500.00	2024-03-04	2	2	Warehouse2	456 Logistics Ave, Bangalore
3	3	3	3	1200.50	2024-03-05	3	3	Warehouse3	123 Distribution Rd, Hyderabad
4	4	4	1	1500.00	2024-03-06	2	1	Warehouse1	789 Storage St, Chennai
5	5	5	2	1000.00	2024-03-07	3	2	Warehouse2	456 Logistics Ave, Bangalore
6	6	6	3	25000.00	2024-03-08	2	3	Warehouse3	123 Distribution Rd, Hyderabad
7	7	7	1	2000.00	2024-03-09	3	1	Warehouse1	789 Storage St, Chennai
8	8	8	2	1200.50	2024-03-10	2	2	Warehouse2	456 Logistics Ave, Bangalore
9	9	9	2	1200.50	2024-03-10	2	2	Warehouse2	456 Logistics Ave, Bangalore

## 25. Retrieve Payments with Courier and Location Information

```
select p.*, c.*, l.* from Payment p inner join Courier c on p.CourierID = c.CourierID
inner join Location l on p.LocationID = l.LocationID
```

Results		Messages											
	PaymentID	CourierID	LocationID	Amount	PaymentDate	EmployeeID	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	status
1	1	1	1	10000.00	2024-03-03	2	1	Rajesh Kumar	12 Gandhi Nagar, Chennai	Ananya Singh	78 Vindhya Nagar, Coimbatore	2.50	In Transit
2	2	2	2	1500.00	2024-03-04	2	2	Priya Shama	34 Kaveri Street, Bangalore	Amit Patel	56 Krishna Lane, Hyderabad	1.80	Delivered
3	3	3	3	1200.50	2024-03-05	3	3	Amit Patel	56 Krishna Lane, Hyderabad	Priya Shama	34 Kaveri Street, Bangalore	3.00	In Transit
4	4	4	1	1500.00	2024-03-06	2	4	Ananya Singh	78 Vindhya Nagar, Coimbatore	Rajesh Kumar	12 Gandhi Nagar, Chennai	4.00	In Transit
5	5	5	2	1000.00	2024-03-07	3	5	Sara Khan	90 Yamuna Road, Delhi	David Lee	67 Forest Lane, Pune	2.00	In Transit
6	6	6	3	25000.00	2024-03-08	2	6	Michael Johnson	23 Park Street, Mumbai	Emma Wilson	45 Lake Avenue, Kolkata	1.50	Delivered
7	7	7	1	2000.00	2024-03-09	3	7	Emma Wilson	45 Lake Avenue, Kolkata	Michael Johnson	23 Park Street, Mumbai	3.50	In Transit
8	8	8	2	1200.50	2024-03-10	2	8	David Lee	67 Forest Lane, Pune	Sara Khan	90 Yamuna Road, Delhi	4.50	In Transit
9	9	9	2	1200.50	2024-03-10	2	9	Rajesh Kumar	12 Gandhi Nagar, Chennai	Sara Khan	90 Yamuna Road, Delhi	2.80	Delivered

TrackingNumber	DeliveryDate	LocationID	EmployeeID	ServiceID	LocationID	LocationName	Address
TN123456	2025-03-01	1	2	1	1	Warehouse1	789 Storage St, Chennai
TN789012	2025-03-02	1	2	2	2	Warehouse2	456 Logistics Ave, Bangalore
TN345678	2025-03-03	2	3	2	3	Warehouse3	123 Distribution Rd, Hyderabad
TN345679	2025-03-17	2	3	2	1	Warehouse1	789 Storage St, Chennai
TN234567	2025-03-04	1	2	2	2	Warehouse2	456 Logistics Ave, Bangalore
TN345688	2025-03-05	2	3	1	3	Warehouse3	123 Distribution Rd, Hyderabad
TN456789	2025-03-06	3	2	2	1	Warehouse1	789 Storage St, Chennai
TN567890	2025-03-07	3	2	1	2	Warehouse2	456 Logistics Ave, Bangalore
TN678901	2025-03-08	2	3	2	2	Warehouse2	456 Logistics Ave, Bangalore

## 26. List all payments with courier details

```
select p.*, c.* from Payment p inner join Courier c on p.CourierID = c.CourierID
```

Results		Messages											
	PaymentID	CourierID	LocationID	Amount	PaymentDate	EmployeeID	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	status
1	1	1	1	10000.00	2024-03-03	2	1	Rajesh Kumar	12 Gandhi Nagar, Chennai	Ananya Singh	78 Vindhya Nagar, Coimbatore	2.50	In Transit
2	2	2	2	1500.00	2024-03-04	2	2	Priya Shama	34 Kaveri Street, Bangalore	Amit Patel	56 Krishna Lane, Hyderabad	1.80	Delivered
3	3	3	3	1200.50	2024-03-05	3	3	Amit Patel	56 Krishna Lane, Hyderabad	Priya Shama	34 Kaveri Street, Bangalore	3.00	In Transit
4	4	4	1	1500.00	2024-03-06	2	4	Ananya Singh	78 Vindhya Nagar, Coimbatore	Rajesh Kumar	12 Gandhi Nagar, Chennai	4.00	In Transit
5	5	5	2	1000.00	2024-03-07	3	5	Sara Khan	90 Yamuna Road, Delhi	David Lee	67 Forest Lane, Pune	2.00	In Transit
6	6	6	3	25000.00	2024-03-08	2	6	Michael Johnson	23 Park Street, Mumbai	Emma Wilson	45 Lake Avenue, Kolkata	1.50	Delivered
7	7	7	1	2000.00	2024-03-09	3	7	Emma Wilson	45 Lake Avenue, Kolkata	Michael Johnson	23 Park Street, Mumbai	3.50	In Transit
8	8	8	2	1200.50	2024-03-10	2	8	David Lee	67 Forest Lane, Pune	Sara Khan	90 Yamuna Road, Delhi	4.50	In Transit
9	9	9	2	1200.50	2024-03-10	2	9	Rajesh Kumar	12 Gandhi Nagar, Chennai	Sara Khan	90 Yamuna Road, Delhi	2.80	Delivered

<

TrackingNumber	DeliveryDate	LocationID	EmployeeID	ServiceID
TN123456	2025-03-01	1	2	1
TN789012	2025-03-02	1	2	2
TN345678	2025-03-03	2	3	2
TN345679	2025-03-17	2	3	2
TN234567	2025-03-04	1	2	2
TN345688	2025-03-05	2	3	1
TN456789	2025-03-06	3	2	2
TN567890	2025-03-07	3	2	1
TN678901	2025-03-08	2	3	2

## 27. Total payments received for each courier

```
select CourierID, sum(Amount) as TotalPayments
from Payment group by CourierID
```

	CourierID	TotalPayments
1	1	10000.00
2	2	1500.00
3	3	1200.50
4	4	1500.00
5	5	1000.00
6	6	25000.00
7	7	2000.00
8	8	1200.50
9	9	1200.50

## 28. List payments made on a specific date

```
select * from Payment where PaymentDate = '2024-03-05'
```

	PaymentID	CourierID	LocationID	Amount	PaymentDate	EmployeeID
1	3	3	3	1200.50	2024-03-05	3

## 29. Get Courier Information for Each Payment

```
select p.*, c.* from Payment p left join Courier c on p.CourierID = c.CourierID
```

	PaymentID	CourierID	LocationID	Amount	PaymentDate	EmployeeID	CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	status
1	1	1	1	10000.00	2024-03-03	2	1	Rajesh Kumar	12 Gandhi Nagar, Chennai	Ananya Singh	78 Vindhya Nagar, Coimbatore	2.50	In Transit
2	2	2	2	1500.00	2024-03-04	2	2	Priya Shama	34 Kaveri Street, Bangalore	Amit Patel	56 Krishna Lane, Hyderabad	1.80	Delivered
3	3	3	3	1200.50	2024-03-05	3	3	Amit Patel	56 Krishna Lane, Hyderabad	Priya Shama	34 Kaveri Street, Bangalore	3.00	In Transit
4	4	4	1	1500.00	2024-03-06	2	4	Ananya Singh	78 Vindhya Nagar, Coimbatore	Rajesh Kumar	12 Gandhi Nagar, Chennai	4.00	In Transit
5	5	5	2	1000.00	2024-03-07	3	5	Sara Khan	90 Yamuna Road, Delhi	David Lee	67 Forest Lane, Pune	2.00	In Transit
6	6	6	3	25000.00	2024-03-08	2	6	Michael Johnson	23 Park Street, Mumbai	Emma Wilson	45 Lake Avenue, Kolkata	1.50	Delivered
7	7	7	1	2000.00	2024-03-09	3	7	Emma Wilson	45 Lake Avenue, Kolkata	Michael Johnson	23 Park Street, Mumbai	3.50	In Transit
8	8	8	2	1200.50	2024-03-10	2	8	David Lee	67 Forest Lane, Pune	Sara Khan	90 Yamuna Road, Delhi	4.50	In Transit
9	9	9	2	1200.50	2024-03-10	2	9	Rajesh Kumar	12 Gandhi Nagar, Chennai	Sara Khan	90 Yamuna Road, Delhi	2.80	Delivered

TrackingNumber	DeliveryDate	LocationID	EmployeeID	ServiceID
TN123456	2025-03-01	1	2	1
TN789012	2025-03-02	1	2	2
TN345678	2025-03-03	2	3	2
TN345679	2025-03-17	2	3	2
TN234567	2025-03-04	1	2	2
TN345688	2025-03-05	2	3	1
TN456789	2025-03-06	3	2	2
TN567890	2025-03-07	3	2	1
TN678901	2025-03-08	2	3	2

### 30. Get Payment Details with Location

```
select p.*, l.* from Payment p left join Location l on p.LocationID = l.LocationID
```

Results Messages									
	PaymentID	CourierID	LocationID	Amount	PaymentDate	EmployeeID	LocationID	LocationName	Address
1	1	1	1	10000.00	2024-03-03	2	1	Warehouse1	789 Storage St, Chennai
2	2	2	2	1500.00	2024-03-04	2	2	Warehouse2	456 Logistics Ave, Bangalore
3	3	3	3	1200.50	2024-03-05	3	3	Warehouse3	123 Distribution Rd, Hyderabad
4	4	4	1	1500.00	2024-03-06	2	1	Warehouse1	789 Storage St, Chennai
5	5	5	2	1000.00	2024-03-07	3	2	Warehouse2	456 Logistics Ave, Bangalore
6	6	6	3	25000.00	2024-03-08	2	3	Warehouse3	123 Distribution Rd, Hyderabad
7	7	7	1	2000.00	2024-03-09	3	1	Warehouse1	789 Storage St, Chennai
8	8	8	2	1200.50	2024-03-10	2	2	Warehouse2	456 Logistics Ave, Bangalore
9	9	9	2	1200.50	2024-03-10	2	2	Warehouse2	456 Logistics Ave, Bangalore