Hexaware Foundation Training 2025

Sql / Java Assignments

Courier Management System

25/03/2025

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Tasks 1: Database Design:

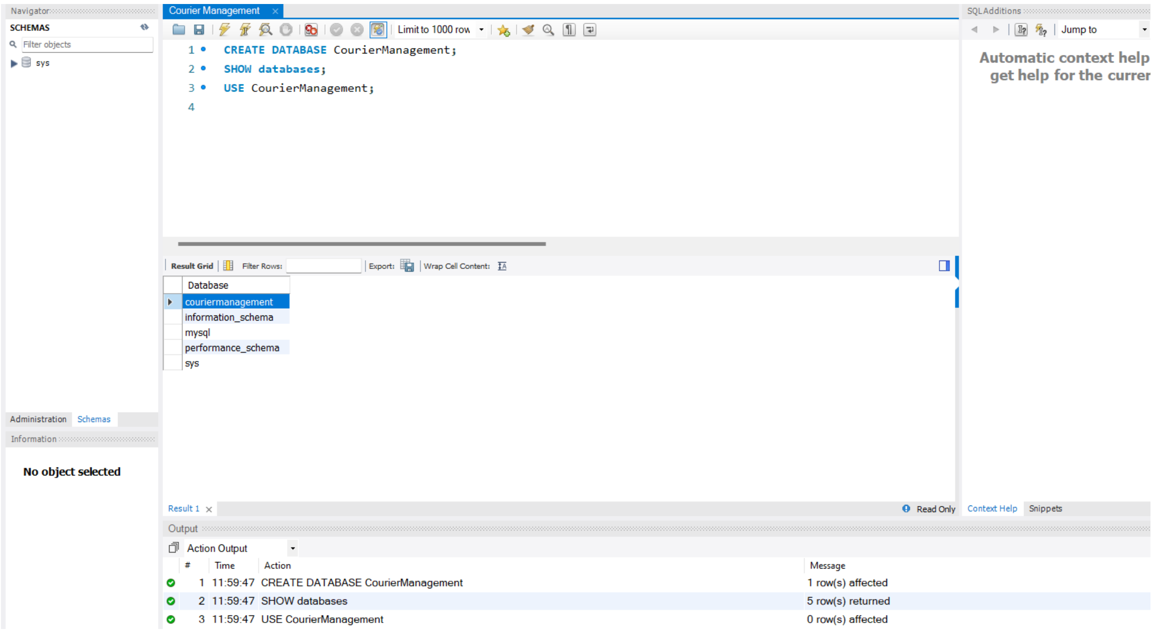
1. Create the database named "Courier_Management"

Queries:

CREATE DATABASE CourierManagement;

SHOW databases;

USE CourierManagement;



```
CREATE DATABASE CourierManagement;
SHOW databases;
USE CourierManagement;
```

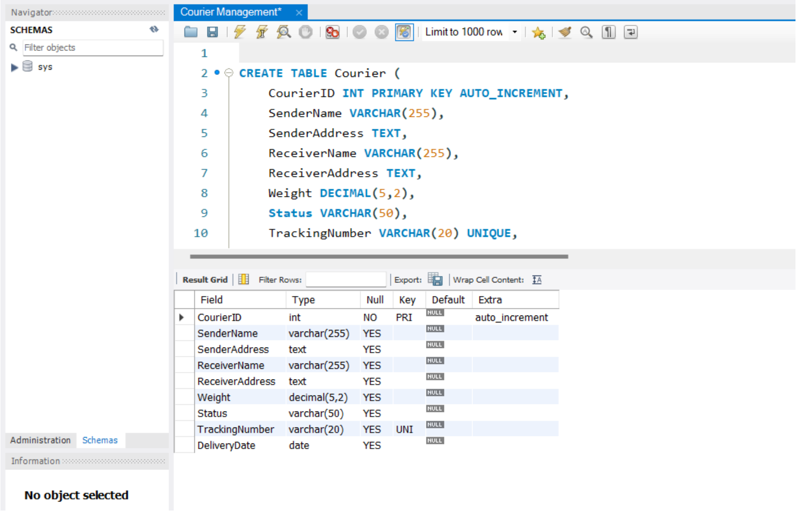
Database
couriermanagement
information_schema
mysql
performance_schema
sys

```
#  Time      Action                              Message
1  11:59:47  CREATE DATABASE CourierManagement   1 row(s) affected
2  11:59:47  SHOW databases                      5 row(s) returned
3  11:59:47  USE CourierManagement               0 row(s) affected
```

2. Write SQL scripts to create the mentioned tables with appropriate data types, constraints, and relationships. User- Couriers - Courier Services - Employee – Location - Payment

# Query for User

```
CREATE TABLE User (
    UserID INT PRIMARY KEY AUTO_INCREMENT,
    Name VARCHAR(255),
    Email VARCHAR(255) UNIQUE,
    Password VARCHAR(255),
    ContactNumber VARCHAR(20),
    Address TEXT
);
desc User;
```



```

CREATE TABLE Courier (
    CourierID INT PRIMARY KEY AUTO_INCREMENT,
    SenderName VARCHAR(255),
    SenderAddress TEXT,
    ReceiverName VARCHAR(255),
    ReceiverAddress TEXT,
    Weight DECIMAL(5,2),
    Status VARCHAR(50),
    TrackingNumber VARCHAR(20) UNIQUE,
```

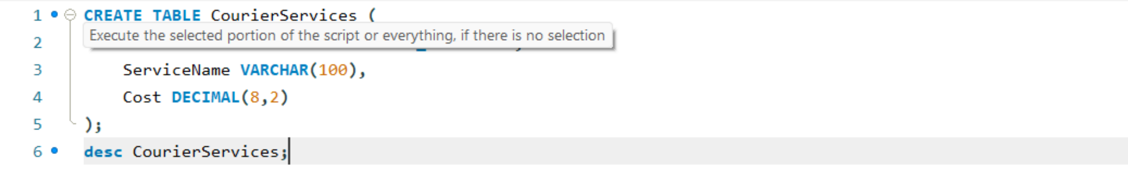
Field	Type	Null	Key	Default	Extra
CourierID	int	NO	PRI	NULL	auto_increment
SenderName	varchar(255)	YES		NULL	
SenderAddress	text	YES		NULL	
ReceiverName	varchar(255)	YES		NULL	
ReceiverAddress	text	YES		NULL	
Weight	decimal(5,2)	YES		NULL	
Status	varchar(50)	YES		NULL	
TrackingNumber	varchar(20)	YES	UNI	NULL	
DeliveryDate	date	YES		NULL	

# Query for Courier.

```
CREATE TABLE Courier (
    CourierID INT PRIMARY KEY AUTO_INCREMENT,
    SenderName VARCHAR(255),
    SenderAddress TEXT,
    ReceiverName VARCHAR(255),
    ReceiverAddress TEXT,
    Weight DECIMAL(5,2),
    Status VARCHAR(50),
    TrackingNumber VARCHAR(20) UNIQUE,
    DeliveryDate DATE
);
```

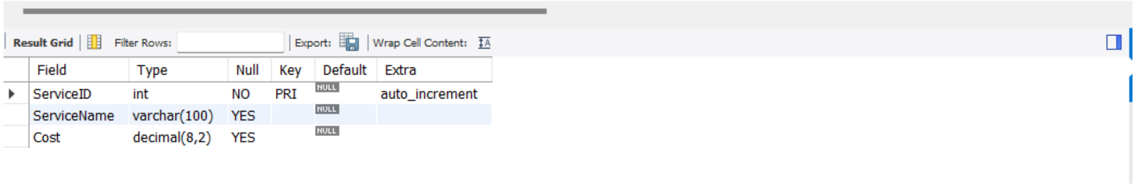
# **Query for** CourierServices

```
CREATE TABLE CourierServices (
    ServiceID INT PRIMARY KEY AUTO_INCREMENT,
    ServiceName VARCHAR(100),
    Cost DECIMAL(8,2)
);
desc CourierServices;
```

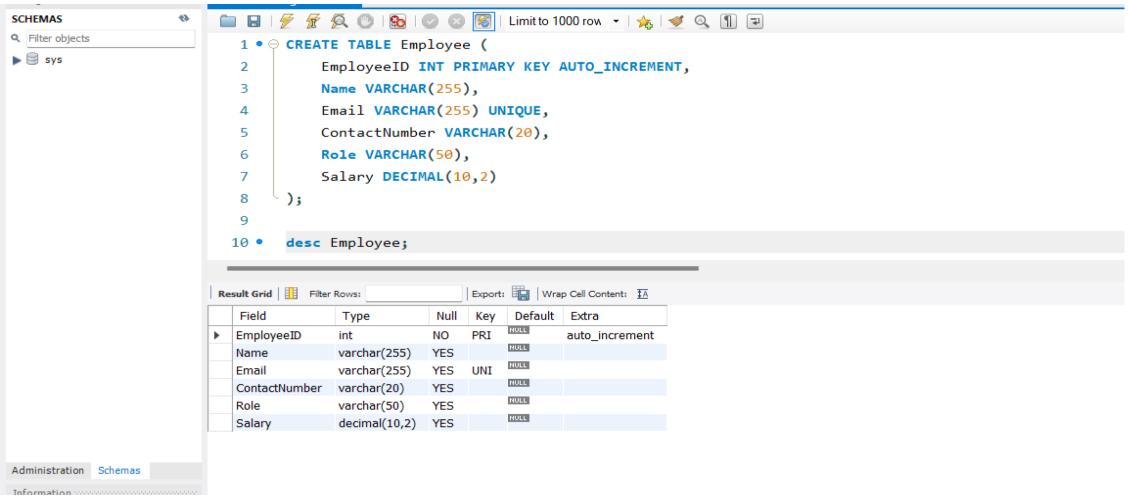


Execute the selected portion of the script or everything, if there is no selection

```
CREATE TABLE CourierServices (

    ServiceName VARCHAR(100),
    Cost DECIMAL(8,2)
);
desc CourierServices;
```



Field	Type	Null	Key	Default	Extra
ServiceID	int	NO	PRI	NULL	auto_increment
ServiceName	varchar(100)	YES		NULL	
Cost	decimal(8,2)	YES		NULL	

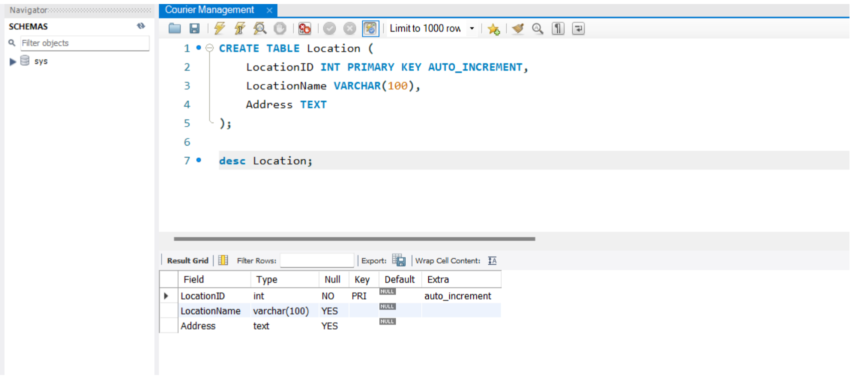


```
CREATE TABLE Employee (
    EmployeeID INT PRIMARY KEY AUTO_INCREMENT,
    Name VARCHAR(255),
    Email VARCHAR(255) UNIQUE,
    ContactNumber VARCHAR(20),
    Role VARCHAR(50),
    Salary DECIMAL(10,2)
);

desc Employee;
```

Field	Type	Null	Key	Default	Extra
EmployeeID	int	NO	PRI	NULL	auto_increment
Name	varchar(255)	YES		NULL	
Email	varchar(255)	YES	UNI	NULL	
ContactNumber	varchar(20)	YES		NULL	
Role	varchar(50)	YES		NULL	
Salary	decimal(10,2)	YES		NULL	

# Query for Employee

```
 CREATE TABLE Employee (

     EmployeeID INT PRIMARY KEY AUTO_INCREMENT,

     Name VARCHAR(255),

     Email VARCHAR(255) UNIQUE,

     ContactNumber VARCHAR(20),

     Role VARCHAR(50),

     Salary DECIMAL(10,2)

 );
 desc Employee;
```

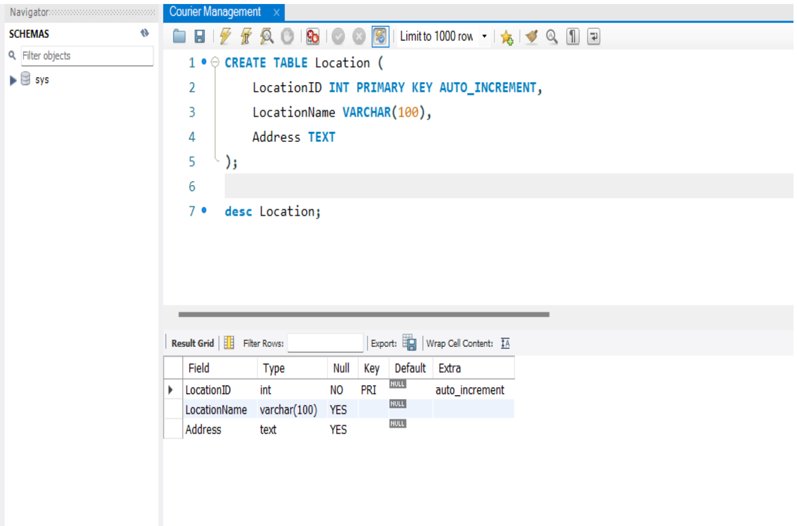


```
CREATE TABLE Location (
    LocationID INT PRIMARY KEY AUTO_INCREMENT,
    LocationName VARCHAR(100),
    Address TEXT
);

desc Location;
```

Field	Type	Null	Key	Default	Extra
LocationID	int	NO	PRI	NULL	auto_increment
LocationName	varchar(100)	YES		NULL	
Address	text	YES		NULL	

# Query for Location

```
CREATE TABLE Location (

    LocationID INT PRIMARY KEY AUTO_INCREMENT,

    LocationName VARCHAR(100),

    Address TEXT

);
 desc Location;
```

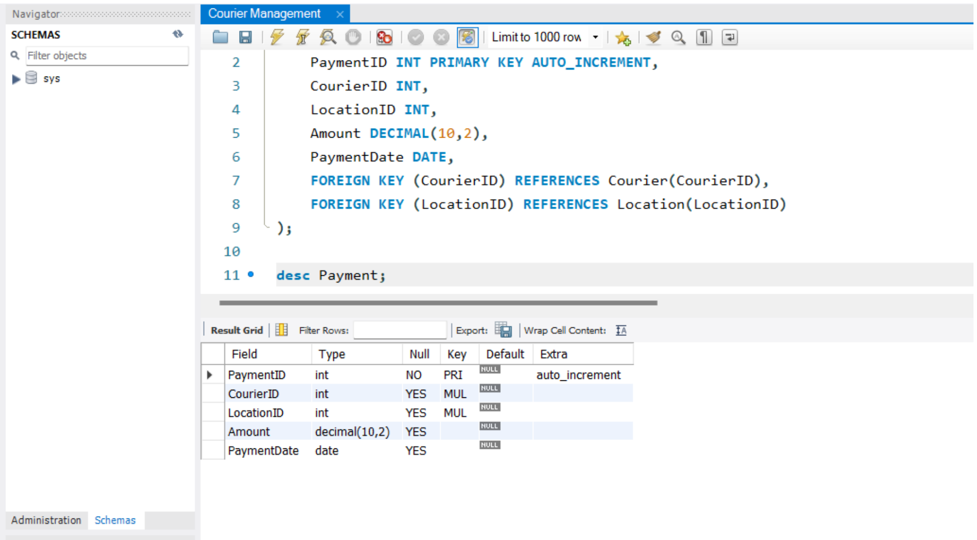


```
CREATE TABLE Location (
    LocationID INT PRIMARY KEY AUTO_INCREMENT,
    LocationName VARCHAR(100),
    Address TEXT
);

desc Location;
```

Field	Type	Null	Key	Default	Extra
LocationID	int	NO	PRI	NULL	auto_increment
LocationName	varchar(100)	YES		NULL	
Address	text	YES		NULL	

# Query for Payment

```
CREATE TABLE Payment (
    PaymentID INT PRIMARY KEY AUTO_INCREMENT,
    CourierID INT,
    LocationID INT,
    Amount DECIMAL(10,2),
    PaymentDate DATE,
    FOREIGN KEY (CourierID) REFERENCES Courier(CourierID),
    FOREIGN KEY (LocationID) REFERENCES Location(LocationID)
);
 desc Payment;
```



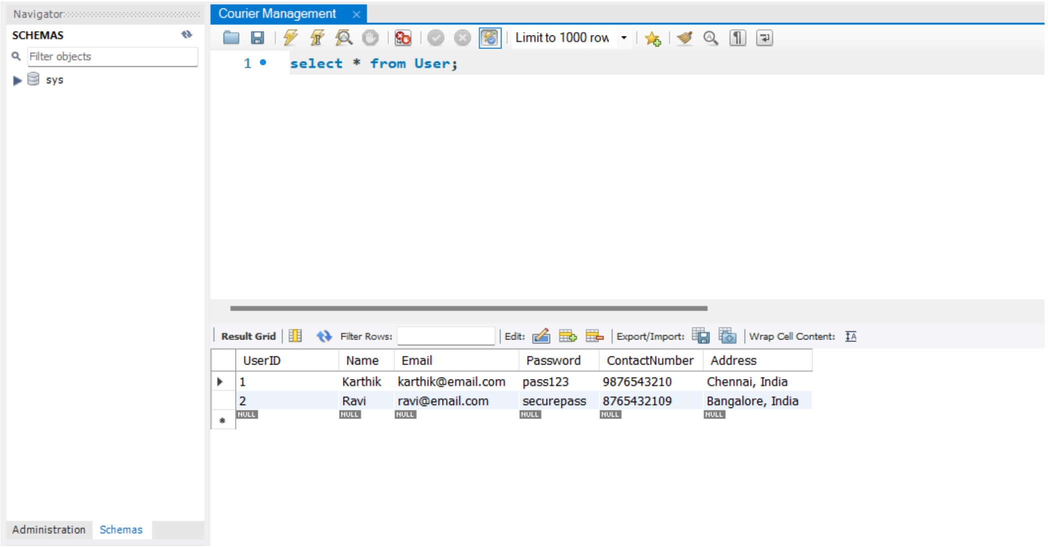
```
        PaymentID INT PRIMARY KEY AUTO_INCREMENT,
        CourierID INT,
        LocationID INT,
        Amount DECIMAL(10,2),
        PaymentDate DATE,
        FOREIGN KEY (CourierID) REFERENCES Courier(CourierID),
        FOREIGN KEY (LocationID) REFERENCES Location(LocationID)
    );

    desc Payment;
```

Field	Type	Null	Key	Default	Extra
PaymentID	int	NO	PRI	NULL	auto_increment
CourierID	int	YES	MUL	NULL	
LocationID	int	YES	MUL	NULL	
Amount	decimal(10,2)	YES		NULL	
PaymentDate	date	YES		NULL	

3. Insert sample data into the tables to simulate real-world scenarios.

Query :

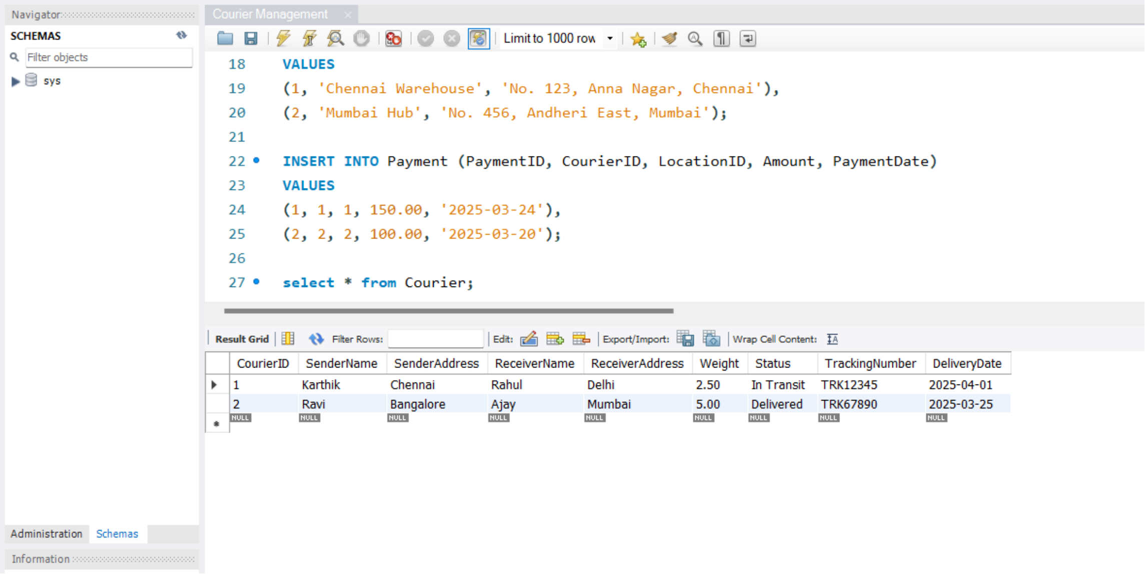
```
INSERT INTO User (UserID, Name, Email, Password, ContactNumber, Address)
VALUES
(1, 'Karthik', 'karthik@email.com', 'pass123', '9876543210', 'Chennai, India'),
(2, 'Ravi', 'ravi@email.com', 'securepass', '8765432109', 'Bangalore, India');
```



```
select * from User;
```

	UserID	Name	Email	Password	ContactNumber	Address
▶	1	Karthik	karthik@email.com	pass123	9876543210	Chennai, India
	2	Ravi	ravi@email.com	securepass	8765432109	Bangalore, India
*	NULL	NULL	NULL	NULL	NULL	NULL

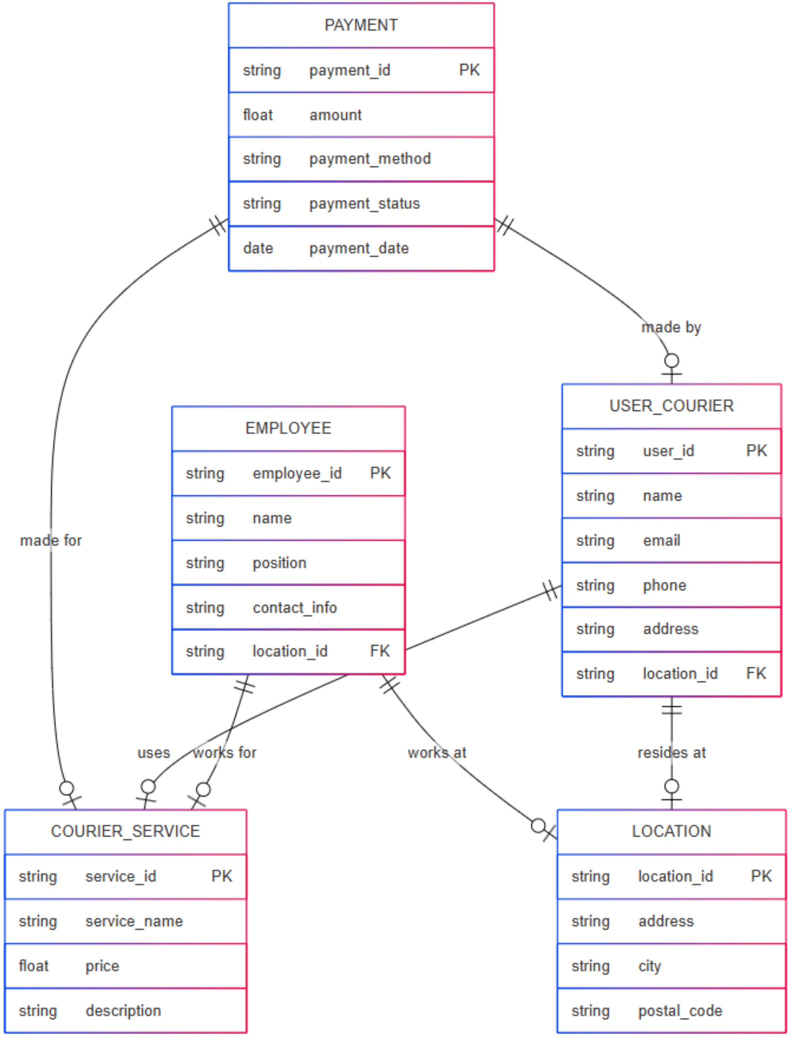
```
INSERT INTO Courier (CourierID, SenderName, SenderAddress, ReceiverName, ReceiverAddress,
Weight, Status, TrackingNumber, DeliveryDate)
VALUES
(1, 'Karthik', 'Chennai', 'Rahul', 'Delhi', 2.5, 'In Transit', 'TRK12345', '2025-04-01'),
(2, 'Ravi', 'Bangalore', 'Ajay', 'Mumbai', 5.0, 'Delivered', 'TRK67890', '2025-03-25');

INSERT INTO CourierServices (ServiceID, ServiceName, Cost)
VALUES
(1, 'Express Delivery', 150.00),
(2, 'Standard Delivery', 100.00);

INSERT INTO Employee (EmployeeID, Name, Email, ContactNumber, Role, Salary)
VALUES
(1, 'Manoj', 'manoj@courier.com', '9988776655', 'Delivery Executive', 25000.00),
(2, 'Anjali', 'anjali@courier.com', '8877665544', 'Manager', 50000.00);

INSERT INTO Location (LocationID, LocationName, Address)
VALUES
(1, 'Chennai Warehouse', 'No. 123, Anna Nagar, Chennai'),
(2, 'Mumbai Hub', 'No. 456, Andheri East, Mumbai');

INSERT INTO Payment (PaymentID, CourierID, LocationID, Amount, PaymentDate)
VALUES
(1, 1, 1, 150.00, '2025-03-24'),
(2, 2, 2, 100.00, '2025-03-20');
```



```
VALUES
(1, 'Chennai Warehouse', 'No. 123, Anna Nagar, Chennai'),
(2, 'Mumbai Hub', 'No. 456, Andheri East, Mumbai');

INSERT INTO Payment (PaymentID, CourierID, LocationID, Amount, PaymentDate)
VALUES
(1, 1, 1, 150.00, '2025-03-24'),
(2, 2, 2, 100.00, '2025-03-20');

select * from Courier;
```

CourierID	SenderName	SenderAddress	ReceiverName	ReceiverAddress	Weight	Status	TrackingNumber	DeliveryDate
1	Karthik	Chennai	Rahul	Delhi	2.50	In Transit	TRK12345	2025-04-01
2	Ravi	Bangalore	Ajay	Mumbai	5.00	Delivered	TRK67890	2025-03-25
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

4. Define relationships between these tables (one-to-many, many-to-many, etc.).



PAYMENT		
string	payment_id	PK
float	amount	
string	payment_method	
string	payment_status	
date	payment_date	

EMPLOYEE		
string	employee_id	PK
string	name	
string	position	
string	contact_info	
string	location_id	FK

USER_COURIER		
string	user_id	PK
string	name	
string	email	
string	phone	
string	address	
string	location_id	FK

COURIER_SERVICE		
string	service_id	PK
string	service_name	
float	price	
string	description	

LOCATION		
string	location_id	PK
string	address	
string	city	
string	postal_code	