

```
CREATE DATABASE JoinsAssignmentDB;

CREATE TABLE Customers (
    CustomerID INT PRIMARY KEY,
    CustomerName VARCHAR(50),
    City VARCHAR(50)
);

CREATE TABLE Orders (
    OrderID INT PRIMARY KEY,
    CustomerID INT,
    OrderDate DATE,
    Amount INT,
    FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID)
);

CREATE TABLE Payments (
    PaymentID VARCHAR(10) PRIMARY KEY,
    CustomerID INT,
    PaymentDate DATE,
    Amount INT,
    FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID)
);

CREATE TABLE Employees (
    EmployeeID INT PRIMARY KEY,
    EmployeeName VARCHAR(50),
    ManagerID INT
);
```

```
INSERT INTO Customers VALUES  
(1, 'John Smith', 'New York'),  
(2, 'Mary Johnson', 'Chicago'),  
(3, 'Peter Adams', 'Los Angeles'),  
(4, 'Nancy Miller', 'Houston'),  
(5, 'Robert White', 'Miami');
```

```
INSERT INTO Orders VALUES  
(101, 1, '2024-10-01', 250),  
(102, 2, '2024-10-05', 300),  
(103, 1, '2024-10-07', 150),  
(104, 3, '2024-10-10', 450),  
(105, 6, '2024-10-12', 400);
```

```
INSERT INTO Payments VALUES  
('P001', 1, '2024-10-02', 250),  
('P002', 2, '2024-10-06', 300),  
('P003', 3, '2024-10-11', 450),  
('P004', 4, '2024-10-15', 200);
```

```
INSERT INTO Employees VALUES  
(1, 'Alex Green', NULL),  
(2, 'Brian Lee', 1),  
(3, 'Carol Ray', 1),  
(4, 'David Kim', 2),  
(5, 'Eva Smith', 2);
```

```
SELECT DISTINCT c.CustomerID, c.CustomerName, c.City  
FROM Customers c  
INNER JOIN Orders o
```

```
ON c.CustomerID = o.CustomerID;

SELECT c.CustomerID, c.CustomerName, c.City,
       o.OrderID, o.OrderDate, o.Amount
  FROM Customers c
 LEFT JOIN Orders o
    ON c.CustomerID = o.CustomerID;

SELECT o.OrderID, o.OrderDate, o.Amount,
       c.CustomerID, c.CustomerName, c.City
  FROM Orders o
 RIGHT JOIN Customers c
   ON c.CustomerID = o.CustomerID;

SELECT c.CustomerID, c.CustomerName, c.City,
       o.OrderID, o.OrderDate, o.Amount
  FROM Customers c
 FULL OUTER JOIN Orders o
   ON c.CustomerID = o.CustomerID;

SELECT c.CustomerID, c.CustomerName, c.City
  FROM Customers c
 LEFT JOIN Orders o
    ON c.CustomerID = o.CustomerID
 WHERE o.OrderID IS NULL;

SELECT DISTINCT c.CustomerID, c.CustomerName, c.City
  FROM Customers c
 INNER JOIN Payments p
    ON c.CustomerID = p.CustomerID
```

```
LEFT JOIN Orders o
ON c.CustomerID = o.CustomerID
WHERE o.OrderID IS NULL;
```

```
SELECT c.CustomerID, c.CustomerName,
       o.OrderID, o.OrderDate
FROM Customers c
CROSS JOIN Orders o;
```

```
SELECT c.CustomerID, c.CustomerName, c.City,
       o.OrderID, o.Amount AS OrderAmount,
       p.PaymentID, p.Amount AS PaymentAmount
FROM Customers c
LEFT JOIN Orders o
ON c.CustomerID = o.CustomerID
LEFT JOIN Payments p
ON c.CustomerID = p.CustomerID;
```

```
SELECT DISTINCT c.CustomerID, c.CustomerName, c.City
FROM Customers c
INNER JOIN Orders o
ON c.CustomerID = o.CustomerID
INNER JOIN Payments p
ON c.CustomerID = p.CustomerID;
```