

1. Create Tables

sql

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```
-- Create Customers table
CREATE TABLE Customers (
    CustomerID INT PRIMARY KEY,
    CustomerName VARCHAR(100),
    City VARCHAR(50)
);

-- Create Orders table
CREATE TABLE Orders (
    OrderID INT PRIMARY KEY,
    OrderDate DATE,
    CustomerID INT,
    Amount DECIMAL(10,2),
    FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID)
);
```

2. Insert Sample Data

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```
-- Insert into Customers
INSERT INTO Customers (CustomerID, CustomerName, City) VALUES
(1, 'Alice', 'New York'),
(2, 'Bob', 'Chicago'),
(3, 'Charlie', 'Los Angeles'),
(4, 'David', 'Miami');

-- Insert into Orders
INSERT INTO Orders (OrderID, OrderDate, CustomerID, Amount) VALUES
(101, '2024-06-01', 1, 250.00),
(102, '2024-06-02', 1, 150.00),
(103, '2024-06-03', 2, 300.00),
```

(104, '2024-06-04', 5, 200.00); -- Note: CustomerID = 5 does not exist in Customers

3. JOIN Queries

INNER JOIN

```
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SELECT Customers.CustomerName, Orders.OrderID, Orders.Amount
FROM Customers
INNER JOIN Orders ON Customers.CustomerID = Orders.CustomerID;
```

Result: Only matching CustomerID in both tables (Customers 1 and 2).

LEFT JOIN

```
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SELECT Customers.CustomerName, Orders.OrderID, Orders.Amount
FROM Customers
LEFT JOIN Orders ON Customers.CustomerID = Orders.CustomerID;
```

Result: All customers, including those with no orders (e.g., Charlie and David).

RIGHT JOIN

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SELECT Customers.CustomerName, Orders.OrderID, Orders.Amount
FROM Customers
```

```
RIGHT JOIN Orders ON Customers.CustomerID = Orders.CustomerID;
```

Result: All orders, including those with no matching customer (e.g., OrderID 104).

♦ *FULL JOIN*

sql

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```
SELECT Customers.CustomerName, Orders.OrderID, Orders.Amount
```

```
FROM Customers
```

```
FULL OUTER JOIN Orders ON Customers.CustomerID = Orders.CustomerID;
```