

```
mysql> CREATE DATABASE CompanyOrders;  
Query OK, 1 row affected (0.00 sec)
```

```
mysql> USE CompanyOrders;  
Database changed
```

```
mysql> CREATE TABLE Customers (  
->     Customer_ID INT PRIMARY KEY AUTO_INCREMENT,  
->     Name VARCHAR(100),  
->     Email VARCHAR(100),  
->     Join_Date DATE  
-> );  
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> CREATE TABLE Products (  
->     Product_ID INT PRIMARY KEY AUTO_INCREMENT,  
->     Product_Name VARCHAR(100),  
->     Category VARCHAR(50),  
->     Price DECIMAL(10, 2)  
-> );  
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> CREATE TABLE Orders (  
->     Order_ID INT PRIMARY KEY AUTO_INCREMENT,  
->     Customer_ID INT,  
->     Order_Date DATETIME,  
->     Total_Amount DECIMAL(10, 2),  
->     FOREIGN KEY (Customer_ID) REFERENCES Customers(Customer_ID)  
-> );  
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> CREATE TABLE Order_Items (  
->     Order_Item_ID INT PRIMARY KEY AUTO_INCREMENT,  
->     Order_ID INT,  
->     Product_ID INT,  
->     Quantity INT,  
->     Item_Price DECIMAL(10, 2),  
->     FOREIGN KEY (Order_ID) REFERENCES Orders(Order_ID),  
->     FOREIGN KEY (Product_ID) REFERENCES Products(Product_ID)  
-> );  
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> INSERT INTO Customers (Name, Email, Join_Date)
-> VALUES
-> ('Ravi Kumar', 'ravi.kumar@example.com', '2021-01-15'),
-> ('Priya Singh', 'priya.singh@example.com', '2020-03-22'),
-> ('Amit Sharma', 'amit.sharma@example.com', '2019-07-09'),
-> ('Sita Verma', 'sita.verma@example.com', '2021-10-01'),
-> ('Manoj Joshi', 'manoj.joshi@example.com', '2022-04-13');
Query OK, 5 rows affected (0.01 sec)
Records: 5  Duplicates: 0  Warnings: 0
```

```
mysql> INSERT INTO Products (Product_Name, Category, Price)
-> VALUES
-> ('Laptop', 'Electronics', 70000.00),
-> ('Smartphone', 'Electronics', 30000.00),
-> ('Headphones', 'Accessories', 2000.00),
-> ('Office Chair', 'Furniture', 8000.00),
-> ('Monitor', 'Electronics', 15000.00),
-> ('Mouse', 'Accessories', 500.00),
-> ('Keyboard', 'Accessories', 1000.00),
-> ('Desk', 'Furniture', 12000.00),
-> ('Tablet', 'Electronics', 25000.00),
-> ('Printer', 'Electronics', 10000.00);
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0
```

```
mysql> INSERT INTO Orders (Customer_ID, Order_Date, Total_Amount)
-> VALUES
-> (1, '2023-08-01 10:30:00', 150000.00),
-> (2, '2023-07-20 12:45:00', 50000.00),
-> (3, '2023-06-15 14:00:00', 8000.00),
-> (4, '2023-06-25 16:10:00', 32000.00),
-> (5, '2023-07-05 18:30:00', 22000.00);
Query OK, 5 rows affected (0.01 sec)
Records: 5  Duplicates: 0  Warnings: 0
```

```
mysql> INSERT INTO Order_Items (Order_ID, Product_ID, Quantity, Item_Price)
-> VALUES
-> (1, 1, 1, 70000.00),
-> (1, 5, 1, 15000.00),
-> (1, 10, 1, 10000.00),
-> (2, 2, 1, 30000.00),
-> (2, 4, 1, 8000.00),
-> (3, 4, 1, 8000.00),
-> (4, 9, 1, 25000.00),
-> (4, 3, 1, 2000.00),
-> (5, 6, 1, 500.00),
-> (5, 7, 1, 1000.00),
-> (5, 8, 1, 12000.00);
```

Query OK, 11 rows affected (0.01 sec)

Records: 11 Duplicates: 0 Warnings: 0

```
mysql> DESCRIBE Customers;
```

| Field | Type | Null | Key | Default | Extra |
|-------------|--------------|------|-----|---------|----------------|
| Customer_ID | int(11) | NO | PRI | NULL | auto_increment |
| Name | varchar(100) | YES | | NULL | |
| Email | varchar(100) | YES | | NULL | |
| Join_Date | date | YES | | NULL | |

4 rows in set (0.00 sec)

```
mysql> DESCRIBE Products;
```

| Field | Type | Null | Key | Default | Extra |
|--------------|---------------|------|-----|---------|----------------|
| Product_ID | int(11) | NO | PRI | NULL | auto_increment |
| Product_Name | varchar(100) | YES | | NULL | |
| Category | varchar(50) | YES | | NULL | |
| Price | decimal(10,2) | YES | | NULL | |

4 rows in set (0.00 sec)

```
mysql> DESCRIBE Orders;
```

| Field | Type | Null | Key | Default | Extra |
|--------------|---------------|------|-----|---------|----------------|
| Order_ID | int(11) | NO | PRI | NULL | auto_increment |
| Customer_ID | int(11) | YES | MUL | NULL | |
| Order_Date | datetime | YES | | NULL | |
| Total_Amount | decimal(10,2) | YES | | NULL | |

```
4 rows in set (0.00 sec)
```

```
mysql> DESCRIBE Order_Items;
```

| Field | Type | Null | Key | Default | Extra |
|---------------|---------------|------|-----|---------|----------------|
| Order_Item_ID | int(11) | NO | PRI | NULL | auto_increment |
| Order_ID | int(11) | YES | MUL | NULL | |
| Product_ID | int(11) | YES | MUL | NULL | |
| Quantity | int(11) | YES | | NULL | |
| Item_Price | decimal(10,2) | YES | | NULL | |

```
5 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM Customers;
```

| Customer_ID | Name | Email | Join_Date |
|-------------|-------------|-------------------------|------------|
| 1 | Ravi Kumar | ravi.kumar@example.com | 2021-01-15 |
| 2 | Priya Singh | priya.singh@example.com | 2020-03-22 |
| 3 | Amit Sharma | amit.sharma@example.com | 2019-07-09 |
| 4 | Sita Verma | sita.verma@example.com | 2021-10-01 |
| 5 | Manoj Joshi | manoj.joshi@example.com | 2022-04-13 |

```
5 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM Products;
```

| Product_ID | Product_Name | Category | Price |
|------------|--------------|-------------|----------|
| 1 | Laptop | Electronics | 70000.00 |
| 2 | Smartphone | Electronics | 30000.00 |
| 3 | Headphones | Accessories | 2000.00 |
| 4 | Office Chair | Furniture | 8000.00 |
| 5 | Monitor | Electronics | 15000.00 |
| 6 | Mouse | Accessories | 500.00 |
| 7 | Keyboard | Accessories | 1000.00 |
| 8 | Desk | Furniture | 12000.00 |
| 9 | Tablet | Electronics | 25000.00 |
| 10 | Printer | Electronics | 10000.00 |

```
10 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM Orders;
```

| Order_ID | Customer_ID | Order_Date | Total_Amount |
|----------|-------------|---------------------|--------------|
| 1 | 1 | 2023-08-01 10:30:00 | 150000.00 |
| 2 | 2 | 2023-07-20 12:45:00 | 50000.00 |
| 3 | 3 | 2023-06-15 14:00:00 | 8000.00 |
| 4 | 4 | 2023-06-25 16:10:00 | 32000.00 |
| 5 | 5 | 2023-07-05 18:30:00 | 22000.00 |

```
5 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM Order_Items;
```

| Order_Item_ID | Order_ID | Product_ID | Quantity | Item_Price |
|---------------|----------|------------|----------|------------|
| 1 | 1 | 1 | 1 | 70000.00 |
| 2 | 1 | 5 | 1 | 15000.00 |
| 3 | 1 | 10 | 1 | 10000.00 |
| 4 | 2 | 2 | 1 | 30000.00 |
| 5 | 2 | 4 | 1 | 8000.00 |
| 6 | 3 | 4 | 1 | 8000.00 |
| 7 | 4 | 9 | 1 | 25000.00 |
| 8 | 4 | 3 | 1 | 2000.00 |
| 9 | 5 | 6 | 1 | 500.00 |
| 10 | 5 | 7 | 1 | 1000.00 |
| 11 | 5 | 8 | 1 | 12000.00 |

```
11 rows in set (0.00 sec)
```

```
mysql> SELECT COUNT(*) AS TotalOrders  
-> FROM Orders;
```

| TotalOrders |
|-------------|
| 5 |

```
1 row in set (0.00 sec)
```

```
mysql> SELECT AVG(Total_Amount) AS AverageOrderValue  
-> FROM Orders;
```

| AverageOrderValue |
|-------------------|
| 52400.000000 |

```
1 row in set (0.00 sec)
```

```
mysql> SELECT P.Product_Name, SUM(OI.Quantity) AS TotalQuantitySold
-> FROM Order_Items OI
-> JOIN Products P ON OI.Product_ID = P.Product_ID
-> GROUP BY P.Product_Name
-> ORDER BY TotalQuantitySold DESC
-> LIMIT 5;
```

| Product_Name | TotalQuantitySold |
|--------------|-------------------|
| Office Chair | 2 |
| Tablet | 1 |
| Keyboard | 1 |
| Monitor | 1 |
| Headphones | 1 |

5 rows in set (0.00 sec)

```
mysql> SELECT P.Product_Name, COUNT(OI.Order_Item_ID) AS Frequency
-> FROM Order_Items OI
-> JOIN Products P ON OI.Product_ID = P.Product_ID
-> GROUP BY P.Product_Name
-> ORDER BY Frequency DESC
-> LIMIT 5;
```

| Product_Name | Frequency |
|--------------|-----------|
| Office Chair | 2 |
| Keyboard | 1 |
| Monitor | 1 |
| Headphones | 1 |
| Printer | 1 |

5 rows in set (0.00 sec)

```
mysql> SELECT HOUR(Order_Date) AS OrderHour, COUNT(*) AS OrdersCount
-> FROM Orders
-> GROUP BY OrderHour
-> ORDER BY OrdersCount DESC;
```

| OrderHour | OrdersCount |
|-----------|-------------|
| 10 | 1 |
| 12 | 1 |
| 14 | 1 |
| 16 | 1 |
| 18 | 1 |

5 rows in set (0.00 sec)

```
mysql> SELECT COUNT(*) AS TotalOrders, AVG(Total_Amount) AS AverageOrderValue
-> FROM Orders;
```

| TotalOrders | AverageOrderValue |
|-------------|-------------------|
| 5 | 52400.000000 |

1 row in set (0.00 sec)

```
mysql> SELECT P.Product_Name, SUM(OI.Quantity * OI.Item_Price) AS TotalSalesValue
-> FROM Order_Items OI
-> JOIN Products P ON OI.Product_ID = P.Product_ID
-> GROUP BY P.Product_Name
-> ORDER BY TotalSalesValue DESC
-> LIMIT 3;
```

| Product_Name | TotalSalesValue |
|--------------|-----------------|
| Laptop | 70000.00 |
| Smartphone | 30000.00 |
| Tablet | 25000.00 |

3 rows in set (0.00 sec)


```
mysql> SELECT DATE_FORMAT(Order_Date, '%Y-%m') AS OrderMonth, SUM(Total_Amount) AS MonthlySales  
-> FROM Orders  
-> GROUP BY OrderMonth  
-> ORDER BY OrderMonth;
```

| OrderMonth | MonthlySales |
|------------|--------------|
| 2023-06 | 40000.00 |
| 2023-07 | 72000.00 |
| 2023-08 | 150000.00 |

```
3 rows in set (0.00 sec)
```