

-- Create database

```
CREATE DATABASE RetailDB;
```

-- Use the database

```
USE RetailDB;
```

-- Table to store product information

```
CREATE TABLE Products (  
    ProductID INT AUTO_INCREMENT PRIMARY KEY,  
    ProductName VARCHAR(255) NOT NULL,  
    Description TEXT,  
    Price DECIMAL(10, 2) NOT NULL,  
    StockQuantity INT NOT NULL  
);
```

-- Table to store customer information

```
CREATE TABLE Customers (  
    CustomerID INT AUTO_INCREMENT PRIMARY KEY,  
    FirstName VARCHAR(50) NOT NULL,  
    LastName VARCHAR(50) NOT NULL,  
    Email VARCHAR(100) UNIQUE NOT NULL,  
    PhoneNumber VARCHAR(20),  
    Address TEXT NOT NULL,  
    RegistrationDate DATE NOT NULL  
);
```

-- Table to store order information

```
CREATE TABLE Orders (  
    OrderID INT AUTO_INCREMENT PRIMARY KEY,  
    CustomerID INT,
```

```
OrderDate DATE NOT NULL,  
TotalAmount DECIMAL(10, 2) NOT NULL,  
FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID)  
);
```

-- Table to store order items

```
CREATE TABLE OrderItems (  
    OrderItemID INT AUTO_INCREMENT PRIMARY KEY,  
    OrderID INT,  
    ProductID INT,  
    Quantity INT NOT NULL,  
    Price DECIMAL(10, 2) NOT NULL,  
    FOREIGN KEY (OrderID) REFERENCES Orders(OrderID),  
    FOREIGN KEY (ProductID) REFERENCES Products(ProductID)  
);
```

-- Example Inserts into Products table

```
INSERT INTO Products (ProductName, Description, Price, StockQuantity) VALUES  
(  
'Laptop', '15-inch laptop with 8GB RAM', 999.99, 10),  
(  
'Smartphone', 'Latest model smartphone', 699.99, 20),  
(  
'Wireless Mouse', 'Ergonomic wireless mouse', 29.99, 50),  
(  
'Keyboard', 'Mechanical keyboard', 89.99, 30);
```

-- Example Inserts into Customers table

```
INSERT INTO Customers (FirstName, LastName, Email, PhoneNumber, Address,  
RegistrationDate) VALUES  
(  
'John', 'Doe', 'john.doe@example.com', '555-1234', '123 Elm Street, Springfield', '2024-01-15'),  
(  
'Jane', 'Smith', 'jane.smith@example.com', '555-5678', '456 Oak Avenue, Springfield', '2024-02-20'),  
(  
'Alice', 'Johnson', 'alice.johnson@example.com', '555-8765', '789 Pine Road, Springfield', '2024-03-10');
```

-- Example Inserts into Orders table

INSERT INTO Orders (CustomerID, OrderDate, TotalAmount) VALUES

(1, '2024-08-10', 1029.98), -- John Doe

(2, '2024-08-11', 729.98), -- Jane Smith

(3, '2024-08-12', 119.98); -- Alice Johnson

-- Example Inserts into OrderItems table

INSERT INTO OrderItems (OrderID, ProductID, Quantity, Price) VALUES

(1, 1, 1, 999.99), -- Laptop

(1, 3, 1, 29.99), -- Wireless Mouse

(2, 2, 1, 699.99), -- Smartphone

(3, 4, 1, 89.99); -- Keyboard

INSERT INTO Products (ProductName, Description, Price, StockQuantity)

VALUES ('Tablet', '10-inch tablet with 64GB storage', 399.99, 25);

INSERT INTO Customers (FirstName, LastName, Email, PhoneNumber, Address, RegistrationDate)

VALUES ('Michael', 'Brown', 'michael.brown@example.com', '555-4321', '101 Maple Street, Springfield', '2024-04-01');

-- Insert order

INSERT INTO Orders (CustomerID, OrderDate, TotalAmount)

VALUES (4, '2024-08-13', 489.97);

-- Insert order items

INSERT INTO OrderItems (OrderID, ProductID, Quantity, Price)

VALUES (4, 1, 1, 999.99), -- Laptop

(4, 3, 1, 29.99); -- Wireless Mouse

-- Insert order

INSERT INTO Orders (CustomerID, OrderDate, TotalAmount)

VALUES (4, '2024-08-13', 489.97);

-- Insert order items

INSERT INTO OrderItems (OrderID, ProductID, Quantity, Price)

VALUES (4, 1, 1, 999.99), -- Laptop

(4, 3, 1, 29.99); -- Wireless Mouse

SELECT * FROM Products;

SELECT * FROM Customers;

SELECT o.OrderID, c.FirstName, c.LastName, o.OrderDate, o.TotalAmount

FROM Orders o

JOIN Customers c ON o.CustomerID = c.CustomerID;

SELECT o.OrderID, o.OrderDate, oi.ProductID, p.ProductName, oi.Quantity, oi.Price

FROM Orders o

JOIN OrderItems oi ON o.OrderID = oi.OrderID

JOIN Products p ON oi.ProductID = p.ProductID

WHERE o.CustomerID = 1; -- For customer with ID 1