**Online compiler code minor project**

-- Create table for Products

CREATE TABLE Products (

ProductID INT PRIMARY KEY,

ProductName VARCHAR(100),

Category VARCHAR(50),

Price DECIMAL(10, 2),

Stock INT

);

-- Create table for Customers

CREATE TABLE Customers (

CustomerID INT PRIMARY KEY,

FirstName VARCHAR(50),

LastName VARCHAR(50),

Email VARCHAR(100),

PhoneNumber VARCHAR(15)

);

-- Create table for Orders

CREATE TABLE Orders (

OrderID INT PRIMARY KEY,

CustomerID INT,

OrderDate DATE,

TotalAmount DECIMAL(10, 2),

FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID)

);

-- Create table for OrderDetails

CREATE TABLE OrderDetails (

OrderDetailID INT PRIMARY KEY,

OrderID INT,

ProductID INT,

Quantity INT,

Price DECIMAL(10, 2),

FOREIGN KEY (OrderID) REFERENCES Orders(OrderID),

FOREIGN KEY (ProductID) REFERENCES Products(ProductID)

);

-- Create table for Payments

CREATE TABLE Payments (

PaymentID INT PRIMARY KEY,

OrderID INT,

PaymentDate DATE,

Amount DECIMAL(10, 2),

PaymentMethod VARCHAR(50),

FOREIGN KEY (OrderID) REFERENCES Orders(OrderID)

);

-- Insert data into Products

INSERT INTO Products (ProductID, ProductName, Category, Price, Stock)

VALUES

(1, 'Laptop', 'Electronics', 1200.00, 50),

(2, 'Smartphone', 'Electronics', 800.00, 100),

(3, 'Headphones', 'Accessories', 150.00, 200),

(4, 'Tablet', 'Electronics', 500.00, 80),

(5, 'Keyboard', 'Accessories', 50.00, 150);

-- Insert data into Customers

INSERT INTO Customers (CustomerID, FirstName, LastName, Email, PhoneNumber)

VALUES

(1, 'John', 'Doe', 'john.doe@example.com', '1234567890'),

(2, 'Jane', 'Smith', 'jane.smith@example.com', '0987654321'),

(3, 'Alice', 'Johnson', 'alice.johnson@example.com', '5556667777');

-- Insert data into Orders

INSERT INTO Orders (OrderID, CustomerID, OrderDate, TotalAmount)

VALUES

(1, 1, '2024-08-01', 1250.00),

(2, 2, '2024-08-05', 800.00),

(3, 3, '2024-08-10', 600.00);

-- Insert data into OrderDetails

INSERT INTO OrderDetails (OrderDetailID, OrderID, ProductID, Quantity, Price)

VALUES

(1, 1, 1, 1, 1200.00),

(2, 1, 5, 1, 50.00),

(3, 2, 2, 1, 800.00),

(4, 3, 4, 1, 500.00),

(5, 3, 3, 1, 100.00);

-- Insert data into Payments

INSERT INTO Payments (PaymentID, OrderID, PaymentDate, Amount, PaymentMethod)

VALUES

(1, 1, '2024-08-01', 1250.00, 'Credit Card'),

(2, 2, '2024-08-05', 800.00, 'PayPal'),

(3, 3, '2024-08-10', 600.00, 'Debit Card');

**Queries related to the database**

**-- List all products**

**SELECT \* FROM Products;**

**-- Find all orders made by a specific customer**

**SELECT \* FROM Orders WHERE CustomerID = 1;**

**-- Get the total sales amount for each product**

**SELECT ProductID, SUM(Quantity \* Price) AS TotalSales**

**FROM OrderDetails**

**GROUP BY ProductID;**

**-- List all payments made with 'Credit Card'**

**SELECT \* FROM Payments WHERE PaymentMethod = 'Credit Card';**

**-- Find the top 3 most expensive products**

**SELECT \* FROM Products ORDER BY Price DESC LIMIT 3;**