

## FOUNDATION TRAINING ASSIGNMENT- 1

### Task:1.

#### Database Design:

##### 1. Create the database named "TechShop"

#### Code:

```
CREATE DATABASE TechShop;
```

##### 2. Define the schema for the Customers, Products, Orders, OrderDetails and Inventory tables based on the provided schema.

#### Code:

##### i)Customers table:

```
CREATE TABLE Customers (  
    CustomerID INT PRIMARY KEY IDENTITY(1,1),  
    FirstName VARCHAR(50),  
    LastName VARCHAR(50),  
    Email VARCHAR(100),  
    Phone VARCHAR(15),  
    Address VARCHAR(255)  
);
```

##### ii)Products table:

```
CREATE TABLE Products (  
    ProductID INT PRIMARY KEY IDENTITY(1,1),  
    ProductName VARCHAR(100),  
    Description VARCHAR(255),  
    Price DECIMAL(10,2)  
);
```

##### iii)Orders table:

```
CREATE TABLE Orders (  
    OrderID INT PRIMARY KEY IDENTITY(1,1),  
    CustomerID INT FOREIGN KEY REFERENCES Customers (CustomerID),  
    ProductID INT FOREIGN KEY REFERENCES Products (ProductID),  
    OrderDate DATETIME,  
    TotalAmount DECIMAL(10,2)
```

```
OrderID INT PRIMARY KEY IDENTITY(1,1),
CustomerID INT,
OrderDate DATE,
TotalAmount DECIMAL(10,2),
CONSTRAINT FK_Customer_Order FOREIGN KEY (CustomerID)
REFERENCES Customers(CustomerID)
);
```

**iv)OrderDetails table:**

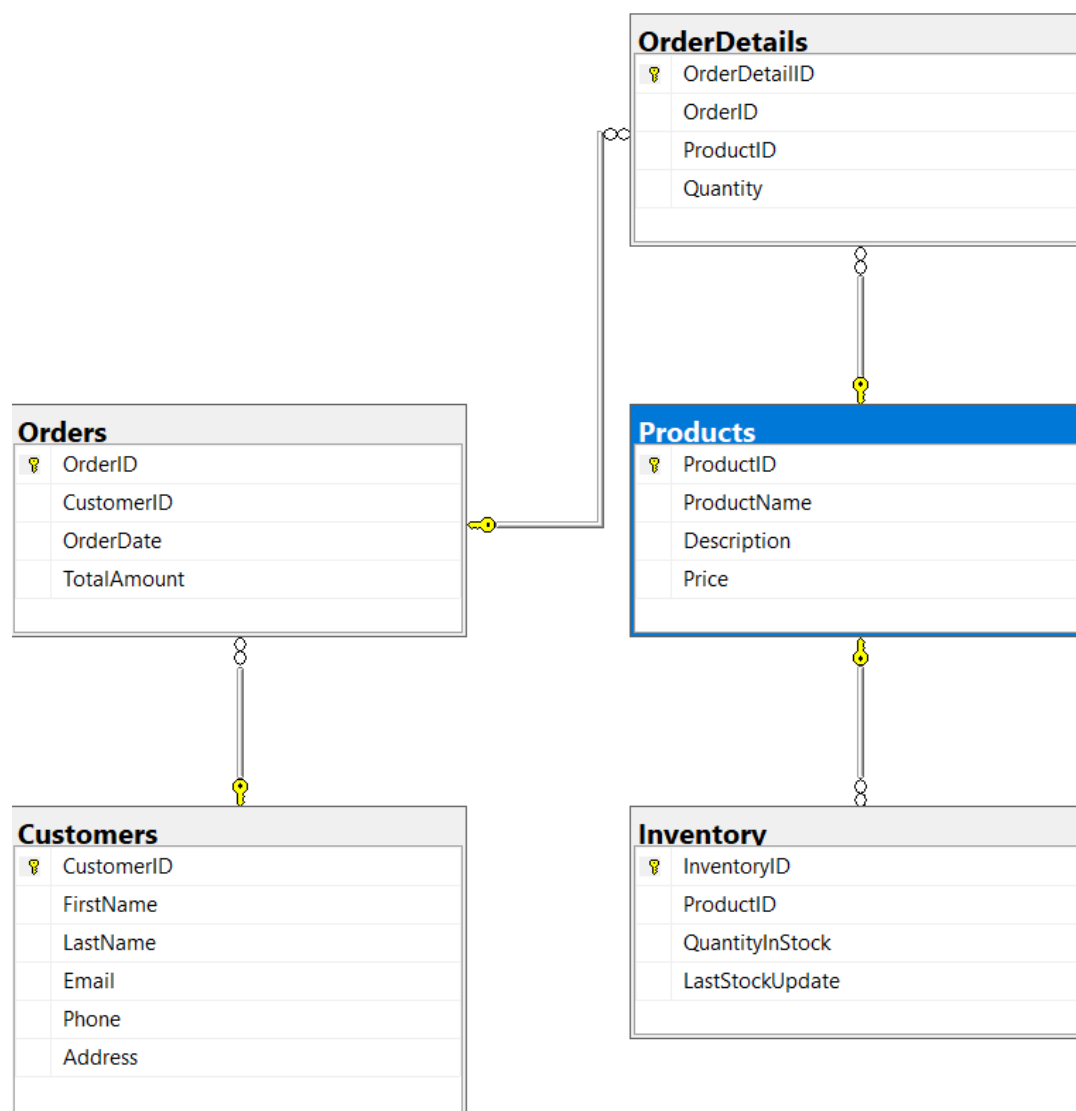
```
CREATE TABLE OrderDetails (
    OrderDetailID INT PRIMARY KEY IDENTITY(1,1),
    OrderID INT,
    ProductID INT,
    Quantity INT,
    CONSTRAINT FK_Order_OrderDetails FOREIGN KEY (OrderID)
    REFERENCES Orders(OrderID),
    CONSTRAINT FK_Product_OrderDetails FOREIGN KEY (ProductID)
    REFERENCES Products(ProductID)
);
```

**v)Inventory table:**

```
CREATE TABLE Inventory (
    InventoryID INT PRIMARY KEY IDENTITY(1,1),
    ProductID INT,
    QuantityInStock INT,
    LastStockUpdate DATE,
    CONSTRAINT FK_Product_Inventory FOREIGN KEY (ProductID)
    REFERENCES Products(ProductID)
);
```

**3. Create an ERD (Entity Relationship Diagram) for the database.**

## Diagram:



## 4. Insert at least 10 sample records into each of the following tables.

### Code:

#### i)Customers table:

```
INSERT INTO Customers (FirstName, LastName, Email, Phone, Address) VALUES
('Ravi', 'Kumar', 'ravi.kumar@gmail.com', '9876543210', 'Bangalore, Karnataka'),
('Priya', 'Sharma', 'priya.sharma@gmail.com', '9845123456', 'Mumbai, Maharashtra'),
('Arun', 'Verma', 'arun.verma@gmail.com', '9887456321', 'Chennai, Tamil Nadu'),
('Neha', 'Singh', 'neha.singh@gmail.com', '9876432109', 'Hyderabad, Telangana'),
('Raj', 'Mehra', 'raj.mehra@gmail.com', '9765432187', 'Pune, Maharashtra'),
```

('Divya', 'Patel', 'divya.patel@ gmail.com', '9988776655', 'Ahmedabad, Gujarat'),  
('Karan', 'Joshi', 'karan.joshi@ gmail.com', '9865321478', 'Kolkata, West Bengal'),  
('Aarti', 'Desai', 'aarti.desai@ gmail.com', '9845612345', 'Surat, Gujarat'),  
('Vikram', 'Rao', 'vikram.rao@ gmail.com', '9812347654', 'Bhopal, Madhya Pradesh'),  
('Sneha', 'Kapoor', 'sneha.kapoor@ gmail.com', '9976543210', 'Jaipur, Rajasthan');

**ii)Products table:**

INSERT INTO Products (ProductName, Description, Price) VALUES

('Laptop', 'Dell Inspiron 15', 55000.00),  
('Smartphone', 'Samsung Galaxy M32', 16000.00),  
('Printer', 'HP DeskJet Wireless', 7000.00),  
('Tablet', 'Lenovo Tab M10', 12000.00),  
('Monitor', 'LG 24-inch Full HD', 9000.00),  
('Keyboard', 'Logitech Wireless Keyboard', 1500.00),  
('Mouse', 'Dell Optical Mouse', 700.00),  
('Router', 'TP-Link Wi-Fi Router', 1800.00),  
('Webcam', 'Logitech HD Webcam', 3000.00),  
('Headphones', 'Sony WH-CH510', 2500.00);

**iii)Orders table:**

INSERT INTO Orders (CustomerID, OrderDate, TotalAmount) VALUES

(1, '2025-03-10', 55000.00),  
(2, '2025-03-11', 16000.00),  
(3, '2025-03-12', 7000.00),  
(4, '2025-03-13', 12000.00),  
(5, '2025-03-14', 9000.00),  
(6, '2025-03-15', 1500.00),  
(7, '2025-03-16', 700.00),  
(8, '2025-03-17', 1800.00),  
(9, '2025-03-18', 3000.00),

(10, '2025-03-19', 2500.00);

**iv)OrderDetails table:**

INSERT INTO OrderDetails (OrderID, ProductID, Quantity) VALUES

(1, 1, 1),

(2, 2, 1),

(3, 3, 1),

(4, 4, 1),

(5, 5, 1),

(6, 6, 1),

(7, 7, 1),

(8, 8, 1),

(9, 9, 1),

(10, 10, 1);

**v)Inventory table:**

INSERT INTO Inventory (ProductID, QuantityInStock, LastStockUpdate) VALUES

(1, 25, '2025-03-01'),

(2, 30, '2025-03-01'),

(3, 15, '2025-03-01'),

(4, 20, '2025-03-01'),

(5, 18, '2025-03-01'),

(6, 50, '2025-03-01'),

(7, 60, '2025-03-01'),

(8, 40, '2025-03-01'),

(9, 22, '2025-03-01'),

(10, 35, '2025-03-01');

