Task 1:

1. Create a database named “TechShop”.

```
mysql> CREATE DATABASE TechShop;
Query OK, 1 row affected (0.01 sec)

mysql> USE TechShop;
Database changed
```

2. Define the schema for the Customers, Products, Orders, OrderDetails, and inventory tables based on the provided schema.
   For Table **Customers:**

```
mysql> CREATE TABLE Customers (
    ->     CustomerID INT PRIMARY KEY,
    ->     FirstName VARCHAR(50),
    ->     LastName VARCHAR(50),
    ->     Email VARCHAR(100),
    ->     Phone VARCHAR(20),
    ->     Address VARCHAR(255)
    -> );
Query OK, 0 rows affected (0.03 sec)
```

   For table **Products:**

```
mysql> CREATE TABLE Products (
    ->     ProductID INT PRIMARY KEY,
    ->     ProductName VARCHAR(100),
    ->     Description TEXT,
    ->     Price DECIMAL(10, 2)
    -> );
Query OK, 0 rows affected (0.04 sec)
```

   For table **Orders:**

```
mysql> CREATE TABLE Orders (
    ->     OrderID INT PRIMARY KEY,
    ->     CustomerID INT,
    ->     OrderDate DATE,
    ->     TotalAmount DECIMAL(10, 2),
    ->     FOREIGN KEY (CustomerID) REFERENCES Customers(Cus
tomerID)
    -> );
```

For **OrderDetails:**

```
mysql> CREATE TABLE OrderDetails (
    ->     OrderDetailID INT PRIMARY KEY,
    ->     OrderID INT,
    ->     ProductID INT,
    ->     Quantity INT,
    ->     FOREIGN KEY (OrderID) REFERENCES Orders(OrderID),

    ->     FOREIGN KEY (ProductID) REFERENCES Products(Produ
ctID)
    -> );
```

For **Inventory:**

```
mysql> CREATE TABLE Inventory (
    ->     InventoryID INT PRIMARY KEY,
    ->     ProductID INT,
    ->     QuantityInStock INT,
    ->     LastStockUpdate DATE,
    ->     FOREIGN KEY (ProductID) REFERENCES Products(Produ
ctID)
    -> );
Query OK, 0 rows affected (0.05 sec)
```

4. Create appropriate Primary Key and Foreign Key constraints for referential integrity.
   It has been done successfully in the previous tasks.

5. Insert at least 10 sample records into each of the following tables.
   For **Customers:**

```
mysql> INSERT INTO Customers (CustomerID, FirstName, LastName, Email, Phone, Address)
    -> VALUES
    ->     (1, 'John', 'Doe', 'john.doe@email.com', '123-456-7890', '123 Main St'),
    ->     (2, 'Jane', 'Smith', 'jane.smith@email.com', '987-654-3210', '456 Oak Ave'),
    ->     (3, 'Alice', 'Johnson', 'alice.johnson@email.com', '555-123-4567', '789 Pine St'),
    ->     (4, 'Bob', 'Williams', 'bob.williams@email.com', '333-999-8888', '101 Maple Ave'),
    ->     (5, 'Eva', 'Miller', 'eva.miller@email.com', '777-888-4444', '222 Elm St'),
    ->     (6, 'Mike', 'Brown', 'mike.brown@email.com', '555-777-9999', '333 Birch St'),
    ->     (7, 'Sara', 'Jones', 'sara.jones@email.com', '888-222-1111', '444 Oak St'),
    ->     (8, 'Tom', 'Davis', 'tom.davis@email.com', '444-666-2222', '555 Pine Ave'),
    ->     (9, 'Emily', 'White', 'emily.white@email.com', '666-333-5555', '666 Maple St'),
    ->     (10, 'Alex', 'Taylor', 'alex.taylor@email.com', '111-333-7777', '777 Cedar Ave');
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0
```

For **Products:**

```
mysql> INSERT INTO Products (ProductID, ProductName, Description, Price)
    -> VALUES
    ->     (1, 'Laptop', 'High-performance laptop', 1200.00),
    ->     (2, 'Smartphone', 'Latest smartphone model', 800.00),
    ->     (3, 'Tablet', 'Lightweight tablet with long battery life', 500.00),
    ->     (4, 'Headphones', 'Over-ear noise-canceling headphones', 150.00),
    ->     (5, 'Smartwatch', 'Fitness and health tracking smartwatch', 200.00),
    ->     (6, 'Camera', 'Digital camera with advanced features', 1000.00),
    ->     (7, 'Printer', 'Wireless all-in-one printer', 300.00),
    ->     (8, 'Gaming Console', 'Next-gen gaming console', 400.00),
    ->     (9, 'Wireless Earbuds', 'Compact and wireless earbuds', 80.00),
    ->     (10, 'External Hard Drive', 'High-capacity external hard drive', 120.00);
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0
```

For **Orders**

```
mysql> INSERT INTO Orders (OrderID, CustomerID, OrderDate, TotalAmount)
    -> VALUES
    ->     (1, 1, '2023-01-15', 2000.00),
    ->     (2, 2, '2023-02-20', 1600.00),
    ->     (3, 3, '2023-03-10', 800.00),
    ->     (4, 4, '2023-04-05', 1200.00),
    ->     (5, 5, '2023-05-18', 300.00),
    ->     (6, 6, '2023-06-25', 1500.00),
    ->     (7, 7, '2023-07-12', 600.00),
    ->     (8, 8, '2023-08-30', 400.00),
    ->     (9, 9, '2023-09-08', 700.00),
    ->     (10, 10, '2023-10-22', 900.00);
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0
```

For **OrderDetails:**

```
mysql> INSERT INTO OrderDetails (OrderDetailID, OrderID, ProductID, Quantity)
    -> VALUES
    ->     (1, 1, 1, 2),
    ->     (2, 1, 2, 3),
    ->     (3, 2, 1, 1),
    ->     (4, 2, 3, 2),
    ->     (5, 3, 5, 1),
    ->     (6, 4, 4, 4),
    ->     (7, 5, 6, 1),
    ->     (8, 5, 8, 2),
    ->     (9, 6, 2, 3),
    ->     (10, 7, 7, 1);
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0
```

For **Inventory:**

```
mysql> INSERT INTO Inventory (InventoryID, ProductID, QuantityInStock, LastStockUpdate)
    -> VALUES
    ->     (1, 1, 20, '2023-01-10'),
    ->     (2, 2, 15, '2023-02-18'),
    ->     (3, 3, 30, '2023-03-05'),
    ->     (4, 4, 25, '2023-04-12'),
    ->     (5, 5, 40, '2023-05-22'),
    ->     (6, 6, 10, '2023-06-15'),
    ->     (7, 7, 18, '2023-07-08'),
    ->     (8, 8, 22, '2023-08-25'),
    ->     (9, 9, 12, '2023-09-01'),
    ->     (10, 10, 28, '2023-10-10');
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0
```

Task 2:

1. Write an SQL query to retrieve the names and emails of all the customers.

```
mysql> SELECT FirstName, LastName, Email
    -> FROM Customers;
+-----------+----------+-------------------------+
| FirstName | LastName | Email                   |
+-----------+----------+-------------------------+
| John      | Doe      | john.doe@email.com      |
| Jane      | Smith    | jane.smith@email.com    |
| Alice     | Johnson  | alice.johnson@email.com |
| Bob       | Williams | bob.williams@email.com  |
| Eva       | Miller   | eva.miller@email.com    |
| Mike      | Brown    | mike.brown@email.com    |
| Sara      | Jones    | sara.jones@email.com    |
| Tom       | Davis    | tom.davis@email.com     |
| Emily     | White    | emily.white@email.com   |
| Alex      | Taylor   | alex.taylor@email.com   |
+-----------+----------+-------------------------+
10 rows in set (0.00 sec)
```

2. Write an SQL Query to list all the orders with their order dates and corresponding customer names.
3. Write an SQL query to insert a new customer record into the “customers” table. Include customer details such as name, email and address
4. Write an SQL query to update the prices of all electronic gadgets in the Products table by increasing them by 10%

```
mysql> SELECT* FROM PRODUCTS;
+-----------+--------------------+-----------------------------------------+---------+
| ProductID | ProductName        | Description                             | Price   |
+-----------+--------------------+-----------------------------------------+---------+
|         1 | Laptop             | High-performance laptop                 | 1200.00 |
|         2 | Smartphone         | Latest smartphone model                 |  800.00 |
|         3 | Tablet             | Lightweight tablet with long battery life |  500.00 |
|         4 | Headphones         | Over-ear noise-canceling headphones     |  150.00 |
|         5 | Smartwatch         | Fitness and health tracking smartwatch  |  200.00 |
|         6 | Camera             | Digital camera with advanced features   | 1000.00 |
|         7 | Printer            | Wireless all-in-one printer             |  300.00 |
|         8 | Gaming Console     | Next-gen gaming console                 |  400.00 |
|         9 | Wireless Earbuds   | Compact and wireless earbuds            |   80.00 |
|        10 | External Hard Drive | High-capacity external hard drive       |  120.00 |
+-----------+--------------------+-----------------------------------------+---------+
10 rows in set (0.00 sec)

mysql> UPDATE Products
    -> SET Price = Price * 1.10
    -> ;
Query OK, 10 rows affected (0.01 sec)
Rows matched: 10  Changed: 10  Warnings: 0

mysql> SELECT* FROM PRODUCTS;
+-----------+--------------------+-----------------------------------------+---------+
| ProductID | ProductName        | Description                             | Price   |
+-----------+--------------------+-----------------------------------------+---------+
|         1 | Laptop             | High-performance laptop                 | 1320.00 |
|         2 | Smartphone         | Latest smartphone model                 |  880.00 |
|         3 | Tablet             | Lightweight tablet with long battery life |  550.00 |
|         4 | Headphones         | Over-ear noise-canceling headphones     |  165.00 |
|         5 | Smartwatch         | Fitness and health tracking smartwatch  |  220.00 |
|         6 | Camera             | Digital camera with advanced features   | 1100.00 |
|         7 | Printer            | Wireless all-in-one printer             |  330.00 |
|         8 | Gaming Console     | Next-gen gaming console                 |  440.00 |
|         9 | Wireless Earbuds   | Compact and wireless earbuds            |   88.00 |
|        10 | External Hard Drive | High-capacity external hard drive       |  132.00 |
+-----------+--------------------+-----------------------------------------+---------+
```

5. Write an SQL query to delete a specific order and its associated order details from the “Orders” and “OrderDetails” tables. Allow users to input the OrderID as a parameter.
6. Write an SQL query to insert a new order into the Orders table.Include the customer ID, order date, and any other necessary information.

7. Write an SQL query to update the contact information (e.g., email and address) of a specific customer in the "Customers" table. Allow users to input the customer ID and new contact information.

``