

### <Step 1: Create Tables

```
CREATE TABLE customers (  
    id INT PRIMARY KEY AUTO_INCREMENT,  
    name VARCHAR(100),  
    email VARCHAR(100),  
    city VARCHAR(50)  
);  
  
CREATE TABLE orders (  
    id INT PRIMARY KEY AUTO_INCREMENT,  
    customer_id INT,  
    product VARCHAR(100),  
    quantity INT,  
    price DECIMAL(10,2),  
    order_date DATE,  
    FOREIGN KEY (customer_id) REFERENCES customers(id)  
);
```

### Step 2: Insert Data

```
INSERT INTO customers (name, email, city) VALUES  
(  
    'John Doe', 'john@example.com', 'New York',  
    'Alice Smith', 'alice@example.com', 'Los Angeles',  
    'Bob Johnson', 'bob@example.com', 'Chicago');  
  
INSERT INTO orders (customer_id, product, quantity, price, order_date)  
VALUES  
(  
    1, 'Laptop', 1, 1000.00, '2024-02-01',  
    2, 'Phone', 2, 500.00, '2024-02-03',  
    3, 'Tablet', 1, 300.00, '2024-02-05');
```

### Step 3: Perform SQL Queries

1. Select All Customers

```
SELECT * FROM customers;
```

2. Select Orders Where Price > 400

```
SELECT * FROM orders WHERE price > 400;
```

3. Update Customer Email

```
UPDATE customers SET email = 'newemail@example.com' WHERE id = 1;
```

#### 4. Delete an Order

```
DELETE FROM orders WHERE id = 3;
```

#### 5. Select Orders with LIKE (Find Products Containing 'Phone')

```
SELECT * FROM orders WHERE product LIKE '%Phone%';
```

#### 6. Group Orders by Customer and Count Orders

```
SELECT customer_id, COUNT(*) AS total_orders  
FROM orders GROUP BY customer_id;
```

#### 7. Use HAVING to Show Customers with More Than 1 Order

```
SELECT customer_id, COUNT(*) AS total_orders  
FROM orders GROUP BY customer_id HAVING total_orders > 1;
```

#### 8. Limit Results (Show Only 2 Customers)

```
SELECT * FROM customers LIMIT 2;
```

#### 9. Offset Results (Skip First Record, Show Next 2)

```
SELECT * FROM customers LIMIT 2 OFFSET 1;
```

#### 10. Subquery: Select Customers Who Placed Orders

```
SELECT * FROM customers WHERE id IN (SELECT customer_id FROM orders);
```

#### 11. Use AND, OR, NOT

```
SELECT * FROM orders WHERE quantity > 1 AND price < 800;  
SELECT * FROM customers WHERE city = 'New York' OR city = 'Chicago';  
SELECT * FROM customers WHERE NOT city = 'Los Angeles';
```