Lab 4 Final Task:

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Customer Table (For filtering by city, name)

Customer Table (For Intering by City, name)					
customer_id	name	email	phone	address	
1	Alice Johnson	alice@gmail.com	9876543210	New York	
2	Bob Smith	bob@yahoo.com	9123456789	Los Angeles	
3	Charlie Brown	charlie@outlook.com	9998887776	Chicago	
4	David Miller	david@gmail.com	8765432109	Miami	
5	Amy Adams	amy@hotmail.com	7654321098	New York	

Product Table (For filtering by category, price, and stock quantity)

product_id	name	category	price	stock_quantity
1	Milk	Dairy	2.50	50
2	Bread	Bakery	1.80	30
3	Eggs	Dairy	3.20	40
4	Chicken	Meat	7.50	20
5	Apples	Fruit	1.20	60
6	Croissant	Bakery	2.50	25

Employee Table (For filtering by hire date, salary)

employee_id	name	role	salary	hire_date
1	Michael Scott	Manager	75000.00	2020-05-10

2	Jim Halpert	Cashier	30000.00	2021-08-15
3	Pam Beesly	Sales Associate	28000.00	2022-02-20
4	Dwight Schrute	Supervisor	50000.00	2019-11-30

5	Kevin Malone	Cashier	29000.00	2023-03-10
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Order_Details Table (For filtering orders based on date)

order_id	customer_id	order_date	total_amount
1	1	2024-01-10	10.50
2	2	2024-01-12	15.20
3	3	2024-02-01	20.80
4	4	2024-02-05	30.00
5	5	2024-02-10	25.50

1. Write the queries to generate above tables to use as the sample for given below Queries.

```
mysql> use class;
Database changed
mysql> CREATE TABLE Customer (
                  customer_id INT PRIMARY KEY.
                  name VARCHAR(50),
email VARCHAR(50),
      ->
                  phone VARCHAR(15),
       ->
                  address VARCHAR(50)
      -> );
ERROR 1050 (42S01): Table 'customer' already exists
mysql> INSERT INTO Customer VALUES
-> (1, 'Alice Johnson', 'alice@gmail.com', '9876543210', 'New York'),
-> (2, 'Bob Smith', 'bob@yahoo.com', '9123456789', 'Los Angeles'),
-> (3, 'Charlie Brown', 'charlie@outlook.com', '9998887776', 'Chicago'),
-> (4, 'David Miller', 'david@gmail.com', '8765432109', 'Miami'),
-> (5, 'Amy Adams', 'amy@hotmail.com', '7654321098', 'New York');
ERROR 1062 (23000): Duplicate entry '1' for key 'customer.PRIMARY'
mysql> CREATE TABLE Product (
                  product_id INT PRIMARY KEY,
      ->
      ->
                  name VARCHAR(50),
category VARCHAR(50),
      ->
                  price DECIMAL(5,2),
      ->
      ->
                  stock_quantity INT
      -> );
ERROR 1050 (42S01): Table 'product' already exists
mysql>
mysql> INSERT INTO Product VALUES
-> (1, 'Milk', 'Dairy', 2.50, 50),
-> (2, 'Bread', 'Bakery', 1.80, 30),
-> (3, 'Eggs', 'Dairy', 3.20, 40),
-> (4, 'Chicken', 'Meat', 7.50, 20),
-> (5, 'Apples', 'Fruit', 1.20, 60),
-> (6, 'Croissant', 'Bakery', 2.50, 25);

ERROR 1062 (23000): Duplicate entry '1' for key 'product.PRIMARY'
mysql>
mysql> CREATE TABLE Employee (
                  employee_id INT PRIMARY KEY,
      ->
                  name VARCHAR(50),
      ->
                 role VARCHAR(50),
                  salary DECIMAL(10,2),
                  hire_date DATE
      -> );
Query OK, 0 rows affected (0.07 sec)
mysql>
mysql> INSERT INTO Employee VALUES
      -> (1, 'Michael Scott', 'Manager', 75000.00, '2020-05-10'),
-> (2, 'Jim Halpert', 'Cashier', 30000.00, '2021-08-15'),
-> (3, 'Pam Beesly', 'Sales Associate', 28000.00, '2022-02-20'),
-> (4, 'Dwight Schrute', 'Supervisor', 50000.00, '2019-11-30'),
-> (5, 'Kevin Malone', 'Cashier', 29000.00, '2023-03-10');
Query OK, 5 rows affected (0.01 sec)
Records: 5 Duplicates: 0 Warnings: 0
mysql>
mysql> CREATE TABLE Order_Details (
      ->
                  order_id INT PRIMARY KEY,
                  customer_id INT,
      ->
      ->
                  order_date DATE,
                  total_amount DECIMAL(10,2),
      ->
      ->
                  FOREIGN KEY (customer_id) REFERENCES Customer(customer_id)
      -> );
ERROR 1050 (42S01): Table 'order_details' already exists
mysql>
mysql> INSERT INTO Order_Details VALUES
       -> (1, 1, '2024-01-10', 10.50),
```

2. Find all customers from New York or Los Angeles.

```
mysql> SELECT * FROM Customer WHERE address IN ('New York', 'Los Angeles');
  customer_id
                                 email
                                                                   address
                                                      phone
                Alice Johnson
                                 alice@gmail.com
                                                      9876543210
                                                                   New York
            2
                Bob Smith
                                                      9123456789
                                 bob@yahoo.com
                                                                   Los Angeles
                Emily Davis
                                 emily@hotmail.com
                                                      7654321098
                                                                   New York
3 rows in set (0.00 sec)
```

3. Retrieve products that are **Dairy or Bakery items**.

```
mysgl> SELECT * FROM Product WHERE category IN ('Dairy',
                                                            'Bakerv');
 product_id
               name
                        category | price
                                            stock_quantity
               Milk
                        Dairy
                                    2.50
                                                         50
           2
               Bread
                        Bakery
                                    1.80
                                                        30
               Eggs
                        Dairy
                                    3.20
                                                        40
3 rows in set (0.00 sec)
```

4. Find employees hired between 2021 and 2023.

```
mysql> SELECT * FROM Employee WHERE hire_date BETWEEN '2021-01-01' AND '2023-12-31';
 employee_id
                               role
                                                 salarv
                                                             hire_date
                Jim Halpert
                               Cashier
                                                  30000.00
                                                              2021-08-15
            3
                Pam Beesly
                               Sales Associate
                                                  28000.00
                                                             2022-02-20
                Kevin Malone
                               Cashier
                                                  29000.00
                                                             2023-03-10
3 rows in set (0.00 sec)
```

5. List customers whose names start with 'A'.

6. Retrieve orders placed in **February 2024**.

7. Count the total **number of customers**.

8. Find the average product price.

```
mysql> SELECT AVG(price) AS average_price FROM Product;
+-----+
| average_price |
+-----+
| 3.283333 |
+-----+
1 row in set (0.00 sec)
```

9. Get the maximum salary of employees.

```
mysql> SELECT MAX(salary) AS max_salary FROM Employee;
+-----+
| max_salary |
+-----+
| 75000.00 |
+-----+
1 row in set (0.00 sec)
```

10. Retrieve the **total revenue from orders**.

11. Find the minimum stock quantity available.

```
mysql> SELECT MIN(stock_quantity) AS min_stock FROM Product;
+------
| min_stock |
+------+
| 20 |
+------+
1 row in set (0.00 sec)
```