PRACTICE :-

CREATEING the table:-

CREATE TABLE employee (emp_id INT PRIMARY KEY, name VARCHAR(50) , department VARCHAR(50),salary INT, joining_date DATE,city VARCHAR(50)

);

INSERTING THE DATA:-

INSERT INTO employees (emp_id, name, department, salary, joining_date, city) VALUES

(1, 'Alice Smith', 'HR', 45000, '2020-02-15', 'New York'),

(2, 'Bob Johnson', 'IT', 60000, '2019-08-23', 'Chicago'),

(3, 'Carol White', 'IT', 75000, '2021-01-10', 'New York'),

(4, 'David Brown', 'Finance', 50000, '2020-06-01', 'San Diego'),

(5, 'Eva Adams', 'HR', 47000, '2018-04-12', 'Chicago'),

(6, 'Frank Lee', 'Finance', 65000, '2021-11-05', 'New York'),

(7, 'Grace Kim', 'IT', 80000, '2017-09-18', 'San Diego'),

(8, 'Henry Clark', 'Marketing', 55000, '2019-12-29', 'Chicago'),

(9, 'Irene Scott', 'Marketing', 53000, '2021-03-22', 'New York'),

(10, 'Jack Davis', 'IT', 72000, '2020-08-14', 'Chicago');

DATA:

SELECT * FROM employee;

```
mysql> select * from employee;
+--------+-------------+------------+--------+--------------+-----------+
| emp_id | name        | department | salary | joining_date | city      |
+--------+-------------+------------+--------+--------------+-----------+
|      1 | alice smith | HR         |  45000 | 2020-02-15   | New York  |
|      2 | Bob Johnson | IT         |  60000 | 2019-08-23   | Chicago   |
|      3 | Carol White | IT         |  75000 | 2021-01-10   | New York  |
|      4 | David Brown | Finance    |  50000 | 2020-06-01   | San Diego |
|      5 | Eva Adams   | HR         |  47000 | 2018-04-12   | Chicago   |
|      6 | Frank Lee   | Finance    |  65000 | 2021-11-05   | New York  |
|      7 | Grace Kim   | IT         |  80000 | 2017-09-18   | San Diego |
|      8 | Henry Clark | Marketing  |  55000 | 2019-12-29   | Chicago   |
|      9 | Irene Scott | Marketing  |  53000 | 2021-03-22   | New York  |
|     10 | Jack Davis  | IT         |  72000 | 2020-08-14   | Chicago   |
+--------+-------------+------------+--------+--------------+-----------+
10 rows in set (0.01 sec)
```

QUERIES:-

-- 1. Show all employees who work in the IT department.

```
mysql> SELECT * FROM employee WHERE department = 'IT';
+--------+-------------+------------+--------+--------------+-----------+
| emp_id | name        | department | salary | joining_date | city      |
+--------+-------------+------------+--------+--------------+-----------+
|      2 | Bob Johnson | IT         |  60000 | 2019-08-23   | Chicago   |
|      3 | Carol White | IT         |  75000 | 2021-01-10   | New York  |
|      7 | Grace Kim   | IT         |  80000 | 2017-09-18   | San Diego |
|     10 | Jack Davis  | IT         |  72000 | 2020-08-14   | Chicago   |
+--------+-------------+------------+--------+--------------+-----------+
4 rows in set (0.00 sec)
```

-- 2. Find employees whose salary is greater than 60,000.

```
mysql> SELECT * FROM employee WHERE salary > 60000;
+--------+-------------+------------+--------+--------------+-----------+
| emp_id | name        | department | salary | joining_date | city      |
+--------+-------------+------------+--------+--------------+-----------+
|      3 | Carol White | IT         |  75000 | 2021-01-10   | New York  |
|      6 | Frank Lee   | Finance    |  65000 | 2021-11-05   | New York  |
|      7 | Grace Kim   | IT         |  80000 | 2017-09-18   | San Diego |
|     10 | Jack Davis  | IT         |  72000 | 2020-08-14   | Chicago   |
+--------+-------------+------------+--------+--------------+-----------+
4 rows in set (0.00 sec)
```

-- 3. Get all employees who joined after 1st Jan 2020.

```
mysql> SELECT * FROM employee WHERE joining_date > '2020-01-01';
+--------+-------------+------------+--------+--------------+-----------+
| emp_id | name        | department | salary | joining_date | city      |
+--------+-------------+------------+--------+--------------+-----------+
|      1 | alice smith | HR         |  45000 | 2020-02-15   | New York  |
|      3 | Carol White | IT         |  75000 | 2021-01-10   | New York  |
|      4 | David Brown | Finance    |  50000 | 2020-06-01   | San Diego |
|      6 | Frank Lee   | Finance    |  65000 | 2021-11-05   | New York  |
|      9 | Irene Scott | Marketing  |  53000 | 2021-03-22   | New York  |
|     10 | Jack Davis  | IT         |  72000 | 2020-08-14   | Chicago   |
+--------+-------------+------------+--------+--------------+-----------+
6 rows in set (0.00 sec)
```

-- 4. Find the total salary paid to employees in each department.

```
mysql> SELECT department, SUM(salary) AS total_salary FROM employee GROUP BY department;
+------------+--------------+
| department | total_salary |
+------------+--------------+
| HR         |        92000 |
| IT         |       287000 |
| Finance    |       115000 |
| Marketing  |       108000 |
+------------+--------------+
4 rows in set (0.01 sec)
```

-- 5. Show the highest paid employee in the Finance department.

```
mysql> SELECT * FROM employee WHERE department = 'Finance' ORDER BY salary DESC LIMIT 1;
+--------+-----------+------------+--------+--------------+----------+
| emp_id | name      | department | salary | joining_date | city     |
+--------+-----------+------------+--------+--------------+----------+
|      6 | Frank Lee | Finance    |  65000 | 2021-11-05   | New York |
+--------+-----------+------------+--------+--------------+----------+
1 row in set (0.00 sec)
```

-- 6. List employees who are from Chicago and earn more than 55,000.

```
mysql> SELECT * FROM employee WHERE city = 'Chicago' AND salary > 55000;
+--------+-------------+------------+--------+--------------+---------+
| emp_id | name        | department | salary | joining_date | city    |
+--------+-------------+------------+--------+--------------+---------+
|      2 | Bob Johnson | IT         |  60000 | 2019-08-23   | Chicago |
|     10 | Jack Davis  | IT         |  72000 | 2020-08-14   | Chicago |
+--------+-------------+------------+--------+--------------+---------+
2 rows in set (0.00 sec)
```

-- 7. Find the number of employees in each city.

```
mysql> SELECT city, COUNT(*) AS num_employees FROM employee GROUP BY city;
+-----------+---------------+
| city      | num_employees |
+-----------+---------------+
| New York  |             4 |
| Chicago   |             4 |
| San Diego |             2 |
+-----------+---------------+
3 rows in set (0.00 sec)
```

-- 8. Show employees in the IT department ordered by salary in descending order.

```
mysql> SELECT * FROM employee WHERE department = 'IT' ORDER BY salary DESC;
+--------+-------------+------------+--------+--------------+-----------+
| emp_id | name        | department | salary | joining_date | city      |
+--------+-------------+------------+--------+--------------+-----------+
|      7 | Grace Kim   | IT         |  80000 | 2017-09-18   | San Diego |
|      3 | Carol White | IT         |  75000 | 2021-01-10   | New York  |
|     10 | Jack Davis  | IT         |  72000 | 2020-08-14   | Chicago   |
|      2 | Bob Johnson | IT         |  60000 | 2019-08-23   | Chicago   |
+--------+-------------+------------+--------+--------------+-----------+
4 rows in set (0.00 sec)
```

-- 9. Display the average salary of all employees.

```
mysql> SELECT AVG(salary) AS avg_salary FROM employee;
+-------------+
| avg_salary  |
+-------------+
| 60200.0000  |
+-------------+
1 row in set (0.00 sec)
```

-- 10. Get the details of the top 3 highest paid employees.

```
mysql> SELECT * FROM employee ORDER BY salary DESC LIMIT 3;
+--------+-------------+------------+--------+--------------+-----------+
| emp_id | name        | department | salary | joining_date | city      |
+--------+-------------+------------+--------+--------------+-----------+
|      7 | Grace Kim   | IT         |  80000 | 2017-09-18   | San Diego |
|      3 | Carol White | IT         |  75000 | 2021-01-10   | New York  |
|     10 | Jack Davis  | IT         |  72000 | 2020-08-14   | Chicago   |
+--------+-------------+------------+--------+--------------+-----------+
3 rows in set (0.01 sec)
```