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

Sample Queries to Practice

1. Show all employees who work in the IT department.
2. Find employees whose salary is greater than 60,000.
3. Get all employees who joined after 1st Jan 2020.
4. Find the total salary paid to employees in each department.
5. Show the highest paid employee in the Finance department.
6. List employees who are from Chicago and earn more than 55,000.
7. Find the number of employees in each city
8. Show employees in the IT department ordered by salary in descending order
9. Display the average salary of all employees.
10. Get the details of the top 3 highest paid employees

Create the employees Table.

```
Database changed
mysql> CREATE TABLE employees (
    ->     emp_id INT PRIMARY KEY,
    ->     name VARCHAR(50),
    ->     department VARCHAR(30),
    ->     salary INT,
    ->     Joining_date DATE,
    ->     city VARCHAR(30)
    -> );
Query OK, 0 rows affected (0.05 sec)
```

Insert the values into employees Tables.

```
mysql> 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, '2021-03-28', 'New York'),
    -> (10, 'Jack Davis', 'IT', 72000, '2020-08-14', 'Chicago');
Query OK, 10 rows affected (0.03 sec)
Records: 10  Duplicates: 0  Warnings: 0
```

Show all values in employees Table.

```
mysql> SELECT * FROM employees;
+--------+-------------+------------+--------+--------------+-----------+
| 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 | 2021-03-28   | New York  |
|     10 | Jack Davis  | IT         |  72000 | 2020-08-14   | Chicago   |
+--------+-------------+------------+--------+--------------+-----------+
10 rows in set (0.00 sec)
```

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

```
mysql> SELECT * FROM employees 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 (0.03 sec)
```

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

```
mysql> SELECT * FROM employees 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 (0.01 sec)
```

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

```
mysql> SELECT * FROM employees 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 | 2021-03-28   | New York  |
|     10 | Jack Davis  | IT         |  72000 | 2020-08-14   | Chicago   |
+--------+-------------+------------+--------+--------------+-----------+
6 rows in set (0.01 sec)
```

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

```
mysql> SELECT department,SUM(salary) AS total_salary FROM employees GROUP BY department;
+------------+--------------+
| department | total_salary |
+------------+--------------+
| HR         |        92000 |
| IT         |       287000 |
| Finance    |       115000 |
| Marketing  |       108000 |
+------------+--------------+
4 rows in set (0.02 sec)
```

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

```
mysql> SELECT * FROM employees 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 employees 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 (0.01 sec)
```

7. Find the number of employees in each city.

```
mysql> SELECT city,COUNT(*) AS num_employees FROM employees GROUP BY city;
+-----------+---------------+
| city      | num_employees |
+-----------+---------------+
| New York  |             4 |
| Chicago   |             4 |
| San Diego |             2 |
+-----------+---------------+
3 rows in set (0.01 sec)
```

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

```
mysql> SELECT * FROM employees 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 employees;
+-------------+
| avg_salary |
+-------------+
| 60200.0000 |
+-------------+
1 row in set (0.01 sec)
```

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

```
mysql> SELECT * FROM employees 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 (0.00 sec)
```