Assignment 3

Creating db and tables

```
create database exp3;
```

```
mysql> create database exp3;
Query OK, 1 row affected (0.01 sec)
```

```
use exp3;
```

```
mysql> use exp3;
Database changed
```

creating Employees table

```
create table Employees(
    EmpID int primary key,
    Name varchar(24) not null,
    Department varchar(12) not null,
    Salary int not null,
    joiningDate Date not null
);
```

```
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| EmpID       | int         | NO   | PRI | NULL    |       |
| Name        | varchar(24) | NO   |     | NULL    |       |
| Department  | varchar(12) | NO   |     | NULL    |       |
| Salary      | int         | NO   |     | NULL    |       |
| joiningDate | date        | NO   |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
```

inserting data in Employees table

```
insert into Employees (EmpID,Name,Department,Salary,joiningDate) values
(1,"Amit","HR",45000,"2020-01-15"),
(2,"Neha","IT",60000,"2019-03-10"),
(3,"Ravi","Finance",55000,"2021-07-22"),
(4,"Simran","IT",70000,"2018-11-01"),
(5,"Raj","Finance",50000,"2020-06-18"),
(6,"Priya","HR",48000,"2021-02-25"),
(7,"Arjun","IT",65000,"2019-12-30");
```

EmpID	Name	Department	Salary	joiningDate
1	Amit	HR	45000	2020-01-15
2	Neha	IT	60000	2019-03-10
3	Ravi	Finance	55000	2021-07-22
4	Simran	IT	70000	2018-11-01
5	Raj	Finance	50000	2020-06-18
6	Priya	HR	48000	2021-02-25
7	Arjun	IT	65000	2019-12-30

Questions

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

```
select *
from Employees
where Department = "IT";
```

EmpID	Name	Department	Salary	joiningDate
2	Neha	IT	60000	2019-03-10
4	Simran	IT	70000	2018-11-01
7	Arjun	IT	65000	2019-12-30

---

2. Find employees with a salary greater than 55,000.

```
select *
from Employees
where Salary > 55000;
```

EmpID	Name	Department	Salary	joiningDate
2	Neha	IT	60000	2019-03-10
4	Simran	IT	70000	2018-11-01
7	Arjun	IT	65000	2019-12-30

---

3. Display the names of employees who joined after 2020-01-01.

```
select name
from Employees
```

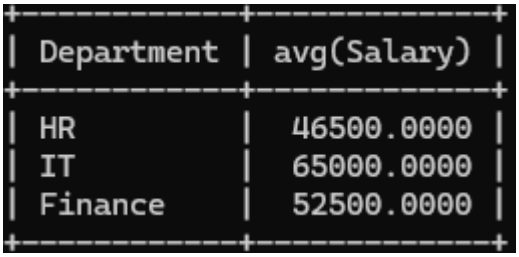
```
where joiningDate > "2020-01-01";
```

name
Amit
Ravi
Raj
Priya

---

4. Calculate the average salary of employees in each department.

```
select Department,avg(Salary)
from Employees
group by Department;
```

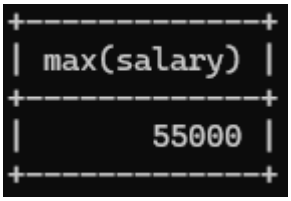


Department	avg(Salary)
HR	46500.0000
IT	65000.0000
Finance	52500.0000

---

5. Find the highest salary in the Finance department.

```
select max(salary)
from Employees
where Department = "Finance";
```



max(salary)
55000

---

6. Count the number of employees in each department.

```
select Department,count(EmpID)
from Employees
group by Department;
```

Department	count(EmpID)
HR	2
IT	3
Finance	2

---

7. Display employees ordered by their salary in descending order.

```
select *
from Employees
order by Salary desc;
```

EmpID	Name	Department	Salary	joiningDate
4	Simran	IT	70000	2018-11-01
7	Arjun	IT	65000	2019-12-30
2	Neha	IT	60000	2019-03-10
3	Ravi	Finance	55000	2021-07-22
5	Raj	Finance	50000	2020-06-18
6	Priya	HR	48000	2021-02-25
1	Amit	HR	45000	2020-01-15

---

8. Find departments having more than 2 employees.

```
select Department
from Employees
group by Department
having count(EmpID) > 2;
```

Department
IT

---

9. Show the total salary expenditure of the IT department.

```
select sum(Salary)
from Employees
where Department = "IT";
```

sum(Salary)
195000

---

10. Retrieve employees whose names start with 'R'

```
select *
from Employees
where Name like "R%";
```

EmpID	Name	Department	Salary	joiningDate
3	Ravi	Finance	55000	2021-07-22
5	Raj	Finance	50000	2020-06-18
