20BCS042 MOHD ADIL

ASSIGNMENT 4

```
mysql> CREATE DATABASE ASSIGNMENT4;
Query OK, 1 row affected (0.03 sec)

mysql> use ASSIGNMENT4;
Database changed

mysql> create table Employee
    -> (Emp_id int(3) unique,
    -> Emp_name varchar(255),
    -> Salary int,
    -> Dno varchar(5));
Query OK, 0 rows affected, 1 warning (0.08 sec)

mysql> create table Department
    -> (Dno varchar(255) unique,
    -> Dept_name varchar(255));
Query OK, 0 rows affected (0.05 sec)

mysql> insert into Employee values
    -> (101,"Amit",25000,"D1001"),
    -> (102,"Sunil",20000,"D1002"),
    -> (103,"Rakesh",18000,"D1003"),
```

```
    -> (104,"Ajay",16000,"D1001"),
    -> (105,"Suhail",20000,"D1002"),
    -> (106,"Arif",18000,"D1004"),
    -> (107,"Suresh",24000,"D1002"),
    -> (108,"Vijay",22000,"D1003");
Query OK, 8 rows affected (0.01 sec)
Records: 8  Duplicates: 0  Warnings: 0

mysql> insert into Department values
    -> ("D1001","IT"),
    -> ("D1002","Sales"),
    -> ("D1003","Marketing"),
    -> ("D1004","HR");
Query OK, 4 rows affected (0.01 sec)
Records: 4  Duplicates: 0  Warnings: 0
```

SQL QUERIES

1. Display total sum required to pay the salary of all employees.

```
mysql> select sum(salary)
    -> as TotalSalary
    -> from Employee;
+-------------+
| TotalSalary |
+-------------+
|      163000 |
+-------------+
1 row in set (0.01 sec)
```

2. Display the average salary, minimum salary and maximum salary of the Company.

```
mysql> select avg(salary),min(salary),max(salary)
    -> from Employee;
+-------------+-------------+-------------+
| avg(salary) | min(salary) | max(salary) |
+-------------+-------------+-------------+
|  20375.0000 |       16000 |       25000 |
+-------------+-------------+-------------+
1 row in set (0.01 sec)
```

3. Display the sum of salary department-wise.

```
mysql> select department.dno,  department.dept_name ,sum(salary)
    -> from department join employee on department.dno=employee.dno
    -> group by dno;
+-------+-----------+-------------+
| dno   | dept_name | sum(salary) |
+-------+-----------+-------------+
| D1001 | IT        |       41000 |
| D1002 | Sales     |       64000 |
| D1003 | Marketing |       40000 |
| D1004 | HR        |       18000 |
+-------+-----------+-------------+
4 rows in set (0.00 sec)
```

4. Display the maximum salary department-wise.

```
mysql> select department.dno,  department.dept_name ,max(salary)
    -> from department join employee on department.dno=employee.dno
    -> group by dno;
+-------+-----------+-------------+
| dno   | dept_name | max(salary) |
+-------+-----------+-------------+
| D1001 | IT        |       25000 |
| D1002 | Sales     |       24000 |
| D1003 | Marketing |       22000 |
| D1004 | HR        |       18000 |
+-------+-----------+-------------+
4 rows in set (0.00 sec)
```

5. Display the details of the employee who earns the maximum salary.

```
mysql> select * from employee
    -> where employee.salary=(select max(salary) from employee);
+--------+----------+--------+-------+
| Emp_id | Emp_name | Salary | Dno   |
+--------+----------+--------+-------+
|    101 | Amit     |  25000 | D1001 |
+--------+----------+--------+-------+
1 row in set (0.01 sec)
```

6. Display details of every employee having maximum salary in his department.

```
mysql> select Emp_id, Emp_name, Department.Dno, Dept_name, max(salary) from Employee
    -> join department on employee.dno=department.dno
    -> group by dno;
+--------+----------+-------+-----------+-------------+
| Emp_id | Emp_name | Dno   | Dept_name | max(salary) |
+--------+----------+-------+-----------+-------------+
|    101 | Amit     | D1001 | IT        |       25000 |
|    102 | Sunil    | D1002 | Sales     |       24000 |
|    103 | Rakesh   | D1003 | Marketing |       22000 |
|    106 | Arif     | D1004 | HR        |       18000 |
+--------+----------+-------+-----------+-------------+
4 rows in set (0.00 sec)
```

7. Display the details of the employee who earns more salary than the average salary of his department.

```
mysql> select Emp_id, Emp_name, Salary, Department.DNo, Dept_name from Employee
    -> Employee join Department on Employee.Dno=Department.Dno
    -> where salary > (select avg(salary) from Employee order by Dno);
+--------+----------+--------+-------+-----------+
| Emp_id | Emp_name | Salary | DNo   | Dept_name |
+--------+----------+--------+-------+-----------+
|    101 | Amit     |  25000 | D1001 | IT        |
|    107 | Suresh   |  24000 | D1002 | Sales     |
|    108 | Vijay    |  22000 | D1003 | Marketing |
+--------+----------+--------+-------+-----------+
3 rows in set (0.01 sec);
```

8. Display total number of employees in each department along with the department name.

```
mysql> select dept_name ,count(emp_id) from department
    -> join employee on department.dno=employee.dno
    -> group by department.dno;
+-----------+---------------+
| dept_name |  count(emp_id) |
+-----------+---------------+
| IT        |             2 |
| Sales     |             3 |
| Marketing |             2 |
| HR        |             1 |
+-----------+---------------+
4 rows in set (0.00 sec)
```

Thank You