Web Application Development Lab
Assignment - 9
MySQL

Create a database with your SIC Number and perform the following tasks from MySQL Console.

1. **Create the employee table and insert the records. ENO should be auto increment and primary key.**

ENO	ENAME	SALARY	DNO
1	Suman	45000.00	101
2	Aditya	35000.00	102
3	Ankit	42000.00	102
4	Rajan	55000.00	101
5	Ananya	25000.00	103
6	Narayan	60000.00	101
7	Smita	28000.00	103

SQL:-

```
create table employee(ENO int auto_increment primary key,ENAME varchar(20),SALARY double(10,2),DNO int);
```

Output:-

```
+--------+--------------+------+-----+---------+----------------+
| Field  | Type         | Null | Key | Default | Extra          |
+--------+--------------+------+-----+---------+----------------+
| ENO    | int(11)      | NO   | PRI | NULL    | auto_increment |
| ENAME  | varchar(20)  | YES  |     | NULL    |                |
| SALARY | double(10,2) | YES  |     | NULL    |                |
| DNO    | int(11)      | YES  |     | NULL    |                |
+--------+--------------+------+-----+---------+----------------+
```

```
insert into employee(ENAME,SALARY,DNO) values ("Suman",45000.00,101);
insert into employee(ENAME,SALARY,DNO) values ("Aditya",35000.00,102);
insert into employee(ENAME,SALARY,DNO) values ("Ankit",42000.00,102);
insert into employee(ENAME,SALARY,DNO) values ("Ranjan",55000.00,101);
 insert into employee(ENAME,SALARY,DNO) values ("Ananya",25000.00,103);
insert into employee(ENAME,SALARY,DNO) values ("Narayan",60000.00,101);
insert into employee(ENAME,SALARY,DNO) values ("Smita",28000.00,103);
```

Output:-

```
+-----+---------+----------+------+
| ENO | ENAME   | SALARY   | DNO  |
+-----+---------+----------+------+
|   1 | Suman   | 45000.00 |  101 |
|   2 | Aditya  | 35000.00 |  102 |
|   3 | Ankit   | 42000.00 |  102 |
|   4 | Ranjan  | 55000.00 |  101 |
|   5 | Ananya  | 25000.00 |  103 |
|   6 | Narayan | 60000.00 |  101 |
|   7 | Smita   | 28000.00 |  103 |
+-----+---------+----------+------+
```

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2. **Create the department table and insert the records. DID must be primary key.**

DID	DNAME
101	R&D
102	Accounts
103	HR

SQL:-

```
create table department(DID int,DNAME varchar(10));
```

Output:-

```
+-------+-------------+------+-----+---------+-------+
| Field | Type        | Null | Key | Default | Extra |
+-------+-------------+------+-----+---------+-------+
| DID   | int(11)     | YES  |     | NULL    |       |
| DNAME | varchar(10) | YES  |     | NULL    |       |
+-------+-------------+------+-----+---------+-------+
```

SQL:-

```
alter table department add primary key(DID);
```

Output:

```
+-------+-------------+------+-----+---------+-------+
| Field | Type        | Null | Key | Default | Extra |
+-------+-------------+------+-----+---------+-------+
| DID   | int(11)     | NO   | PRI | NULL    |       |
| DNAME | varchar(10) | YES  |     | NULL    |       |
+-------+-------------+------+-----+---------+-------+
```

```
insert into department values(101,"R&D");
insert into department values(102,"Accounts");
insert into department values(103,"HR");
```

Output:-

```
+-----+----------+
| DID | DNAME    |
+-----+----------+
| 101 | R&D      |
| 102 | Accounts |
| 103 | HR       |
+-----+----------+
```

3. **Display the Employee name, salary and department number.**

SQL:-

```
select ENAME,SALARY,DNO from employee e,department d where e.DNO = d.DID;
```

Output:-

```
+---------+----------+------+
| ENAME   | SALARY   | DNO  |
+---------+----------+------+
| Suman   | 45000.00 |  101 |
| Aditya  | 35000.00 |  102 |
| Ankit   | 42000.00 |  102 |
| Ranjan  | 55000.00 |  101 |
| Ananya  | 25000.00 |  103 |
| Narayan | 60000.00 |  101 |
| Smita   | 28000.00 |  103 |
+---------+----------+------+
```

4. **Display the employee details in descending order of their salary.**

SQL:-
select * from employee order by salary desc;
Output:-

ENO	ENAME	SALARY	DNO
6	Narayan	60000.00	101
4	Ranjan	55000.00	101
1	Suman	45000.00	101
3	Ankit	42000.00	102
2	Aditya	35000.00	102
7	Smita	28000.00	103
5	Ananya	25000.00	103

5. **Display the total salary expenditure of the company in a year**.

SQL:-
select sum(SALARY) as "Total Salary" from employee;
Output:-

Total Salary
290000.00

6. **How much salary Ankit is getting?**

SQL:-
select SALARY from employee where ENAME = "Ankit";
Output:-

SALARY
42000.00

7. **Who are the employee working for dno 101 or 102?**

SQL:-
select * from employee where DNO in(101,102);
Output:-

ENO	ENAME	SALARY	DNO
1	Suman	45000.00	101
2	Aditya	35000.00	102
3	Ankit	42000.00	102
4	Ranjan	55000.00	101
6	Narayan	60000.00	101

8. **Display the employee id, name and the department name for which they are working**.

SQL:-
select ENO,ENAME,DNAME from employee e, department d where e.DNO = d.DID;
Output:-

ENO	ENAME	DNAME
1	Suman	R&D
2	Aditya	Accounts
3	Ankit	Accounts
4	Ranjan	R&D
5	Ananya	HR
6	Narayan	R&D
7	Smita	HR

9. **Display the employee details who are working for HR Department**.

SQL:-
select * from employee e,department d where d.DNAME = "HR" and e.DNO = d.DID;
Output:-

ENO	ENAME	SALARY	DNO	DID	DNAME
5	Ananya	25000.00	103	103	HR
7	Smita	28000.00	103	103	HR

10. **Display the employee details working with Narayan**.

SQL:-
select * from employee where dno = (select dno from employee where ename="Narayan");
Output:-

ENO	ENAME	SALARY	DNO
1	Suman	45000.00	101
4	Ranjan	55000.00	101
6	Narayan	60000.00	101

11. **Find the employee details who is getting highest salary.**

SQL:-
select * from employee where SALARY = (select max(SALARY) from employee);
Output:-

ENO	ENAME	SALARY	DNO
6	Narayan	60000.00	101

12. **Display the department wise highest salary and the name of the employee who is getting it.**

SQL:-
select ENAME,max(salary),DNAME from employee e,department d where e.DNO = d.DID group by DNO;
Output:-

ENAME	max(salary)	DNAME
Suman	60000.00	R&D
Aditya	42000.00	Accounts
Ananya	28000.00	Human Reso

13. **Give 3% hike to all the employee and update the salary.**

SQL:-
update employee set salary = salary+0.03*salary;
Output:-

ENO	ENAME	SALARY	DNO
1	Suman	46350.00	101
2	Aditya	36050.00	102
3	Ankit	43260.00	102
4	Ranjan	56650.00	101
5	Ananya	25750.00	103
6	Narayan	61800.00	101
7	Smita	28840.00	103

14. **Update the department name HR to Human Resource.**

SQL:-
update department set DNAME = "Human Resource" where DID=103;
Output:-

DID	DNAME
101	R&D
102	Accounts
103	Human Resource

15. **Delete the details of Rajan by accessing his employee ID.**

SQL:-
delete from employee where ENO = (select ENO from employee where ENAME = "Ranjan");
Output:-

ENO	ENAME	SALARY	DNO
1	Suman	46350.00	101
2	Aditya	36050.00	102
3	Ankit	43260.00	102
5	Ananya	25750.00	103
6	Narayan	61800.00	101
7	Smita	28840.00	103

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