

## Assignment No. 2

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**Enrollment NO. - 2020CSB039**

**Branch - Computer Science and Technology**

**Group - GX**

**Subject - DBMS Laboratory**

### A.º Creation of Table

```
create table DEPT
( DEPTNO int(2) primary key,DNAME
  varchar(40) NOT NULL,
  LOC varchar(40) NOT NULL);
```

```
mysql> describe DEPT;
```

Field	Type	Null	Key	Default	Extra
DEPTNO	int(2)	NO	PRI	NULL	
DNAME	varchar(40)	NO		NULL	
LOC	varchar(40)	NO		NULL	

3 rows in set (0.00 sec)

```
create table EMP
( EMPNO int primary key, ENAME
  varchar(40) NOT NULL,JOB char(9)
  NOT NULL,
  MGR int references EMP(EMPNO),HIREDATE
  date NOT NULL,
  SAL int NOT NULL,
  COMM int,
  DEPTNO int references DEPT(DEPTNO));
```

```
mysql> describe EMP;
```

Field	Type	Null	Key	Default	Extra
EMPNO	int(11)	NO	PRI	NULL	
ENAME	varchar(40)	NO		NULL	
JOB	char(9)	NO		NULL	
MGR	int(11)	YES		NULL	
HIREDATE	date	NO		NULL	
SAL	int(11)	NO		NULL	
COMM	int(11)	YES		NULL	
DEPTNO	int(11)	YES		NULL	

```
8 rows in set (0.01 sec)
```

## <B. Execution of Querie □: >

- a) List the names of analysts and salesmen.

```
mysql> select ENAME from EMP where JOB="analyst" or JOB="salesman";
```

ENAME
Allen
Ward
Martin
Scott
Turner
Ford

```
6 rows in set (0.00 sec)
```

- b) List details of employees who have joined before 30 Sep 81.

```
mysql> select * from EMP where HIREDATE < '1981-09-30';
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	Smith	Clerk	7902	1980-12-17	800	NULL	20
7499	Allen	Salesman	7698	1981-02-20	1600	300	30
7521	Ward	Salesman	7698	1981-02-22	1250	500	30
7566	Jones	Manager	7839	1981-04-02	2975	NULL	20
7654	Martin	Salesman	7698	1981-09-28	1250	1400	30
7698	Blake	Manager	7839	1981-05-01	2850	NULL	30
7782	Clark	Manager	7839	1981-06-09	2450	NULL	10
7844	Turner	Salesman	7698	1981-09-08	1500	0	30

```
8 rows in set (0.00 sec)
```

- c) List names of employees who are not managers.

```
mysql> select ENAME from EMP where NOT JOB='Manager';
+-----+
| ENAME |
+-----+
| Smith |
| Allen |
| Ward  |
| Martin|
| Scott |
| King  |
| Turner|
| Adams |
| James |
| Ford  |
| Miller|
+-----+
11 rows in set (0.00 sec)
```

- d) List the names of employees whose employee numbers are 7369,7521, 7839, 7934,7788

```
mysql> select ENAME from EMP where EMPNO=7369 or EMPNO=7521 or EMPNO=7839 or EMPNO=7934 or EMPNO=7788;
+-----+
| ENAME |
+-----+
| Smith |
| Ward  |
| Scott |
| King  |
| Miller|
+-----+
5 rows in set (0.00 sec)
```

- e) List employees not belonging to department 30, 40, or 10.

```
mysql> select * from EMP where NOT DEPTNO=30 and NOT DEPTNO = 40 and NOT DEPTNO = 10;
+-----+-----+-----+-----+-----+-----+-----+-----+
| EMPNO | ENAME | JOB      | MGR  | HIREDATE | SAL  | COMM | DEPTNO |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7369  | Smith | Clerk    | 7902 | 1980-12-17 | 800  | NULL | 20     |
| 7566  | Jones | Manager  | 7839 | 1981-04-02 | 2975 | NULL | 20     |
| 7788  | Scott | Analyst  | 7566 | 1982-12-09 | 3000 | NULL | 20     |
| 7876  | Adams | Clerk    | 7788 | 1983-01-12 | 1100 | NULL | 20     |
| 7900  | James | Clerk    | 7698 | 1981-12-03 | 950  | NULL | 20     |
| 7902  | Ford  | Analyst  | 7566 | 1981-12-04 | 3000 | NULL | 20     |
+-----+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

- f) List employee names for those who have joined between 30 June and 31 Dec. '81.

```
mysql> select ENAME from EMP where HIREDATE between '1981-06-30' and '1981-12-31';
+-----+
| ENAME |
+-----+
| Martin |
| King   |
| Turner |
| James  |
| Ford   |
+-----+
5 rows in set (0.00 sec)
```

- g) List the different designations in the company.

```
mysql> select DISTINCT JOB from EMP;
+-----+
| JOB      |
+-----+
| Clerk    |
| Salesman |
| Manager  |
| Analyst  |
| President |
+-----+
5 rows in set (0.00 sec)
```

- h) List the names of employees who are not eligible for commission.

```
mysql> select ENAME from EMP where COMM is NOT NULL;
+-----+
| ENAME |
+-----+
| Allen  |
| Ward   |
| Martin |
| Turner |
+-----+
4 rows in set (0.00 sec)
```

- i) List the name and designation of the employee who does not report to anybody.

```
mysql> select ENAME, JOB from EMP where MGR is NULL;
+-----+-----+
| ENAME | JOB      |
+-----+-----+
| King  | President |
+-----+-----+
1 row in set (0.00 sec)
```

- j) List the employees not assigned to any department.

```
mysql> select * from EMP where DEPTNO is NULL;
Empty set (0.00 sec)
```

- k) List the employees who are eligible for commission.

```
mysql> select * from EMP where COMM is not NULL;
+-----+-----+-----+-----+-----+-----+-----+-----+
| EMPNO | ENAME | JOB      | MGR | HIREDATE   | SAL  | COMM | DEPTNO |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7499 | Allen | Salesman | 7698 | 1981-02-20 | 1600 | 300  | 30     |
| 7521 | Ward  | Salesman | 7698 | 1981-02-22 | 1250 | 500  | 30     |
| 7654 | Martin | Salesman | 7698 | 1981-09-28 | 1250 | 1400 | 30     |
| 7844 | Turner | Salesman | 7698 | 1981-09-08 | 1500 | 0    | 30     |
+-----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

- l) List employees whose names either start or end with "S".

```
mysql> select * from EMP where ENAME like 'S%';
+-----+-----+-----+-----+-----+-----+-----+-----+
| EMPNO | ENAME | JOB      | MGR | HIREDATE   | SAL  | COMM | DEPTNO |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 7369 | Smith | Clerk    | 7902 | 1980-12-17 | 800  | NULL | 20     |
| 7788 | Scott | Analyst  | 7566 | 1982-12-09 | 3000 | NULL | 20     |
+-----+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```



m) List names of employees whose names have "i" as the second character.

```
mysql> select * from EMP where ENAME like '_i%';
+-----+-----+-----+-----+-----+-----+-----+-----+
| EMPNO | ENAME  | JOB      | MGR  | HIREDATE   | SAL  | COMM | DEPTNO |
+-----+-----+-----+-----+-----+-----+-----+
| 7839  | King   | President | NULL | 1981-11-17 | 5000 | NULL | 10     |
| 7934  | Miller | Clerk     | 7782 | 1982-01-23 | 1300 | NULL | 10     |
+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

n) List the number of employees working with the company.

```
mysql> select count(*) from EMP;
+-----+
| count(*) |
+-----+
|        14 |
+-----+
1 row in set (0.00 sec)
```

o) List the number of designations available in the EMP table.

```
mysql> select count(distinct JOB) from EMP;
+-----+
| count(distinct JOB) |
+-----+
|                    5 |
+-----+
1 row in set (0.00 sec)
```

p) List the total salaries paid to the employees.

```
mysql> select SUM(SAL) from EMP;
+-----+
| SUM(SAL) |
+-----+
|    29025 |
+-----+
1 row in set (0.00 sec)
```

- q) List the maximum, minimum and average salary in the company.

```
mysql> select max(SAL) from EMP;
+-----+
| max(SAL) |
+-----+
|      5000 |
+-----+
1 row in set (0.01 sec)

mysql> select min(SAL) from EMP;
+-----+
| min(SAL) |
+-----+
|        800 |
+-----+
1 row in set (0.00 sec)

mysql> select avg(SAL) from EMP;
+-----+
| avg(SAL) |
+-----+
| 2073.2143 |
+-----+
1 row in set (0.00 sec)
```

- r) List the maximum salary paid to a salesman.

```
mysql> select max(SAL) from EMP where JOB='SALESMAN';
+-----+
| max(SAL) |
+-----+
|      1600 |
+-----+
1 row in set (0.00 sec)
```