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DBMS LAB – 3

1)
CREATE TABLE EMP(EMPNO INT(10),EFNAME
VARCHAR(20),ELNAME VARCHAR(20),JOB VARCHAR
(10),DEPTNAME VARCHAR (10),DEPTNO INT (2),ECITY VARCHAR
(10),SAL INT (7),WORKEXPERIENCE INT(10),MANAGERNAME
VARCHAR (10),MANAGERNO INT (20),PRIMARY KEY(DEPTNO));

CREATE TABLE dept(DEPTNO INT(2), DNAME VARCHAR(10), LOC
VARCHAR(10), LOCID INT(5));

ALTER TABLE EMP ADD PRIMARY KEY(EMPNO);

ALTER TABLE EMP ADD FOREIGN KEY (DEPTNO) references
EMP(EMPNO);

INSERT INTO EMP
VALUES(1,'SOMA','VIGNESH','ENG','CSE',1,'CHENNAI',1000000,1,'M
ANAGER1',1),
(2,'SANJIV','KANNA','DOC','MEDICINE',2,'DELHI',2000000,2,'MANA
GER2',2),
(3,'SRI','VIGNESH','YT','SHORTS',3,'KOLKATA',3000000,3,'MANAGE
R3',3),
(4,'NITIN','KUMAR','TEACHER','ENGLISH',4,'HOSUR',4000000,4,'MA
NAGER4',4),
(5,'ABHI','MANO','CEO','ALL',5,'BANGALORE',5000000,5,'MANAGE
R5',5);

```
+-------+--------+---------+---------+----------+--------+-----------+---------
+--------------+------------+----------+
```

EMPNO	EFNAME	ELNAME	JOB	DEPTNAME	DEPTNO	ECITY	SAL	WORKEXPERIENCE	MANAGERNAME	MANAGERNO
1	SOMA	VIGNESH	ENG	CSE	1	CHENNAI	1000000	1	MANAGER1	1
2	SANJIV	KANNA	DOC	MEDICINE	2	DELHI	2000000	2	MANAGER2	2
3	SRI	VIGNESH	YT	SHORTS	3	KOLKATA	3000000	3	MANAGER3	3
4	NITIN	KUMAR	TEACHER	ENGLISH	4	HOSUR	4000000	4	MANAGER4	4
5	ABHI	MANO	CEO	ALL	5	BANGALORE	5000000	5	MANAGER5	5

INSERT INTO dept VALUES(1,'CSE','CHENNAI',1),
(2,'MEDICINE','DELHI',2),(3,'SHORTS','KOLKATA',3),
(4,'ENGLISH','HOSUR',4),(5,'ALL','BANGALORE',5);

DEPTNO	DNAME	LOC	LOCID
1	CSE	CHENNAI	1
2	MEDICINE	DELHI	2
3	SHORTS	KOLKATA	3
4	ENGLISH	HOSUR	4
5	ALL	BANGALORE	5

2)
SELECT ELNAME,DEPTNO,DEPTNAME FROM EMP;

```
+---------+--------+----------+
| ELNAME  | DEPTNO | DEPTNAME |
+---------+--------+----------+
| VIGNESH |    1 | CSE      |
| KANNA   |    2 | MEDICINE |
| VIGNESH |    3 | SHORTS   |
| KUMAR   |    4 | ENGLISH  |
| MANO    |    5 | ALL      |
+---------+--------+----------+
```

3)
SELECT EMP.JOB,dept.LOC FROM EMP,dept
WHERE EMP.DEPTNO=80;
Empty set

4)
SELECT EMP.ELNAME,EMP.DEPTNAME,dept.LOCID,EMP.ECITY
FROM EMP inner JOIN dept ON EMP.DEPTNO=dept.DEPTNO
WHERE EMP.SAL>=10000;

```
+---------+----------+-------+-----------+
| ELNAME  | DEPTNAME | LOCID | ECITY     |
+---------+----------+-------+-----------+
| VIGNESH | CSE      |    1 | CHENNAI   |
| KANNA   | MEDICINE |    2 | DELHI     |
| VIGNESH | SHORTS   |    3 | KOLKATA   |
| KUMAR   | ENGLISH  |    4 | HOSUR     |
| MANO    | ALL      |    5 | BANGALORE |
+---------+----------+-------+-----------+
```

5)SELECT ELNAME,DEPTNAME FROM EMP WHERE EFNAME
LIKE '%a%';

```
+---------+----------+
| ELNAME  | DEPTNAME |
+---------+----------+
| VIGNESH | CSE      |
| KANNA   | MEDICINE |
| MANO    | ALL      |
+---------+----------+
```

6)
SELECT ELNAME,EMPNO,MANAGERNAME,MANAGERNO FROM
EMP;

```
+---------+-------+-------------+-----------+
| ELNAME  | EMPNO | MANAGERNAME | MANAGERNO |
+---------+-------+-------------+-----------+
| VIGNESH |     1 | MANAGER1    |         1 |
| KANNA   |     2 | MANAGER2    |         2 |
| VIGNESH |     3 | MANAGER3    |         3 |
| KUMAR   |     4 | MANAGER4    |         4 |
| MANO    |     5 | MANAGER5    |         5 |
+---------+-------+-------------+-----------+
```

7)
SELECT ELNAME,JOB,DEPTNO,DEPTNAME FROM EMP
  -> WHERE ECITY ='toronto';
Empty set

8)
SELECT * FROM EMP
  -> WHERE MANAGERNAME = NULL
  -> ORDER BY EMPNO DESC;
Empty set

9)SELECT s.ELNAME,s.DEPTNO FROM EMP s JOIN EMP p WHERE s.DEPTNAME=p.DEPTNAME;

```
+---------+--------+
| ELNAME  | DEPTNO |
+---------+--------+
| VIGNESH |      1 |
| KANNA   |      2 |
| VIGNESH |      3 |
| KUMAR   |      4 |
| MANO    |      5 |
+---------+--------+
```

10)
SELECT SUM(SAL),AVG(SAL) FROM EMP;

```
+----------+--------------+
| SUM(SAL) | AVG(SAL)     |
+----------+--------------+
| 15000000 | 3000000.0000 |
+----------+--------------+
```

11)
SELECT * FROM EMP WHERE WORKEXPERIENCE=(SELECT MAX(WORKEXPERIENCE) FROM
EMP);

```
+-------+--------+--------+------+----------+--------+-----------+---------+---------------+-------------+-----------+
| EMPNO | EFNAME | ELNAME | JOB  | DEPTNAME | DEPTNO | ECITY     | SAL     | WORKEXPERIENCE | MANAGERNAME | MANAGERNO |
+-------+--------+--------+------+----------+--------+-----------+---------+---------------+-------------+-----------+
|     5 | ABHI   | MANO   | CEO  | ALL      |      5 | BANGALORE | 5000000 |             5 | MANAGER5    |         5 |
+-------+--------+--------+------+----------+--------+-----------+---------+---------------+-------------+-----------+
```

12)SELECT COUNT(EMPNO) FROM EMP;

```
+-------------+
| COUNT(EMPNO) |
+-------------+
|           5 |
+-------------+
```

13)SELECT * FROM EMP WHERE WORKEXPERIENCE=(SELECT MIN(WORKEXPERIENCE) FROM EMP);

```
+-------+--------+---------+------+----------+--------+---------+---------+--------------+------------+-----------+
| EMPNO | EFNAME | ELNAME  | JOB  | DEPTNAME | DEPTNO | ECITY   | SAL     | WORKEXPERIENCE | MANAGERNAME | MANAGERNO |
+-------+--------+---------+------+----------+--------+---------+---------+--------------+------------+-----------+
|     1 | SOMA   | VIGNESH | ENG  | CSE      |      1 | CHENNAI | 1000000 |            1 | MANAGER1   |         1 |
+-------+--------+---------+------+----------+--------+---------+---------+--------------+------------+-----------+
```

14)SELECT * FROM EMP WHERE SAL=(SELECT MAX(SAL) FROM EMP);

```
+-------+--------+--------+------+----------+--------+-----------+---------+--------------+------------+-----------+
| EMPNO | EFNAME | ELNAME | JOB  | DEPTNAME | DEPTNO | ECITY     | SAL     | WORKEXPERIENCE | MANAGERNAME | MANAGERNO |
+-------+--------+--------+------+----------+--------+-----------+---------+--------------+------------+-----------+
|     5 | ABHI   | MANO   | CEO  | ALL      |      5 | BANGALORE | 5000000 |            5 | MANAGER5   |         5 |
```

+-------+--------+--------+------+---------+-------+----------+---------
+--------------+------------+----------+

2.
1)CREATE TABLE Depositor(CUSNAME VARCHAR(20), ACC_NO
VARCHAR(20));

CREATE TABLE Borrower(CUSNAME VARCHAR(20), LOAN_NO
VARCHAR(20));

ALTER TABLE Depositor
  -> ADD PRIMARY KEY(ACC_NO);

ALTER TABLE Borrower ADD PRIMARY KEY(LOAN_NO);

INSERT INTO Depositor VALUES('Soma',1),('Sanjiv',2),('Sri',3),
('Nitin',4),('Mano',5);

INSERT INTO Borrower VALUES('Soma',1),('Sanjiv',2),('Sri',3),
('Nitin',4),('Mano',5);

2)SELECT CUSNAME FROM Depositor INTERSECT SELECT
CUSNAME FROM Borrower;
+---------+
| CUSNAME |
+---------+
| Soma |
| Sanjiv |
| Sri |
| Nitin |
| Mano |
+---------+

3)SELECT CUSNAME FROM Depositor EXCEPT SELECT CUSNAME FROM Borrower;
Empty set

4)SELECT CUSNAME FROM Depositor UNION SELECT CUSNAME FROM Borrower;

```
+---------+
| CUSNAME |
+---------+
| Soma    |
| Sanjiv  |
| Sri     |
| Nitin   |
| Mano    |
+---------+
```