

DBMS LAB – 3

1.

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),WORKEXPRIENCE 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, '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);
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
--+-----+-----+
| EMPNO | EFNAME | ELNAME | JOB      | DEPTNAME | DEPTNO | ECITY      | SAL      |
WORKEXPRIENCE | 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);
```

Date – 17/08/2023
Time – 2:30 – 5:00pm

Sanjiv Kannaa Jeganathan
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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;

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

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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 WORKEPERIENCE=(SELECT MIN(WORKEPERIENCE) FROM EMP);

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| EMPNO | EFNAME | ELNAME | JOB | DEPTNAME | DEPTNO | ECITY | SAL | WORKEPERIENCE |
|-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 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 | WORKEPERIENCE |
|-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 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 |
+-----+
```

Date – 17/08/2023
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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