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## **ASSIGNMENT 5**

**Ques.1. Create table dept which has the following attributes (department table) (deptno, dept\_name) where deptno is primary key, dept\_name in (Acc, comp, elect).**

**Ans.1.**

```
CREATE TABLE dept(  
    deptno INT primary key,  
    dept_name VARCHAR2(50) Check (dept_name IN ('Acc','comp','elect'))  
)
```

Table created.

**Ques.2.Create table emp which has the following attributes (employee table) (empno, emp\_name, job, sal, deptno, mgr\_no) where empno is primary key, emp\_name is unique,job in (Prof, AP, and Lect), sal is NOT NULL, deptno is foreign key, mgr\_no is a self-referential foreign key.**

**Ans.2.**

```
CREATE TABLE emp(  
    empno INT primary key,  
    emp_name VARCHAR2(50) UNIQUE,  
    job VARCHAR2(50) CHECK( job IN('prof','AP','lect')),  
    sal DECIMAL(10,2) NOT NULL,  
    deptno INT,  
    mgr_no INT,  
    FOREIGN KEY (deptno) REFERENCES dept(deptno),  
    FOREIGN KEY (mgr_no) REFERENCES emp(empno)  
)
```

Table created.

**Ques.3.Create table S which has the following attributes (Salesperson table) (sno, sname, city) where sno is primary key.**

**Ans.3.**

```
CREATE TABLE S(  
    sno INT PRIMARY KEY,  
    sname VARCHAR2(50),  
    city VARCHAR2(50)  
)
```

Table created.

**Ques.4.Create table P which has the following attributes (Part table) (pno, pname, color) where pno is primary key.**

**Ans.4.**

```
CREATE TABLE P(  
    pno INT primary key,  
    pname VARCHAR2(50),  
    color VArchar2(50)  
)
```

Table created.

**Ques.5.Create table J which has the following attributes (ProJect table) (jno, jname, city) where jno is primary key.**

**Ans.5.**

```
CREATE TABLE J(  
    jno INT primary key,  
    jname VARCHAR2(50),  
    city VARCHAR2(50)  
)
```

Table created.

**Ques.6.Create table SPJ which has the following attributes (sno, pno, jno, qty) where combination of (sno, pno, jno) is a composite primary key. Also,sno, pno, jno are foreign keys.**

**Ans.6.**

```
CREATE TABLE SPJ(  
    sno Int,  
    pno INT,  
    jno INT,  
    qty INT,  
    PRIMARY KEY(sno,pno,jno),  
    FOREIGN KEY (sno) REFERENCES S(sno),  
    FOREIGN Key (pno) REFERENCES P(pno),  
    FOREIGN KEY (jno) REFERENCES J(jno)  
)
```

Table created.

**Ques.7. Insert at least 5 appropriate records in the above tables.**

**Ans.7.**

<pre>INSERT INTO S (sno, sname, city) VALUES (1, 'Johny', 'New York')  1 row(s) inserted.</pre>	<pre>INSERT INTO P (pno, pname, color) VALUES (101, 'A', 'Red')  1 row(s) inserted.</pre>	<pre>INSERT INTO J (jno, jname, city) VALUES (201, 'X', 'New York')  1 row(s) inserted.</pre>
<pre>INSERT INTO S (sno, sname, city) VALUES (2, 'Smith', 'Los Angeles')  1 row(s) inserted.</pre>	<pre>INSERT INTO P (pno, pname, color) VALUES (102, 'B', 'Blue')  1 row(s) inserted.</pre>	<pre>INSERT INTO J (jno, jname, city) VALUES (202, 'Y', 'Los Angeles')  1 row(s) inserted.</pre>
<pre>INSERT INTO S (sno, sname, city) VALUES (3, 'Michael', 'Chicago')  1 row(s) inserted.</pre>	<pre>INSERT INTO P (pno, pname, color) VALUES (103, 'C', 'Green')  1 row(s) inserted.</pre>	<pre>INSERT INTO J (jno, jname, city) VALUES (203, 'Z', 'Chicago')  1 row(s) inserted.</pre>
<pre>INSERT INTO S (sno, sname, city) VALUES (4, 'Emilya', 'San Francisco')  1 row(s) inserted.</pre>	<pre>INSERT INTO P (pno, pname, color) VALUES (104, 'D', 'Yellow')  1 row(s) inserted.</pre>	<pre>INSERT INTO J (jno, jname, city) VALUES (204, 'W', 'San Francisco')  1 row(s) inserted.</pre>
<pre>INSERT INTO S (sno, sname, city) VALUES (5, 'Davis', 'Houston')  1 row(s) inserted.</pre>	<pre>INSERT INTO P (pno, pname, color) VALUES (105, 'E', 'Purple')  1 row(s) inserted.</pre>	<pre>INSERT INTO J (jno, jname, city) VALUES (205, 'V', 'Houston')  1 row(s) inserted.</pre>
<pre>INSERT INTO SPJ (sno, pno, jno, qty) VALUES (1, 101, 201, 50)  1 row(s) inserted.</pre>	<pre>INSERT INTO dept (deptno, dept_name) VALUES (1, 'Acc')  1 row(s) inserted.</pre>	<pre>INSERT INTO emp (empno, emp_name, job, sal, deptno, mgr_no) VALUES (101, 'Johny', 'prof', 50000.00, 1, NULL)  1 row(s) inserted.</pre>
<pre>INSERT INTO SPJ (sno, pno, jno, qty) VALUES (2, 102, 202, 100)  1 row(s) inserted.</pre>	<pre>INSERT INTO dept (deptno, dept_name) VALUES (2, 'comp')  1 row(s) inserted.</pre>	<pre>INSERT INTO emp (empno, emp_name, job, sal, deptno, mgr_no) VALUES (102, 'Smith', 'AP', 40000.00, 2, 101)  1 row(s) inserted.</pre>
<pre>INSERT INTO SPJ (sno, pno, jno, qty) VALUES (3, 103, 203, 75)  1 row(s) inserted.</pre>	<pre>INSERT INTO dept (deptno, dept_name) VALUES (3, 'elect')  1 row(s) inserted.</pre>	<pre>INSERT INTO emp (empno, emp_name, job, sal, deptno, mgr_no) VALUES (103, 'Michael', 'lect', 30000.00, 3, 101)  1 row(s) inserted.</pre>
<pre>INSERT INTO SPJ (sno, pno, jno, qty) VALUES (4, 104, 204, 25)  1 row(s) inserted.</pre>	<pre>INSERT INTO dept (deptno, dept_name) VALUES (4,'Acc')  1 row(s) inserted.</pre>	<pre>INSERT INTO emp (empno, emp_name, job, sal, deptno, mgr_no) VALUES (104, 'Emilya', 'prof', 55000.00, 1, 102)  1 row(s) inserted.</pre>
<pre>INSERT INTO SPJ (sno, pno, jno, qty) VALUES (5, 105, 205, 150)  1 row(s) inserted.</pre>	<pre>INSERT INTO dept (deptno, dept_name) VALUES (5,'comp')  1 row(s) inserted.</pre>	<pre>INSERT INTO emp (empno, emp_name, job, sal, deptno, mgr_no) VALUES (105, 'Davis', 'lect', 32000.00, 3, 101)  1 row(s) inserted.</pre>

---

```
SELECT * FROM dept
```

DEPTNO	DEPT_NAME
1	Acc
2	comp
3	elect
4	Acc
5	comp

5 rows selected.

```
SELECT * FROM emp
```

EMPNO	EMP_NAME	JOB	SAL	DEPTNO	MGR_NO
101	Johny	prof	50000	1	–
102	Smith	AP	40000	2	101
103	Michael	lect	30000	3	101
104	Emilya	prof	55000	1	102
105	Davis	lect	32000	3	101

5 rows selected.

**Ques.8.Drop the NOT NULL constraints from EMP table.**

**Ans.8.**

```
alter table emp modify sal decimal(10,2) null
```

Table altered.

---

```
desc emp
```

TABLE EMP

Column	Null?	Type
EMPNO	NOT NULL	NUMBER
EMP_NAME	–	VARCHAR2(50)
JOB	–	VARCHAR2(50)
SAL	–	NUMBER(10,2)
DEPTNO	–	NUMBER
MGR_NO	–	NUMBER

6 rows selected.

**Ques.9.Check all the constraints name and their type of EMP table.**  
**Ans.9.**

```
SELECT constraint_name, constraint_type
FROM user_constraints
WHERE table_name = 'EMP'
```

CONSTRAINT_NAME	CONSTRAINT_TYPE
SYS_C00149679903	C
SYS_C00149679904	P
SYS_C00149679905	U
SYS_C00149679906	R
SYS_C00149679907	R

5 rows selected.

**Ques.10.Drop the unique constraint on EMP\_NAME of EMP table.**  
**Ans.10.**

```
ALTER TABLE emp drop unique(emp_name)
```

Table altered.

```
desc emp
```

TABLE EMP

Column	Null?	Type
EMPNO	NOT NULL	NUMBER
EMP_NAME	—	VARCHAR2(50)
JOB	—	VARCHAR2(50)
SAL	—	NUMBER(10,2)
DEPTNO	—	NUMBER
MGR_NO	—	NUMBER

6 rows selected.

**Ques.11. Drop the Foreign Key constraint on DEPTNO**

**Ans.11.**

```
ALTER TABLE emp
DROP CONSTRAINT SYS_C00149679906
```

Table altered.

```
SELECT constraint_name, constraint_type
FROM user_constraints
WHERE table_name = 'EMP'
```

CONSTRAINT_NAME	CONSTRAINT_TYPE
SYS_C00149679903	C
SYS_C00149679904	P
SYS_C00149679907	R

3 rows selected.

**Ques.12.Add Foreign Key constraint on DEPTNO as a table label constraint.**

**Ans.12.**

```
ALTER TABLE emp
ADD CONSTRAINT d
FOREIGN KEY (DEPTNO)
REFERENCES dept(DEPTNO)
```

Table altered.

**Ques.13.Drop the Check constraint from DEPT table.**

**Ans.13.**

```
ALTER TABLE emp
DROP CONSTRAINT SYS_C00149926705
```

Table altered.

**Ques.14.Add COMM column in EMP table (default value 0).**

**Ans.14.**

```
14 ALTER TABLE emp
15 ADD COMM number(10,2) DEFAULT 0
16
```

Table altered.

**Ques.15.Drop Default constraint from EMP.**

**Ans.15.**

```
17 ALTER TABLE emp
18 MODIFY (COMM DEFAULT NULL)
```

Table altered.

**Ques.16.Create duplicate copy of EMP table.**

**Ans.16.**

```
20 CREATE TABLE emp_copy as
21 SELECT * FROM EMP
```

Table created.

**Ques.17. Copy the structure of DEPT table to a new table with different column names.**

**Ans.17.**

```
27 INSERT INTO NEW_DEPT(new_deptno,new_dept_name)
28 SELECT deptno,dept_name
29 FROM DEPT
```

5 row(s) inserted.

**Ques.18. Copy the structure of Dept table to a new table with differential column names without any records copied from DEPT.**

**Ans.18.**

```
35 INSERT INTO NEW_DEPT_A (new_deptno,new_dept_name)
36 SELECT deptno,dept_name
37 FROM DEPT
38 where 1=0
```

0 row(s) inserted.

**Ques.19.Change the name and job of the employee whose EMPNO=100.**

**Ans.19.**

```
40 UPDATE EMP
41 SET emp_name='Sham', job ='prof'
42 WHERE empno=101;
```

1 row(s) updated.

EMPNO	EMP_NAME	JOB	SAL	DEPTNO	MGR_NO	COMM
101	Sham	prof	50000	1	–	0
102	Smith	AP	40000	2	101	0
103	Michael	lect	30000	3	101	0
104	Emilya	prof	55000	1	102	0
105	Davis	lect	32000	3	101	0

**Ques.20. Delete the record of employee who belong to computer department.**

**Ans.20.**

```
DELETE FROM EMP
WHERE deptno=(
    SELECT deptno
    FROM DEPT
    WHERE dept_name='comp'
)
```

**Ques.21. Delete deptno 101 from Dept table and set NULL to the corresponding deptno in EMP table**

**Ans.21.**

```
55 UPDATE EMP
56 SET deptno=NULL
57 WHERE deptno=1;
58 DELETE FROM Dept
59 WHERE deptno=1;
60 SELECT * FROM EMP
```

2 row(s) updated.

1 row(s) deleted.

EMPNO	EMP_NAME	JOB	SAL	DEPTNO	MGR_NO	COMM
101	Sham	prof	50000	–	–	0
102	Smith	AP	40000	2	101	0
103	Michael	lect	30000	3	101	0
104	Emilya	prof	55000	–	102	0



**Ques.22. Delete deptno 102 from Dept table and its corresponding record from EMP table.**

**Ans.22.**

```
61 ✓ DELETE FROM Dept
62 WHERE deptno=102;
```

0 row(s) deleted.

**Ques.23.Delete the empno 111 who is the manager of the employee whose empno is 114.**

**Ans.23.**

```
65 DELETE FROM EMP
66 WHERE empno=114 AND mgr_no=111;
```

0 row(s) deleted.

**Ques.24.Delete the record of 'Ravi' whose empno is 112 and set the mgr\_no to NULL for all the employees for whom Ravi is the manager.**

**Ans.24.**

```
68 ✓ DELETE FROM EMP
69 WHERE empno=112 AND mgr_no=NULL
```

0 row(s) deleted.

**Ques.25. Drop the duplicate table of EMP.**

**Ans.25.**

```
71 DROP TABLE EMP_COPY
72
```

Table dropped.