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A Practical activity Report submitted for UCS310

DATABASE

MANAGEMENT

SYSTEM

THAPAR INSTITUTE
OF ENGINEERING & TECHNOLOGY
(Deemed to be University)

Computer Science and Engineering

Patiala Campus

2021

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Assignment 5

6. Create table SPJ which has the following attributes
(@ (sno, pno, jno), qty)
Where combination of (sno, pno, jno) is primary key, also
sno, pno, jno are foreign keys

7. Insert appropriate records in above tables.

Solution -

SQL Worksheet

```sql
 1  Create Table S
 2  (
 3      sno Number(10) Primary Key,
 4      sname varchar(20),
 5      city varchar (10)
 6  );
 7  Create Table Pp
 8  (
 9      pno Number(10) Primary Key,
10      pname varchar(20),
11      color varchar (10)
12  );
13  Create Table J
14  (
15      jno Number(10) Primary Key,
16      jname varchar(20),
17      city varchar (10)
18  );
19  Create Table SPJ
20  (
21      sno Number (10),
22      pno Number (10),
23      jno Number(10),
24      qty Number,
25      Constraint "pkey" Primary Key (sno, pno, jno),
26      Foreign key (sno) references S(sno),
27      Foreign key (pno) references Pp(pno),
28      Foreign Key (jno) references J(jno)
29  );
```

```
30   insert into S values(11,'Arsh','Jammu');
31   insert into S values(21,'Prateek','Amritsar') ;
32   insert into S values(31 ,'Lovish','Bathinda') ;
33   insert into Pp values(1,'bolt','White');
34   insert into Pp values(2,'nut','Black') ;
35   insert into Pp values(3 ,'screw','Brown') ;
36   insert into J values(10,'Kunal','Jaipur');
37   insert into J values(20,'Harsh','punjab') ;
38   insert into J values(30 ,'Harsh','Bihar') ;
39   insert into SPJ values(11 , 1,10,100) ;
40   insert into SPJ values(21 , 2,20,200) ;
41   insert into SPJ values(31 , 3,30,300) ;
42
43   SELECT * From S;
44   SELECT * From Pp;
45   SELECT * From J;
46   SELECT * From SPJ;
```

_____

Script:

```
Create Table S
(
    sno Number(10) Primary Key,
    sname varchar(20),
    city varchar (10)
);
Create Table Pp
(
    pno Number(10) Primary Key,
    pname varchar(20),
    color varchar (10)
);
Create Table J
(
    jno Number(10) Primary Key,
    jname varchar(20),
    city varchar (10)
);
Create Table SPJ
(
    sno Number (10),
    pno Number (10),
```

```
    jno Number(10),
    qty Number,
    Constraint "pkey" Primary Key (sno, pno, jno),
    Foreign key (sno) references S(sno),
    Foreign key (pno) references Pp(pno),
    Foreign Key (jno) references J(jno)
);
insert into S values(11,'Arsh','Jammu');
insert into S values(21,'Prateek','Amritsar') ;
insert into S values(31 ,'Lovish','Bathinda') ;
insert into Pp values(1,'bolt','White');
insert into Pp values(2,'nut','Black') ;
insert into Pp values(3 ,'screw','Brown') ;
insert into J values(10,'Kunal','Jaipur');
insert into J values(20,'Harsh','punjab') ;
insert into J values(30 ,'Harsh','Bihar') ;
insert into SPJ values(11 , 1,10,100) ;
insert into SPJ values(21 , 2,20,200) ;
insert into SPJ values(31 , 3,30,300) ;

SELECT * From S;
SELECT * From Pp;
SELECT * From J;
SELECT * From SPJ;
```

———

Screenshots

My Session

Statement 1

```
Create Table S
(
     sno Number(10) Primary Key,
     sname varchar(20),
     city varchar (10)
)
```

Table created.

Statement 2

```
Create Table Pp
(
     pno Number(10) Primary Key,
     pname varchar(20),
     color varchar (10)
)
```

Table created.

Statement 3

```
Create Table J
(
     jno Number(10) Primary Key,
     jname varchar(20),
     city varchar (10)
)
```

Table created.

My Session

Table created.

Statement 4

```
Create Table SPJ
(
    sno Number (10),
    pno Number (10),
    jno Number(10),
    qty Number,
    Constraint "pkey" Primary Key (sno, pno, jno),
    Foreign key (sno) references S(sno),
    Foreign key (pno) references Pp(pno),
    Foreign Key (jno) references J(jno)
)
```

Table created.

Statement 5

```
insert into S values(11,'Arsh','Jammu')
```

1 row(s) inserted.

Statement 6

```
insert into S values(21,'Prateek','Amritsar')
```

1 row(s) inserted.

Statement 7

```
insert into S values(31 ,'Lovish','Bathinda')
```

My Session

1 row(s) inserted.

Statement 8

```
insert into Pp values(1,'bolt','White')
```

1 row(s) inserted.

Statement 9

```
insert into Pp values(2,'nut','Black')
```

1 row(s) inserted.

Statement 10

```
insert into Pp values(3 ,'screw','Brown')
```

1 row(s) inserted.

Statement 11

```
insert into J values(10,'Kunal','Jaipur')
```

1 row(s) inserted.

Statement 12

```
insert into J values(20,'Harsh','punjab')
```

1 row(s) inserted.

My Session

1 row(s) inserted.

Statement **13**

✏️ ▷ 🗑️

```
insert into J values(30 ,'Harsh','Bihar')
```

1 row(s) inserted.

Statement **14**

✏️ ▷ 🗑️

```
insert into SPJ values(11 , 1,10,100)
```

1 row(s) inserted.

Statement **15**

✏️ ▷ 🗑️

```
insert into SPJ values(21 , 2,20,200)
```

1 row(s) inserted.

Statement **16**

✏️ ▷ 🗑️

```
insert into SPJ values(31 , 3,30,300)
```

1 row(s) inserted.

My Session

1 row(s) inserted.

Statement **17**

[✏️] [▷] [🗑️]

SELECT ∗ From S

SNO	SNAME	CITY
11	Arsh	Jammu
21	Prateek	Amritsar
31	Lovish	Bathinda

Download CSV

3 rows selected.

Statement **18**

[✏️] [▷] [🗑️]

SELECT ∗ From Pp

PNO	PNAME	COLOR
1	bolt	White
2	nut	Black
3	screw	Brown

Download CSV

3 rows selected.

Statement **19**

[✏️] [▷] [🗑️]

SELECT ∗ From J

JNO	JNAME	CITY
10	Kunal	Jaipur
20	Harsh	punjab
30	Harsh	Bihar

Download CSV

3 rows selected.

Statement **20**

✎ ▷ 🗑

```
SELECT * From SPJ
```

SNO	PNO	JNO	QTY
11	1	10	100
21	2	20	200
31	3	30	300

Download CSV

3 rows selected.

Assignment 6

Q1) Check the structure of tables.

Q2) Check the constraint name for applied constraints?

Q3) Drop the unique constraint on ENAME

Q4) Drop the Foreign Key constraint on DEPTNO

Q5) Add Foreign Key constraint on DEPTNO

Q6) Change Data type of ENAME

Q7) Change width of DNAME

Q8) Add COMM column in EMP table

Q9) Drop CITY column from J table

Q10) Create duplicate copy of EMP table

Q11) Copy structure of DEPT table in another table with different column names

Q12) Change the name and job of the employee whose EMPNO =100

Q13) Delete the record of employee who belong to computer department

Q14) Drop DEPT Table

Q15) Drop duplicate table of EMP table

Solution -

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SQL Worksheet   Clear

```
1    create table dept
2    (
3        deptno Number(10),
4        dname varchar(20) check (dname in ('Acc' ,'comp','elect')),
5        constraint "pk_Num" Primary key (deptno)
6    );
7
8    insert into dept values(10,'Acc');
9    insert into dept values(20,'comp') ;
10   insert into dept values(30 ,'elect') ;
11   create table emp
12   (
13       empno Number(10) ,
14       ename varchar(20) unique,
15       job varchar(20) check (job in ('Prof' , 'AP' , 'Lect','comp')) ,
16       sal Number(10) Not null ,
17       deptno Number(10),
18       constraint "pkNumber" Primary Key (empno),
19       Constraint "Fkey" Foreign Key (deptno) references dept (deptno)
20   );
21
22   insert into emp values(1,'Prateek','Prof',2000,10);
23   insert into emp values(2,'Akshat','Lect',1000,40);
24   insert into emp values(87,'Aeman','comp',12000,10);
25   insert into emp values(100,'Anshul','comp',10400,30);
26   insert into emp values(3,'Arsh','AP',30000,20);
27   select * from emp ;
28
29   DESCRIBE emp;
30   DESCRIBE dept;
31   select constraint_name, column_name from user_cons_columns where table_name = 'emp' ;
32   Select CONSTRAINT_NAME C_NAME,CONSTRAINT_TYPE,SEARCH_CONDITION,R_CONSTRAINT_NAME R_NAME from user_constraints where Table_Name='emp';
```

```
33
34   ALTER TABLE emp
35   DROP Unique (ename);
36
37   ALTER TABLE emp
38   DROP Constraint "Fkey";
39
40   ALTER TABLE emp
41   ADD constraint "fkey" Foreign key (deptno) References dept(deptno);
42
43   ALTER TABLE emp
44   Modify ename Number;
45
46   ALTER TABLE dept
47   Modify dname varchar(50);
48
49   ALTER TABLE emp
50   ADD (COMM Number);
51
52   DROP TABLE J;
53   Create Table J
54   (
55       jno Number,
56       jcity varchar(20)
57   );
58
59   ALTER TABLE J
60   Drop Column jcity;
61
62   create table emp_duplicate as select * from emp ;
63
64   create table dept_dup as select deptno as department_no ,dname as department_name from dept ;
65
```

```
65
66  update emp
67  set ename='Akash',job='AP'
68  where empno=100;
69
70  DELETE FROM emp
71  where job ='comp';
72
73  drop table emp;
74  drop table dept;
75  drop table dept_dup;
76  drop table emp_duplicate;
```

——

Script:

create table dept
(
    deptno Number(10),
    dname varchar(20) check (dname in ('Acc' ,'comp','elect')),
    constraint "pk_Num" Primary key (deptno)
);

insert into dept values(10,'Acc');
insert into dept values(20,'comp') ;
insert into dept values(30 ,'elect') ;
create table emp
(
    empno Number(10) ,
    ename varchar(20) unique,
    job varchar(20) check (job in ('Prof' , 'AP' , 'Lect','comp')) ,
    sal Number(10) Not null ,
    deptno Number(10),
    constraint "pkNumber" Primary Key (empno),
    Constraint "Fkey" Foreign Key (deptno) references dept (deptno)
);

insert into emp values(1,'Prateek','Prof',2000,10);
insert into emp values(2,'Akshat','Lect',1000,40);
insert into emp values(87,'Aeman','comp',12000,10);
insert into emp values(100,'Anshul','comp',10400,30);
insert into emp values(3,'Arsh','AP',30000,20);
select * from emp ;

DESCRIBE emp;
DESCRIBE dept;
select constraint_name, column_name from user_cons_columns where table_name = 'emp' ;
Select CONSTRAINT_NAME C_NAME,CONSTRAINT_TYPE,SEARCH_CONDITION,R_CONSTRAINT_NAME
R_NAME from user_constraints where Table_Name='emp';

ALTER TABLE emp
DROP Unique (ename);

ALTER TABLE emp
DROP Constraint "Fkey";

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```
ALTER TABLE emp
ADD constraint "fkey" Foreign key (deptno) References dept(deptno);

ALTER TABLE emp
Modify ename Number;

ALTER TABLE dept
Modify dname varchar(50);

ALTER TABLE emp
ADD (COMM Number);

DROP TABLE J;
Create Table J
(
    jno Number,
    jcity varchar(20)
);

ALTER TABLE J
Drop Column jcity;

create table emp_duplicate as select * from emp ;

create table dept_dup as select deptno as department_no ,dname as department_name from dept ;

update emp
set ename='Akash',job='AP'
where empno=100;

DELETE FROM emp
where job ='comp';

drop table emp;
drop table dept;
drop table dept_dup;
drop table emp_duplicate;
```

———

Screenshot

Table dropped.

Statement 220

Edit

```
create table dept
(
        deptno Number(10),
        dname varchar(20) check (dname in ('Acc' ,'comp','elect')),
        constraint "pk_Num" Primary key (deptno)
)
```

Table created.

Statement **221**

Edit

```
insert into dept values(10,'Acc')
```

1 row(s) inserted.

Statement **222**

Edit

```
insert into dept values(20,'comp')
```

1 row(s) inserted.

Statement **223**

Edit

```
insert into dept values(30 ,'elect')
```

1 row(s) inserted.

Statement **224**

Edit

```
create table emp
(
        empno Number(10) ,
        ename varchar(20) unique,
        job varchar(20) check (job in ('Prof' , 'AP' , 'Lect','comp')) ,
        sal Number(10) Not null ,
        deptno Number(10),
        constraint "pkNumber" Primary Key (empno),
        Constraint "Fkey" Foreign Key (deptno) references dept (deptno)
)
```

My Scripts \ **Script**

Table created.

Statement **225**

🗑 Edit

```
insert into emp values(1,'Prateek','Prof',2000,10)
```

1 row(s) inserted.

Statement **226**

🗑 Edit

```
insert into emp values(87,'Aeman','comp',12000,10)
```

1 row(s) inserted.

Statement **227**

🗑 Edit

```
insert into emp values(100,'Anshul','comp',10400,30)
```

1 row(s) inserted.

Statement **228**

🗑 Edit

```
insert into emp values(3,'Arsh','AP',30000,20)
```

1 row(s) inserted.

Statement **229**

🗑 Edit

```
select * from emp
```

EMPNO	ENAME	JOB	SAL	DEPTNO
1	Prateek	Prof	2000	10
87	Aeman	comp	12000	10
100	Anshul	comp	10400	30
3	Arsh	AP	30000	20

Download CSV

4 rows selected.

Statement **230**

🗑 Edit

```
DESCRIBE emp
```

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My Scripts \ **Script**　　　　　　　　　　　　　　　　　　　　　ⓘ　Actions ⌄　✎ Edit Attributes

Statement　230

🗑 Edit

```
DESCRIBE emp
```

TABLE EMP

Column	Null?	Type
EMPNO	NOT NULL	NUMBER(10,0)
ENAME	-	VARCHAR2(20)
JOB	-	VARCHAR2(20)
SAL	NOT NULL	NUMBER(10,0)
DEPTNO	-	NUMBER(10,0)

Download CSV
5 rows selected.

Statement　**231**

🗑 Edit

```
DESCRIBE dept
```

TABLE DEPT

Column	Null?	Type
DEPTNO	NOT NULL	NUMBER(10,0)
DNAME	-	VARCHAR2(20)

Download CSV
2 rows selected.

Statement　**232**

🗑 Edit

```
select constraint_name, column_name from user_cons_columns where table_name = 'emp'
```

no data found

Statement　**233**

🗑 Edit

```
Select CONSTRAINT_NAME C_NAME,CONSTRAINT_TYPE,SEARCH_CONDITION,R_CONSTRAINT_NAME R_NAME from user_constraints where Table_Name='emp'
```

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My Scripts \ **Script**

Statement 234

🗑 Edit

```
ALTER TABLE emp
DROP Unique (ename)
```

Table altered.

Statement 235

🗑 Edit

```
ALTER TABLE emp
DROP Constraint "Fkey"
```

Table altered.

Statement 236

🗑 Edit

```
ALTER TABLE emp
ADD constraint "fkey" Foreign key (deptno) References dept(deptno)
```

Table altered.

Statement 237

🗑 Edit

```
ALTER TABLE emp
Modify ename Number
```

ORA-01439: column to be modified must be empty to change datatype

Statement 238

🗑 Edit

```
ALTER TABLE dept
Modify dname varchar(50)
```

Table altered.

Statement 239

🗑 Edit

```
ALTER TABLE emp
ADD (COMM Number)
```

Table altered.

Statement **240**

🗑 Edit

```
DROP TABLE J
```

Table dropped.

Statement **241**

🗑 Edit

```
Create Table J
(
    jno Number,
    jcity varchar(20)
)
```

Table created.

Statement **242**

🗑 Edit

```
ALTER TABLE J
Drop Column jcity
```

Table altered.

Statement **243**

🗑 Edit

```
create table emp_duplicate as select * from emp
```

Table created.

Statement **244**

🗑 Edit

```
create table dept_dup as select deptno as department_no ,dname as department_name from dept
```

Table created.

Statement **245**

🗑 Edit

```
update emp
set ename='Akash',job='AP'
where empno=100
```

My Scripts \ **Script**

1 row(s) updated.

Statement **246**

🗑 [Edit]

```
DELETE FROM emp
where job ='comp'
```

1 row(s) deleted.

Statement **247**

🗑 [Edit]

```
drop table emp
```

Table dropped.

Statement **248**

🗑 [Edit]

```
drop table dept
```

Table dropped.

Statement **249**

🗑 [Edit]

```
drop table dept_dup
```

Table dropped.

Statement **250**

🗑 [Edit]

```
drop table emp_duplicate
```

Table dropped.

_____

Thank you...

Harsh Kashyap