

# Database Systems Lab

## Lab -10

### Cascade Delete Queries

*#data in depa and pupil table before cascade delete*

*SQL> select \* from depa;*

DNA	DNO
cse	1
mec	4
ece	6
civ	5
che	3

*SQL> select \* from pupil;*

NAME	ENO	DNO
nayan	1234	1
alap	1238	6
harshit	1236	4
harshit	1237	5
raj	1235	3
sagar	3456	3

*SQL> ALTER TABLE STUDENT ADD CONSTRAINT stu\_pk PRIMARY KEY(NAME);*

*SQL> alter table pupil add constraint p\_fk foreign key (dno) references depa(dno) on delete cascade;*  
*# observe the error if any like - ORA-02275: such a referential constraint already exists in the table*  
*# solution to drop the constaint and re create the constraint with delete cascade*

*SQL> insert into pupil values('nayan',123,12);*

*# observe the error if referenced table is not created - ORA-02291: integrity constraint (SCOTT.P\_FK) violated - parent key not found*

*SQL> alter table pupil drop constraint p\_fk;*

*SQL> alter table pupil add constraint p\_fk foreign key (dno) references depa(dno) on delete cascade;*

*# Try inserting record into pupil*

*SQL> insert into pupil values('nayan',1234,12);*

*# Observe the error - ORA-02291: integrity constraint (SCOTT.P\_FK) violated - parent key not found*

*# That means We have to populate depa (referenced) table first then only we can populate pupil (Referencing) table*

*SQL> insert into depa values('cse',1);*

*SQL> insert into depa values('che',3);*

*SQL> insert into depa values('mec',4);*

*SQL> insert into depa values('ece',6);*

*SQL> insert into depa values('civ',5);*

*SQL> insert into pupil values('nayan',1234,1);*

*SQL> insert into pupil values('raj',1235,2);*

*# observe the error in this case - ORA-02291: integrity constraint (SCOTT.P\_FK) violated - parent key not found*

*SQL> insert into pupil values('raj',1235,3);*

*SQL> insert into pupil values('harshit',1236,4);*

*SQL> insert into pupil values('harshit',1237,5);*

*SQL> insert into pupil values('alap',1238,6);*

*SQL> insert into pupil values('alp',1239,7);*

*# Observe the error - ORA-02291: integrity constraint (SCOTT.P\_FK) violated - parent key not found*

*SQL> delete from depa where dname = 'che';*

*1 row deleted.*

*SQL> select \* from depa;*

DNA	DNO
cse	1
mec	4
ece	6
civ	5

*SQL> select \* from pupil;*

NAME	ENO	DNO
------	-----	-----

```

-----
nayan      1234      1
alap       1238      6
harshit    1236      4
harshit    1237      5

```

*# We deleted a row from depa table and it is delete on cascade so corresponding records in pupil table having dno = 3 will be deleted from the referencing table.*

```

SQL> select eno,dno from pupil,depa;
select eno,dno from pupil,depa
      *
```

*# ERROR at line 1: ORA-00918: column ambiguously defined*

```

SQL> select eno,depa.dno from pupil,depa;
```

```

      ENO      DNO
-----
1234         1
1234         4
1234         5
1234         6
1236         1
1236         4
1236         5
1236         6
1237         1
1237         4
1237         5

```

```

      ENO      DNO
-----
1237         6
1238         1
1238         4
1238         5
1238         6

```

*16 rows selected.*

```

SQL> select eno,name,d.dno,dname from pupil p,depa d where p.dno=d.dno;
```

```

      ENO NAME      DNO DNA
-----
1234 nayan         1 cse
1236 harshit       4 mec
1238 alap          6 ece
1237 harshit       5 civ

```