Database Management Systems

18CSC303J

Faculty : Dr.G.Senthil Kumar

Venkata Naga Sai Ram Nomula

RA1911033010021

CSE_SWE L2

Exp 6 - Joining Tables

Aim: To study the various Join operations on the database.

```
Enter user-name: RA1911033010021/RA1911033010021@3.232.175.251:1521/ORCL

Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production

SQL> spool on
SQL> spool week6.lst
SQL> CREATE TABLE orders(O_id number(5),  Orderno number(5), P_Id number(3));
CREATE TABLE orders(O_id number(5),  Orderno number(5), P_Id number(3))
          *
ERROR at line 1:
ORA-00955: name is already used by an existing object


SQL> CREATE TABLE orderss(O_id number(5),  Orderno number(5), P_Id number(3));

Table created.

SQL> desc orderss;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 O_ID                                               NUMBER(5)
 ORDERNO                                            NUMBER(5)
 P_ID                                               NUMBER(3)

SQL> INSERT INTO orderss VALUES(&O_id, &Orderno, &P_Id);
Enter value for o_id: 1
Enter value for orderno: 12345
Enter value for p_id: 3
old   1: INSERT INTO orderss VALUES(&O_id, &Orderno, &P_Id)
new   1: INSERT INTO orderss VALUES(1, 12345, 3)

1 row created.

SQL> INSERT INTO orderss VALUES(&O_id, &Orderno, &P_Id);
Enter value for o_id: 2
Enter value for orderno: 65478
Enter value for p_id: 3
old   1: INSERT INTO orderss VALUES(&O_id, &Orderno, &P_Id)
new   1: INSERT INTO orderss VALUES(2, 65478, 3)

1 row created.
```

```
SQL> INSERT INTO orderss VALUES(&O_id, &Orderno, &P_Id);
Enter value for o_id: 3
Enter value for orderno: 98745
Enter value for p_id: 1
old   1: INSERT INTO orderss VALUES(&O_id, &Orderno, &P_Id)
new   1: INSERT INTO orderss VALUES(3, 98745, 1)

1 row created.

SQL> INSERT INTO orderss VALUES(&O_id, &Orderno, &P_Id);
Enter value for o_id: 4
Enter value for orderno: 49765
Enter value for p_id: 1
old   1: INSERT INTO orderss VALUES(&O_id, &Orderno, &P_Id)
new   1: INSERT INTO orderss VALUES(4, 49765, 1)

1 row created.

SQL> INSERT INTO orderss VALUES(&O_id, &Orderno, &P_Id);
Enter value for o_id: 5
Enter value for orderno: 87564
Enter value for p_id: 15
old   1: INSERT INTO orderss VALUES(&O_id, &Orderno, &P_Id)
new   1: INSERT INTO orderss VALUES(5, 87564, 15)

1 row created.

SQL> SELECT * FROM orderss;

      O_ID    ORDERNO       P_ID
---------- ---------- ----------
         1      12345          3
         2      65478          3
         3      98745          1
         4      49765          1
         5      87564         15

SQL> CREATE TABLE personss(p_id number(5), LASTNAME varchar2(10), Firstname varchar2(15), Addresz varchar2(20), city varchar2(10));

Table created.

SQL> desc personss;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 P_ID                                               NUMBER(5)
 LASTNAME                                           VARCHAR2(10)
 FIRSTNAME                                          VARCHAR2(15)
 ADDRESZ                                            VARCHAR2(20)
 CITY                                               VARCHAR2(10)
```

```
SQL> INSERT INTO personss VALUES(&p_id,'&LASTNAME', '&Firstname', '&Addresz', '&city');
Enter value for p_id: 1
Enter value for lastname: nomula
Enter value for firstname: sairam
Enter value for addresz: gandhichowk
Enter value for city: kmm
old   1: INSERT INTO personss VALUES(&p_id,'&LASTNAME', '&Firstname', '&Addresz', '&city')
new   1: INSERT INTO personss VALUES(1,'nomula', 'sairam', 'gandhichowk', 'kmm')

1 row created.

SQL> INSERT INTO personss VALUES(&p_id,'&LASTNAME', '&Firstname', '&Addresz', '&city');
Enter value for p_id: 2
Enter value for lastname: bommerla
Enter value for firstname: abhighyan
Enter value for addresz: ramnagar
Enter value for city: hyd
old   1: INSERT INTO personss VALUES(&p_id,'&LASTNAME', '&Firstname', '&Addresz', '&city')
new   1: INSERT INTO personss VALUES(2,'bommerla', 'abhighyan', 'ramnagar', 'hyd')

1 row created.

SQL> INSERT INTO personss VALUES(&p_id,'&LASTNAME', '&Firstname', '&Addresz', '&city');
Enter value for p_id: 3
Enter value for lastname: ranganathan
Enter value for firstname: roehit
Enter value for addresz: pallavaram
Enter value for city: chennai
old   1: INSERT INTO personss VALUES(&p_id,'&LASTNAME', '&Firstname', '&Addresz', '&city')
new   1: INSERT INTO personss VALUES(3,'ranganathan', 'roehit', 'pallavaram', 'chennai')
INSERT INTO personss VALUES(3,'ranganathan', 'roehit', 'pallavaram', 'chennai')
                                 *
ERROR at line 1:
ORA-12899: value too large for column "RA1911033010021"."PERSONSS"."LASTNAME"
(actual: 11, maximum: 10)

SQL> INSERT INTO personss VALUES(&p_id,'&LASTNAME', '&Firstname', '&Addresz', '&city');
Enter value for p_id: 4
Enter value for lastname: reddy
Enter value for firstname: dush
Enter value for addresz: billa
Enter value for city: bilaspur
old   1: INSERT INTO personss VALUES(&p_id,'&LASTNAME', '&Firstname', '&Addresz', '&city')
new   1: INSERT INTO personss VALUES(4,'reddy', 'dush', 'billa', 'bilaspur')

1 row created.
```

```
SQL> INSERT INTO personss VALUES(&p_id,'&LASTNAME', '&Firstname', '&Addresz', '&city');
Enter value for p_id: 5
Enter value for lastname: lan
Enter value for firstname: mike
Enter value for addresz: hins
Enter value for city: usa
old   1: INSERT INTO personss VALUES(&p_id,'&LASTNAME', '&Firstname', '&Addresz', '&city')
new   1: INSERT INTO personss VALUES(5,'lan', 'mike', 'hins', 'usa')

1 row created.

SQL> SELECT * FROM personss;

      P_ID LASTNAME   FIRSTNAME       ADDRESZ              CITY
---------- ---------- --------------- -------------------- ----------
         1 nomula     sairam          gandhichowk          kmm
         2 bommerla   abhighyan       ramnagar             hyd
         4 reddy      dush            billa                bilaspur
         5 lan        mike            hins                 usa

SQL> SELECT personss.LASTNAME,personss.Firstname,orderss.Orderno From personss LEFT JOIN orderss ON personss.p_id = orderss.p_id ORDER BY personss.LASTNAME;

LASTNAME   FIRSTNAME          ORDERNO
---------- --------------- ----------
bommerla   abhighyan
lan        mike
nomula     sairam               49765
nomula     sairam               98745
reddy      dush

SQL> SELECT * FROM orderss;

      O_ID    ORDERNO       P_ID
---------- ---------- ----------
         1      12345          3
         2      65478          3
         3      98745          1
         4      49765          1
         5      87564         15

SQL> SELECT * FROM personss;

      P_ID LASTNAME   FIRSTNAME       ADDRESZ              CITY
---------- ---------- --------------- -------------------- ----------
         1 nomula     sairam          gandhichowk          kmm
         2 bommerla   abhighyan       ramnagar             hyd
         4 reddy      dush            billa                bilaspur
         5 lan        mike            hins                 usa

SQL> SELECT personss.LASTNAME, personss.Firstname, orderss.Orderno FROM personss FULL OUTER JOIN orderss ON personss.p_id = orderss.p_id ORDER BY personss.LASTNAME;

LASTNAME   FIRSTNAME          ORDERNO
---------- --------------- ----------
bommerla   abhighyan
lan        mike
nomula     sairam               98745
nomula     sairam               49765
reddy      dush
                                87564
                                12345
                                65478

8 rows selected.

SQL> SELECT personss.LASTNAME, personss.Firstname, orderss.Orderno FROM personss RIGHT OUTER JOIN orderss ON personss.p_id = orderss.p_id ORDER BY personss.LASTNAME;

LASTNAME   FIRSTNAME          ORDERNO
---------- --------------- ----------
nomula     sairam               49765
nomula     sairam               98745
                                12345
                                65478
                                87564

SQL> SELECT personss.LASTNAME, personss.Firstname, orderss.Orderno FROM personss INNER JOIN orderss ON personss.p_id = orderss.p_id ORDER BY personss.LASTNAME;

LASTNAME   FIRSTNAME          ORDERNO
---------- --------------- ----------
nomula     sairam               49765
nomula     sairam               98745

SQL> select * from personss;

      P_ID LASTNAME   FIRSTNAME       ADDRESZ              CITY
---------- ---------- --------------- -------------------- ----------
         1 nomula     sairam          gandhichowk          kmm
         2 bommerla   abhighyan       ramnagar             hyd
         4 reddy      dush            billa                bilaspur
         5 lan        mike            hins                 usa

SQL> select * from orderss;

      O_ID    ORDERNO       P_ID
---------- ---------- ----------
         1      12345          3
         2      65478          3
         3      98745          1
         4      49765          1
         5      87564         15
```