|  |  |
| --- | --- |
| **Ex.No.4** | **JOIN OPERATIONS** |

**AIM**

To execute and verify the join operations.

**CREATING TABLE1**

SQL> create table details(id number(10),Fname char(22),Lname char(22),age number(10),mail varchar(30),phone number(20),address char(30));  
  
Table created.

**INSERTING VALUES**

SQL> insert into details values(1,'Jeevan','Sambath',18,'[jeevan@gmail.com](mailto:jeevan@gmail.com)',7010493196,'Krishnagiri');  
  
1 row created.  
  
SQL> insert into details values(2,'Mithun','PM',17,'[mithun@gmail.com](mailto:mithun@gmail.com)',701013196,'Bangalore');  
  
1 row created.  
  
SQL> insert into details values(3,'naresh','G',20,'[naresh@gmail.com](mailto:naresh@gmail.com)',901013196,'kerala');  
  
1 row created.  
  
SQL> insert into details values(4,'rupak','nadhan',50,'[rupak@gmail.com](mailto:sali@gmail.com)',901013196,'Bangalore');  
  
1 row created.  
  
SQL> insert into details values(5,'rupak','nadhan',60,'[rupak@gmail.com](mailto:sali@gmail.com)',901013196,'Bangalore');  
  
1 row created.

**DISPLAYING TABLE**

SQL> select\*from details;

ID FNAME LNAME AGE MAILID PHONE ADDRESS

------- ------------------ ----- -------------------------------------------- ------------------

1 Jeevan Sambath 18 jeevan@gmail.com 7010499316 Krishnagiri

2 Mithun PM 18 mithun@gmail.com 7010131966 Bangalore

3 Naresh G 20 naresh@gmail.com 9010131966 Kerala

4Rupak Nadhan 50 rupak@gmail.com 9010131966 Bangalore

5rupaknadhan 60 rupak@gmail.com 9010131966 Bangalore

**CREATING TABLE 2**

SQL>CREATE TABLE project ( pidNUMBER(10), id NUMBER(10), cid NUMBER(10), pname CHAR(20), project\_date DATE);

Table created.

**INSERTING VALUES**

SQL> insert into object\_2 values(&ProjectId,&EmpId,&ClientId,'&Projectname',&ProjectStartDate);

SQL>INSERT INTO project VALUES (111, 1, 3, 'project1', '2019-04-21');

1 row created.

SQL> INSERT INTO project VALUES (222, 2,1, 'project2', '2019-02-12');

1 row created.

SQL> INSERT INTO project VALUES (333, 3,5, 'project3', '2019-01-10');

1 row created.

SQL> INSERT INTO project VALUES (444, 3,2, 'project4', '2019-04-10');

1 row created.

SQL> INSERT INTO project VALUES (555, 5,4, 'project5', '2019-05-10');

1 row created.

SQL> INSERT INTO project VALUES (666,9,1, 'project6', '2019-5-10');

1 row created.

SQL> INSERT INTO project VALUES (777,7,2, 'project7', '2019-7-10');

1 row created.

SQL> INSERT INTO project VALUES (888,8,3, 'project8', '2019-7-10');

1 row created.

**DISPLAYING TABLE2**

SQL> select \* from project;

PID ID CID PNAME PROJECT\_DA

---------- ---------- ---------- -------------------- ----------

111 1 3 project1 2019-04-21

222 2 1 project2 2019-02-12

333 3 5 project3 2019-01-10

444 3 2 project4 2019-04-10

555 5 4 project5 2019-05-10

666 9 1 project6 2019-05-10

777 7 2 project7 2019-07-10

888 8 3 project8 2019-07-10

8 rows selected.

**INNER JOIN**

SQL> select details.id,details.Fname,details.Lname,project.pid,project.pname from details inner join project on details.id=project.id;

ID FNAME LNAME PID PNAME

---------- ------------ ------------ -------------

1 JeevanSambath111 Project1

2 PMMithun 222 Project2

3 nareshG 333 Project3

3 nareshG 444 Project4

5 rupaknadhan 555 Project5

**FULL JOIN**

SQL> SELECT details.Fname, details.Lname, project.pid

FROM details

FULL JOIN project ON details.id = project.id;

FNAME LNAME PID

--------------- ----------------- ---------

Jeevan Sambath 111

Mithun PM 222

Naresh G 333

Naresh G 444

Rupak nadhan 555

salman nadhan NULL

NULL NULL 888

NULL NULL 777

NULL NULL 666

**LEFT JOIN**

SQL> SELECT details.Fname, details.Lname, project.pid, project.pname

FROM details

LEFT JOIN project ON details.id = project.id;

FNAME LNAME PID PNAME

---------------- ------------------- ---------- --------------------

Jeevan Sambath 111 project1

Mithun PM 222 project2

Naresh G 333 project3

Naresh G 444 project4

rupak nadhan 555 project5

Rupak nadhan NULL NULL

6 rows selected.

**RIGHT JOIN**

SQL> SELECT details.fname, details.lname, project.pid, project.pname

2 FROM details

3 RIGHT JOIN project ON details.id = project.id;

FNAME LNAME PID PNAME

----------------- ---------------------- ---------- --------------------

Jeevan Sambath 111 project1

Mithun PM 222 project2

Naresh G 444 project4

Naresh G 333 project3

rupak nadhan 555 project5

NULL NULL 888 project8

NULL NULL 777 project7

NULL NULL 666 project6

8 rows selected.

**CREATING TABLE 3**

SQL> create table emp(id number(10),name char(10),dept\_id number(5));  
  
Table created.

**INSERTING VALUES**

SQL> insert into empvalues(101,'Sambath',1);  
1 row created.

SQL> insert into empvalues(102,'KeerthiGanesh',2);

1 row created.  
  
SQL> insert into empvalues(103,'Dhyanesh',1);  
  
1 row created.

**DISPLAYING TABLE3**

SQL> select \* from emp;  
  
        ID NAME    DEPT\_ID  
---------- ---------- -------------  
       101 Sambath               1  
       102 KeerthiGanesh             2  
       103 Dhyanesh           1

**CREATING TABLE 4**

SQL> create table department(d\_id number(10),dept\_name char(10));  
  
Table created.

**INSERTING VALUES**

SQL> insert into department values(1,'HR');  
  
1 row created.  
  
SQL> insert into department values(2,'Finance');  
  
1 row created.

**DISPLAYING TABLE4**

SQL> select \* from department;  
  
      D\_ID DEPT\_NAME  
 ------ -------------------  
         1 HR  
         2 Finance

**NATURAL JOIN**

SQL> select \* from emp NATURAL JOIN department;  
  
        ID NAME  DEPT\_ID  D\_ID DEPT\_NAME  
---------- ---------- ------------- -------- ----------------  
       101 Sambath             1          1 HR  
       102 KeerthiGanesh   2          1 HR  
       103 Dhyanesh       1         1 HR  
       101 Sambath           1         2 Finance  
       102 KeerthiGanesh   2          2 Finance  
       103 Dhyanesh         1         2 Finance  
  
6 rows selected.

**THETA JOIN**

SQL> ALTER TABLE department ADD Dept\_idNUMBER(10);  
  
Table altered.

SQL> select \* from department;  
  
      D\_ID DEPT\_NAME     DEPT\_ID  
---------- ---------- ----------  
         1 HR  
         2 Finance

SQL> UPDATE department  
  2  SETDept\_id = 10;  
  
2 rows updated.

SQL>select  \*from department;  
  
      D\_ID DEPT\_NAME    DEPT\_ID  
 ------- -------------------- ----------  
         1 HR                 10  
         2 Finance            10

SQL> select emp.ID,[emp.name](http://emp.name/),department.dept\_name from emp,department where emp.dept\_id=department.dept\_id and emp.dept\_id>1;  
  
no rows selected

|  |  |  |
| --- | --- | --- |
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| Aim , Algorithm, SQL,PL/SQL | 30 |  |
| Execution and Result | 20 |  |
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**RESULT**

Thus the various types of joins were executed.