Practical: -8

Aim: - implement outer join, inner join and self-join operations.

SQL> create table customer (Ac_id int primary key, c_name varchar (10), address varchar (100));

Table created.

```
SQL> desc customer;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------
 AC_ID                                     NOT NULL NUMBER(38)
 C_NAME                                             VARCHAR2(10)
 ADDRESS                                            VARCHAR2(100)
```

SQL> create table Orders (Bo_id int primary key, Bo_name varchar (20), Ac_id int, foreign key (Ac_id) references customer (Ac_id) on delete cascade);

Table created.

```
SQL> desc Orders;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 BO_ID                                     NOT NULL NUMBER(38)
 BO_NAME                                            VARCHAR2(20)
 AC_ID                                              NUMBER(38)
```

SQL> insert into customer (Ac_id, c_name, address) values (1, 'Ramu’, 'New York');

SQL> insert into customer (Ac_id, c_name, address) values (2, 'Raju', 'Delhi');

SQL> insert into customer (Ac_id, c_name, address) values (3, 'Anshu’, 'ap');

SQL> insert into customer (Ac_id, c_name, address) values (4, 'Uma', 'ts');

SQL> insert into Orders (Bo_id, Bo_name, Ac_id) values (101, 'Ramu’, 1);

SQL> insert into Orders (Bo_id, Bo_name, Ac_id) values (102, 'raja' ,2);

SQL> insert into Orders (Bo_id, Bo_name, Ac_id) values (103, 'Anshu' ,3);

SQL> insert into Orders (Bo_id, Bo_name, Ac_id) values (104, 'Uma' ,4);

SQL>select * from customer;

SQL>select * from orders;

```
SQL> select * from customer;

     AC_ID C_NAME
---------- ----------
ADDRESS
------------------------------
         1 ramu
new york

         2 raju
delhi

         3 anshu
ap


     AC_ID C_NAME
---------- ----------
ADDRESS
------------------------------
         4 uma
ts
```

```
SQL> select * from Orders;

     AO_ID AO_NAME                    AC_ID
---------- -------------------- ----------
       101 ramu                          1
       102 raju                          2
       103 anshu                         3
       104 uma                           4
```

SQL> SELECT c. Ac_id, c_name, c. address, o. Bo_id, o. Bo_name FROM customer c LEFT JOIN Orders o ON c. Ac_id = o. Ac_id;

```
SQL> SELECT c.Ac_id, c.c_name, c.address, o.Bo_id, o.Bo_name FROM customer c LEFT JOIN Orders o ON c.Ac_id = o.Ac_id;
LEFT JOIN Orders o ON c.Ac_id = o.Ac_id;
     AC_ID C_NAME
---------- ----------
ADDRESS
--------------------------------------------------------------------------------
     BO_ID BO_NAME
---------- --------------------
         1 ramu
new york
       101 ramu

         2 raju
delhi
       102 raju

     AC_ID C_NAME
---------- ----------
ADDRESS
--------------------------------------------------------------------------------
     BO_ID BO_NAME
---------- --------------------

         3 anshu
ap
       103 anshu

         4 uma
ts

     AC_ID C_NAME
---------- ----------
ADDRESS
--------------------------------------------------------------------------------
     BO_ID BO_NAME
---------- --------------------
       104 uma
```

SQL> SELECT c. Ac_id, c_name, c. address, o. Bo_id, o. Bo_name FROM customer c RIGHT JOIN Orders o ON c. Ac_id = o. Ac_id;

```
SQL> SELECT c.Ac_id, c.c_name, c.address, o.Bo_id, o.Bo_name FROM customer c RIGHT JOIN Orders o ON c.Ac_id = o.Ac_id;

     AC_ID C_NAME
---------- ----------
ADDRESS
--------------------------------------------------------------------------------
     BO_ID BO_NAME
---------- --------------------
         1 ramu
new york
       101 ramu

         2 raju
delhi
       102 raju

     AC_ID C_NAME
---------- ----------
ADDRESS
--------------------------------------------------------------------------------
     BO_ID BO_NAME
---------- --------------------

         3 anshu
ap
       103 anshu

         4 uma
ts

     AC_ID C_NAME
---------- ----------
ADDRESS
--------------------------------------------------------------------------------
     BO_ID BO_NAME
---------- --------------------
       104 uma
```

SQL> SELECT c. Ac_id, c_name, c. address, o. Bo_id, o. Bo_name FROM customer c INNER JOIN Orders o ON c. Ac_id = o. Ac_id;

```
SQL> SELECT c.Ac_id, c.c_name, c.address, o.Bo_id, o.Bo_name FROM customer c INNER JOIN Orders o ON c.Ac_id = o.Ac_id;
     SELECT c.Ac_id, c.c_name, c.address, o.Bo_id, o.Bo_name FROM customer c
 INNER JOIN Orders o ON c.Ac_id = o.Ac_id;
     AC_ID C_NAME
---------- ----------
ADDRESS
--------------------------------------------------------------------------------
     BO_ID BO_NAME
---------- --------------------
         1 ramu
new york
       101 ramu

         2 raju
delhi
       102 raju

     AC_ID C_NAME
---------- ----------
ADDRESS
--------------------------------------------------------------------------------
     BO_ID BO_NAME
---------- --------------------

         3 anshu
ap
       103 anshu

         4 uma
ts

     AC_ID C_NAME
---------- ----------
ADDRESS
--------------------------------------------------------------------------------
     BO_ID BO_NAME
---------- --------------------
       104 uma
```

SQL> SELECT c. Ac_id, c. c_name, c. address, o. Bo_id, o. Bo_name FROM customer c LEFT JOIN Orders o ON c. Ac_id = o. Ac_id Where o. Bo_id is null;

no rows selected

```
SQL> SELECT c.Ac_id, c.c_name, c.address, o.Bo_id, o.Bo_name FROM customer c LEFT JOIN Orders o ON c.Ac_id = o.Ac_id Where o.Bo_id is null;

no rows selected
```

SQL> SELECT c. Ac_id, c_name, c. address, o. Bo_id, o. Bo_name

2 FROM customer c

3 RIGHT JOIN Orders o ON c. Ac_id = o. Ac_id

4 WHERE c. Ac_id IS NULL;

```
SQL> SELECT c.Ac_id, c.c_name, c.address, o.Bo_id, o.Bo_name
  2  FROM customer c
  3  RIGHT JOIN Orders o ON c.Ac_id = o.Ac_id
  4  WHERE c.Ac_id IS NULL;

no rows selected
```