**/\*TE CMPNA-27\*/**

**Expt : 4**

**Aim: To Implement Multivalued Attributes.**

**Implementation of Array:**

SQL> create type Phone\_num27 as object(phone\_no Number(10)) not final;

2 /

Type created.

SQL> create type Phone\_List27 as varray(2)of Phone\_num27;

2 /

Type created.

SQL> create table customer\_27 (c\_id varchar(5),c\_name varchar(10),c\_phone Phone\_List27);

Table created.

SQL> insert into customer\_27 values

('C001','Flevia',Phone\_List27(Phone\_num27(9637142573),Phone\_num27(8085214423)));

1 row created.

SQL> insert into customer\_27 values ('C002','Gloria',Phone\_List27(Phone\_num27(9970752348)));

1 row created.

SQL> insert into customer\_27 values ('C003','Glancy',Phone\_List27(Phone\_num27(7276820232),Phone\_num27(9850392041)));

1 row created.

SQL> insert into customer\_27 values ('C004','Stalen',Phone\_List27(Phone\_num27(8983436824),Phone\_num27(9320438291)));

1 row created.

SQL> insert into customer\_27 values ('C005','Sam',Phone\_List27(Phone\_num27(7250486671),Phone\_num27(9049068346)));

1 row created.

**Queries:**

**1.Display all customer details along with their Phone number ?**

SQL> select \* from Customer\_27;

C\_ID C\_NAME

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C\_PHONE(PHONE\_NO)

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C001 Flevia

PHONE\_LIST27(PHONE\_NUM27(9637142573), PHONE\_NUM27(8085214423))

C002 Gloria

PHONE\_LIST27(PHONE\_NUM27(9970752348))

C003 Glancy

PHONE\_LIST27(PHONE\_NUM27(7276820232), PHONE\_NUM27(9850392041))

C\_ID C\_NAME

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

C\_PHONE(PHONE\_NO)

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

C004 Stalen

PHONE\_LIST27(PHONE\_NUM27(8983436824), PHONE\_NUM27(9320438291))

C005 Sam

PHONE\_LIST27(PHONE\_NUM27(7250486671), PHONE\_NUM27(9049068346))

**2. Display Phone number for Customer Sam ?**

SQL> select c\_phone from Customer\_27 where c\_name='Sam';

C\_PHONE(PHONE\_NO)

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PHONE\_LIST27(PHONE\_NUM27(7250486671), PHONE\_NUM27(9049068346))

**3. Find the Phone number(Phone\_no) for customer with name Stalen ?**

SQL> select p.Phone\_no from table(select c\_phone from Customer\_27 where c\_name='Stalen')p;

PHONE\_NO

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8983436824

9320438291

**4. Display Customer Name where Phone\_no is 9637142573 ?**

SQL> select c.c\_name from Customer\_27 c where 9637142573 in(select \* from table(c.c\_phone));

C\_NAME

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Flevia

**5. List all customer names together with all Phone numbers ?**

SQL> select c.c\_name,p.Phone\_no from Customer\_27 c,table(c.c\_phone)p;

C\_NAME PHONE\_NO

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Flevia 9637142573

Flevia 8085214423

Gloria 9970752348

Glancy 7276820232

Glancy 9850392041

Stalen 8983436824

Stalen 9320438291

Sam 7250486671

Sam 9049068346

9 rows selected.