EXPERIMENT: 10

Aim: Develop programs using features parameters in a CURSOR, FOR UPDATE CURSOR, WHERE CURRENT of clause and CURSOR variables.

Cursors: Whenever DML statements are executed, a temporary work area is created in the system memory and it is called a cursor. A cursor can have more than one row, but processing wise only 1 row is taken into account. They can be used well with DML statements like Update, Insert and Delete. Two different types of cursors are available.

- Implicit cursors
- Explicit cursors

Explicit cursors

Explicit cursors are defined by the programmers to have more control area on the context area. It has to be defined in the declaration section of the PL/SQL Block.

Syntax for declaration of a cursor:

CURSOR <cursor name> [parameter_list]

[RETURN return_type]

IS query

[FOR UPDATE [OF (column_list)][NOWAIT]];

Syntax for opening a cursor:

OPEN <cursor name>;

Syntax to Fetch the records from the cursor:

Fetch cursorname into variable1,variable2,…..

Syntax for parameterized declaration of a cursor:

CURSOR cursor_name (variable_name datatype) IS

<SELECT statement…>

Program:

Create a Cursor to find customers with given job and id. Develop programs using features parameters in a CURSOR, FOR UPDATE CURSOR, WHERE CURRENT of clause and CURSOR variables.

SQL> create table customers(id number(3), name varchar2(10), age number(3), address varchar2(10), salary number(10,2));

Table created.

SQL> insert into customers values(1,'ramesh',32,'ahmedabad',2000);

1 row created.

SQL> insert into customers values(2,'khilan',25,'Delhi',1500);

1 row created.

SQL> insert into customers values(3,'kaushik',23,'Kota',2000);

1 row created.

SQL> insert into customers values(4,'chitali',25,'Mumbai',6500);

1 row created.

SQL> select *from customers;

```
    ID NAME          AGE ADDRESS      SALARY
---------- ---------- ---------- ---------- ----------
     1 ramesh          32    ahmedabad    2000
     2 khilan          25    Delhi        1500
     3 kaushik         23    Kota         2000
     4 chitali         25    Mumbai       6500
```

SQL> DECLARE
  2   cursor sal_cursor is
  3   select name ,salary,id from customers where id in (1,2,3) for update of salary nowait;
  4   Begin
  5   savepoint a;
  6   for emp_record in sal_cursor

```
  7    loop
  8      if emp_record.id=1 then
  9    update customers
 10    set salary=emp_record.salary+emp_record.salary*0.1 where current of sal_cursor;
 11    end if;
 12    if emp_record.id=2 then
 13    update customers
 14    set salary=emp_record.salary+emp_record.salary*0.2
 15    where current of sal_cursor;
 16    end if;
 17    if emp_record.id=3 then
 18    update customers
 19    set salary=emp_record.salary+emp_record.salary*0.3 where current of sal_cursor;
 20    end if;
 21    end loop;
 22    end;
 23  /
```

PL/SQL procedure successfully completed.

SQL> select *from customers;

ID NAME	AGE	ADDRESS	SALARY
1 ramesh	32	ahmedabad	2200
2 khilan	25	Delhi	1800
3 kaushik	23	Kota	2600
4 chitali	25	Mumbai	6500