**ASSIGNMENT NO 7 : Solution**

**IMPLICIT CURSOR (Using Oracle SQL)**

SQL> create table o\_rollcall(rno int primary key,name varchar(20),addr varchar

2 (20));

Table created.

SQL> insert into o\_rollcall values(1,'ppp','Pune');

1 row created.

SQL> insert into o\_rollcall values(2,'qqq','Pune');

1 row created.

SQL> insert into o\_rollcall values(3,'rrr','Nasik');

1 row created.

SQL> select \* from O\_rollcall;

RNO NAME ADDR

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

1 ppp Pune

2 qqq Pune

3 rrr Nasik

SQL> set serveroutput on;

SQL> DECLARE

2 total\_rows number(2);

3 BEGIN

4 UPDATE o\_rollcall

5 SET addr = 'Delhi';

6 IF sql%notfound THEN

7 dbms\_output.put\_line('no records selected');

8 ELSIF sql%found THEN

9 total\_rows := sql%rowcount;

10 dbms\_output.put\_line( total\_rows || ' student records selected ');

11 END IF;

12 END;

13 /

3 student records selected

PL/SQL procedure successfully completed.

SQL> select \* from O\_rollcall;

RNO NAME ADDR

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

1 ppp Delhi

2 qqq Delhi

3 rrr Delhi

**EXPLICIT CURSOR (Using MySQL)**

mysql> create database cursordb;

Query OK, 1 row affected (0.01 sec)

mysql> use cursordb;

Database changed

mysql> create table o\_rollcall(rno int primary key,name varchar(20),addr varchar(20));

Query OK, 0 rows affected (0.02 sec)

mysql> insert into o\_rollcall values(1,'AAA','Pune');

Query OK, 1 row affected (0.01 sec)

mysql> insert into o\_rollcall values(2,'BBB','Pune');

Query OK, 1 row affected (0.01 sec)

mysql> insert into o\_rollcall values(3,'CCC','Nasik');

Query OK, 1 row affected (0.00 sec)

mysql> create table n\_rollcall(rno int primary key,name varchar(20),addr varchar (20));

Query OK, 0 rows affected (0.02 sec)

mysql> insert into n\_rollcall values(1,'AAA','Pune');

Query OK, 1 row affected (0.01 sec)

mysql> select \* from o\_rollcall;

+-----+------+-------+

| rno | name | addr |

+-----+------+-------+

| 1 | AAA | Pune |

| 2 | BBB | Pune |

| 3 | CCC | Nasik |

+-----+------+-------+

3 rows in set (0.00 sec)

mysql> select \* from n\_rollcall;

+-----+------+------+

| rno | name | addr |

+-----+------+------+

| 1 | AAA | Pune |

+-----+------+------+

1 row in set (0.00 sec)

mysql> delimiter //

mysql> create procedure Assignment7(IN rno1 int)

-> begin

-> DECLARE c1 CURSOR FOR SELECT rno from o\_rollcall where rno=rno1;

-> OPEN c1;

-> FETCH c1 into rno1;

-> if not exists(select \* from n\_rollcall where rno=rno1) then insert into n\_rollcall

-> select \* from o\_rollcall where rno=rno1;

-> end if;

-> CLOSE c1;

-> END

-> ;

-> //

Query OK, 0 rows affected (0.01 sec)

mysql> call Assignment7(2);

-> //

Query OK, 1 row affected (0.01 sec)

mysql> select \* from n\_rollcall;

-> //

+-----+------+------+

| rno | name | addr |

+-----+------+------+

| 1 | AAA | Pune |

| 2 | BBB | Pune |

+-----+------+------+

2 rows in set (0.00 sec)

mysql> call Assignment7(1);

-> //

Query OK, 0 rows affected (0.00 sec)

mysql> select \* from n\_rollcall;

-> //

+-----+------+------+

| rno | name | addr |

+-----+------+------+

| 1 | AAA | Pune |

| 2 | BBB | Pune |

+-----+------+------+

2 rows in set (0.00 sec)

mysql> call Assignment7(3);

-> //

Query OK, 1 row affected (0.01 sec)

mysql> select \* from n\_rollcall;

-> //

+-----+------+-------+

| rno | name | addr |

+-----+------+-------+

| 1 | AAA | Pune |

| 2 | BBB | Pune |

| 3 | CCC | Nasik |

+-----+------+-------+

3 rows in set (0.00 sec)

**MySQL Cursor Example(2):**

mysql> CREATE PROCEDURE cursor\_proc2()

->BEGIN

-> DECLARE id VARCHAR(3); DECLARE name1 VARCHAR(20);

-> -- this flag will be set to true when cursor reaches end of table

-> DECLARE exit\_loop BOOLEAN;

-> -- Declare the cursor

-> DECLARE c1 CURSOR FOR SELECT rno, name FROM O\_rollcall;

-> -- set exit\_loop flag to true if there are no more rows

-> DECLARE CONTINUE HANDLER FOR NOT FOUND SET exit\_loop = TRUE;

-> -- open the cursor

-> OPEN c1;

-> -- start looping

-> L1: LOOP

-> -- read the id and name from next row into the variables

-> FETCH c1 INTO id, name1; select id,name1;

-> -- check if the exit\_loop flag has been set by mysql, close the cursor and exit the loop if it has.

-> IF exit\_loop THEN

-> CLOSE c1; LEAVE L1;

-> END IF;

-> END LOOP L1;

-> END ;

-> //

Query OK, 0 rows affected (0.01 sec)

mysql> call cursor\_proc2();

-> //

+------+-------+

| id | name1 |

+------+-------+

| 1 | AAA |

+------+-------+

1 row in set (0.00 sec)

+------+-------+

| id | name1 |

+------+-------+

| 2 | BBB |

+------+-------+

1 row in set (0.01 sec)

+------+-------+

| id | name1 |

+------+-------+

| 3 | CCC |

+------+-------+

1 row in set (0.01 sec)

Query OK, 0 rows affected (0.01 sec)

**Conclusion :**

In this assignment we have studied about cursors in Oracle and MySQL. We have implemented both implicit as well as explicit cursors for a given problem statement.