Experiment-6

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Section/Group: B
Semester: 7
Date of Performance: 13th October, 2021
Subject Name: Advanced Database Management Lab
Subject Code: CSP - 434

1. Aim/Overview of the practical:

To Implement Pl/SQL programming using Cursors.

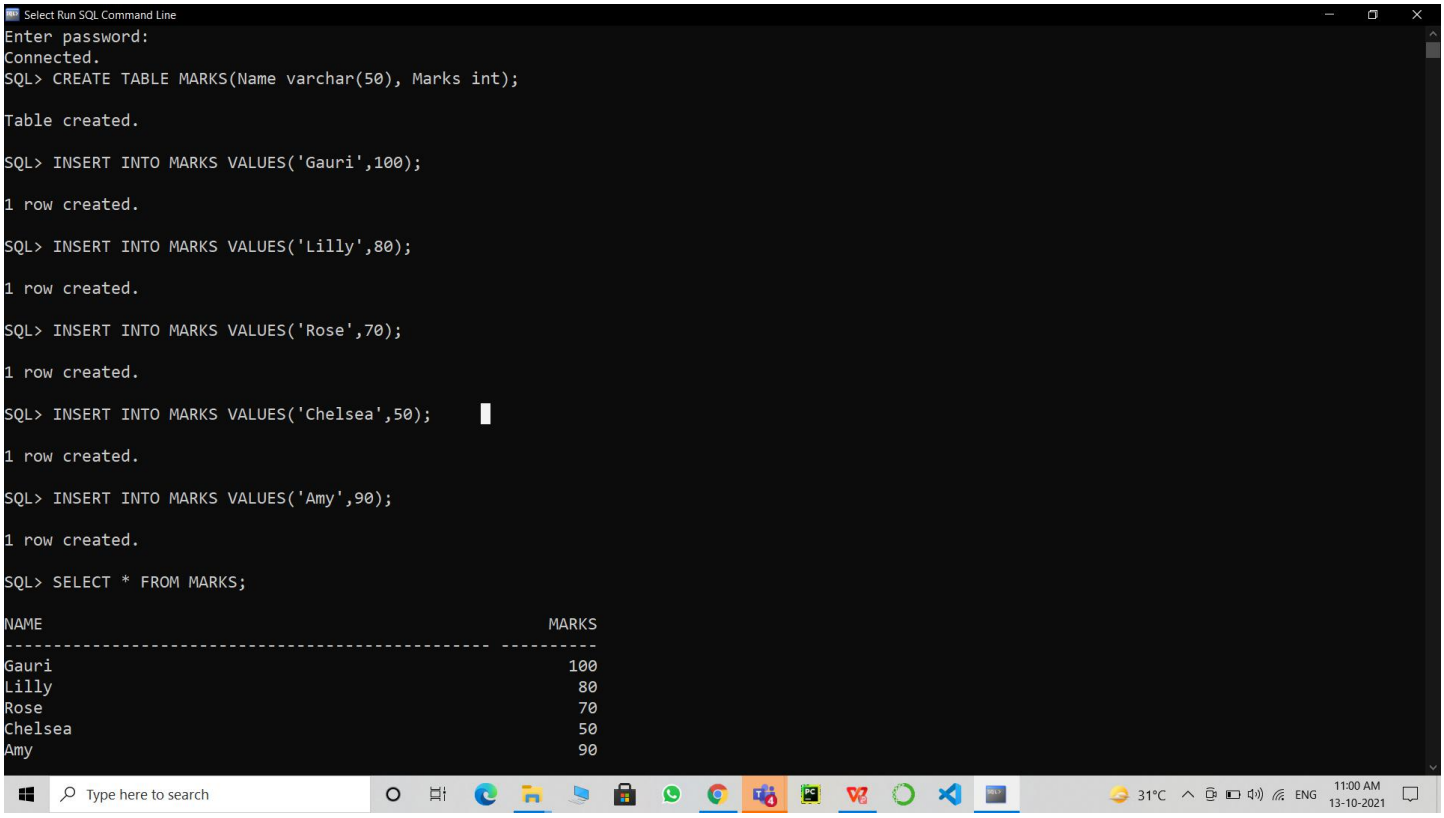
2. Task to be done:

To Implement Pl/SQL programming using Cursors.

3. **Steps to be followed:**

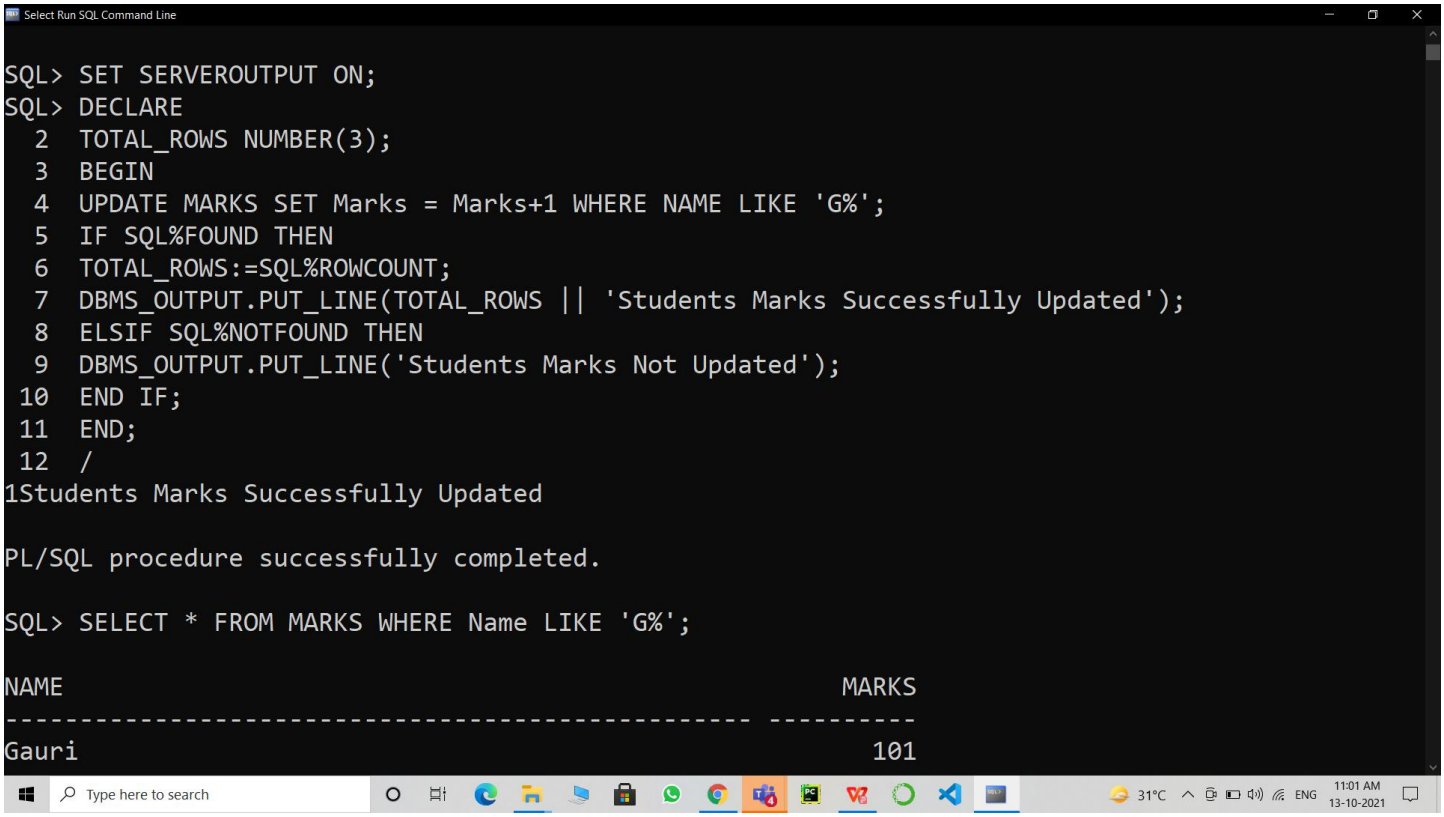
Creating a table MARKS and then returning it:

1. CREATE TABLE MARKS(Name varchar(50), Marks int);
   INSERT INTO MARKS VALUES('Gauri',100);
   INSERT INTO MARKS VALUES('Lilly',80);
   INSERT INTO MARKS VALUES('Rose',70);
   INSERT INTO MARKS VALUES('Chelsea',50);
   INSERT INTO MARKS VALUES('Amy',90);
   SELECT * FROM MARKS;



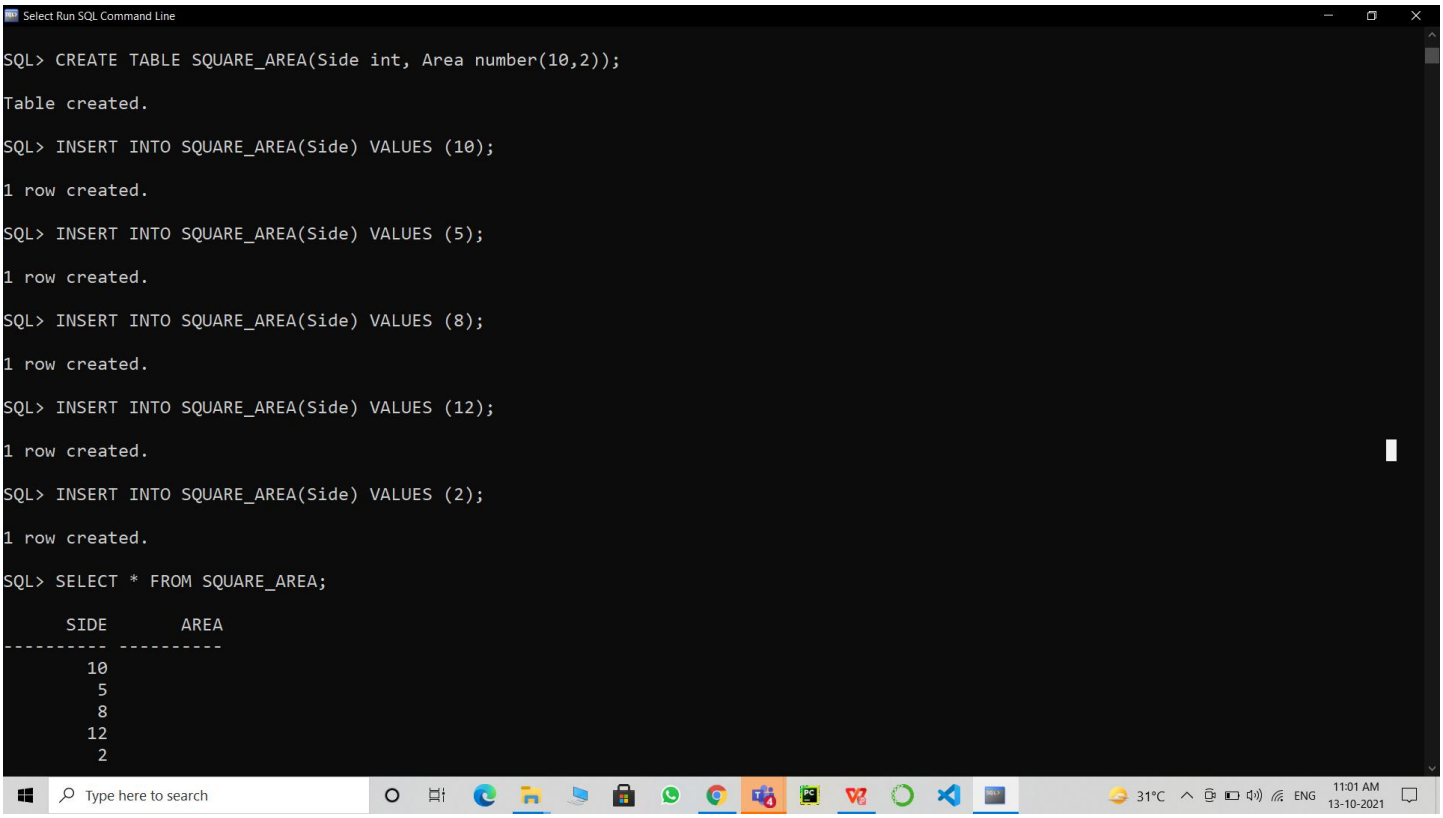
Implementing IMPLICIT CURSORS and Updating the Marks by 1 for specific tuples which qualify a set condition and then returning the updated table:

2.
```
SET SERVEROUTPUT ON;
DECLARE
TOTAL_ROWS NUMBER(3);
BEGIN
UPDATE MARKS SET Marks = Marks+1 WHERE NAME LIKE 'G%';
IF SQL%FOUND THEN
TOTAL_ROWS:=SQL%ROWCOUNT;
DBMS_OUTPUT.PUT_LINE(TOTAL_ROWS || 'Students Marks Successfully Updated');
ELSIF SQL%NOTFOUND THEN
DBMS_OUTPUT.PUT_LINE('Students Marks Not Updated');
END IF;
END;
/
SELECT * FROM MARKS WHERE Name LIKE 'G%';
```



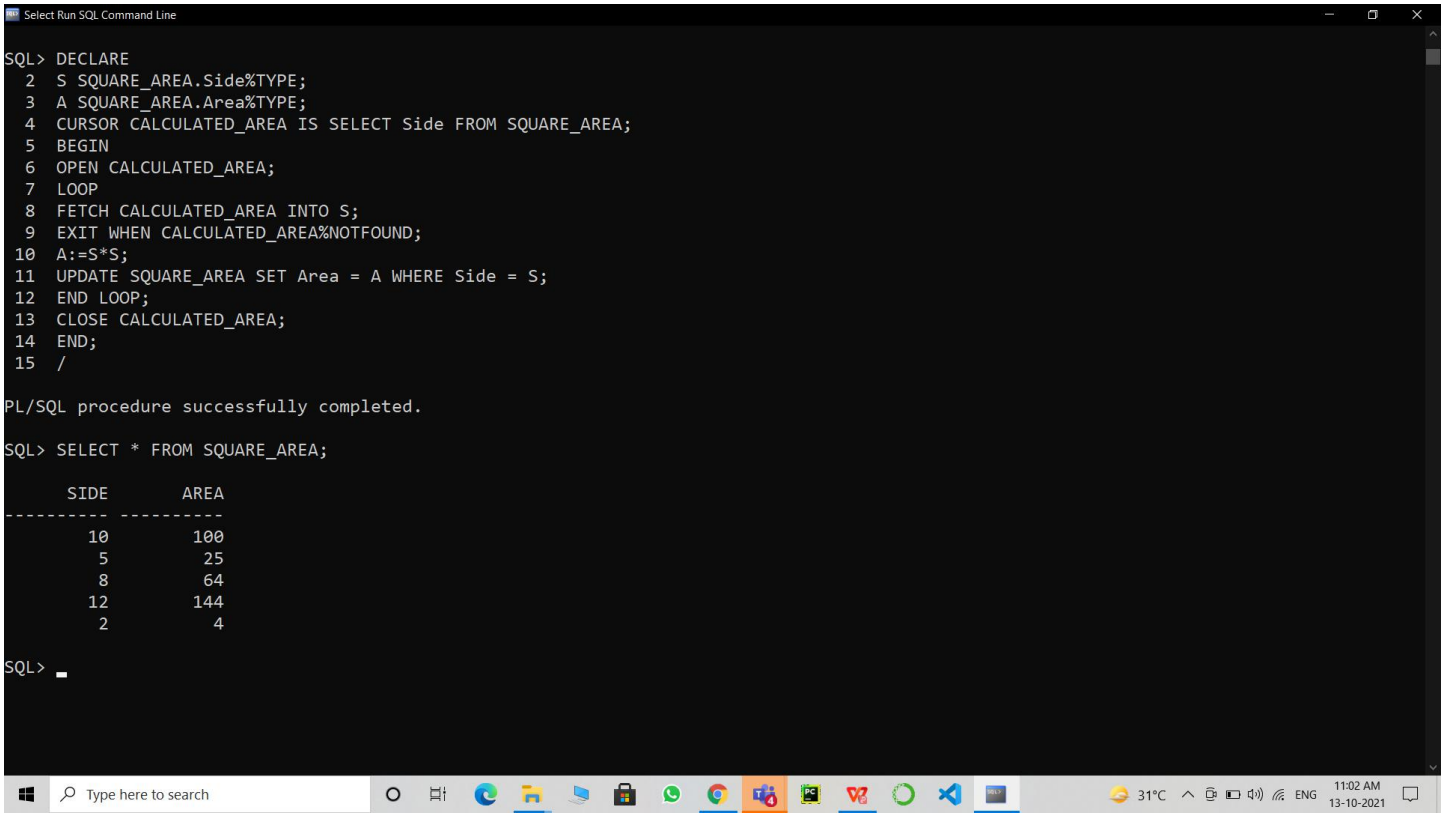
Creating a table 'SQUARE_AREA' and returning it:

3. CREATE TABLE SQUARE_AREA(Side int, Area number(10,2));
INSERT INTO SQUARE_AREA(Side) VALUES (10);
INSERT INTO SQUARE_AREA(Side) VALUES (5);
INSERT INTO SQUARE_AREA(Side) VALUES (8);
INSERT INTO SQUARE_AREA(Side) VALUES (12);
INSERT INTO SQUARE_AREA(Side) VALUES (2);
SELECT * FROM SQUARE_AREA;



Implementing EXPLICIT CURSOR, calculating the AREA and updating it into the 'SQUARE_AREA' table:

4.
```
DECLARE
S SQUARE_AREA.Side%TYPE;
A SQUARE_AREA.Area%TYPE;
CURSOR CALCULATED_AREA IS SELECT Side FROM SQUARE_AREA;
BEGIN
OPEN CALCULATED_AREA;
LOOP
FETCH CALCULATED_AREA INTO S;
EXIT WHEN CALCULATED_AREA%NOTFOUND;
A:=S*S;
UPDATE SQUARE_AREA SET Area = A WHERE Side = S;
END LOOP;
CLOSE CALCULATED_AREA;
END;
/
SELECT * FROM SQUARE_AREA;
```



4. **Result/Output/Writing Summary:**

- Successfully implemented CURSORS.
- Successfully implemented IMPLICIT CURSORS.
- Successfully implemented EXPLICIT CURSORS.
- Successfully understood the functioning and importance of the above mentioned.

5. **Learning outcomes (What I have learnt):**

- How to implement CURSORS on SQL Command Line.
- How to implement IMPLICIT CURSORS on SQL Command Line.
- How to implement EXPLICIT CURSORS on SQL Command Line.
- How to implement CURSORS on a table.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			