# Experiment-5

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**Section/Group:** B
**Semester:** 7
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**Subject Name:** Advanced Database Management Lab
**Subject Code:** CSP - 434

## 1. Aim/Overview of the practical:

To implement PL/SQL programming using Control Structures.

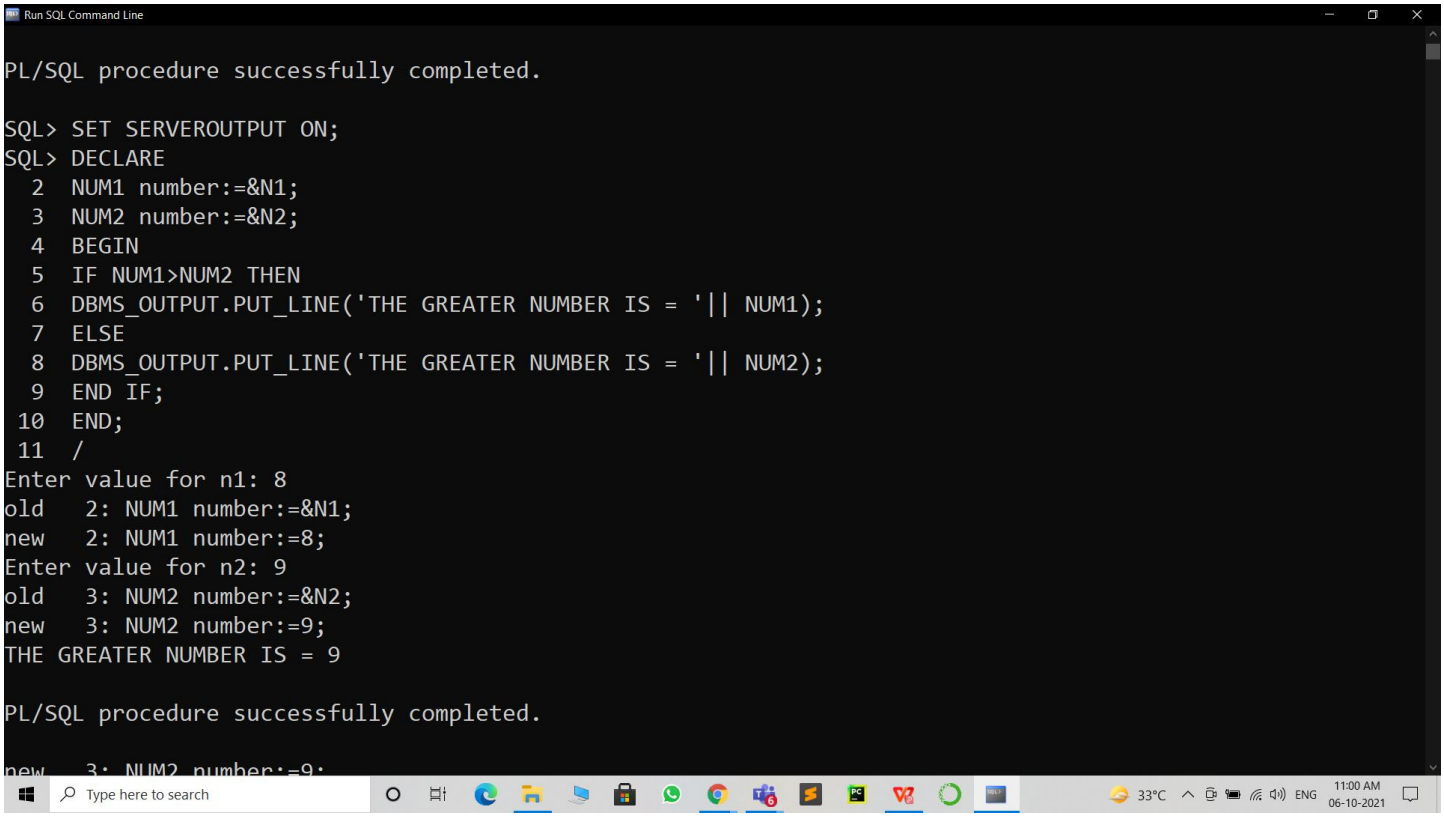
## 2. Task to be done:

To implement PL/SQL programming using Control Structures.

## 3. Steps to be followed:

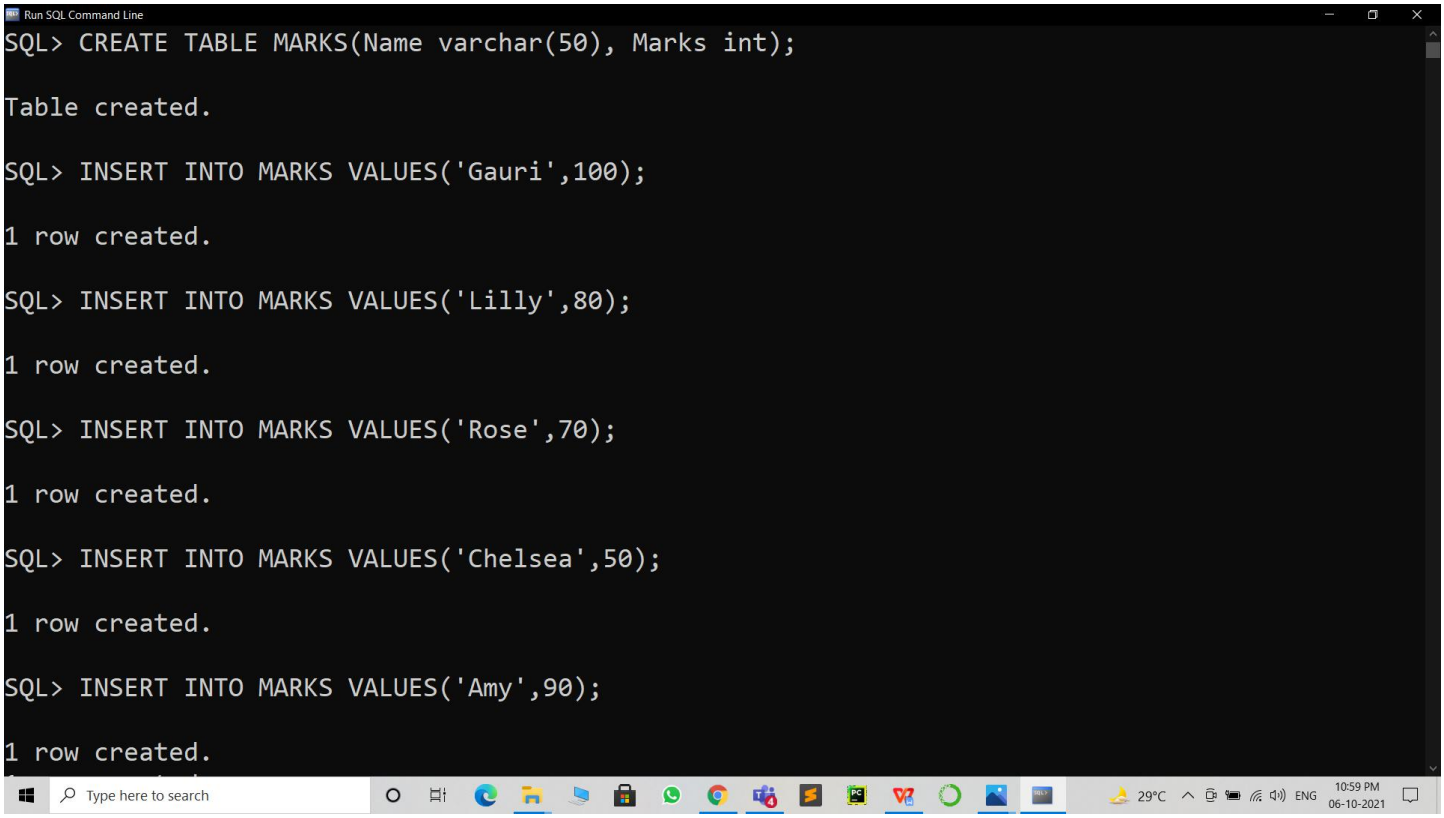
**Implementing IF/ELSE control statement by comparing two integers and printing the greater of the two:**

**1.**
```
SET SERVEROUTPUT ON;
DECLARE
NUM1 number:=&N1;
NUM2 number:=&N2;
BEGIN
IF NUM1>NUM2 THEN
DBMS_OUTPUT.PUT_LINE('THE GREATER NUMBER IS = '|| NUM1);
ELSE
DBMS_OUTPUT.PUT_LINE('THE GREATER NUMBER IS = '|| NUM2);
END IF;
END;
/
```



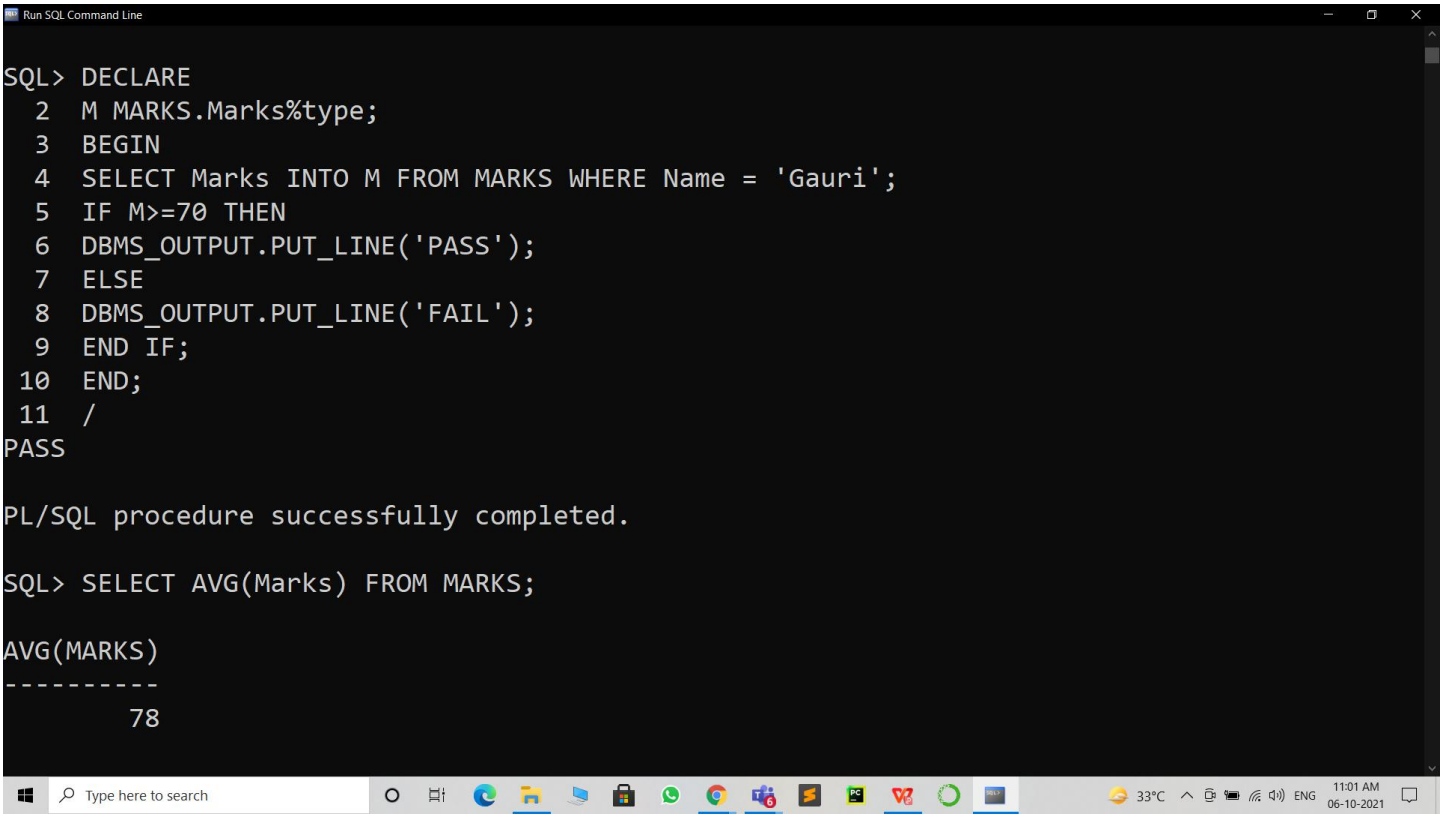

**Creating a table MARKS:**

**2.** 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);



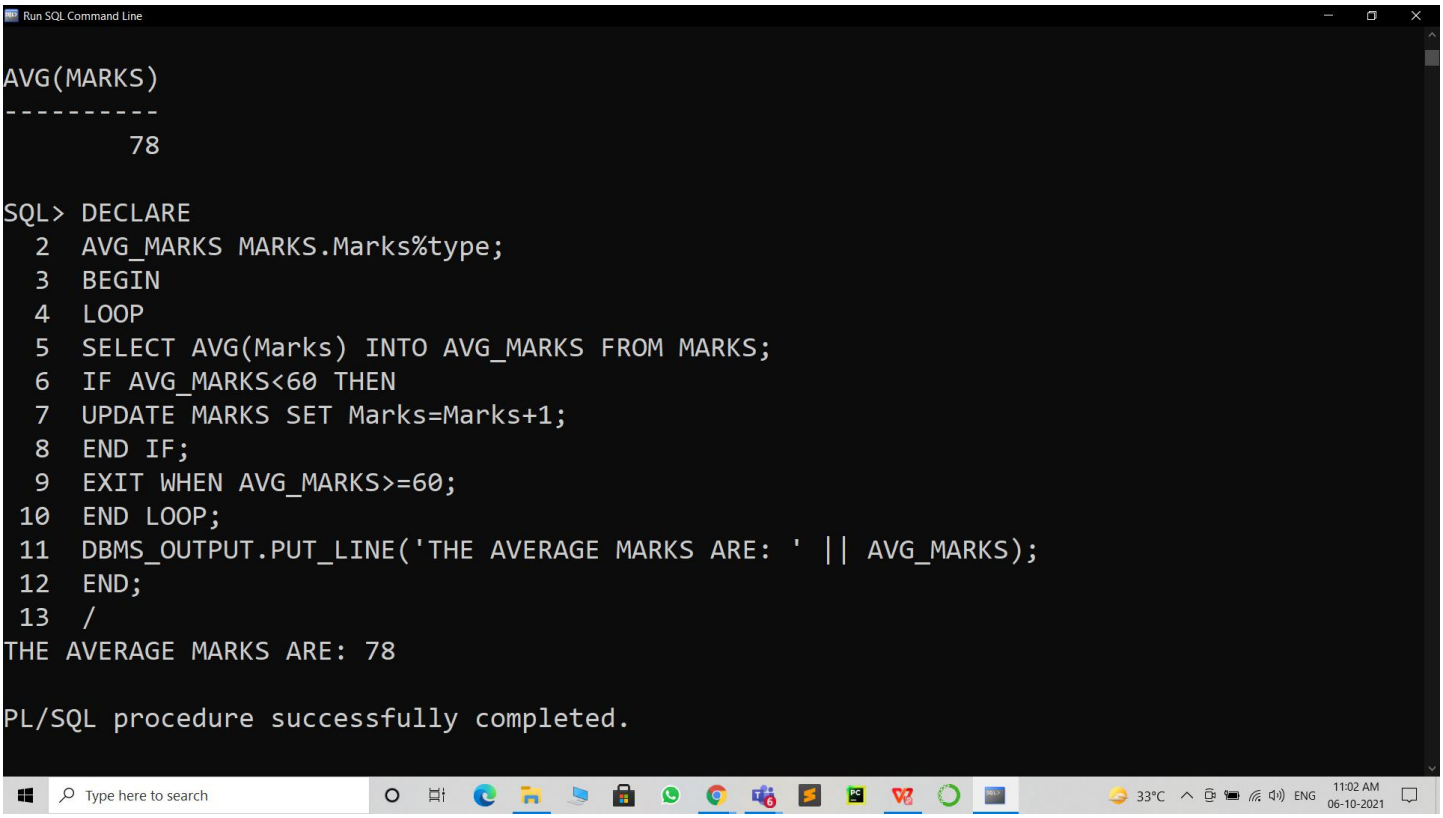
**Implementing IF/ELSE control statement on the table MARKS and printing the average marks from the table:**

**3.**
```
DECLARE
M MARKS.Marks%type;
BEGIN
SELECT Marks INTO M FROM MARKS WHERE Name = 'Gauri';
IF M>=70 THEN
DBMS_OUTPUT.PUT_LINE('PASS');
ELSE
DBMS_OUTPUT.PUT_LINE('FAIL');
END IF;
END;
/
SELECT AVG(Marks) FROM MARKS;
```



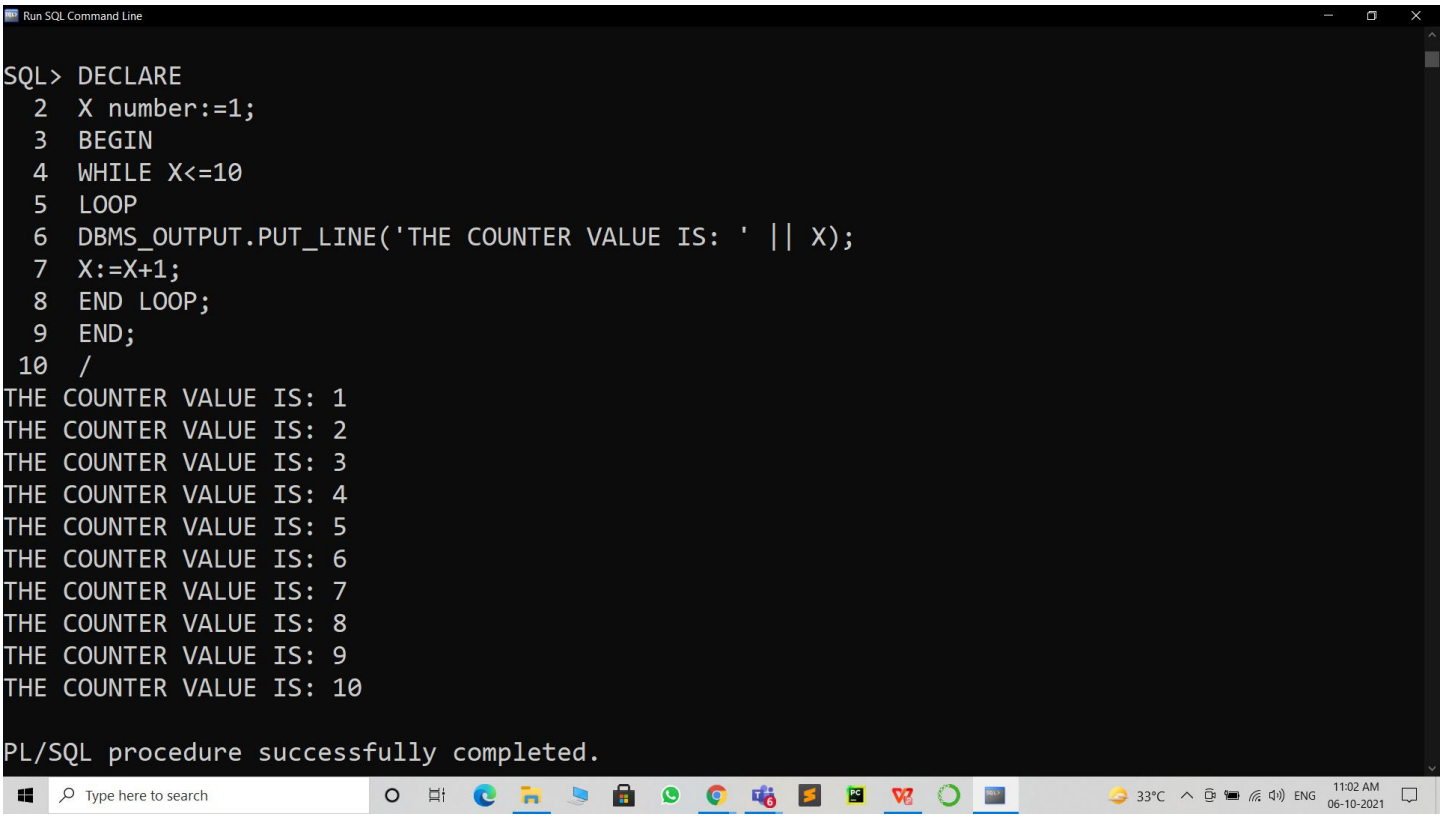
**Implementing LOOP control structure and printing the average of the marks in the table MARKS:**

**4.**
```
DECLARE
AVG_MARKS MARKS.Marks%type;
BEGIN
LOOP
SELECT AVG(Marks) INTO AVG_MARKS FROM MARKS;
IF AVG_MARKS<60 THEN
UPDATE MARKS SET Marks=Marks+1;
END IF;
EXIT WHEN AVG_MARKS>=60;
END LOOP;
DBMS_OUTPUT.PUT_LINE('THE AVERAGE MARKS ARE: ' || AVG_MARKS);
END;
/
```



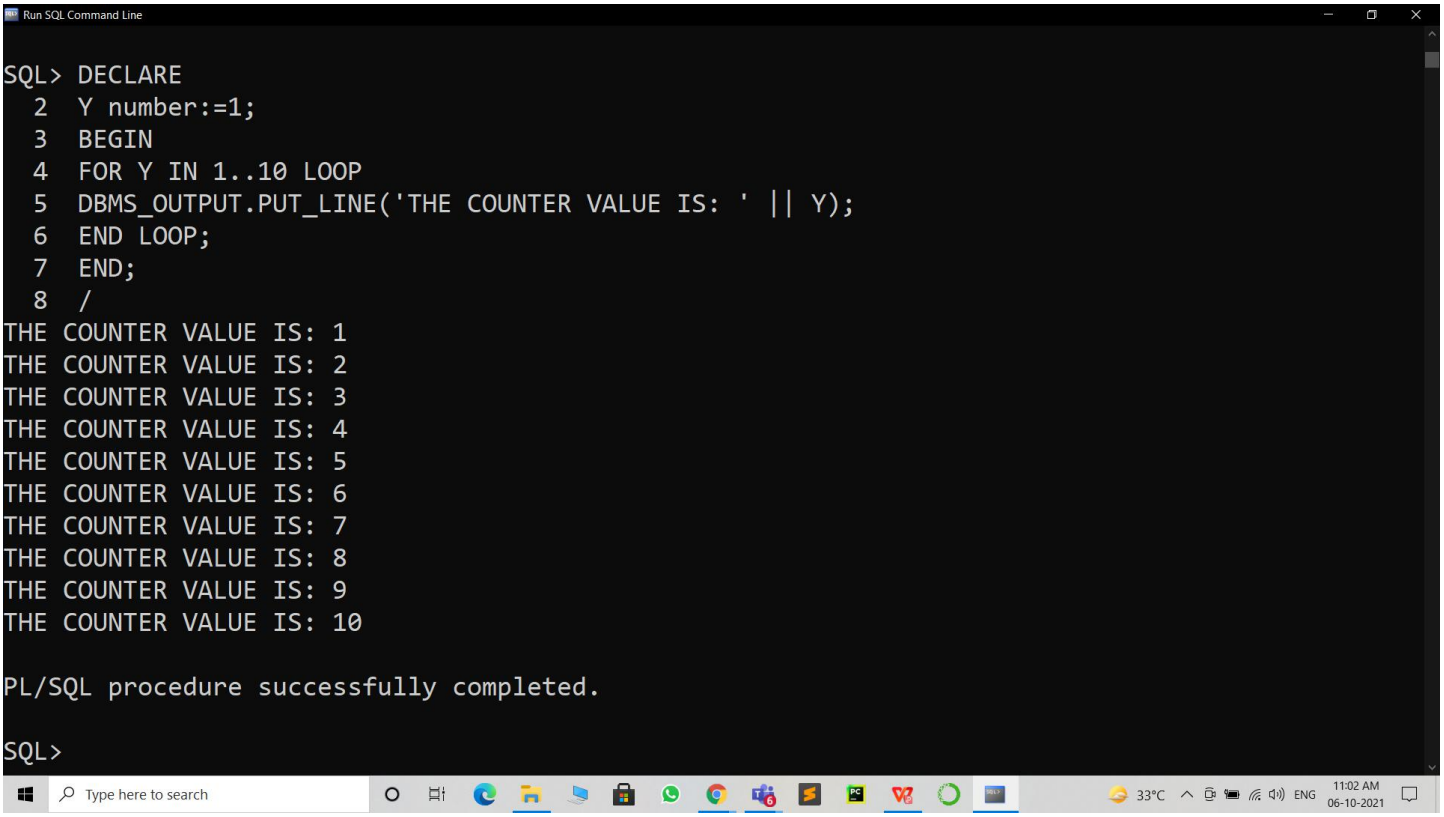
**Implementing the WHILE LOOP:**

**5.** DECLARE
X number:=1;
BEGIN
WHILE X<=10
LOOP
DBMS_OUTPUT.PUT_LINE('THE COUNTER VALUE IS: ' || X);
X:=X+1;
END LOOP;
END;
/



**Implementing the FOR LOOP:**

**6.** DECLARE
Y number:=1;
BEGIN
FOR Y IN 1..10 LOOP
DBMS_OUTPUT.PUT_LINE('THE COUNTER VALUE IS: ' || Y);
END LOOP;
END;
/



## 4. Result/Output/Writing Summary:

- Successfully implemented IF/ELSE control structure.
- Successfully implemented FOR and WHILE control LOOPS.
- Successfully understood the functioning and importance of the above mentioned.
- Successfully implemented CONTROL STRUCTURES on a table.

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

- How to implement IF/ELSE on SQL Command Line.
- How to implement FOR LOOP on SQL Command Line.
- How to implement WHILE LOOP on SQL Command Line.
- How to implement CONTROL STRUCTURES 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. | | | |