22/9/25

TASK 7

PROCEDURE FUNCTION AND LOOPS:

PROGRAM USING PL/SQL Procedures

FUNCTIONS & loops

AIM:- To implement PL/SQL procedures functions and loops on numbers theory and Bussiness.

Scenario

1- SIMPLE PL/SQL PROGRAM:-

```
DECLARE
    message VARCHAR2(20):= 'Booking closed';
BEGIN
    DBMS_OUTPUT.PUT_LINE(message);
END;
/
```

OUTPUT:-

Booking closed

2- conditional statement

```
DECLARE
    hid number(3):=100;
BEGIN
    IF (hid=10) THEN
    dbms_output.putline ('value of hid is 10');
    else if (hid=70) THEN
        dbms_output.put_line ('value of hid is
                               20');
```

```
END IF
    dbms_output.put_line('Exact value of hid is'||hid);
END;
```

OUTPUT

NONE of the value is matching

Exact value of hid is : 100

NESTED LOOPS EXAMPLES

```
DECLARE
        hid number(1);
        hid number(1);
BEGIN.
        <<outer_loop>>
        for hid IN 1..3 loop
            for oid IN 1..3 loop.
                dbms output.put_line('hid is '||hid||' and oid is '||oid);
        END loop inner_loop;
        END loop outer_loop;
END;
```

OUTPUT :-

hid is : 1 and oid is : 1
hid is : 1 and oid is : 2.
hid is : 1 and oid is : 3
hid is : 2 and oid is : 1
hid is : 2 and oid is : 2.
hid is : 2 and oid is : 3.
hid is : 3 and oid is : 1
hid is : 3 and oid is : 2
hid is : 3 and oid is : 3

4. PROCEDURE EXAMPLE

```
CREATE OR REPLACE PROCERDUE
   booking : status ( c_id IN number)
is
 BEGIN:
     If c_id >200 THEN.
        dbms_output.put_line('NO booking avaible');
 else
     dbms_output.put_line('Booking open');
     END if;
 END;
   BEGIN
        booking_status(150);
        booking_status(250);
    END;
    OUTPUT;
    OUTPUT:
    Booking open
        NO Booking avaible.
```

PL/SQL procedure for loops:

Example:- using while loop with cursor prime.
check using while loop,

```
CREATE OR REPLACE PROCEDURE
  Print_Prime_customers is.
  CURSOR cust_cur is
        SELET CUSTOMER id from customers;
    v_id numbers;
    V_is_prime BOLEAN;
    V_i (NUMBER;
```

```
BEGIN
    OPEN cust_cur;
LOOP
    FETCH cust_cur INTO v_id;
  EXIT THEN cust_cur%. NOT FOUND;
    IF v_id<2 THEN
       v_ps_prime:=FALSE;
    Else
       v_is_prime := TRUE;
       v_i := 2;
       while v_i<=TRUNC(SQRT(v_id)) loop
            IF MOD(v_id, v_i)=0THEN
                v_ps_prime := FALSE;
                 EXIT;
              END IF;
              v_i := v_i+1;
            END LOOP;
          END IF;
        IF v_is_prime THEN
        dbms_output.put line(( prime
                          customer ID:
                                 ||v_id);
        END if
        END LOOP
         CLOSE cust cur;
  END
```

The procedure checks all customer ids in the table and prints the prime ones using while loop.

Example :- using for loop for first n prime numbers.

```
CREATE OR REPLACE PROCEDURE
Print_first_n_prime(n number);
    v_num number:=2;
    v_count number:=0;
    v_is_prime boolean;
BEGIN
    WHILE
        v_count<n loop
        v_is_prime:=TRUE;
        FOR i IN 2..TRUE(SQRT(v_num)loop)
            IF MOD(i,num)=0 THEN
                v_is_prime:=FALSE;
                EXIT;
            END IF;
        END LOOP;
        IF v_is_prime THEN
        dbms_output.put_line(Prime:
        v_count:=v_count+1;||i||num);
    END IF;
    v_num:=v_num+1;
    END LOOP;
END;
```

The PROCEDURE print the first n prime numbers using for loop.

```
BEGIN
    print_first_n_prime(10);
END;
```

VEL TECH - CSE	
EX NO.	7
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	15
SIGN WITH DATE	22/9/25

Result:- Thus the procedure function and loops proced using PL/SQL procedures functions & 10 DB's are executed successfully.