

7.	22/09/25	Procedure Function and loops:		
		Program using PL/SQL procedures,	✓	✓
		functions and loops		22/9/25

## 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 number theory and business scenarios.

### 1. Simple PL/SQL program (Static Input)

```
DECLARE
    Message VARCHAR2(20) := 'Booking closed'
BEGIN
    dbms_output.put_line(Message);
END;
```

Output:

Booking closed

### 2. Conditional Statement (Dynamic Input):

```
DECLARE
    hid NUMBER(3) := 100;
BEGIN
    IF (hid = 10) THEN
        dbms_output.put_line('value of hid is 10');
    ELSIF (hid = 20) THEN
        dbms_output.put_line('value of hid is 20');
    ELSIF (hid = 30) THEN
        dbms_output.put_line('value of hid is 30');
    ELSE
        dbms_output.put_line('None of the values matching');
    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

### 3. Nested Loops Example:

```
DECLARE
    hid NUMBER(12);
    did NUMBER(1);
```

BEGIN

<< outer-loop >>

for hid IN 1..3 loop

<< inner-loops >>

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 PROCEDURE booking\_status  
(c\_id IN NUMBER)

IS

BEGIN

IF c\_id > 200 THEN

dbms\_output.put\_line('No booking available');

ELSE

dbms\_output.put\_line('Booking open');

END IF;

END;

Execution

BEGIN

booking\_status(150);

booking\_status(250);

END;

Output:

Booking open

No booking available

## PL/SQL Procedure for Loops

Example 1: Using WHILE Loop with Cursor

Prime check using while loop

CREATE OR REPLACE PROCEDURE Print\_prime-Customers IS  
Cursor Cust-Cur IS

SELECT Customer =id from Customers;

V-id NUMBER;

V-is - prime BOOLEAN;

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-is - prime := FALSE;

ELSE

V-is - prime := TRUE;

V-i := 2;

WHILE V-i <= TRUNC (SQRT (V-id)) Loop

IF MOD (V-id, V-i) = 0 THEN

V-is - 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 a WHILE LOOP.

Example 2: Using for LOOP for first N prime Numbers.

CREATE OR REPLACE PROCEDURE Print-first-n-primes  
(n number) IS

```
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..TRUNC(SQRT(V-num)) Loop  
      If MOD(V-num) = 0 THEN  
        V-is-prime := FALSE;  
        EXIT;  
      END IF;  
    END LOOP;  
    IF V-is-prime THEN  
      DBMS_OUTPUT.PUT_LINE('Prime: '||V-num);  
      V-count := V-count + 1;  
    END IF;  
    V-num := V-num + 1;  
  END LOOP;  
END;
```

This procedure prints the first N prime numbers using a For Loop.

BEGIN

Print-first-n-primes(10);

END;

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EX No.	7
PERFORMANCE (5)	6
RESULT AND ANALYSIS (5)	8
VIVA VOCE (5)	8
RECORD (5)	
TOTAL (20)	16
SIGN WITH DATE	

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Result:-

Thus, the procedure function and loops program using PL/SQL procedure, functions and loops are executed successfully.