

Task 7: procedure function and loops : program using PL/SQL procedure, functions & loops.

Aim:

To implement PL/SQL procedure, function 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. Condition 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 value's  
        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 in : 100

3. Nested loops example:-

```
DECLARE  
    hid Number(1);  
    Did Number(1);  
BEGIN  
    << outer - loop >>  
    for hid IN 1..3 loop  
        << inner - loops >>  
        dbms_output.put_line('hid is: '|| hid)  
        and did is: '|| out)  
    EN 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 -
STATS

(C-ID IN Numbers)

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

Example :- using FOR loop for first n prime numbers. CREATE or REPLACE PROCEDURE print-first-n-primes(n number) IS

v-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-number))

if MOD(v-number, i) = 0 then

v-is-prime := FALSE;

exit;

END if;

END loop;

If v-is-prime THEN

DBMS_OUTPUT.PUT_LINE('prime : "'||v||'num'||);

N_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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Result:- Thus, the procedure function and loops program using pl/sql procedures functions & loops are executed successfully.