Task-7(a)

23-09-25

PL/SQL, Procedures, functions, Loops.

Aim :- To implement PL/SQL procedures, functions and loops on number theoy and bussiness sceneries.

PL/SQL is a combination of SQL along with the procedural features of programming languages. it was developed by oracle comparation in the early 90's to enhance the capabilities of SQL. PL/SQL is one, three key programming languages embedded in oracle database, along with SQL itself and Java.

Simple program to print a sencence.

Syntax:-
```
DECLARG
    <declaration section>
BEGIN
    <executable section>
exception
    <exception handling>
End;
```

Program:-
```
DECLARE
  message   varchar(20): = 'booking closed':

BEGIN
  dbms-output.put-line(message):

END;
```

Dynamic ~~output~~ Input :
```
set serveroutput on;
declare
    x number(5);
    y number(5);
    z number(9);
begin
  x:=10;
  Y:=12;
  z:=X+Y;
```

```
dbms_output.put_line('sum is'||z);
end;
/
Output:-Sum is 22
```

```
declare
var1 integer;
var2 integer;
var3 integer;
begin
  var1: &var1;
  var2: &var2;
  var3: var1+var2;
dbms-output.line (var3);
end;
/
Enter values for   var 1: 20
Old 6: var1: =&var1;
new 6: var1: = 20;

Enter value for  var 2: 30
old 7; var2: = & var 2;
new 7; var2: =30;

50
```

```
Declare
  hid Number(3):=100;
BEGIN
 if(hid=10) then
 dbms_output.put_line('value of hid is 10');
else if(hid=20) then
 dbms_output.put_line('value of hid is 20');
else if(hid=30) then
 dbms_output.put_line('value of hid is 30');
else
 dbms_output.put_line('None of the value is 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
```

```
Declare
   hid number(1);
   old number(1);
Begin
     << outer_loop>>
  for hid in 1...3 Loop
     << Inner Loop>>
  for old in 1...3 Loop
  dbms - output. put_line('hid is:' || hid ||' and old is:'||old
 end loop inner_loop;
End loop outer_loop;
end;
/
```

Output:

```
hid is :1 and old is:1
hid is :1 and old is: 2
hid is :1 and old is:3
hid is :2 and old is:1
hid is :2 and old is:2
hid is :2 and old is :3
hid is :3 and old is :1
hid is :3 and old is :2
hid is :3 and old is :3
```

Program for only procedure.

```
Create or replace procedure cs information
(c_id in number, c_name in varchar 20
is
begin
dbms_output.put_line('ID:' || c_id);
dbms_output. put_line('Name:' || c_name);
end;
/
```

```
procedure created.
exec cs information (100, 'raam');
PL/SQL procedure Successfully completed
Set server output on;
exec cs information (101, 'raam');
ID : 101
Name : raam
```

Program:

```
create or replace function cs information
(h_id in number, c_name in varchar 2)
Return varchar 2
is
Begin
if(c_id >200 then
Return ('no booking available');
Else
Return ('booking ope');
end if:
End;
```

function created.

```
declare
mesg varchar 2(200);
begin
mesg := cs information(102, 'raam');
dbms_output. put_line(mesg);
end;
/
```

vehicle available.

```
declare
mesg varchar 2(200);
begin
mesg:=cs information (206, 'raam');
dbms_output.put_line(mesg);
end;
/
```

no vehicle available

	[illegible]
[illegible]	7
PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	5
VIVA VOCE (3)	5
RECORD (4)	
TOTAL (15)	15
SIGN WITH DATE	

6/10

Result:- Thus the implementation PL/SQL procedures, functions and loops on number theory and bussiness scenerios was completed.

23-09-25 PL/SQL Procedure for Loops

Aim:- To implement PL/SQL programs using loops for printing prime number customer IDs and for demonstrating loop control in different scenarios.

Procedure:-

1. Start a PL/SQL block or procedure.
2. Use a cursor (if required) to fetch customerID from a table.
3. For each ID, check whether it is a prime number using a loop.
4. Use for loop (while loop to demonstrate prime number checking
5. Print the result using dbms-output.put_line
6. End the block.

```
Create or replace procedure print-prime customer is
   cursor ~~cust~~ 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 when cust_cur %. Not found;
   If v_id<2 then
      v_i-prime: = false;
   Else
      v_is_prime:= True;
      v_i:=2;
      while v_i< = Tranc(sort(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 customerID:' ll v-id,
  END If;
 END loop;
close cust-cur;
End;
/
```

```
Create or replace procedure print-first-n-prime
(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 (sort (v-num)) loop
      If mOD (v-Num, i) = 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;
```

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EX No.	8
PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	5
VIVA VOCE (3)	5
RECORD (4)	
TOTAL (15)	15
SIGN WITH DATE	

6/10

Result:- The implementation of PL/SQL programs using for loops for printing prime number Customer IDs was successfully completed.