**Practical no.-**12

**Title:**PL/SQL Programs using if then Else,for,While and Nested loop

**Roll No.:**15 **Batch-** A **Date of Performance:** 19-11-2022

SQL> conn;

Enter user-name: Aditya

Enter password:

Connected.

**XIII) Practical Related Questions:**

SQL> set serveroutput on;

**1)Program to display reverse no. from 10 to 1.**

SQL> Declare

2 no number(20);

3 begin

4 for no in reverse 1..10 loop

5 dbms\_output.put\_line(no);

6 end loop;

7 end;

8 /

10

9

8

7

6

5

4

3

2

1

PL/SQL procedure successfully completed.

**2)Program to print factorial of a given num.**SQL> Declare

2 no number;

3 fact number;

4 i number;

5 begin

6 fact:=1;

7 no:=5;

8 i:=1;

9 while i<=no loop

10 fact:=fact\*i;

11 i:=i+1;

12 end loop;

13 dbms\_output.put\_line('Factorial of '||no||' is: '||fact);

14 end;

15 /

Factorial of 5 is: 120

PL/SQL procedure successfully completed.

**XIV) Exercise**

**1)Program to accept 3 numbers and display the largest number.**

SQL> Declare

2 no1 number;

3 no2 number;

4 no3 number;

5 begin

6 no1:=&no1;

7 no2:=&no2;

8 no3:=&no3;

9 if(no1>no2 and no1>no3) then

10 dbms\_output.put\_line('No1-'||no1||' is greater');

11 elsif(no2>no1 and no2>no3) then

12 dbms\_output.put\_line('No2-'||no2||' is greater');

13 else

14 dbms\_output.put\_line('No3-'||no3||' is greater');

15 end if;

16 end;

17 /

Enter value for no1: 45

Enter value for no2: 97

Enter value for no3: 12

No2-97 is greater

PL/SQL procedure successfully completed.

**2)Program to display even numbers between 1 to 100**

SQL> Declare

2 i number;

3 begin

4 for i in 1..100 loop

5 if mod(i,2)=0 then

6 dbms\_output.put\_line(i);

7 end if;

8 end loop;

9 end;

10 /

2

4

6

8

10

12

14

16

18

20

22

24

26

28

30

32

34

36

38

40

42

44

46

48

50

52

54

56

58

60

62

64

66

68

70

72

74

76

78

80

82

84

86

88

90

92

94

96

98

100

PL/SQL procedure successfully completed.

**3.a) Program to print i=0 to i=10**

SQL> Declare

2 i number:=0;

3 begin

4 LOOP

5 dbms\_output.put\_line('i='||i);

6 i:=i+1;

7 EXIT WHEN i>=11;

8 END LOOP;

9 end;

10 /

i=0

i=1

i=2

i=3

i=4

i=5

i=6

i=7

i=8

i=9

i=10

PL/SQL procedure successfully completed.

**3.b) Program to print reverse of 123 num.**

SQL> Declare

2 num Number(3):=123;

3 ans Number(3):=0;

4 i Number(3):=0;

5 begin

6 while num!=0

7 loop

8 i:=mod(num,10);

9 ans:=(ans\*10)+i;

10 num:=floor(num/10);

11 end loop;

12 dbms\_output.put\_line('reverse of a given number is='||ans);

13 end;

14 /

reverse of a given number is=321

PL/SQL procedure successfully completed.

**Extra Questions:-**

1) **Program to accept 3 numbers and display the largest number.**

SQL> Declare

2 a number;

3 b number;

4 c number;

5 begin

6 a:=&a;

7 b:=&b;

8 c:=&c;

9 if(a>b and a>c) then

10 dbms\_output.put\_line('a is greater..');

11 elsif(b>a and b>c) then

12 dbms\_output.put\_line('b is greater..');

13 else

14 dbms\_output.put\_line('c is greater..');

15 end if;

16 end;

17 /

Enter value for a: 12

old 6: a:=&a;

new 6: a:=12 ;

Enter value for b: 34

old 7: b:=&b;

new 7: b:=34;

Enter value for c: 67

old 8: c:=&c;

new 8: c:=67;

c is greater..

PL/SQL procedure successfully completed.

2) **Program to accept 2 numbers and display the largest number.**

SQL> Declare

2 a number;

3 b number;

4 begin

5 a:=&a;

6 b:=&b;

7 if a>b then

8 dbms\_output.put\_line('a is greater..');

9 else

10 dbms\_output.put\_line('b is greater..');

11 end if;

12 end;

13 /

Enter value for a: 45

old 5: a:=&a;

new 5: a:=45;

Enter value for b: 23

old 6: b:=&b;

new 6: b:=23;

a is greater..

PL/SQL procedure successfully completed.

**3) Program accept percentage and display grade of student**

SQL>Declare

2 percent real;

3 begin

4 percent:=&percent;

5 if (percent>=0 and percent<35) then

6 dbms\_output.put\_line('Fail');

7 elsif(percent>=35 and percent<50) then

8 dbms\_output.put\_line('Third Class');

9 elsif(percent>=50 and percent<65) then

10 dbms\_output.put\_line('Second Class');

11 elsif(percent>=65 and percent<80) then

12 dbms\_output.put\_line('First Class');

13 elsif(percent>=80 and percent<=100) then

14 dbms\_output.put\_line('First Class with destination');

15 end if;

16 end;

17 /

Enter value for percent: 46

old 4: percent:=&percent;

new 4: percent:=46;

Third Class.

PL/SQL procedure successfully completed.

**4)Program to find area of circle**

SQL> Declare

2 r number;

3 pi number:=3.14;

4 area number(8,3);

5 begin

6 r:=&r;

7 area:=pi\*power(r,2);

8 dbms\_output.put\_line('Area of circle-'||area);

9 end;

10 /

Enter value for r: 15

old 6: r:=&r;

new 6: r:=15;

Area of circle-706.5

PL/SQL procedure successfully completed.

**5) Program to find Square of a given no.**

SQL> Declare

2 no number;

3 sqr number;

4 begin

5 no:=&no;

6 sqr:=no\*no;

7 dbms\_output.put\_line('Square of no.:- '||sqr);

8 end;

9 /

Enter value for no: 4

old 5: no:=&no;

new 5: no:=4;

Square of no.:- 16

PL/SQL procedure successfully completed.

**6) Program to find sum of a given number.**

SQL> Declare

2 a number;

3 b number;

4 c number;

5 begin

6 a:=&a;

7 b:=&b;

8 c:=a+b;

9 dbms\_output.put\_line('Addition is:- '||c);

10 end;

11 /

Enter value for a: 10

Enter value for b: 12

Addition is:- 22

PL/SQL procedure successfully completed.

**7)Program to perform 4 basic arithmetic operations on given number.**

SQL> Declare

2 a number;

3 b number;

4 c number;

5 begin

6 a:=&a;

7 b:=&b;

8 c:=a+b;

9 dbms\_output.put\_line('Addition is:- '||c);

10 c:=a-b;

11 dbms\_output.put\_line('Substraction is:- '||c);

12 c:=a\*b;

13 dbms\_output.put\_line('Multiplication is:- '||c);

14 c:=a/b;

15 dbms\_output.put\_line('Division is:- '||c);

16 end;

17 /

Enter value for a: 12

Enter value for b: 3

Addition is:- 15

Substraction is:- 9

Multiplication is:- 36

Division is:- 4

PL/SQL procedure successfully completed.

**8)Program to increase the salary of employee from emp table.**

SQL> Declare

2 newsal employees.salary%type;

3 val number;

4 begin

5 val:=&val;

6 update employees set salary=salary+val;

7 dbms\_output.put\_line('The salary is increased by '||val);

8 select salary into newsal from employees where employee\_name='Ritesh';

9 dbms\_output.put\_line('Salary of Ritesh: '||newsal);

10 end;

11 /

Enter value for val: 500

The salary is increased by 500

Salary of Ritesh: 31700

PL/SQL procedure successfully completed.

**9) Program to display msg ‘Welcome to multimedia lab...’**

SQL> Begin

2 dbms\_output.put\_line('Welcome to multimedia lab...');

3 end;

4 /

Welcome to multimedia lab...

PL/SQL procedure successfully completed.

**10) Program to use of string function.**

SQL> declare

2 name varchar2(30);

3 begin

4 name:='&name';

5 dbms\_output.put\_line('Name is '|| lpad(name,15,'\*'));

6 end;

7 /

Enter value for name: Aditya

Name is \*\*\*\*\*\*\*\*\*Aditya

PL/SQL procedure successfully completed.

**11) Program to use of date functions.**

SQL> declare

2 date1 date;

3 begin

4 date1:=(sysdate)+7;

5 dbms\_output.put\_line(date1);

6 end;

7 /

23-NOV-22

PL/SQL procedure successfully completed.