

[Experiment - 1]

1. Write a PL/SQL code to accept the value of A, B, C and display which is greater.

DECLARE

A NUMBER;
B NUMBER;
C NUMBER;

BEGIN

A := &A;
B := &B;
C := &C;

IF(A>B) AND (A>C) THEN

DBMS-OUTPUT.PUT-LINE ('A is greatest:' || A);

ELSIF (B>A) AND (B>C) THEN

DBMS-OUTPUT.PUT-LINE ('B is greatest:' || B);

ELSIF (C>B) AND (C>A) THEN

DBMS-OUTPUT.PUT-LINE ('C is greatest:' || C);

ELSE

DBMS-OUTPUT.PUT-LINE ('Two or more numbers
are equal and greatest');

END IF;

END;

/



GREATEST NUMBER.sql



Aa



```
1  SET SERVEROUTPUT ON;
2
3  DECLARE
4      a NUMBER;
5      b NUMBER;
6      c NUMBER;
7  BEGIN
8      -- Accept user input
9      a := &a;
10     b := &b;
11     c := &c;
12
13     -- Compare and display greatest number
14     IF (a > b AND a > c) THEN
15         DBMS_OUTPUT.PUT_LINE('A is greatest: ' || a);
16     ELSIF (b > a AND b > c) THEN
17         DBMS_OUTPUT.PUT_LINE('B is greatest: ' || b);
18     ELSIF (c > a AND c > b) THEN
19         DBMS_OUTPUT.PUT_LINE('C is greatest: ' || c);
20     ELSE
21         DBMS_OUTPUT.PUT_LINE('Two or more numbers are equal and greatest.');
22     END IF;
23 END;
24 /
```

```
SQL> DECLARE  
      a NUMBER;  
      b NUMBER;  
      c NUMBER;...
```

Show more...

B is greatest: 120

PL/SQL procedure successfully completed.

Elapsed: 00:00:00.003

2. Using PL/SQL statements , display 'Welcome PL/SQL' 20 times.

BEGIN

for i IN 1..20 LOOP

DBMS_OUTPUT.PUT-LINE('Welcome PL/SQL');

END LOOP;

END;

/

3. Write a PL/SQL code to find factorial of a number.

DECLARE

n NUMBER;

FACT NUMBER = 1;

BEGIN

n := &n

IF n < 0 THEN

DBMS_OUTPUT.PUT-LINE('factorial is not defined
for negative numbers');

ELSE

FOR i IN 1..n LOOP

fact := fact * i

END LOOP;

DBMS_OUTPUT.PUT-LINE('Factorial of '|n|' is :|fact|');

END IF;

END;

/



WELCOME PL/SQL.sql



```
1 SET SERVEROUTPUT ON;
2
3 BEGIN
4   . . . FOR i IN 1..20 LOOP
5     . . . DBMS_OUTPUT.PUT_LINE('WELCOME PL/SQL');
6   . . . END LOOP;
7 END;
8 /
9
```

Query result

Script output

DBMS output

Explain Plan

SQL history





FACTORIAL NO.sql



Aa



```
1  SET SERVEROUTPUT ON;
2
3  DECLARE
4      n NUMBER := 5;          -- Change the number here
5      fact NUMBER := 1;
6  BEGIN
7      FOR i IN 1..n LOOP
8          fact := fact * i;
9      END LOOP;
10     DBMS_OUTPUT.PUT_LINE('Factorial of ' || n || ' is: ' || fact);
11 END;
12 /
13
```

Query result

Script output

DBMS output

Explain Plan

SQL history



Elapsed: 00:00:00.005

```
SQL> DECLARE
      n NUMBER := 5;          -- Change the number here
      fact NUMBER := 1;
      BEGIN...
Show more...
```

Factorial of 5 is: 120

PL/SQL procedure successfully completed.

Elapsed: 00:00:00.006

Q. Write a PL/SQL code to generate Fibonacci Series.

DECLARE

n NUMBER;

a NUMBER := 0;

b NUMBER := 1;

c NUMBER;

BEGIN

n := &n;

DBMS-OUTPUT.PUT-LINE('Fibonacci Series upto'||n||' terms');

IF n<=0 THEN

DBMS-OUTPUT.PUT-LINE('Please enter a +ve number');

ELSE IF n = 1 THEN

DBMS-OUTPUT.PUT-LINE(a);

ELSE

DBMS-OUTPUT.PUT-LINE(a);

DBMS-OUTPUT.PUT-LINE(b);

FOR i IN 3..n LOOP

c := a+b

DBMS-OUTPUT.PUT-LINE(cc)

a := b;

b := c;

END LOOP;

END IF;

END;

/



Fibonacci Series.sql



Aa



```
1  DECLARE
2      n      NUMBER := 10;    -- Number of terms in Fibonacci series
3      a      NUMBER := 0;    -- First term
4      b      NUMBER := 1;    -- Second term
5      c      NUMBER;        -- Next term
6      i      NUMBER := 2;    -- Counter (starts from 2 as first two terms are f
7  BEGIN
8      DBMS_OUTPUT.PUT_LINE('Fibonacci Series up to ' || n || ' terms:');
9
10     -- Print first two terms
11     DBMS_OUTPUT.PUT_LINE(a);
12     DBMS_OUTPUT.PUT_LINE(b);
13
14     -- Generate rest of the terms
15     WHILE i < n LOOP
16         c := a + b;          -- Next term
17         DBMS_OUTPUT.PUT_LINE(c);
18         a := b;              -- Shift values
19         b := c;
20         i := i + 1;
21     END LOOP;
22 END;
23 /
24
```

Fibonacci Series up to 10 terms:

```
0  
1  
1  
2  
3  
5  
8  
13  
21  
34
```

PL/SQL procedure successfully completed.

Elapsed: 00:00:00.003

5. Write a PL/SQL code to find sum of first N no.

DECLARE

n NUMBER;

sum NUMBER := 0;

BEGIN

n := &n;

FOR i IN 1..n LOOP

sum := sum + 1

END LOOP;

DBMS_OUTPUT.PUT_LINE('Sum of first '|n|' natural
numbers is : '|sum|);

END ;

/



Sum of n number.sql



Aa



```
1  SET SERVEROUTPUT ON;
2
3  DECLARE
4      n NUMBER := 10;          -- You can change this value
5      sum_num NUMBER := 0;
6  BEGIN
7      -- Using loop to calculate sum
8      FOR i IN 1..n LOOP
9          sum_num := sum_num + i;
10     END LOOP;
11
12    DBMS_OUTPUT.PUT_LINE('Sum of first ' || n || ' numbers = ' || sum_num);
13 END;
14 /
15
```

Query result

Script output

DBMS output

Explain Plan

SQL history



Elapsed: 00:00:00.003

```
SQL> DECLARE
      n NUMBER := 10;          --- You can change this value
      sum_num NUMBER := 0;
    BEGIN...
Show more...
```

Sum of first 10 numbers = 55

PL/SQL procedure successfully completed.

Elapsed: 00:00:00.006