

## Experiment - 1

Write a PL/SQL code to accept the value of A, B & C 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 c > a) then
```

```
DBMS_OUTPUT.PUT_LINE ('B is greatest: ' || b);
```

```
ELSEIF
```

```
DBMS_OUTPUT.PUT_LINE ('C is greatest: ' || c);
```

```
ELSE
```

```
DBMS_OUTPUT.PUT_LINE ('Two or more numbers  
are equal & greatest');
```

```
End IF;
```

```
End;
```



Using PL/SQL statement create a simple loop that display message "Welcome to PL/SQL programming" 20 times

Begin

For i in 1..20 loop

DBMS\_output.Put\_Line ('Welcome to PL/SQL');

End loop

End;

Write a PL/SQL code block to find the factorial of a number

Declare

n Number := 5

fact Number := 1

Begin

For i in 1..n loop

fact := fact \* i;

End loop;

DBMS\_output.Put\_Line ('Factorial of '||n||' is: '||fact);

End;



Write a PL/SQL to generate Fibonacci Series.

Declare

```
n    Number := 10;  
a    Number := 0;  
b    Number := 1;  
c    Number ;  
i    Number := 2;
```

Begin

```
DBMS_Output.PUT_LINE ('Fibonacci Series up  
to '||n|| ' terms:');
```

```
DBMS_Output.PUT_LINE (a);
```

```
DBMS_Output.PUT_LINE (b);
```

```
while i <= n loop
```

```
    c := a + b;
```

```
    DBMS_Output.PUT_LINE (c);
```

```
    a := b
```

```
    b := c
```

```
    i := i + 1
```

```
End Loop
```

```
End ;
```



5 Write a PL/SQL code to find the sum of first N numbers

Declare

n Numbers := 10  
Sum\_val Number := 0;

Begin

For i in 1..n loop  
Sum\_val := Sum\_val + i;

End loop

DBMS - Output.PUT\_LINE ('Sum of first ' || n || ' numbers  
is : ' || Sum\_val ||');

End;



## Experiment - 2

1. Understand concept of function & procedure in PL/SQL

Write PL/SQL code to accept the value ABC display which is greater

Create or replace function find\_greatest (a Number, b Number, c Number) Return Number is  
    greatest Number;

Begin

    if (a >= b) And (a >= c) then

        greatest := a;

    elsif (b >= a) And (b >= c) then

        greatest := b;

    else

        greatest := c;

    end if;

    Return greatest;

End if;

Return

Create or replace procedure show\_greatest (a Number, b Number, c Number) is  
    result Number;

Begin

    result := find\_greatest (a, b, c);

DBMS output . Put line ('Greatest number among ||a||,

'||b||', '||c||' is : ||result||');

End;



Begin  
Show - greatest (25, 67, 42);  
End;

2) Using PL / SQL statements create a simple loop that display message "welcome to PL/SQL Programming" 20 times

Create or replace function get\_message  
Return varchar is

Begin

Return 'Welcome to PL / SQL Programming';  
End

Create or replace procedure show\_message is  
if Number <= 20;

Begin

Loop

DBMS\_output\_line (get\_message);

i := i + 1;

Exit when i > 20;

End loop

End;

Begin

show\_message;

End;



Write a PL/SQL code block to find the factorial  
of Numbers  
Create or replace function find\_factorial (n Numbers)  
Return Numbers is  
fact Numbers := 1;  
i Numbers;

Begin  
if  $n < 0$  then  
Return NULL;  
elseif  $n = 0$  then  
Return 1;  
elseif  
for i in 1..n loop  
fact := fact \* i;  
end loop;  
Return fact;  
end if;

End;

Create or replace Procedure Show Factorial (nNumbers) is  
result Numbers;

Begin

result := find\_factorial (n);

if result is null then

DBMS\_Output.PUT\_LINE ('Factorial not defined  
for negative number);

else

DBMS\_Output.PUT\_LINE ('Factorial of '||n||' is '||result

end if;

End;



Begin  
Show Factorial (5) ;  
End ;

4 Write a PL/SQL Code block to find Fibonacci Series

Create or replace function Fib (n in numbers)  
Return Number is

a Numbers := 0 ;

b Numbers := 1 ;

temp Numbers ;

Begin

IF n = 0 then

Return a ;

Else IF n = 1 then

Return b ;

else

For i in 2..n loop

the temp := a + b ;

a := b ;

b := temp ;

End loop ;

Return b ;

End IF ;

End ;

Create or replace procedure Fibonacci - Series (limit -  
num in Numbers) is

Begin



DBMS Output.PUT LINE ('Fibonacci Series || limit-num||  
' terms:');  
For i in 0..limit-num-1 loop  
DBMS\_Output.PUT(FIB(i)||' ');  
End loop  
DBMS\_Out.NEW LINE;  
End

Begin  
Fibonacci Series (10);  
End;

5 Write a PL/SQL code to find the sum of first  
N numbers  
Create or replace function sum - first n (n in number)  
Return Number is  
total Number := 0;

Begin  
For i in 1..n loop  
total := total + i;  
End loop;  
Return total;  
End;

Create or replace procedure display - sum (n in number)  
is result Number;



Begin

result := sum first n(n);

DBMS output - PUT LINE ('sum of first 10 numbers =')

result);

End;

Begin

display - sum (n);

End;



Results Explain Describe Saved SQL History

Sum of first 10 numbers is: 55

Statement processed.

0.01 seconds

Results Explain Describe Saved SQL History

Sum of first 10 numbers is: 55

Statement processed.

0.01 seconds

Results Explain Describe Saved SQL History

Fibonacci series

0

1

1

2

3

5

8

13

21

34

Statement processed.

0.00 seconds

Results Explain Describe Saved SQL History

Factorial is: 120

Statement processed.

0.00 seconds



Results Explain Describe Saved SQL History

Welcome to PL/SQL Programming  
Welcome to PL/SQL Programming  
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Welcome to PL/SQL Programming

Statement processed.

Results Explain Describe Saved SQL History

Greatest number is: 25

Statement processed.

0.01 seconds