



**University of Petroleum  
&  
Energy Studies  
SCHOOL OF COMPUTER SCIENCE**

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**BATCH:** 1

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**Semester:** 3

## Experiment 13: To understand the concepts of PL/SQL programming.


**Objective:** Students will be able to implement the basic concepts of PL/SQL.

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

**INPUT:**

```
1  DECLARE
2      a NUMBER := 46;
3      b NUMBER := 67;
4      c NUMBER := 21;
5  BEGIN
6      IF a > b
7      AND a > c THEN
8          dbms_output.Put_line('Greatest number is '
9          ||a);
10     ELSIF b > a
11     AND b > c THEN
12         dbms_output.Put_line('Greatest number is '
13         ||b);
14     ELSE
15         dbms_output.Put_line('Greatest number is '
16         ||c);
17     END IF;
18 END;
```

**OUTPUT:**

Results	Explain	Des
Greatest number is 67		
Statement processed.		
 akshat29605@gmail.com		

2. Using PL/SQL Statements create a simple loop that display message “Welcome to PL/SQL Programming” 20 times.

INPUT:

```
1  DECLARE
2      counter NUMBER := 1;
3  BEGIN
4      WHILE counter <= 20 LOOP
5          DBMS_OUTPUT.PUT_LINE('Welcome to PL/SQL Programming');
6          counter := counter + 1;
7      END LOOP;
8  END;
```

OUTPUT:

Results	Explain	Describe	S
Welcome to PL/SQL Programming			
Welcome to PL/SQL Programming			
Welcome to PL/SQL Programming			
Welcome to PL/SQL Programming			
Welcome to PL/SQL Programming			
Welcome to PL/SQL Programming			
Welcome to PL/SQL Programming			
Welcome to PL/SQL Programming			
Welcome to PL/SQL Programming			
Welcome to PL/SQL Programming			
akshat29605@gmail.com akshat			

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

INPUT:

```
1  DECLARE
2      n NUMBER := :P1_NUMBER;
3      fact NUMBER := 1;
4  BEGIN
5
6      FOR i IN 1..n LOOP
7          fact := fact * i;
8      END LOOP;
9
10     DBMS_OUTPUT.PUT_LINE('The factorial of ' || n || ' is: ' || fact);
11 END;
```

## OUTPUT:

Enter Bind Variables - Google Chrome

apex.oracle.com/pls/apex/f?p=4500:138:14400359790469:::

Submit

Bind Variable	Value
:P1_NUMBER	5

Results

Explain

Describe

The factorial of 5 is: 120

Statement processed.

0.01 seconds

4. Write a PL/SQL program to generate Fibonacci series.

## INPUT:

```
1  DECLARE
2      n NUMBER := 10;
3      a NUMBER := 0;
4      b NUMBER := 1;
5      c NUMBER;
6  BEGIN
7      DBMS_OUTPUT.PUT_LINE('Fibonacci series:');
8      DBMS_OUTPUT.PUT_LINE(a);
9      DBMS_OUTPUT.PUT_LINE(b);
10
11     FOR i IN 3..n LOOP
12         c := a + b;
13         DBMS_OUTPUT.PUT_LINE(c);
14         a := b;
15         b := c;
16     END LOOP;
17 END;
```

## OUTPUT:

Results	Explain	Describe
Fibonacci series: 0 1 1 2 3 5 8 13 21 34  Statement processed.  0.00 seconds		

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

## INPUT:

```
1  DECLARE
2  sumVal NUMBER;
3  n NUMBER;
4  i NUMBER;
5
6  FUNCTION Findmax(n IN NUMBER)
7  RETURN NUMBER
8  IS
9  sums NUMBER := 0;
10 BEGIN
11  FOR i IN 1..n
12  LOOP
13  sums := sums + i*(i+1)/2;
14  END LOOP;
15  RETURN sums;
16 END;
17 BEGIN
18  n := 8;
19  sumVal := findmax(n);
20  dbms_output.Put_line('Sum of natural numbers is ' || sumVal);
21 END;
```

## OUTPUT:

Results	Explain	Describe
Sum of natural numbers is 120  Statement processed.  akshat29605@gmail.com aksha		