School of Computer Science, UPES, Dehradun.

A

LABORATORY FILE

On

DATABASE MANAGEMENT SYSTEM (DBMS) LAB

B.TECH. -III Semester

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Experiment 13

To understand the concepts of PL/SQL programming.

<u>Objective:</u>

Students will be able to implement the basic concepts of Pl/SQL.

<u>Execute the following sequence related queries:</u>

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

```
DECLARE
    A NUMBER := 5;
    B NUMBER := 8;
    C NUMBER := 3;
BEGIN
    IF A > B AND A > C THEN
        DBMS_OUTPUT.PUT_LINE('A is the greatest');
    ELSIF B > A AND B > C THEN
        DBMS_OUTPUT.PUT_LINE('B is the greatest');
    ELSE
        DBMS_OUTPUT.PUT_LINE('C is the greatest');
    END IF;
END;
/
```

```
B is the greatest
```

2. Using PL/SQL Statements 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 Programming');
    END LOOP;
END;
/
```

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

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

```
DECLARE
    num NUMBER := 5;  -- Input number
    fact NUMBER := 1;  -- Initialize factorial to 1
BEGIN
    FOR i IN 1..num LOOP
        fact := fact * i;
    END LOOP;
    DBMS_OUTPUT.PUT_LINE('Factorial of ' || num || ' is: ' || fact);
END;
/
```

```
Factorial of 5 is: 120
```

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

```
DECLARE
    n NUMBER := 6;  -- Input value for the number of terms
    a NUMBER := 0;   -- First Fibonacci number
    b NUMBER := 1;   -- Second Fibonacci number
    c NUMBER;
BEGIN
    DBMS_OUTPUT.PUT_LINE('Fibonacci Series:');
    DBMS_OUTPUT.PUT_LINE(a);
    DBMS_OUTPUT.PUT_LINE(b);
    FOR i IN 3..n LOOP
        c := a + b;
        DBMS_OUTPUT.PUT_LINE(c);
        a := b;
        b := c;
    END LOOP;
END;
/
```

```
Fibonacci Series:
0
1
1
2
3
5
```

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

```
DECLARE
    N NUMBER := 5;  -- Input number
    sum NUMBER := 0; -- Initialize sum to 0
BEGIN
    FOR i IN 1..N LOOP
        sum := sum + i;
    END LOOP;
    DBMS_OUTPUT.PUT_LINE('Sum of first ' || N || ' numbers is: ' || sum);
END;
/
```

```
Sum of first 5 numbers is: 15
```