Course Name: DBMS Lab

Course Code: CSEG2146

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Submitted By:

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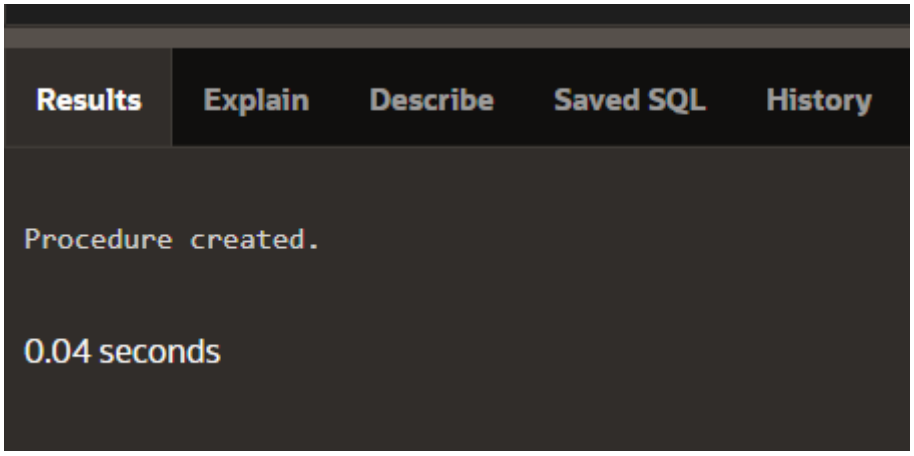
Experiment 13:

Title: 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.**

```
CREATE OR REPLACE PROCEDURE find_greatest (a IN NUMBER, b IN NUMBER, c IN NUMBER) IS
BEGIN
    IF a > b AND a > c THEN
        DBMS_OUTPUT.PUT_LINE('A is the greatest: ' || a);
    ELSIF b > a AND b > c THEN
        DBMS_OUTPUT.PUT_LINE('B is the greatest: ' || b);
    ELSE
        DBMS_OUTPUT.PUT_LINE('C is the greatest: ' || c);
    END IF;
END find_greatest;
```



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

```
DECLARE
  i NUMBER := 1;
BEGIN
  LOOP
    DBMS_OUTPUT.PUT_LINE('Welcome to PL/SQL Programming');
    i := i + 1;
    EXIT WHEN i > 20;
  END LOOP;
END;
/
```

```
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
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Statement processed.


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```

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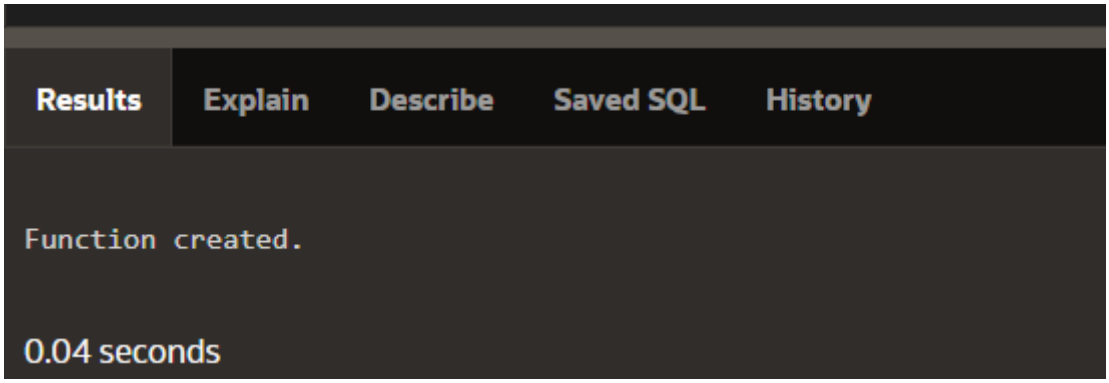
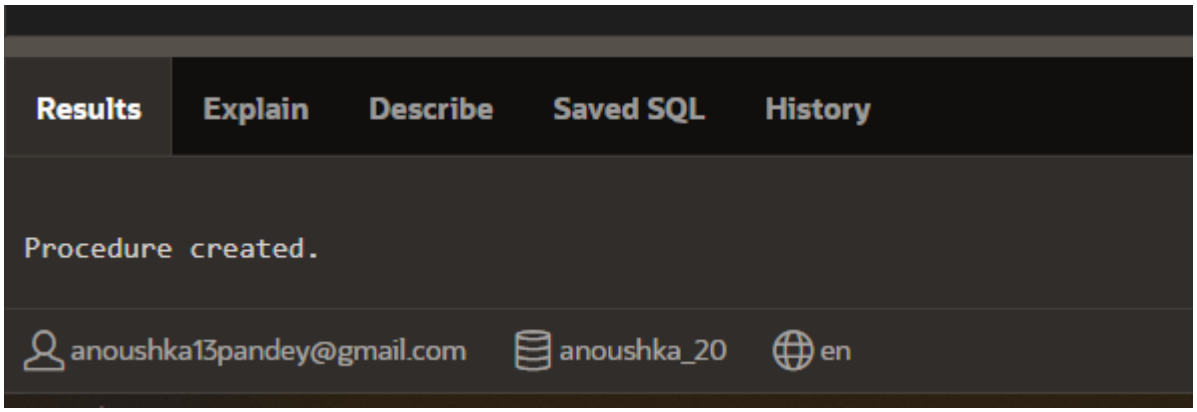
3. **Write a PL/SQL code block to find the factorial of a number.**

```
CREATE OR REPLACE FUNCTION get_factorial(n NUMBER)
RETURN NUMBER
IS
  factorial NUMBER := 1;
BEGIN
  FOR i IN 1..n LOOP
    factorial := factorial * i;
  END LOOP;
  RETURN factorial;
END;
/
```



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

```
1   CREATE OR REPLACE PROCEDURE print_fibonacci(n NUMBER)
2   IS
3     a NUMBER := 0;
4     b NUMBER := 1;
5     next_num NUMBER;
6   BEGIN
7     DBMS_OUTPUT.PUT_LINE(a);
8     DBMS_OUTPUT.PUT_LINE(b);
9
10    FOR i IN 2..n LOOP
11      next_num := a + b;
12      DBMS_OUTPUT.PUT_LINE(next_num);
13      a := b;
14      b := next_num;
15    END LOOP;
16  END;
17  /
```



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

```
-- Sum of First N Numbers
CREATE OR REPLACE FUNCTION get_sum_of_n(n NUMBER)
RETURN NUMBER
IS
  sum_of_n NUMBER := 0;
BEGIN
  FOR i IN 1..n LOOP
    sum_of_n := sum_of_n + i;
  END LOOP;
  RETURN sum_of_n;
END;
/
```