

EXPERIMENT 12

Title: To understand the concepts of Sequence.

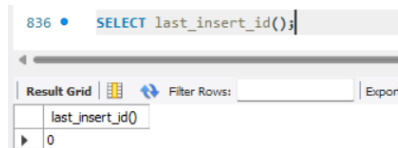
Objective: Students will be able to implement the concept of sequence.

1. Create a sequence by name EMPID_SEQ starting with value 100 with an interval of

```
USE company2;
```

```
ALTER TABLE EMPLOYEES AUTO_INCREMENT=100;
```

2. Write a SQL command for finding the current and the next status of EMPID_SEQ.



The screenshot shows a SQL query editor with the command `SELECT last_insert_id();`. Below the query, there is a 'Result Grid' tab. The grid contains one column labeled 'last_insert_id()' and one row with the value '0'. There are also buttons for 'Filter Rows' and 'Export'.

last_insert_id()
0

3. Change the Cache value of the sequence EMPID_SEQ to 20 and maxvalue to 1000.

```
ALTER TABLE EMPLOYEES AUTO_INCREMENT=1000;
```

4. Insert values in the EMPLOYEES table using sequences for the Employee_id column.

```
INSERT INTO EMPLOYEES(first_name,last_name,salary,department_id)VALUES('Tom','hanks',65000,'D1');
```

5. Drop sequence EMPID_SEQ.

```
DROP TABLE EMPLOYEES;
```

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EXPERIMENT 13

[illegible]

3. PL/SQL Code 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. 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. PL/SQL Code to Find 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
```