Don Bosco Institute of Technology, Kurla(W)
Department of Electronics and Tele-Communication Engineering
ECL304 - Skill Lab: C++ and Java Programming
Sem III
2021-22

Lab Number:	**2**
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Roll No :	**39**

Title:

To Add Two Numbers, Print Number Entered by User, Swap Two Numbers, Check Whether Number is Even or Odd

1.1 Implement using C++

1.2 Implement using Java

Learning Objective:

- Students will be able to write C++ and java program for simple arithmetic operations and take input from user.

Learning Outcome:

- Ability to execute a simple C++ and Java program with and without any inputs to the program.
- Understanding the constructs in C++ and Java.

Course Outcome:

ECL304.1	Understand object-oriented programming concepts and implement using C++ and Java

Faculty: Ms. Deepali Kayande

Theory:

Difference between procedural and object oriented language:

In procedural programming, program is divided into small parts called functions. In object oriented programming, program is divided into small parts called objects. ... Adding new data and function is easy. Procedural programming does not have any proper way for hiding data so it is less secure.

Application of object orientation:

Object-oriented programming (OOP) is a programming paradigm based on the concept of "objects", which can contain data and code: data in the form of fields (often known as attributes or properties), and code, in the form of procedures (often known as methods). OOP can also be **used in manufacturing and design applications**, as it allows people to reduce the effort involved. For instance, it can be used while designing blueprints and flowcharts. OOP makes it possible for the designers and engineers to produce these flowcharts and blueprints accurately

Brief introduction to JAVA:

Java can be used to create complete applications that may run on a single computer or be distributed among servers and clients in a network. It can also be used to build a small application module or applet (a simply designed, small application) for use as part of a Web page.
The Java Programming Language is a general-purpose, concurrent, strongly typed, class-based object-oriented language. It is normally compiled to the bytecode instruction set and binary format defined in the Java Virtual Machine Specification.

Algorithm:

Step 1: Input num1 and num2 and also declare temp

Step 2: Printing num1 and num2

Step 3: Read two numbers num1 and num2;

temp=num1;

num1=num2;

num2=temp;

Print num1 and num2

Step 4: Calculate num1+num2

Step 5: Display the value of addition

Step 6: Divide num1 by 2 and storing the remainder

Step 7: If remainder ==0

Print Even no.

Else

Print Odd no.

Program:

//To Add Two Numbers, Print Number Entered by User,Swap Two Numbers, Check Whether Number is Even or Odd

```
package javaprogramming;
import java.util.Scanner;
```

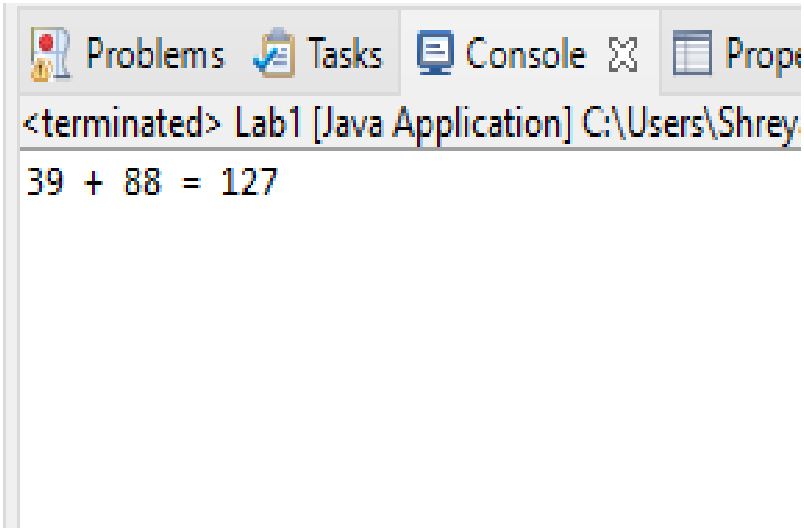
```
public class Lab1 {

    public static void main(String[] args) {

        /*int n1,n2,addition;

        n1=39;

        n2=88;

        addition=n1+n2;

        System.out.println(n1+ " + " +n2+ " = " +addition);*/


        /*int n1,n2;

        Scanner sc= new Scanner(System.in);

        System.out.println("Enter first number:");

        n1=sc.nextInt();

        System.out.println("Enter second number:");

        n2=sc.nextInt();

        System.out.println("Number 1 = " +n1+ " and  Number 2 =
"+n2);*/


        /*int num1,num2,temp;

        System.out.println("Enter two numbers for swapping them :");

        Scanner sc= new Scanner(System.in);

            System.out.println("Enter first number:");

            num1=sc.nextInt();

            System.out.println("Enter second number:");

            num2=sc.nextInt();

            temp=num1;

            num1=num2;
```

```
            num2=temp;
            System.out.println("Number 1: " +num1+ " and Number 2:
"+num2);*/


            int a,remainder;
            System.out.println("Enter a number to check whether it is even or
odd:");
            Scanner sc= new Scanner(System.in);
            a=sc.nextInt();
            remainder=a%2;
            if(remainder==0)
            {
                  System.out.println( a+" is even number");
            }
            else
            {
                  System.out.println( a+" is odd number");
            }

      }
}
```

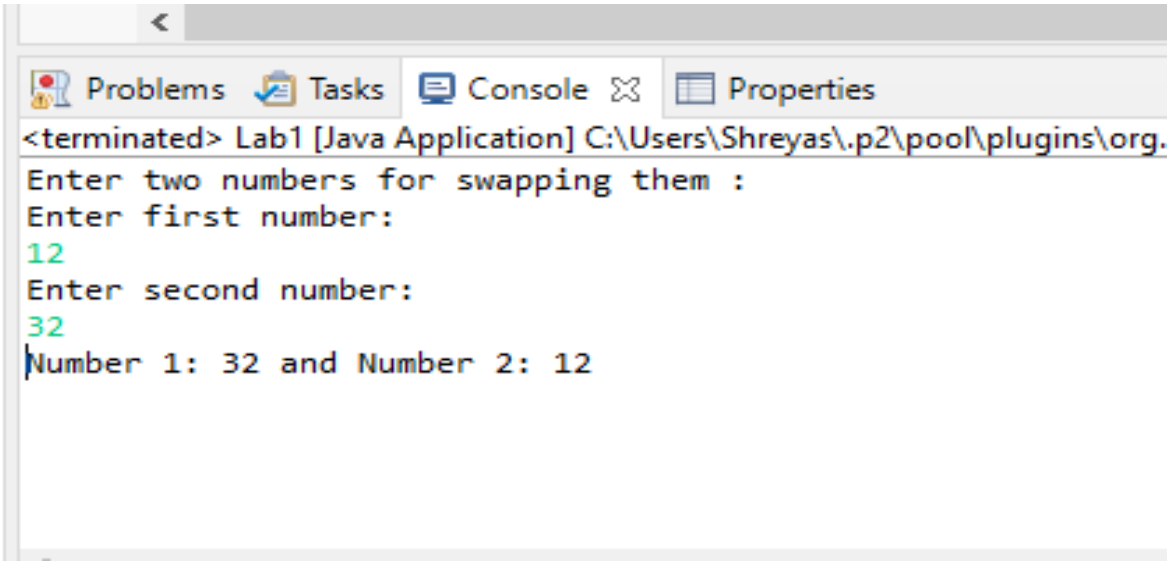
INPUT FOR JAVA: num1=12 and num2 =32

OUTPUT for JAVA:

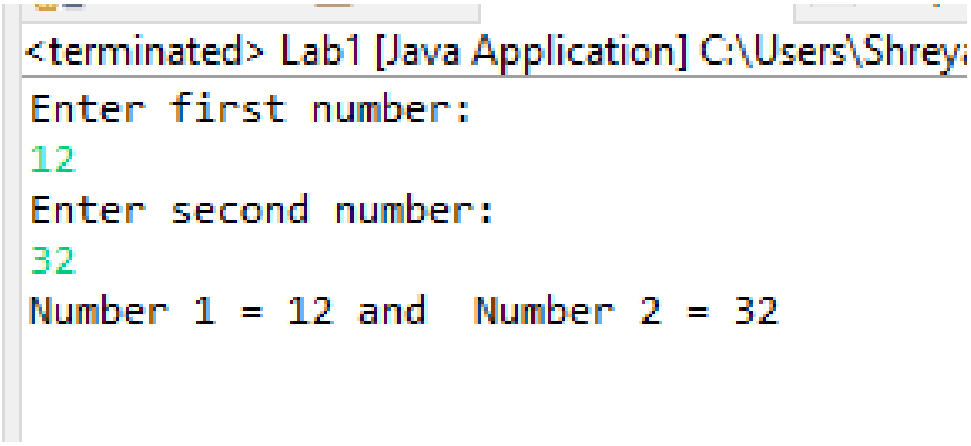
1) **Output for addition:**



2) **Output for Swapping:**



3) Output for displaying given numbers:



4) Output for even/odd no.: