

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:	1
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Roll No :	36

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 G++ 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
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Theory:

Difference between procedural and object oriented language

Procedural	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.
Procedural programming follows top down approach.	Object oriented programming follows bottom up approach.
In procedural programming, function is more important than data.	In object oriented programming, data is more important than function.

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Application of object orientation: 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) is a computer programming model that organizes software design around data, or objects, rather than functions and logic. An object can be defined as a data field that has unique attributes and behaviour.

Brief introduction to C++ and Java : Java is only object-oriented programming language.

Java is an object-oriented programming language that produces software for multiple platforms.

JAVA PROGRAM

```
import java.util.Scanner;

public class Lab1 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in); // Create a Scanner object

        /* System.out.println("Enter username");

        String userName = sc.nextLine(); // Read user input

        System.out.println("Username is: " + userName); // Output user input
        */

        int n1,n2,temp;

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

        n1=sc.nextInt();

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

        n2=sc.nextInt();

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

        System.out.println("\n ADDITION\n");

        System.out.println("\nAddition of both numbers is: " +(n1+n2));
```

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```
System.out.println("\n SWAPPING\n");

temp=n1;

n1=n2;

n2=temp;

System.out.println("After swapping Number 1 = "+n1+" Number 2 = "+n2);


System.out.println("\n EVEN/ODD\n");

if(n1%2==0)

    System.out.println(n1+" is Even");

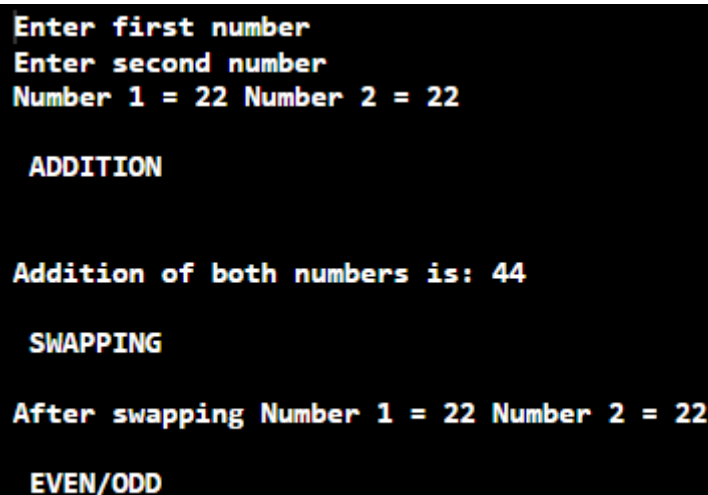
else

    System.out.println(n1+" is Odd");

}

}
```

OUTPUT:

A screenshot of a terminal window with a black background and white text. The output shows the execution of a C++ program. It starts with prompts for two numbers, both entered as 22. It then displays the addition of these numbers as 44. Next, it shows the swapping process, which in this case results in the same numbers (22 and 22). Finally, it checks for even/odd status, which is not visible in the provided screenshot.

```
Enter first number
Enter second number
Number 1 = 22 Number 2 = 22

ADDITION

Addition of both numbers is: 44

SWAPPING

After swapping Number 1 = 22 Number 2 = 22

EVEN/ODD
```