

**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**

|                      |                |
|----------------------|----------------|
| <b>Lab Number:</b>   | <b>1</b>       |
| <b>Student Name:</b> | Kanishka Aware |
| <b>Roll No :</b>     | 13             |

**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:**

|                 |  |
|-----------------|--|
| <b>ECL304.1</b> | Understand object-oriented programming concepts and implement using C++ and Java |
|-----------------|--|

**Theory:**

Difference between procedural and object oriented language.

A procedural programming language consists of a set of procedure calls and a set of code for each procedure. On the other hand, object oriented languages are based on entities known as objects.

Procedural language: Simple, easy implementation of compilers and interpreters

**Faculty: Ms. Deepali Kayande**

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Object oriented language: Improved software development productivity due to modularity,

extensibility and reusability.

Application of object orientation: Main application areas of OOP are: User interface design such as windows, menu. Real Time Systems. Simulation and Modelling. Object

oriented databases. AI and Expert System. Neural Networks and parallel programming.

Decision support and office automation systems

**Brief introduction to Java**

**Java is an Object Oriented language. Object oriented programming is a way of organizing programs as collection of objects, each of which represents**

**sents an instance of a class. Java is considered as one of simple language because it does**

**not have complex features like Operator overloading, Multiple inheritance, pointers and**

**Explicit memory allocation.**

|                     |  |
|---------------------|--|
| <b>Algorithm :</b>  | STEP 1: start<br>STEP 2: define two n1 and n2<br>STEP 3: input number1,n1<br>input number2, n2<br>STEP 4: addition of two numbers n1 and n2<br>STEP 5: swapping of two numbers n1 and n2<br>STEP 6: odd or even<br>STEP7: stop |
| <b>Program:</b>     | <a href="https://github.com/kanishkadbit/skill-labs-with-OOPM/commit/d5779c1cac570504afea121c0ed3ae4ccfdbf48e">https://github.com/kanishkadbit/skill-labs-with-OOPM/commit/d5779c1cac570504afea121c0ed3ae4ccfdbf48e</a>        |
| <b>Input given:</b> | 15 16  |

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**Output Screenshot:**

```
java -cp /tmp/U1ahwCvUt9 Lab1
Enter first number
15
Enter second number
16
Number 1 = 15 Number 2 = 16

ADDITION

Addition of both numbers is: 31

SWAPPING

After swapping Number 1 = 16 Number 2 = 15

EVEN/ODD
16 is Even
|
```