

**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>
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<b>Roll No :</b>	<b>26</b>

**Title:**

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

1.2 Implement using Java

**Learning Objective:**

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

**Learning Outcome:**

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

Course Outcome:

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

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

**Faculty: Ms. Deepali Kayande**

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**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 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 STEP 2: define two n1 and n2 STEP 3: input number1,n1 input number2, n2 STEP 4: addition of two numbers n1 and n2 STEP 5: swapping of two numbers n1 and n2 STEP 6: odd or even STEP7: stop
<b>Program:</b>	<a href="https://github.com/rakshitakhantwal/skill-lab-with-oopm/commit/828ec2a13b474decee3ca8500237035b50eec6da">https://github.com/rakshitakhantwal/skill-lab-with-oopm/commit/828ec2a13b474decee3ca8500237035b50eec6da</a>
<b>Input given:</b>	first number= 11 Second number=22

**Output screenshot:**

```
java -cp /tmp/U1ahwCvUt9 Lab1
Enter first number
11
Enter second number
22
Number 1 = 11 Number 2 = 22
ADDITION

Addition of both numbers is: 33

SWAPPING

After swapping Number 1 = 22 Number 2 = 11

EVEN/ODD

22 is Even
```

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