## 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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#### 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

### 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. Al and Expert System. Neural Networks

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and parallelprogramming. Decision support and office automation systems

Brief introduction to C++ and Java: C++ is a cross-platform language that can be used to create high-performance applications. It was developed by Bjarne Stroustrup, as an extension to the C language. It gives programmers a high level of control over system resources and memory. It is an object-oriented programming language which gives a clear structure to programs and allows code to be reused, lowering development costs. Also, it is portable and can be used to develop applications that can be adapted to multiple platforms.

Algorithm:	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 teo numbers n1 and n2
	STEP 6: odd or even
	STEP7: stop
Program:	https://github.com/prathamkoturwar/skill_labs-with- oopm/blob/36394607f179767a20587aea53b09c20f0606e87/24_lab s-2.md
Input given:	First number:11
	Second number:22
Output	java -cp /tmp/U1ahwCvUt9 Lab1 Enter first number
Screenshot	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