

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
Student Name:	Jaipreet Singh Saini
Roll No :	11

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
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Theory:

Application of object orientation

Solution:-

- 1) **Client-Server Systems**
- 2) **Object-Oriented Databases**
- 3) **Object-Oriented Databases**
- 4) **Real-Time System Design**
- 5) **Real-Time System Design**
- 6) **Hypertext and Hypermedia**

Faculty: Ms. Deepali Kayande

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Difference between procedural and object oriented language

Procedural oriented language	Object oriented language
In procedural programming, program is divided into small parts called <i>functions</i> .	In object oriented programming, program is divided into small parts called <i>objects</i> .
It follows top down approach.	It follows bottom up approach.
There is no access specifier in procedural programming.	Object oriented programming have access specifiers like private, public, protected etc.
Procedural programming does not have any proper way for hiding data so it is <i>less secure</i> .	Object oriented programming provides data hiding so it is <i>more secure</i> .
In procedural programming, function is more important than data.	In object oriented programming, data is more important than function.
Examples: C, FORTRAN, Pascal, Basic etc.	Examples: C++, Java, Python, C# etc.

Brief introduction to C++ and Java :-

C++ is one of the world's most popular programming languages.

C++ can be found in today's operating systems, Graphical User Interfaces, and embedded systems.

C++ is an object-oriented programming language which gives a clear structure to programs and allows code to be reused, lowering development costs.

C++ is portable and can be used to develop applications that can be adapted to multiple platforms.

C++ is fun and easy to learn!

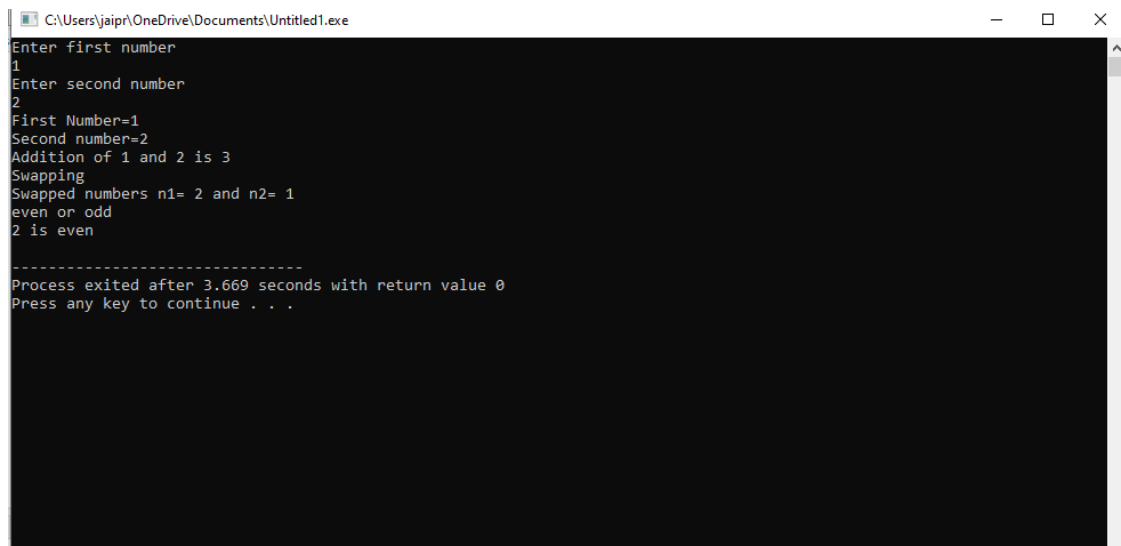
As C++ is close to C and Java, it makes it easy for programmers to switch to C++ or vice versa

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Java is a class-based, object-oriented programming language and is designed to have as few implementation dependencies as possible. A general-purpose programming language made for developers to *write once run anywhere* that is compiled Java code can run on all platforms that support Java. Java applications are compiled to byte code that can run on any Java Virtual Machine. The syntax of Java is similar to c/c++.

1.1 For C++

Input given: - a=1 b=2

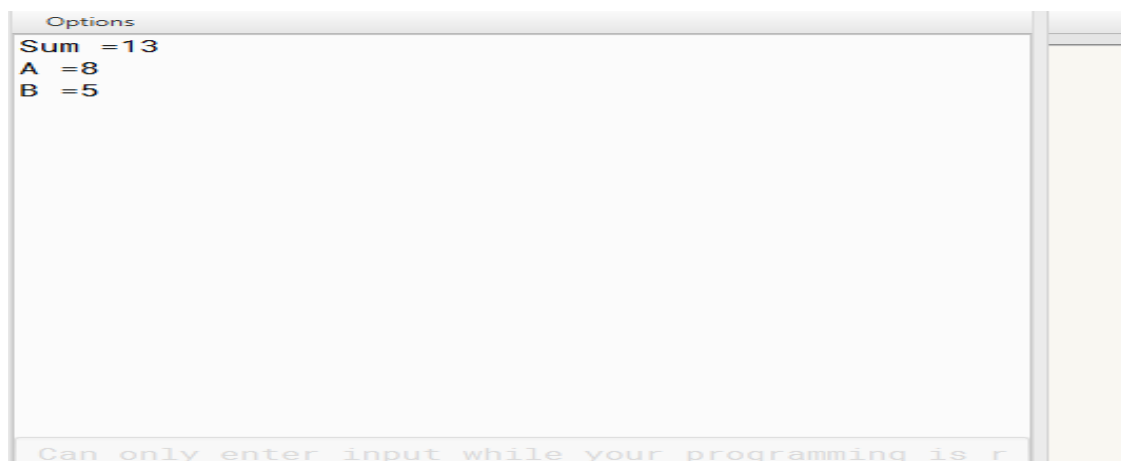


```
C:\Users\jaipr\OneDrive\Documents\Untitled1.exe
Enter first number
1
Enter second number
2
First Number=1
Second number=2
Addition of 1 and 2 is 3
Swapping
Swapped numbers n1= 2 and n2= 1
even or odd
2 is even

-----
Process exited after 3.669 seconds with return value 0
Press any key to continue . . .
```

1.2 For Java

Input given: - a=5 b=8



```
Options
Sum =13
A =8
B =5

Can only enter input while your programming is r
```