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 :	**39**

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

Faculty: Ms. Deepali Kayande

Theory:

Difference between procedural and 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. ... Adding new data and function is easy. Procedural programming does not have any proper way for hiding data so it is less secure.

Application of object orientation:

Object-oriented programming (OOP) is a programming paradigm based on the concept of "objects", which can contain data and code: data in the form of fields (often known as attributes or properties), and code, in the form of procedures (often known as methods). 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 makes it possible for the designers and engineers to produce these flowcharts and blueprints accurately

Brief introduction to C++ and Java:

C++ was designed for systems and applications programming. It was an extension of the C programming language.
In contrast to C, it supports object-oriented programming features like classes. Like C, it is used when a low-level programming language is necessary. While C++ is commonly used for **graphics-heavy software such as games, photo and video editing apps**, browsers, C is more widely used for embedded devices and OS kernels.

Algorithm:

Step 1: Input num1 and num2 and also declare temp

Step 2: Printing num1 and num2

Step 3: Read two numbers num1 and num2;

temp=num1;

num1=num2;

num2=temp;

Print num1 and num2

Step 4: Calculate num1+num2

Step 5: Display the value of addition

Step 6: Divide num1 by 2 and storing the remainder

Step 7: If remainder ==0

Cout<<Even no.

Else

Cout<<Odd no.

Program:

Code for C++:

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

#include<iostream>

using namespace std;

int main()

{

    /*int n1, n2,addition;

    cout<< "Enter two numbers in order to find its sum:";

    cin>>n1>>n2;

    addition=n1+n2;
```

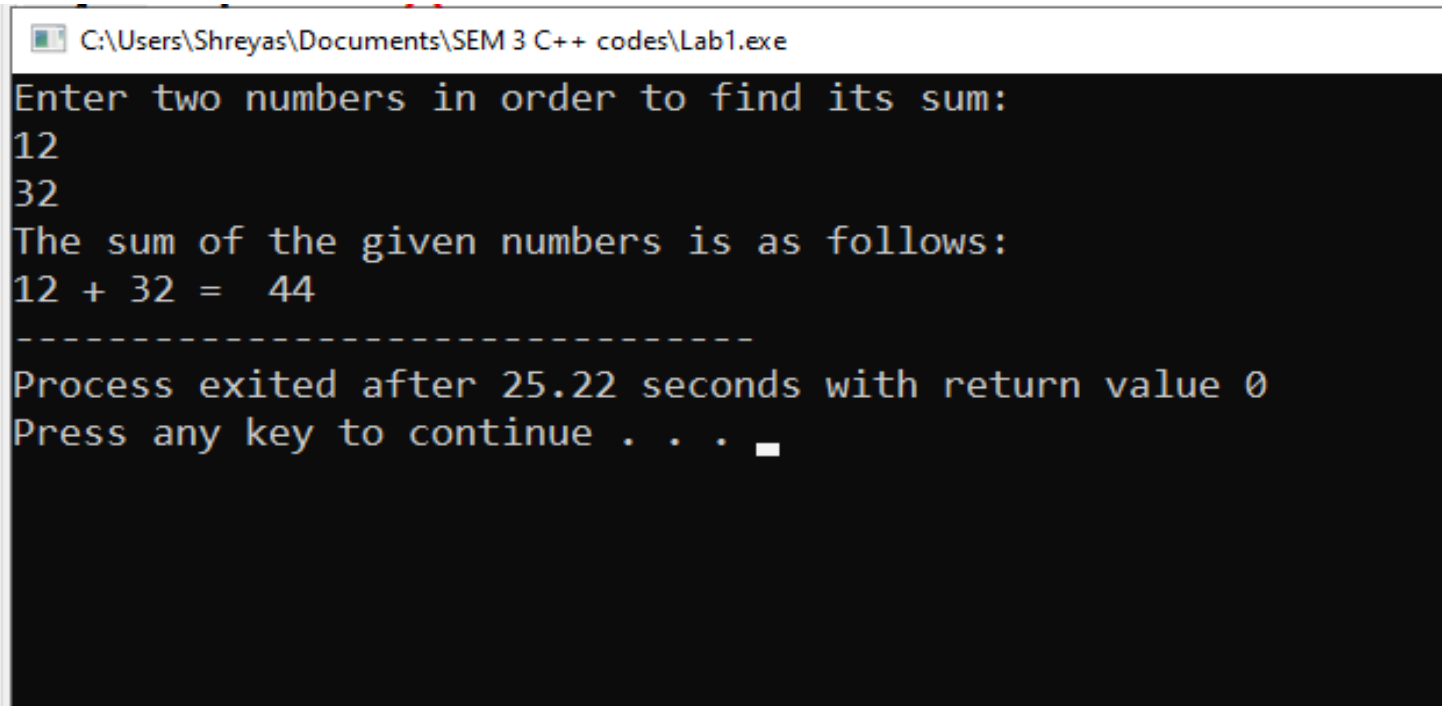
```
cout<<"The sum of the given numbers is as follows: \n"<< n1 <<" + "<< n2 <<" =  "<< addition;
return 0;*/


/*int n1,n2;
cout<<"Enter two numbers:";
cin>>n1>>n2;
cout<< "Number 1: "<< n1 <<" and Number 2: "<< n2 ;
return 0;*/


/*int n1,n2,temp;
cout<<"Enter two numbers:";
cin>>n1>>n2;
temp=n1;
n1=n2;
n2=temp;
cout<<"The numbers after swapping are as follows:\n";
cout<< "Number 1: "<< n1 <<" and Number 2: "<< n2 ;
return 0;*/


int a,remainder;
cout<<"Enter a number to check whehter it is even or odd:\n";
cin>>a;
remainder=a%2;
if(remainder==0)
{
```

```
        cout<< a << " is even number";
    }
    else
    {
        cout<< a << " is odd number";
    }
    return 0;
}
```

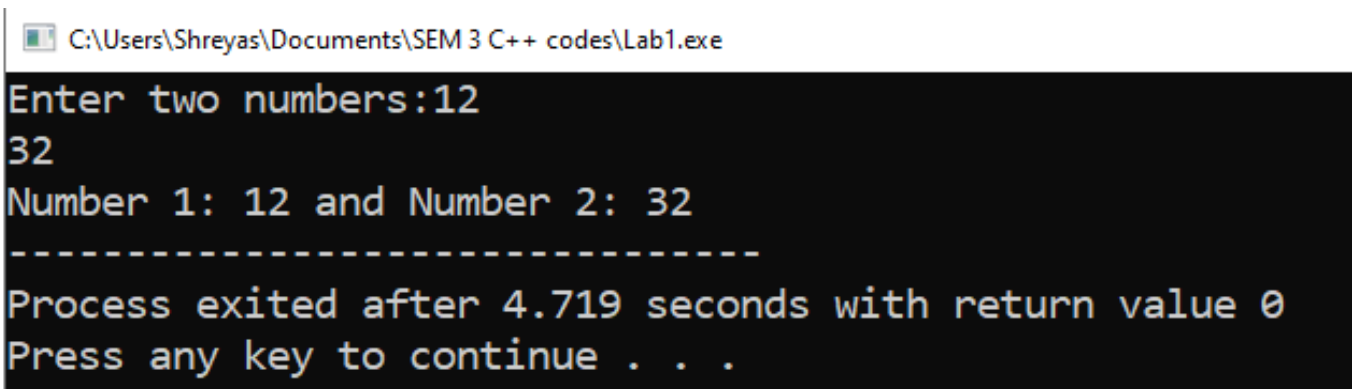
INPUT FOR C++ : num1 =12 and num2 =32

OUTPUT :

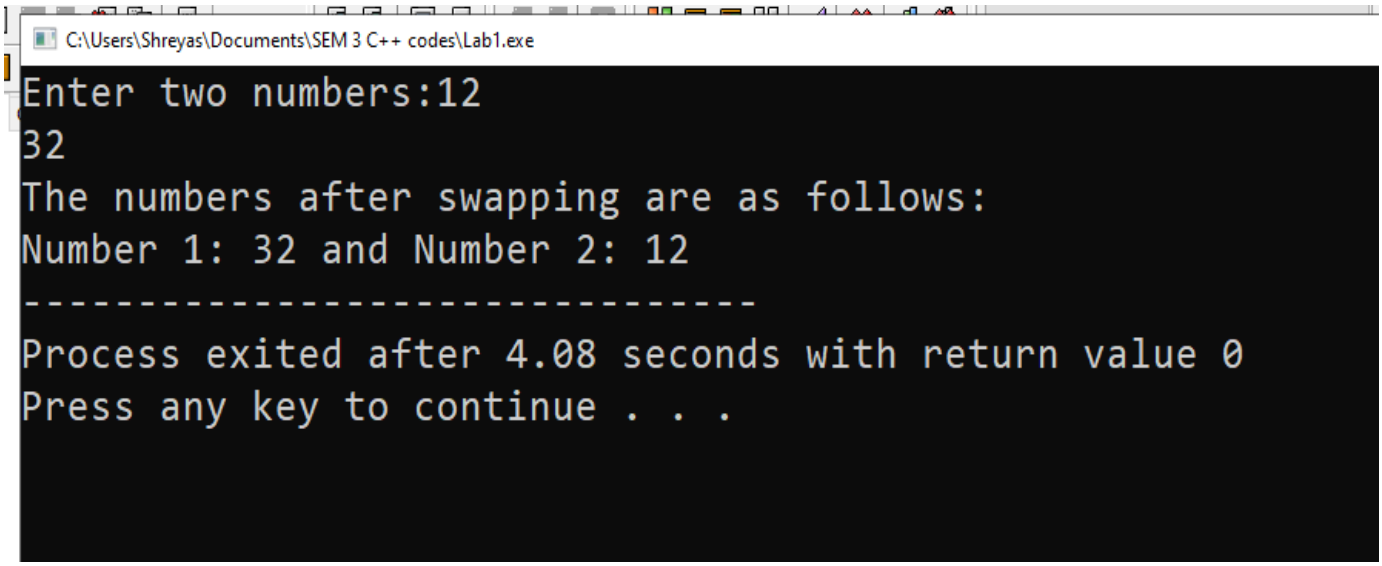
1)Output for addition:



2) Output for displaying given nos,:



3) Output for swapping the 2 nos.:



4) Output for checking odd/even no.: