

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:	UMER SHAIKH
Roll No :	44

Title:

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

1.2 Implement using C++

Learning Objective:

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

Learning Outcome:

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

Course Outcome:

ECL304.1	Understand object-oriented programming concepts and implement using C++
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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

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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 C++:

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 numbers n1 and n2 STEP 3:input number 1 , n1 input number 2 , n2 STEP 4 : addition of two numbers n1 and n2 STEP 5 : swapping of two numbers n1 and n2 STEP 6 :odd or even STEP 7 : end
Program:	https://github.com/umershaikh17/Skill-lab-with-oo-pm.git
Input given:	number 1 : 21 number 2 : 4

Output Screenshot:

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main.cpp	Run	Output
<pre>1 // lab 1 2 // bdd Umer Shaikh 3 #include<iostream> 4 using namespace std; 5 int main() 6 { 7 int n1,n2,temp; 8 cout << "enter first number" << endl; 9 cin >> n1; 10 cout << "enter second number" << endl; 11 cin >> n2; 12 cout << "First Number=" << n1 << endl << "Second Number=" << n2 << endl; 13 cout << "Addition of " << n1 << " and " << n2 << " is " << n1+n2; 14 cout << "\nSwapping \n"; 15 temp=n1; 16 n1=n2; 17 n2=temp; 18 cout<<"Swapped numbers n1= "<<n1<<" and n2= " << n2 << endl; 19 cout<<"even or odd \n"; 20 if(n1%2==0) 21 cout<<n1<<" is even \n"; 22 else 23 cout<<n1<<" is odd \n"; 24 return 0; 25 } 26 27</pre>		<pre>/tmp/RbeYd96BPS.o enter first number 21 enter second number 4 First Number=21 Second Number=4 Addition of 21 and 4 is 25 Swapping Swapped numbers n1= 4 and n2= 21 even or odd 4 is even</pre>

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