**LAB ASSIGNMENT NO:** 2

**PROBLEM STATEMENT:**

Implement a class Complex which represents the Complex Number data type. Implement the following operations: Constructor (including a default constructor which creates the complex number 0+0i), Overloaded operator + to add two complex numbers, Overloaded operator \* to multiply two complex operator, Overloaded << and >> to print and read Complex Numbers.

**AIM OF ASSIGNMENT:**

Program to Represent Complex Number to understand the concept of class and objects, Constructor and Overloaded Operator for addition, multiplication, print and read the Complex Numbers.

**DESCRIPTION:**

This C++ Program comprises of the use of different OOP Concepts like Class and Objects, Constructor, Operator Overloading (of addition, multiplication , input and output operators), also the arithmetic operations on complex numbers. Complex Numbers is represented by x+yi, where x and y are any values and i denotes the imaginary part.

**OOP CONCEPT USED:**

* Use of class(private and public access specifiers)
* Member Functions include:

1. Use of Constructor(Default and Parameutarised Constructor)
2. Use of Overloaded Operators ‘+’ & ‘\*’
3. Use of friend ostream and friend istream for overloading the insertion(<<) and extraction(>>) operators

* Object Creation of Class

**CONCLUSION:**

Hence, we performed arithmetic operations (including addition and multiplication) on complex numbers and learnt various OOP concepts like Operator Overlaoding.