OBJECT ORIENTED PROGRAMMING LAB

Experiment No.: 3

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Aim

Add complex numbers

PROCEDURE

```
import java.util.Scanner;

class Complex // User Defined Complex class
{

   int real, imaginary; //  variables declaration

   Complex() // Empty Constructor
   {
   }

   Complex(int tempReal, int tempImaginary)
   {
      real = tempReal;
      imaginary = tempImaginary;
   }

   // for adding two complex number
   Complex addComp(Complex C1, Complex C2) //  adding two complex number
   {
      Complex temp = new Complex();  // create temporary variable

      temp.real = C1.real + C2.real;  // adding real part of complex number
```

```
        temp.imaginary = C1.imaginary + C2.imaginary;  // adding Imaginary part of complex numbers

        return temp; // returning the sum
    }

    void printComplexNumber() // Function for printing complex number
    {
        System.out.println("Complex number: "
                           + real + " + "
                           + imaginary + "i");
    }
}

// Main Class
public class ComplexNumber  // Main Class
{
   public static void main(String[] args)     // Main function
    {

    public static void main(String[] args)
    {

        Complex C1 = new Complex(3, 2); // First Complex number

        C1.printComplexNumber(); // printing first complex number

        Complex C2 = new Complex(9, 5); // Second Complex number

        C2.printComplexNumber(); // printing second complex number


        Complex C3 = new Complex();  //  Storing the sum
```

```
        C3 = C3.addComp(C1, C2); // calling addComp() method for addition

        System.out.println("Sum of "); // printing the sum
        C3.printComplexNumber();

    }
}
```

OUTPUT