

## **OBJECT ORIENTED PROGRAMMING LAB**

### **Experiment No.: 3**

#### **Aim**

Program to add complex numbers

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#### **Procedure**

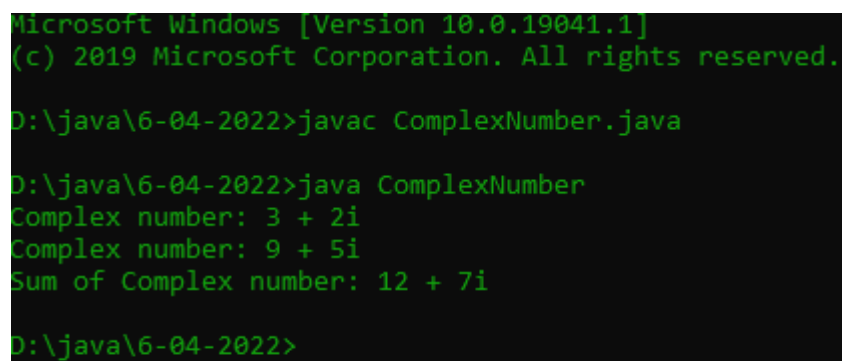
```
import java.util.*;

class Complex {
    int real, imaginary;
    Complex(){ }
    Complex(int tempReal, int tempImaginary)
    {
        real = tempReal;
        imaginary = tempImaginary;
    }
    Complex addComp(Complex C1, Complex C2)
    {
        Complex temp = new Complex();
        temp.real = C1.real + C2.real;
        temp.imaginary = C1.imaginary + C2.imaginary;
        return temp;
    }
    Complex subtractComp(Complex C1, Complex C2)
    {
        Complex temp = new Complex();
        temp.real = C1.real - C2.real;
        temp.imaginary = C1.imaginary - C2.imaginary;
```

```
        return temp;
    }
    void printComplexNumber()
    {
        System.out.println("Complex number: "
                            + real + " + "
                            + imaginary + "i");
    }
}

public class GFG {
    public static void main(String[] args)
    {
        Complex C1 = new Complex(3, 2);
        C1.printComplexNumber();
        Complex C2 = new Complex(9, 5);
        C2.printComplexNumber();
        Complex C3 = new Complex();
        C3 = C3.addComp(C1, C2);
        System.out.print("Sum of ");
        C3.printComplexNumber();
    }
}
```

### Output Screenshot



```
Microsoft Windows [Version 10.0.19041.1]
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D:\java\6-04-2022>javac ComplexNumber.java

D:\java\6-04-2022>java ComplexNumber
Complex number: 3 + 2i
Complex number: 9 + 5i
Sum of Complex number: 12 + 7i

D:\java\6-04-2022>
```