

```

* Assignment No: 1
*/
import java.util.*;
class Complex_No {
    float real, imag;
    public Complex_No() {
        real = 0;
        imag = 0;
    }
    public Complex_No(float a, float b) {
        real = a;
        imag = b;
    }
    public void Display(Complex_No C_1, Complex_No C_2) {
        System.out.println("1st Complex Number: (" + C_1.real + ")+(" + C_1.imag
+ ")i");
        System.out.println("2nd Complex Number: (" + C_2.real + ")+(" + C_2.imag
+ ")i");
    }
    public void Add(Complex_No C_1, Complex_No C_2) {
        float real = C_1.real + C_2.real;
        float imag = C_1.imag + C_2.imag;
        System.out.println("Addition of Complex Numbers: (" + real + ")+(" +
imag + ")i");
    }
    public void Sub(Complex_No C_1, Complex_No C_2) {
        float real = C_1.real - C_2.real;
        float imag = C_1.imag - C_2.imag;
        System.out.println("Subtraction of Complex Numbers: (" + real + ")+(" +
imag + ")i");
    }
    public void Mul(Complex_No C_1, Complex_No C_2) {
        float real = C_1.real * C_2.real - C_1.imag * C_2.imag;
        float imag = C_1.real * C_2.imag + C_1.imag * C_2.real;
        System.out.println("Multiplication of Complex Numbers: (" + real + ")+("
+ imag + ")i");
    }
    public void Div(Complex_No C_1, Complex_No C_2) {
        float denominator = C_2.real * C_2.real + C_2.imag * C_2.imag;
        float real = (C_1.real * C_2.real + C_1.imag * C_2.imag) / denominator;
        float imag = (C_1.imag * C_2.real - C_1.real * C_2.imag) / denominator;
        System.out.println("Division of Complex Numbers: (" + real + ")+(" +
imag + ")i");
    }
}
class Mauli1 {
    public static void main(String[] args) {
        float n1, n2;
        Complex_No calculate = new Complex_No();
        Scanner scan = new Scanner(System.in);
        System.out.print("Enter real number of 1st number: ");
        n1 = scan.nextFloat();
        System.out.print("Enter imaginary number of 1st number: ");

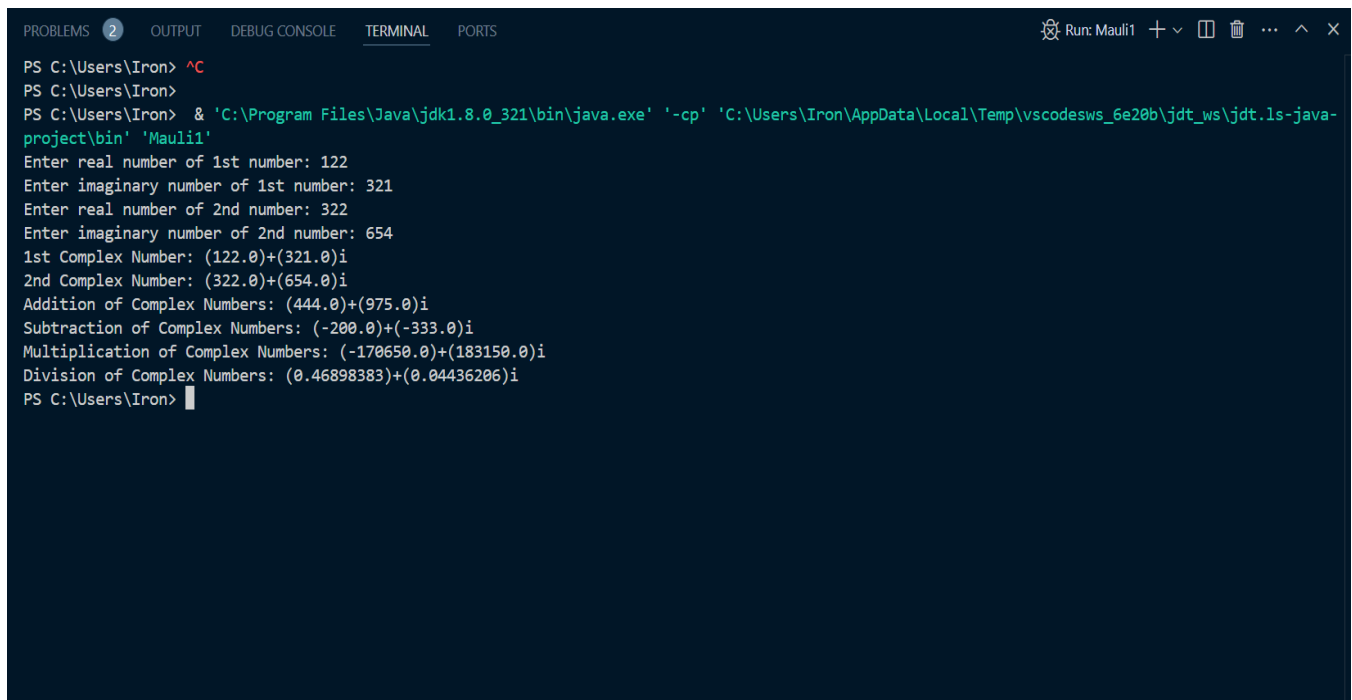
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        n2 = scan.nextFloat();
        Complex_No C_1 = new Complex_No(n1, n2);
        System.out.print("Enter real number of 2nd number: ");
        n1 = scan.nextFloat();
        System.out.print("Enter imaginary number of 2nd number: ");
        n2 = scan.nextFloat();
        Complex_No C_2 = new Complex_No(n1, n2);
        scan.close();
        calculate.Display(C_1, C_2);
        calculate.Add(C_1, C_2);
        calculate.Sub(C_1, C_2);
        calculate.Mul(C_1, C_2);
        calculate.Div(C_1, C_2);
    }
}

```

Output:



The screenshot shows a VS Code terminal window with the following content:

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PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\Iron> ^C
PS C:\Users\Iron>
PS C:\Users\Iron> & 'C:\Program Files\Java\jdk1.8.0_321\bin\java.exe' '-cp' 'C:\Users\Iron\AppData\Local\Temp\vscodesws_6e20b\jdt_ws\jdt.ls-java-
project\bin' 'Maulii'
Enter real number of 1st number: 122
Enter imaginary number of 1st number: 321
Enter real number of 2nd number: 322
Enter imaginary number of 2nd number: 654
1st Complex Number: (122.0)+(321.0)i
2nd Complex Number: (322.0)+(654.0)i
Addition of Complex Numbers: (444.0)+(975.0)i
Subtraction of Complex Numbers: (-200.0)+(-333.0)i
Multiplication of Complex Numbers: (-170650.0)+(183150.0)i
Division of Complex Numbers: (0.46898383)+(0.04436206)i
PS C:\Users\Iron>

```