**Experiment No.: 1**

**Aim**

Add two complex numbers.

**CO1**

Understand object-oriented concepts and design classes and objects to solve problems.

**Procedure**

import java.util.\*;

public class complex {

public static void main(String[] args){

Scanner value = new Scanner(System.in);

System.out.println("Enter first complex number: ");

int r1 = value.nextInt();

int i1 = value.nextInt();

System.out.println(“Complex Number 1 is: ”+r1+"+"+i1+"i");

System.out.println("Enter second complex number: ");

int r2 = value.nextInt();

int i2 = value.nextInt();

System.out.println(“Complex Number 1 is: ”+r2+"+"+i2+"i");

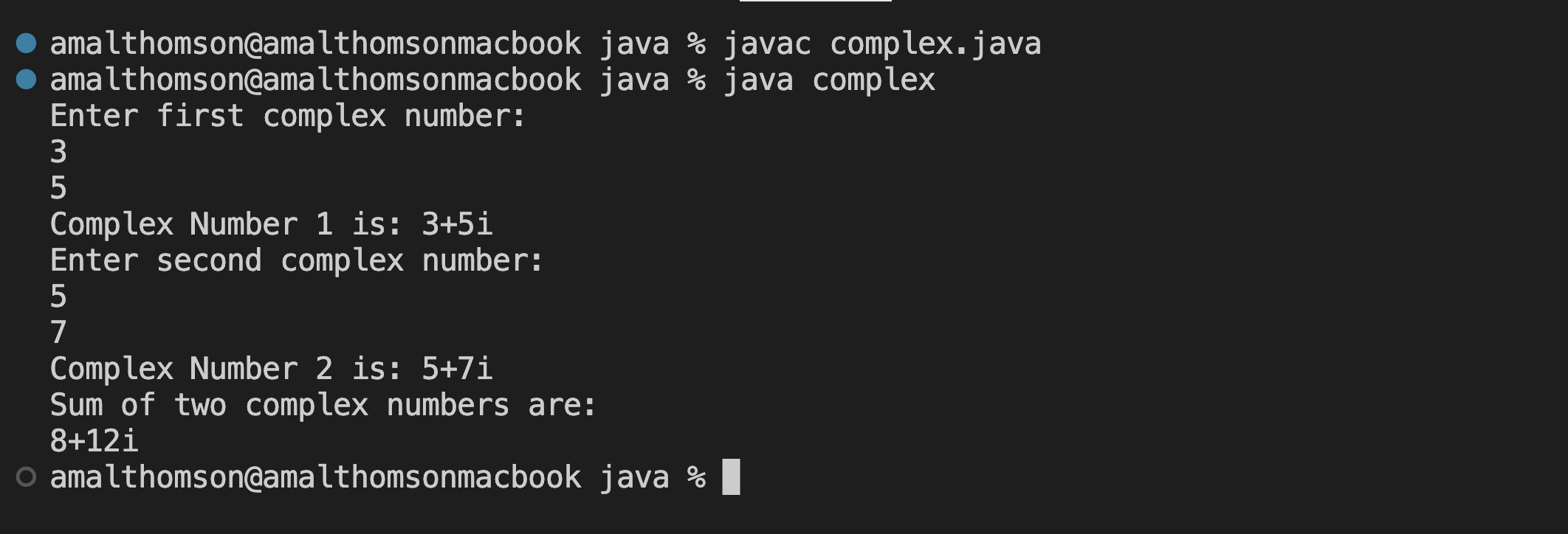
System.out.println("Sum of two complex numbers are: ");

System.out.println(r1+r2 + "+" + (i1+i2) + "i");

}

}

**Output Screenshot**



**Result**

The program was executed and the result was successfully obtained. Thus CO1 was obtained.

**Experiment No.: 2**

**Aim**

Perform matrix addition.

**CO1**

Understand object-oriented concepts and design classes and objects to solve problems.

**Procedure**

import java.util.\*;

public class matrix {

public static void main (String[] args) {

Scanner value = new Scanner(System.in);

int i,j;

System.out.println("Enter number of rows:");

int row = value.nextInt();

System.out.println("Enter number of columns:");

int col = value.nextInt();

int arr1[][] = new int[row][col];

System.out.println("Enter Matrix\_1 Elements ");

for (i=0;i<row;i++)

{

for(j=0;j<col;j++)

{

arr1[i][j] = value.nextInt();

}

}

System.out.println("Matrix\_1 Elements are: ");

for (i=0;i<row;i++)

{

for(j=0;j<col;j++)

{

System.out.print(arr1[i][j]+"\t");

}

System.out.println();

}

int arr2[][] = new int[row][col];

System.out.println("Enter Matrix\_1 Elements ");

for (i=0;i<row;i++)

{

for(j=0;j<col;j++)

{

arr2[i][j] = value.nextInt();

}

}

System.out.println("Matrix\_1 Elements are: ");

for (i=0;i<row;i++)

{

for(j=0;j<col;j++)

{

System.out.print(arr2[i][j]+"\t");

}

System.out.println();

}

int arr3[][] = new int[row][col];

System.out.println("Addition of Matrix\_1 & Matrix\_2 is: ");

for (i=0;i<row;i++)

{

for(j=0;j<col;j++)

{

arr3[i][j] = arr1[i][j] + arr2[i][j];

}

}

for (i=0;i<row;i++)

{

for(j=0;j<col;j++)

{

System.out.print(arr3[i][j]+"\t");

}

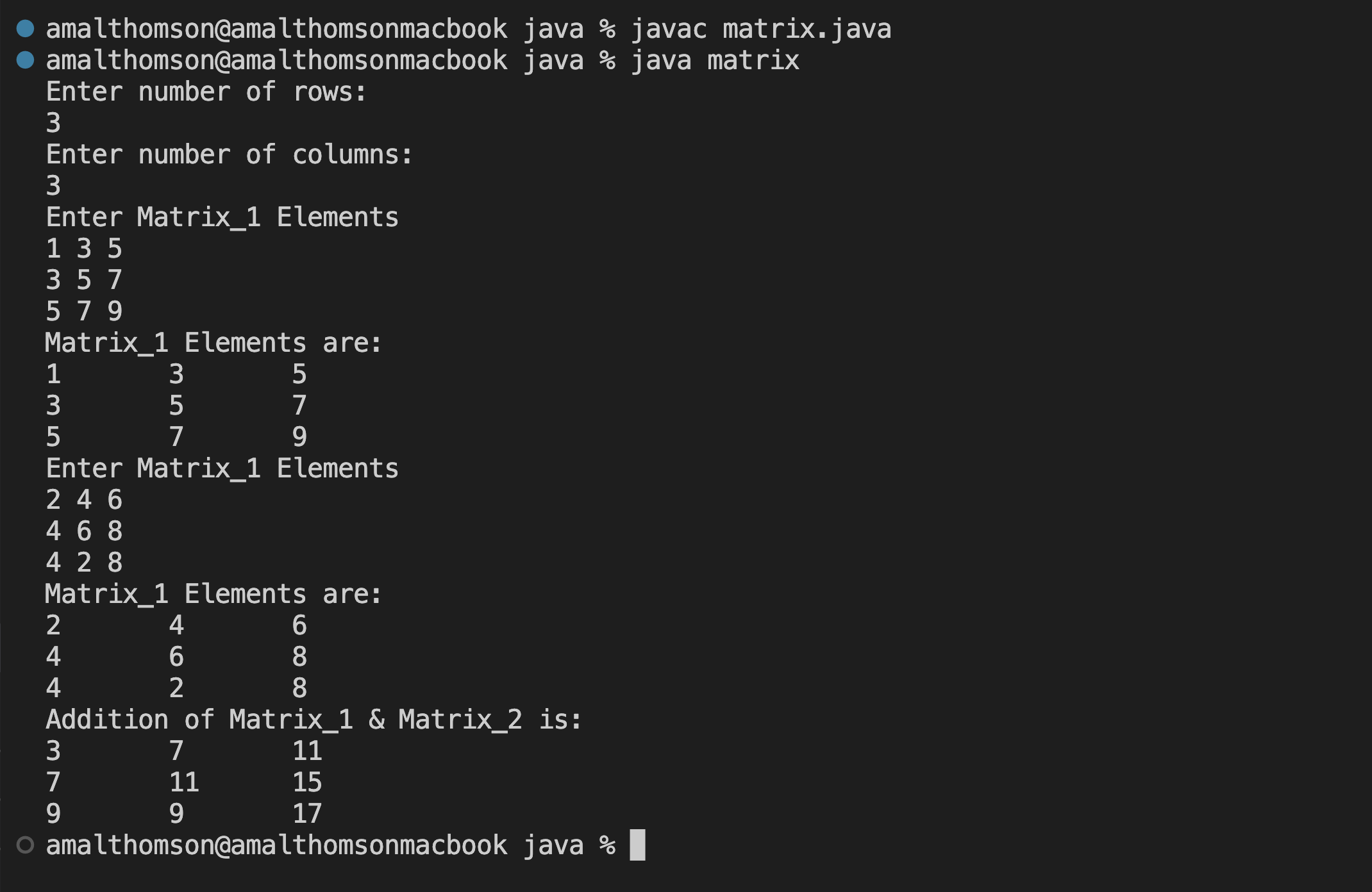
System.out.println();

}

}

}

**Output Screenshot**



**Result**

The program was executed and the result was successfully obtained. Thus CO1 was obtained.

**Experiment No.: 1**

**Aim**

**CO1**

**Procedure**

**Output Screenshot**

**Result**

The program was executed and the result was successfully obtained. Thus CO1 was obtained.

**Experiment No.: 1**

**Aim**

**CO1**

**Procedure**

**Output Screenshot**

**Result**

The program was executed and the result was successfully obtained. Thus CO1 was obtained.