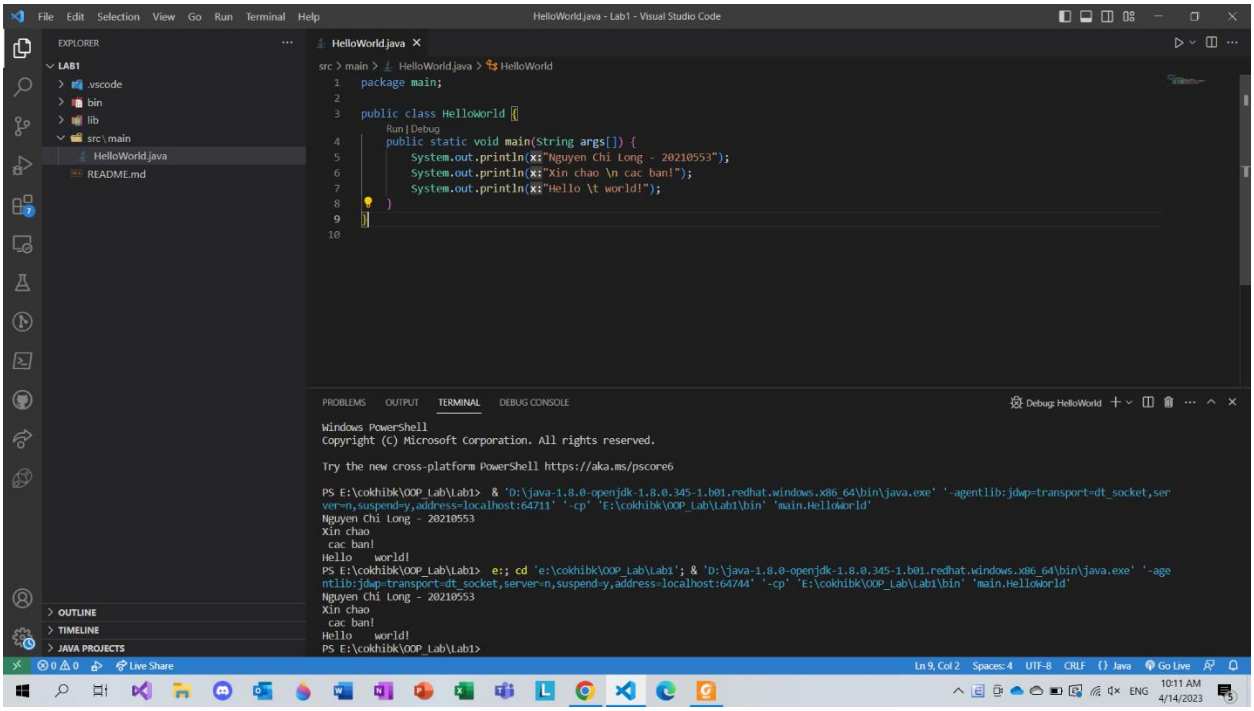
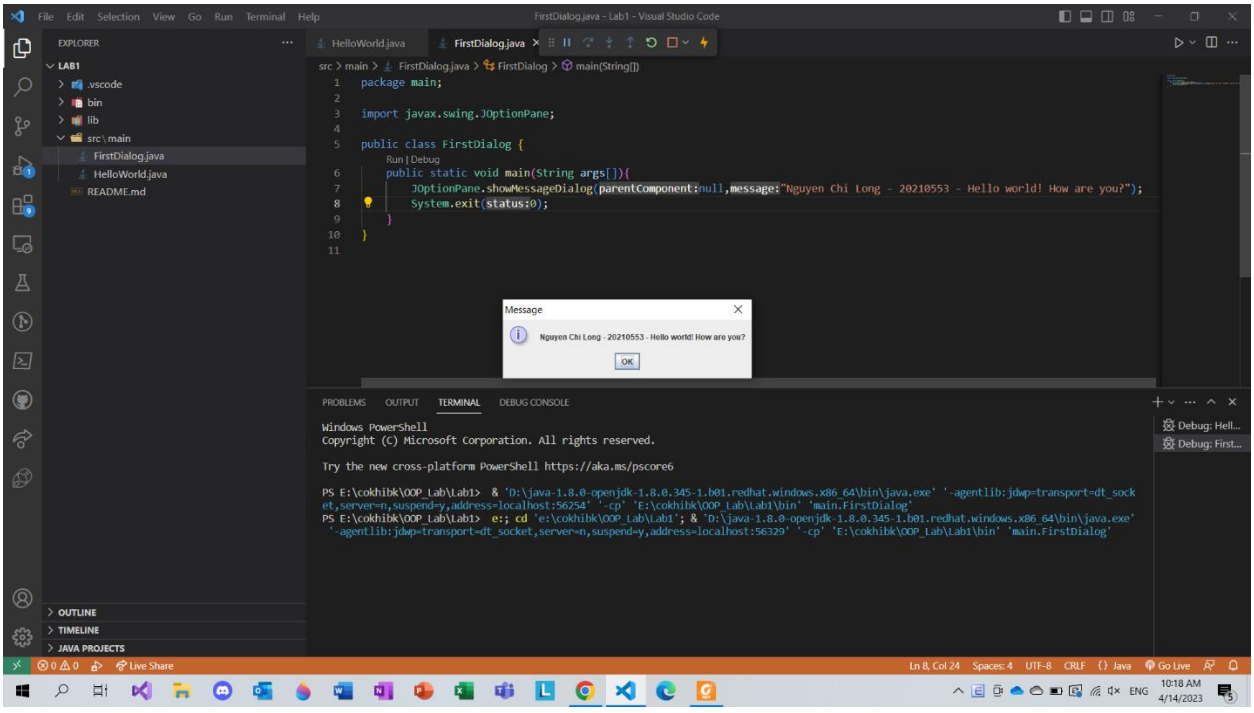
BÁO CÁO THỰC HÀNH LAB 1
LẬP TRÌNH HƯỚNG ĐỐI TƯỢNG

The Very First Java Programs

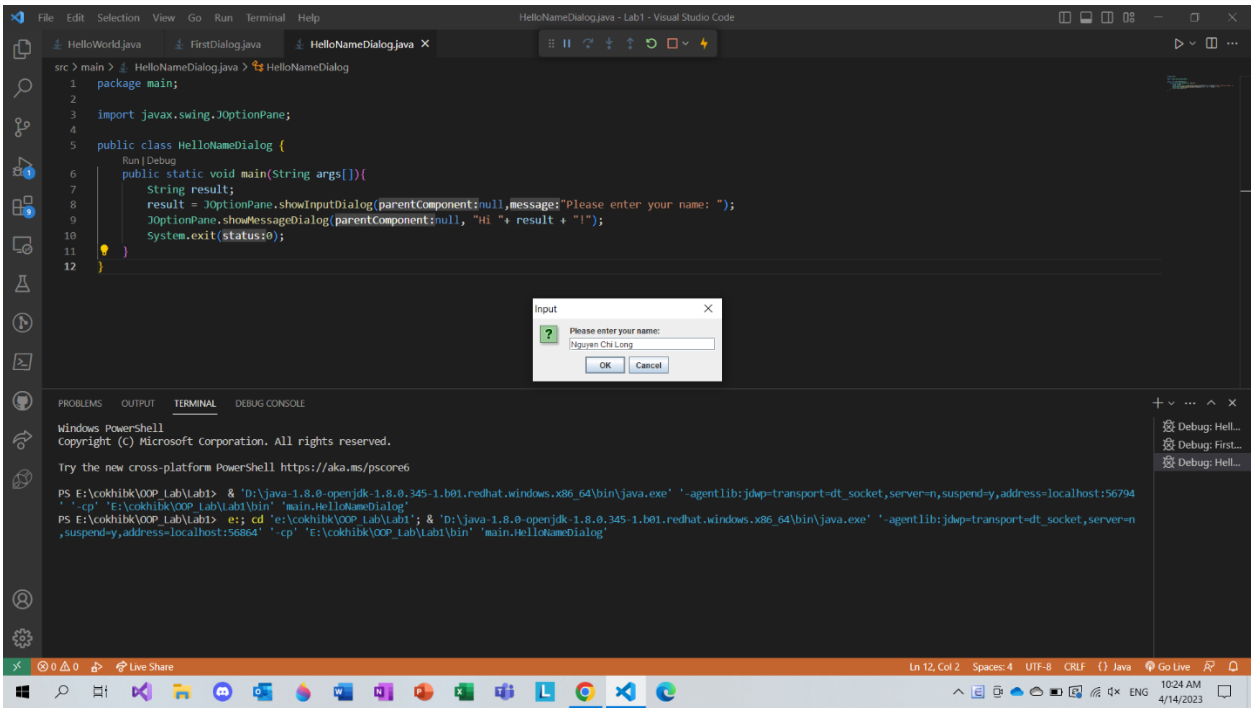
2.2.1 Write, compile the first Java application:

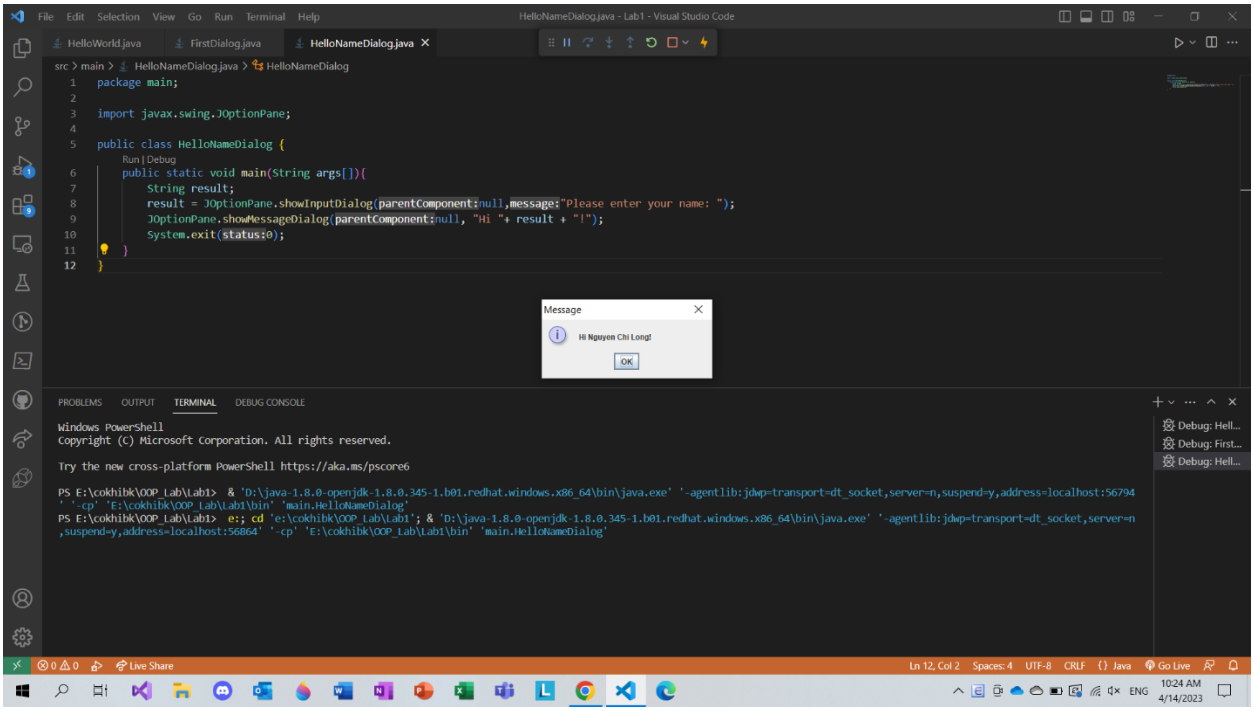


2.2.2 Write, compile the first dialog Java program

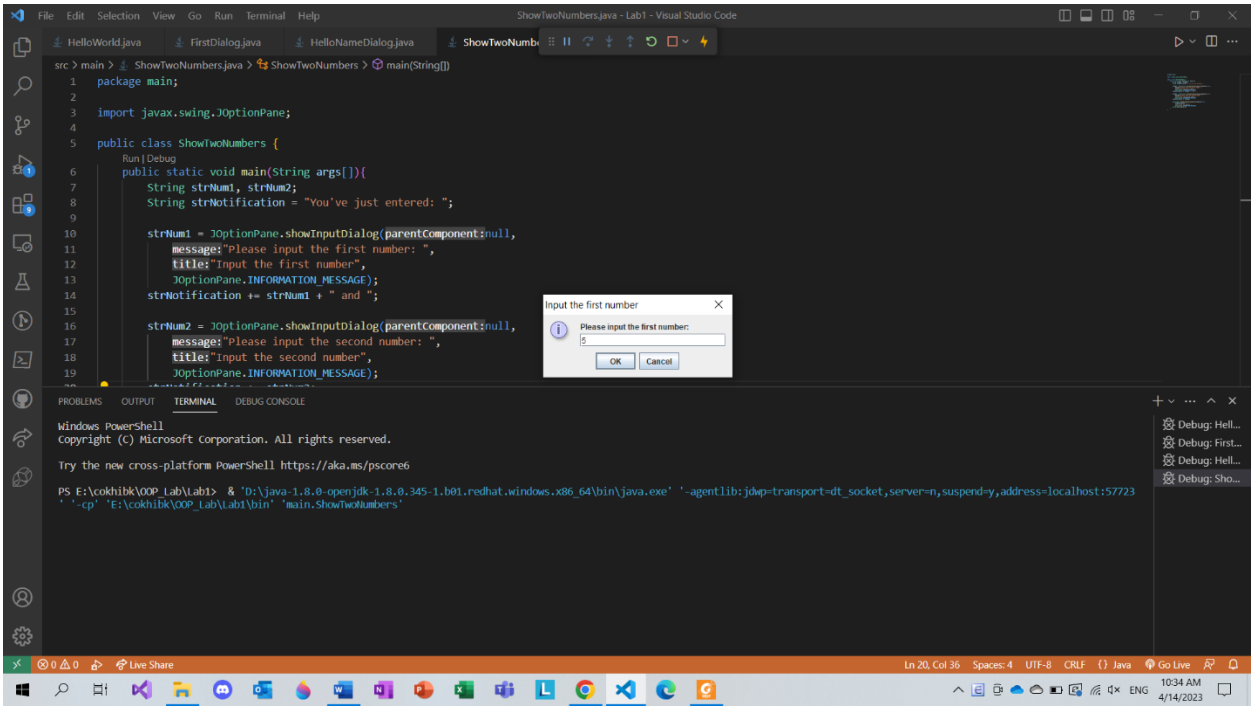


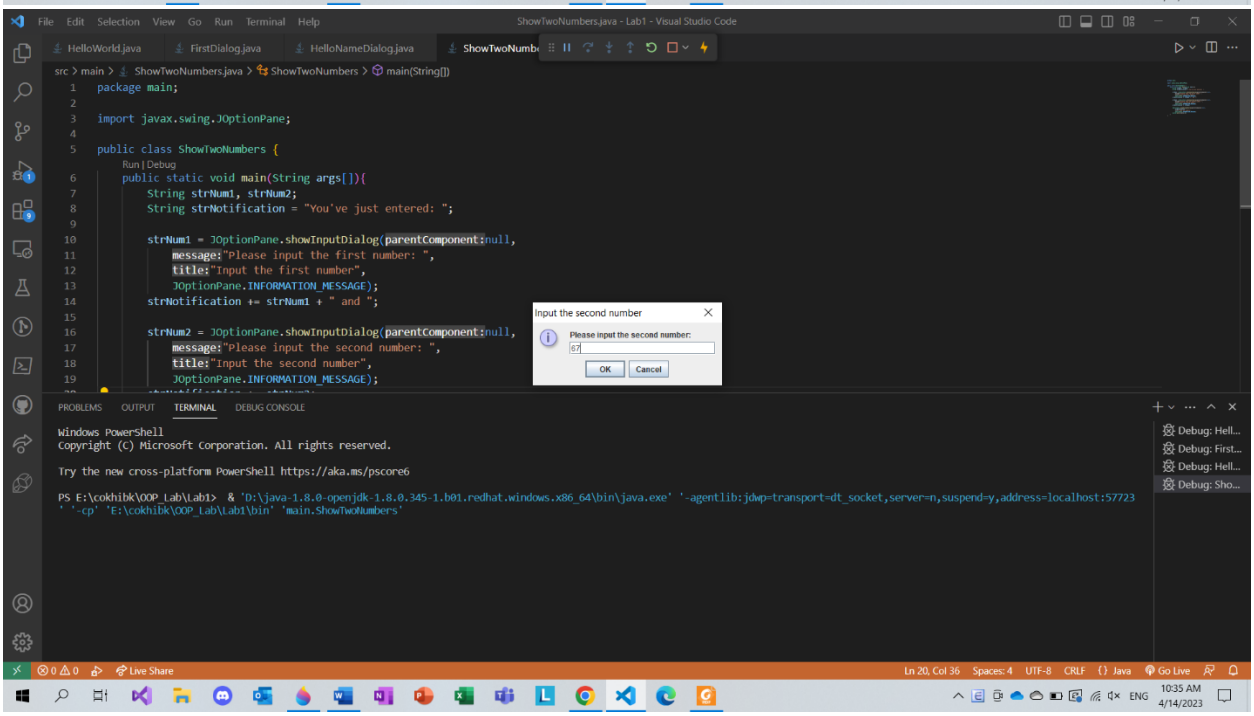
2.2.3 Write, compile the first input dialog Java application

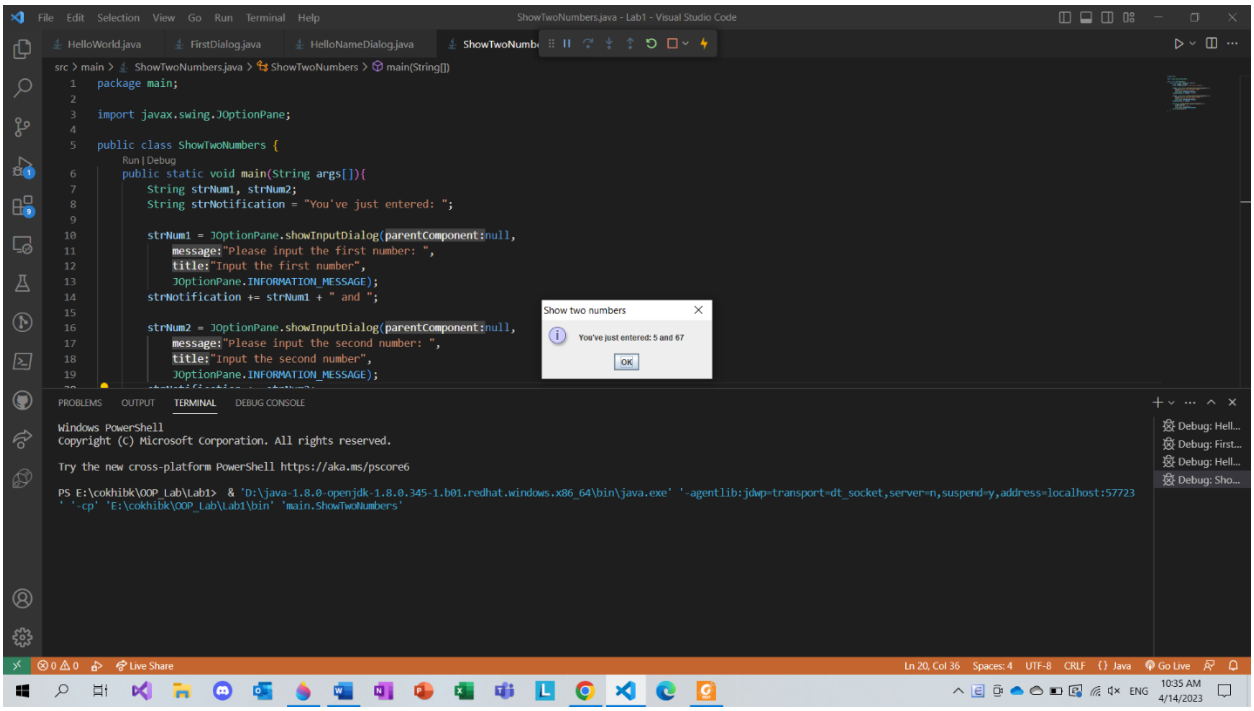




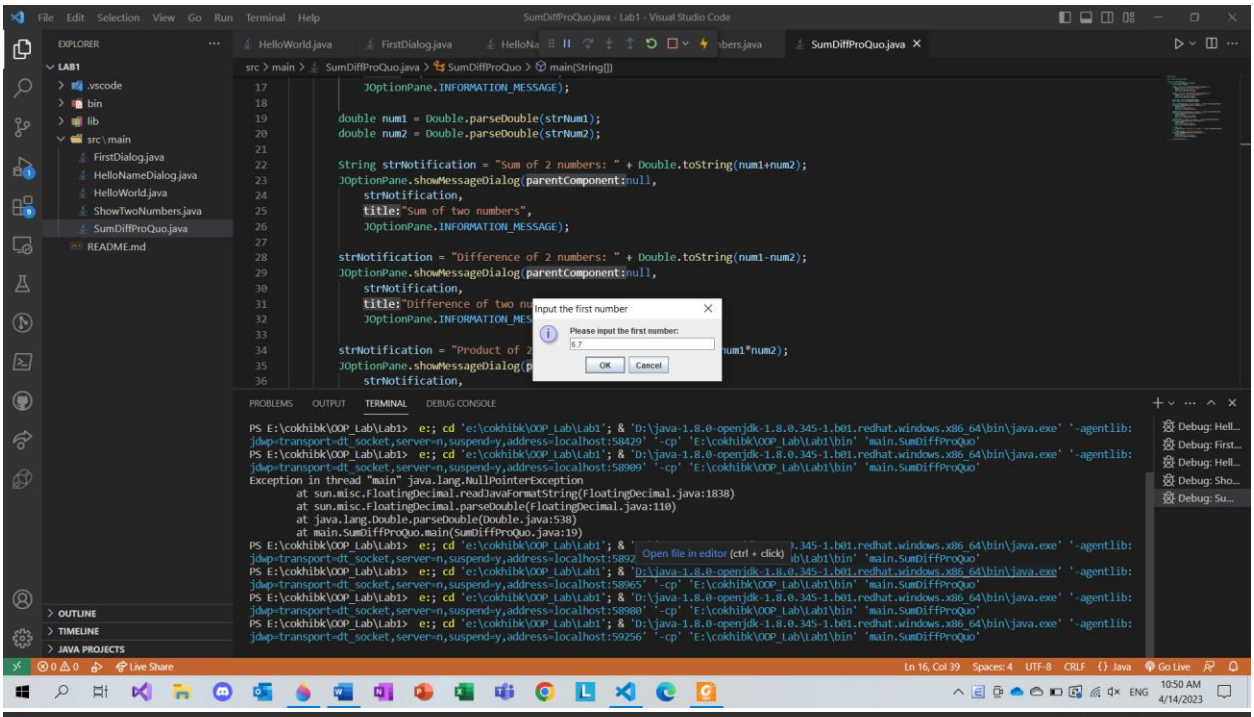
2.2.4 Write, compile, and run the following example:

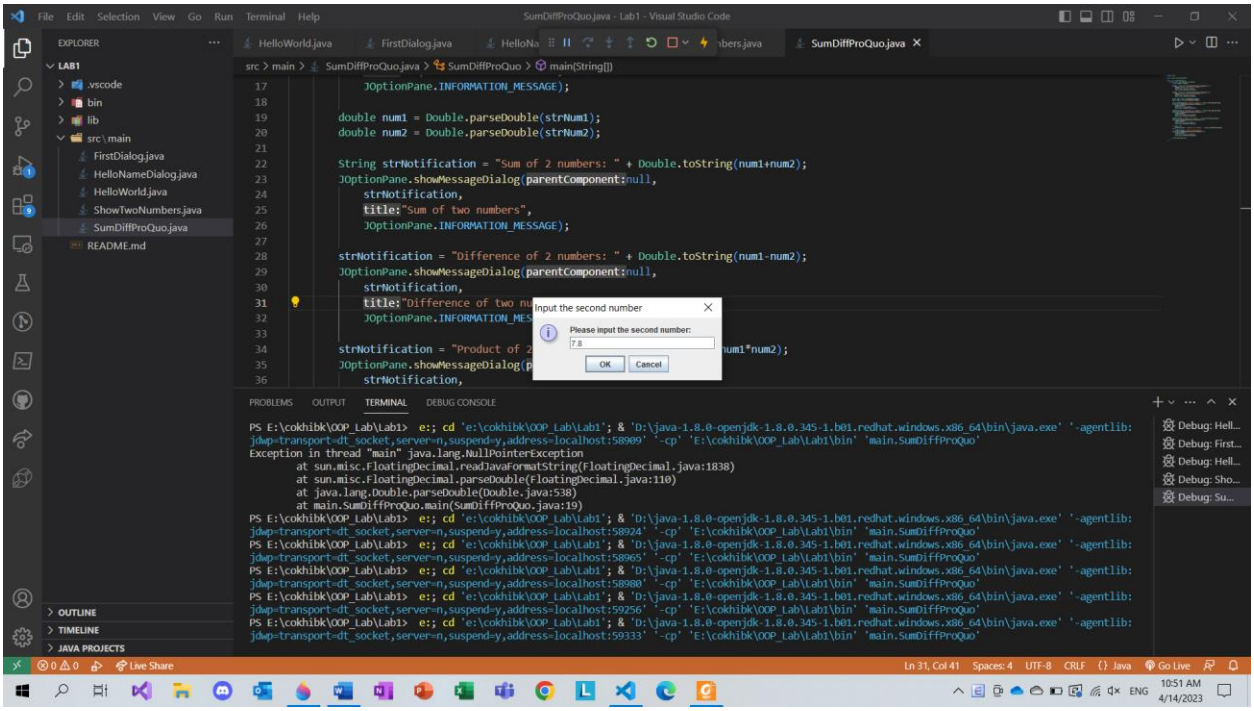


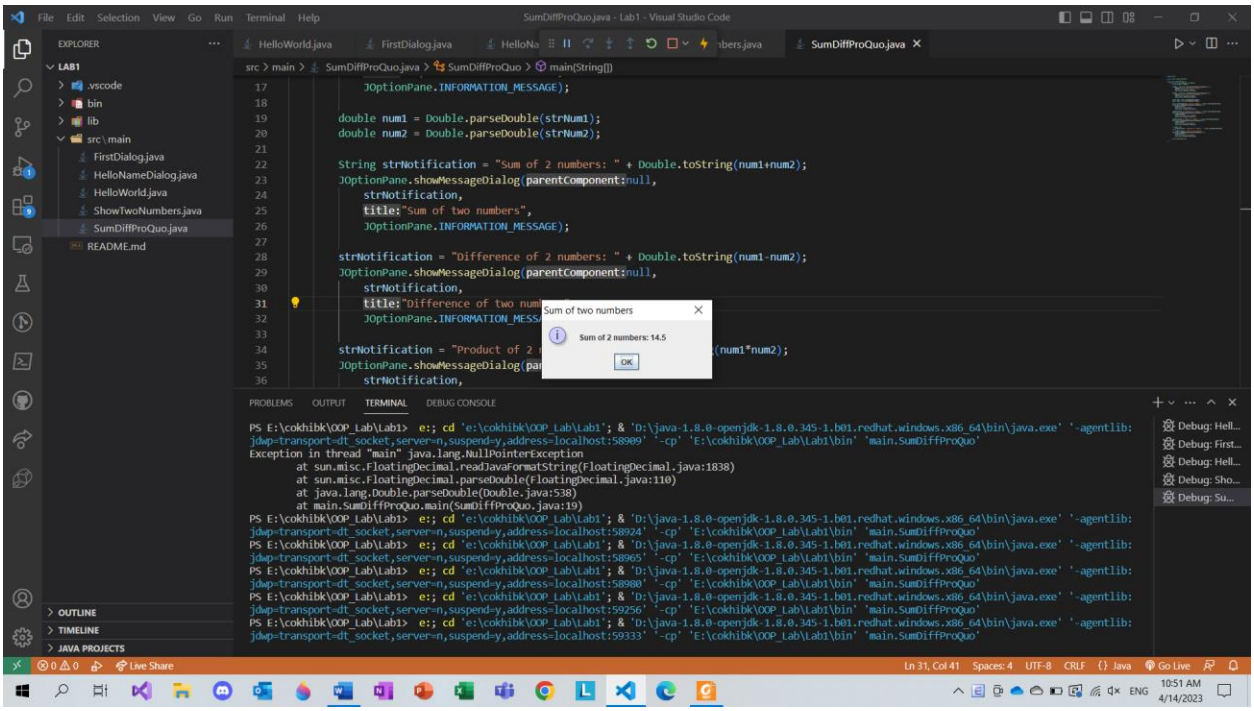


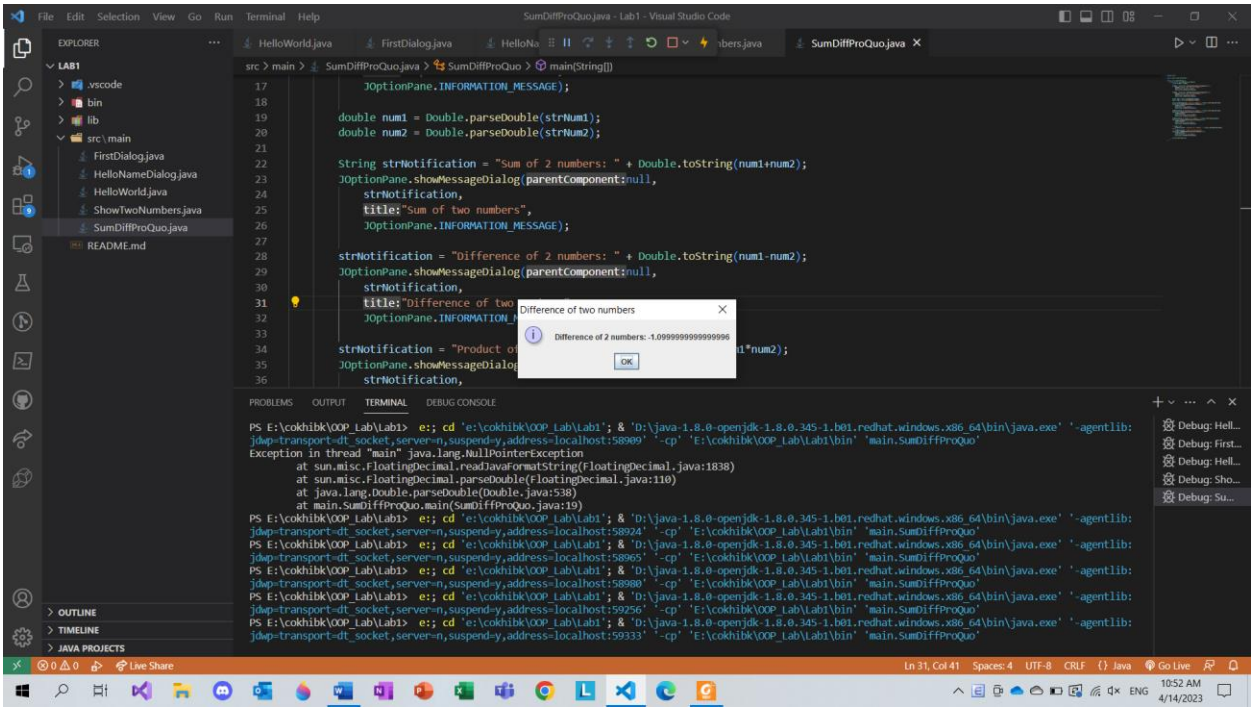

File Edit Selection View Go Run Terminal Help
ShowTwoNumbers.java - Lab1 - Visual Studio Code
HelloWorld.java
FirstDialog.java
HelloNameDialog.java
ShowTwoNumb
src > main > ShowTwoNumbers.java > ShowTwoNumbers > main(String[])
package main;
import javax.swing.JOptionPane;
public class ShowTwoNumbers {
Run | Debug
public static void main(String args[]){
String strNum1, strNum2;
String strNotification = "You've just entered: ";
strNum1 = JOptionPane.showInputDialog(parentComponent:null,
message:"Please input the first number: ",
title:"Input the first number",
JOptionPane.INFORMATION_MESSAGE);
strNotification += strNum1 + " and ";
strNum2 = JOptionPane.showInputDialog(parentComponent:null,
message:"Please input the second number: ",
title:"Input the second number",
JOptionPane.INFORMATION_MESSAGE);
Show two numbers
You've just entered: 5 and 67
OK
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS E:\cokhibk\OOP_Lab\Lab1> & 'D:\java-1.8.0-openjdk-1.8.0.345-1.b01.redhat.windows.x86_64\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:57723
' '-cp' 'E:\cokhibk\OOP_Lab\Lab1\bin' 'main.ShowTwoNumbers'
Debug: Hell...
Debug: First...
Debug: Hell...
Debug: Sho...
Live Share
Ln 20, Col 36 Spaces: 4 UTF-8 CRLF Java Go Live
ENG
10:35 AM
4/14/2023

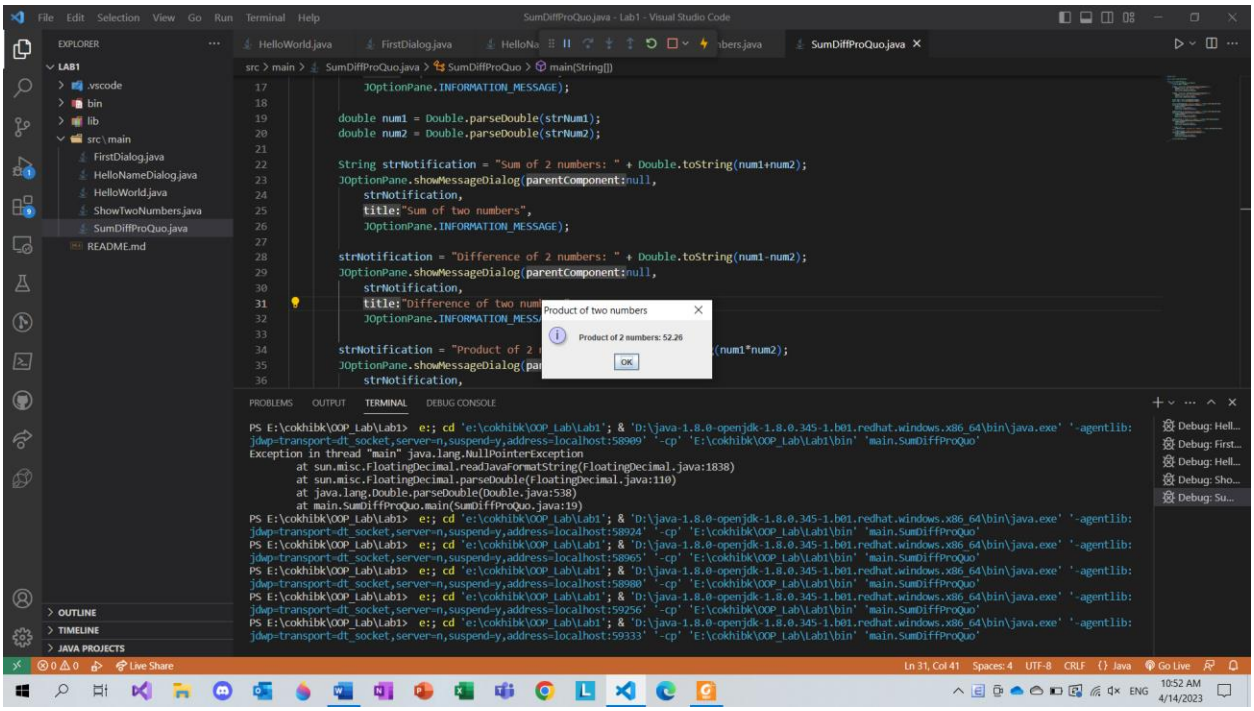
2.2.5 Write a program to calculate sum, difference, product, and quotient of 2 double numbers which are entered by users.

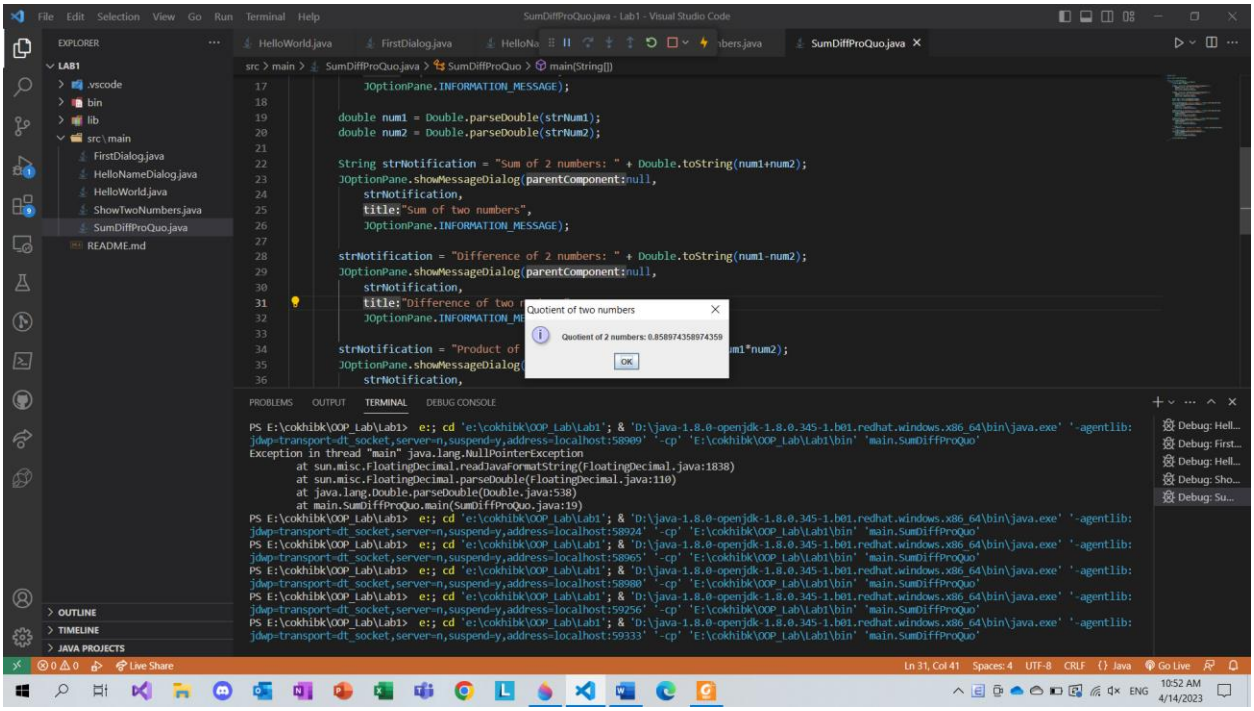




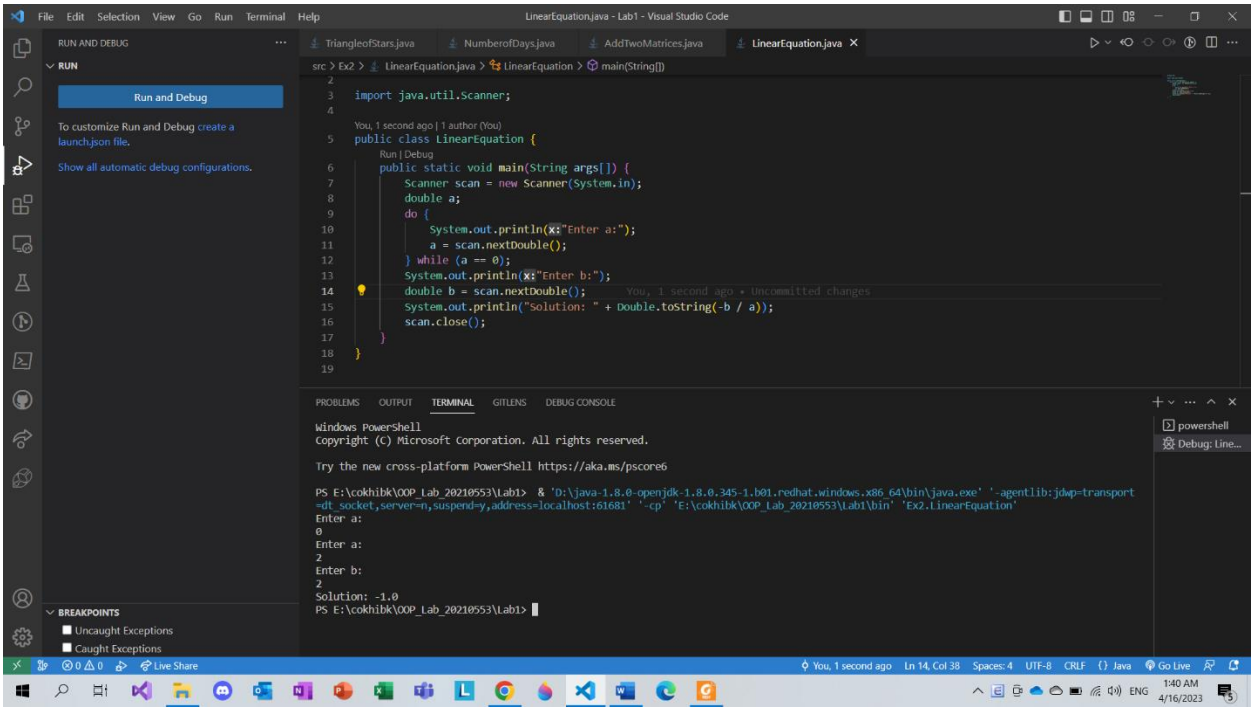

Sum of two numbers
Sum of 2 numbers: 14.5
OK

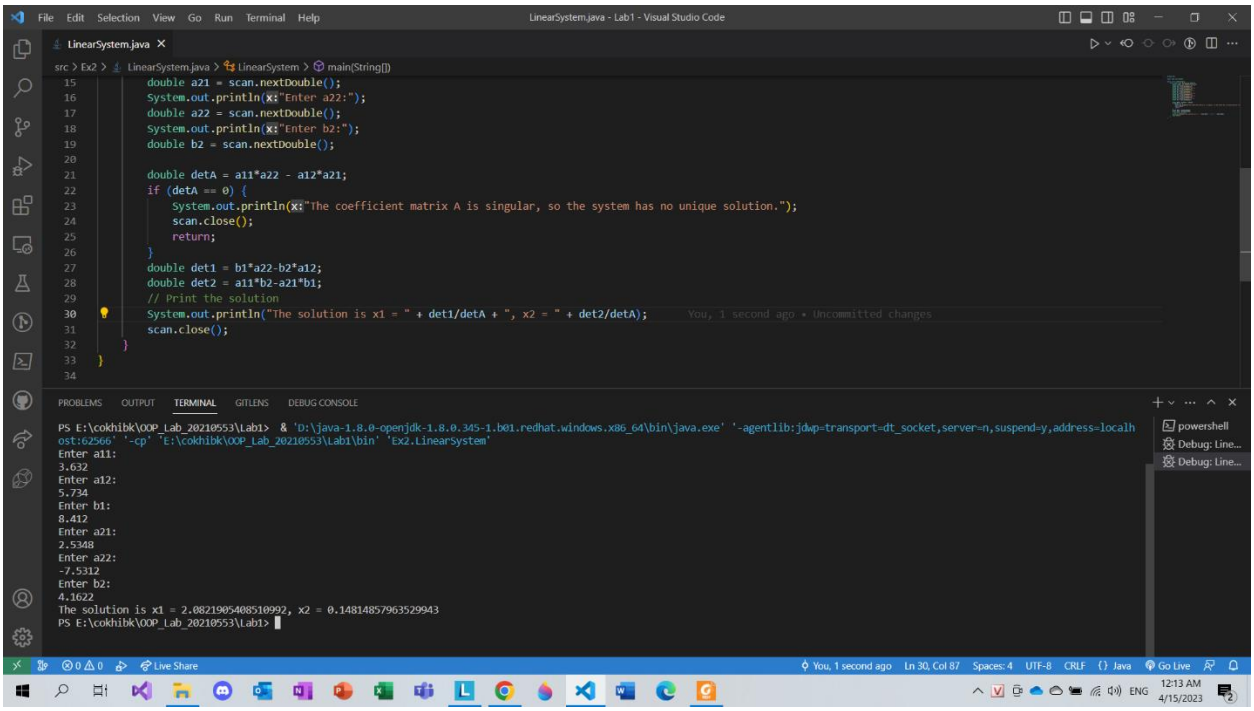

Difference of two numbers
Difference of 2 numbers: -1.0999999999999996
OK

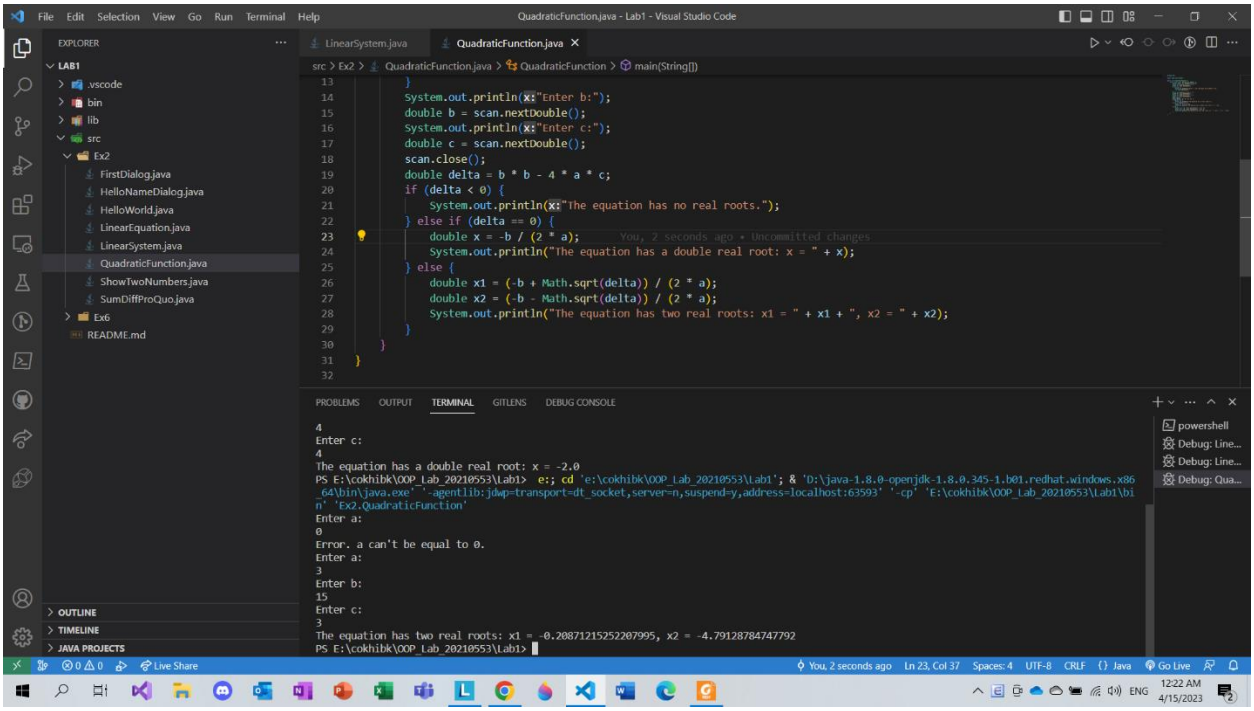

Product of two numbers
Product of 2 numbers: 52.26
OK


Quotient of two numbers
Quotient of 2 numbers: 0.858974358974359
OK

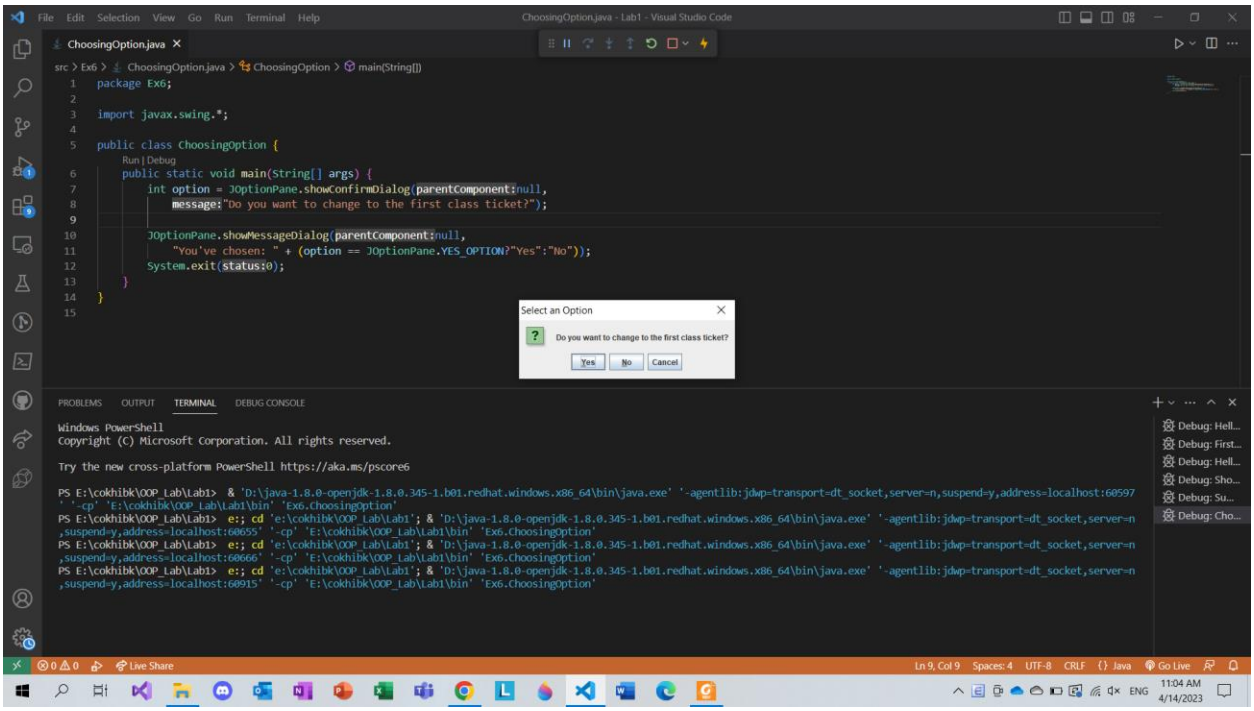
2.2.6. Write a program to solve: The first-degree equation (linear equation) with one variable, The system of first-degree equations (linear system) with two variables, The second-degree equation with one variable.







6.1 Write, compile and run the ChoosingOption program:


ChoosingOption.java - Lab1 - Visual Studio Code
package Ex6;
import javax.swing.*;
public class ChoosingOption {
Run | Debug
public static void main(String[] args) {
int option = JOptionPane.showConfirmDialog(parentComponent:null,
message:"Do you want to change to the first class ticket?");
JOptionPane.showMessageDialog(parentComponent:null,
"You've chosen: " + (option == JOptionPane.YES_OPTION?"Yes":"No"));
System.exit(status:0);
}
}
Select an Option
Do you want to change to the first class ticket?
Yes
No
Cancel
PROBLEMS
OUTPUT
TERMINAL
DEBUG CONSOLE
Windows PowerShell
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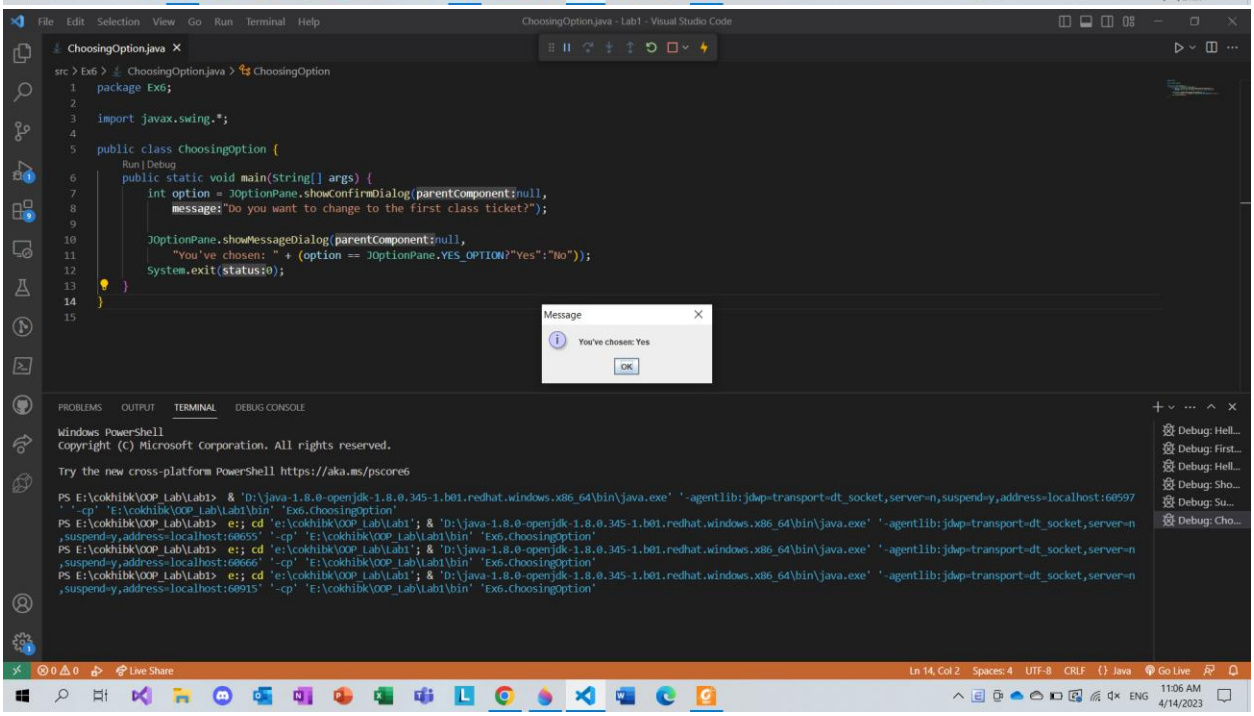
PS E:\cokhibk\OOP_Lab\Lab1> & 'D:\java-1.8.0-openjdk-1.8.0.345-1.b01.redhat.windows.x86_64\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:60597' '-cp' 'E:\cokhibk\OOP_Lab\Lab1\bin' 'Ex6.ChoosingOption'
PS E:\cokhibk\OOP_Lab\Lab1> e:; cd 'e:\cokhibk\OOP_Lab\Lab1'; & 'D:\java-1.8.0-openjdk-1.8.0.345-1.b01.redhat.windows.x86_64\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:60655' '-cp' 'E:\cokhibk\OOP_Lab\Lab1\bin' 'Ex6.ChoosingOption'
PS E:\cokhibk\OOP_Lab\Lab1> e:; cd 'e:\cokhibk\OOP_Lab\Lab1'; & 'D:\java-1.8.0-openjdk-1.8.0.345-1.b01.redhat.windows.x86_64\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:60666' '-cp' 'E:\cokhibk\OOP_Lab\Lab1\bin' 'Ex6.ChoosingOption'
PS E:\cokhibk\OOP_Lab\Lab1> e:; cd 'e:\cokhibk\OOP_Lab\Lab1'; & 'D:\java-1.8.0-openjdk-1.8.0.345-1.b01.redhat.windows.x86_64\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:60915' '-cp' 'E:\cokhibk\OOP_Lab\Lab1\bin' 'Ex6.ChoosingOption'


ChoosingOption.java - Lab1 - Visual Studio Code
package Ex6;
import javax.swing.*;
public class ChoosingOption {
Run | Debug
public static void main(String[] args) {
int option = JOptionPane.showConfirmDialog(parentComponent:null,
message:"Do you want to change to the first class ticket?");
JOptionPane.showMessageDialog(parentComponent:null,
"You've chosen: " + (option == JOptionPane.YES_OPTION?"Yes":"No"));
System.exit(status:0);
}
}
Message
You've chosen: Yes
OK
PROBLEMS
OUTPUT
TERMINAL
DEBUG CONSOLE
Windows PowerShell
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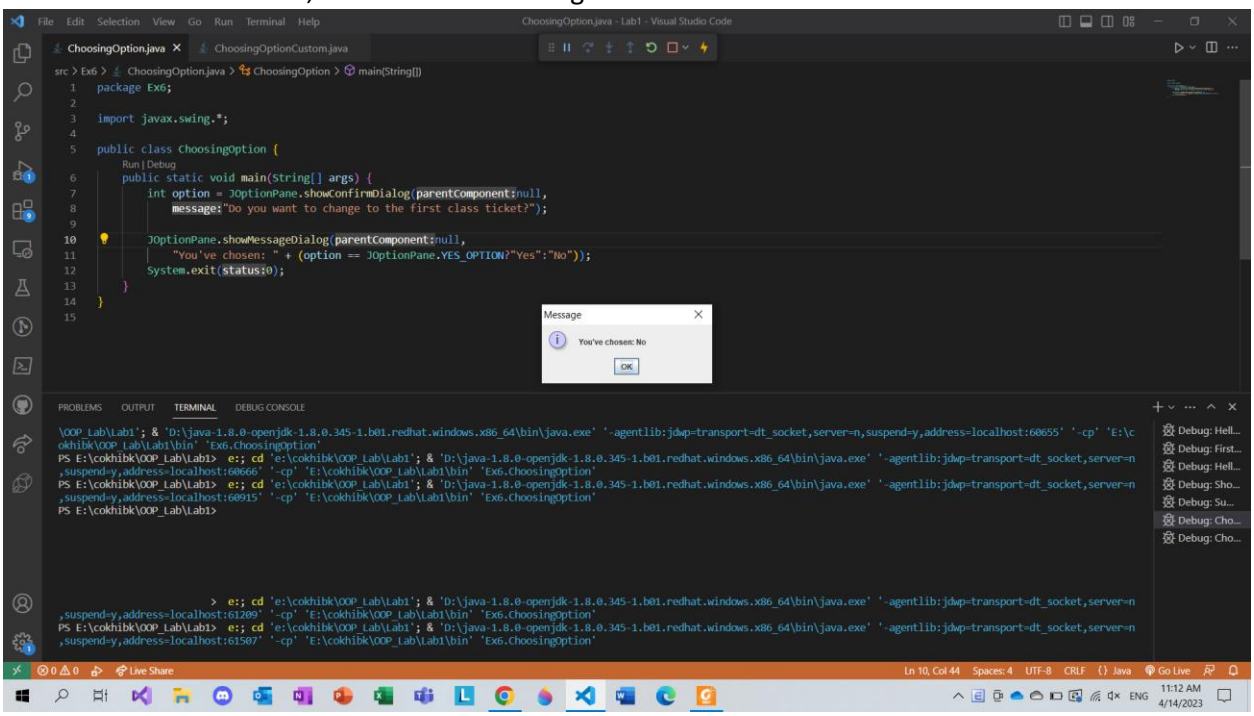
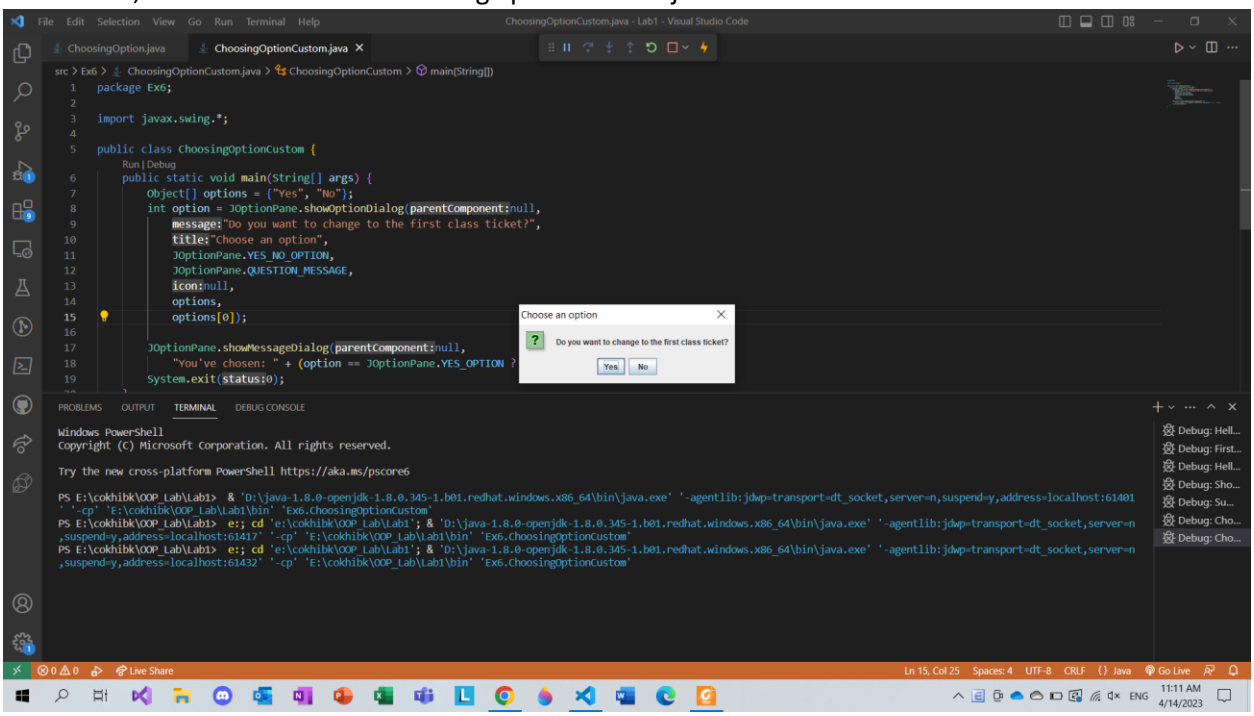
PS E:\cokhibk\OOP_Lab\Lab1> & 'D:\java-1.8.0-openjdk-1.8.0.345-1.b01.redhat.windows.x86_64\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:60597' '-cp' 'E:\cokhibk\OOP_Lab\Lab1\bin' 'Ex6.ChoosingOption'
PS E:\cokhibk\OOP_Lab\Lab1> e:; cd 'e:\cokhibk\OOP_Lab\Lab1'; & 'D:\java-1.8.0-openjdk-1.8.0.345-1.b01.redhat.windows.x86_64\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:60655' '-cp' 'E:\cokhibk\OOP_Lab\Lab1\bin' 'Ex6.ChoosingOption'
PS E:\cokhibk\OOP_Lab\Lab1> e:; cd 'e:\cokhibk\OOP_Lab\Lab1'; & 'D:\java-1.8.0-openjdk-1.8.0.345-1.b01.redhat.windows.x86_64\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:60666' '-cp' 'E:\cokhibk\OOP_Lab\Lab1\bin' 'Ex6.ChoosingOption'
PS E:\cokhibk\OOP_Lab\Lab1> e:; cd 'e:\cokhibk\OOP_Lab\Lab1'; & 'D:\java-1.8.0-openjdk-1.8.0.345-1.b01.redhat.windows.x86_64\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:60915' '-cp' 'E:\cokhibk\OOP_Lab\Lab1\bin' 'Ex6.ChoosingOption'

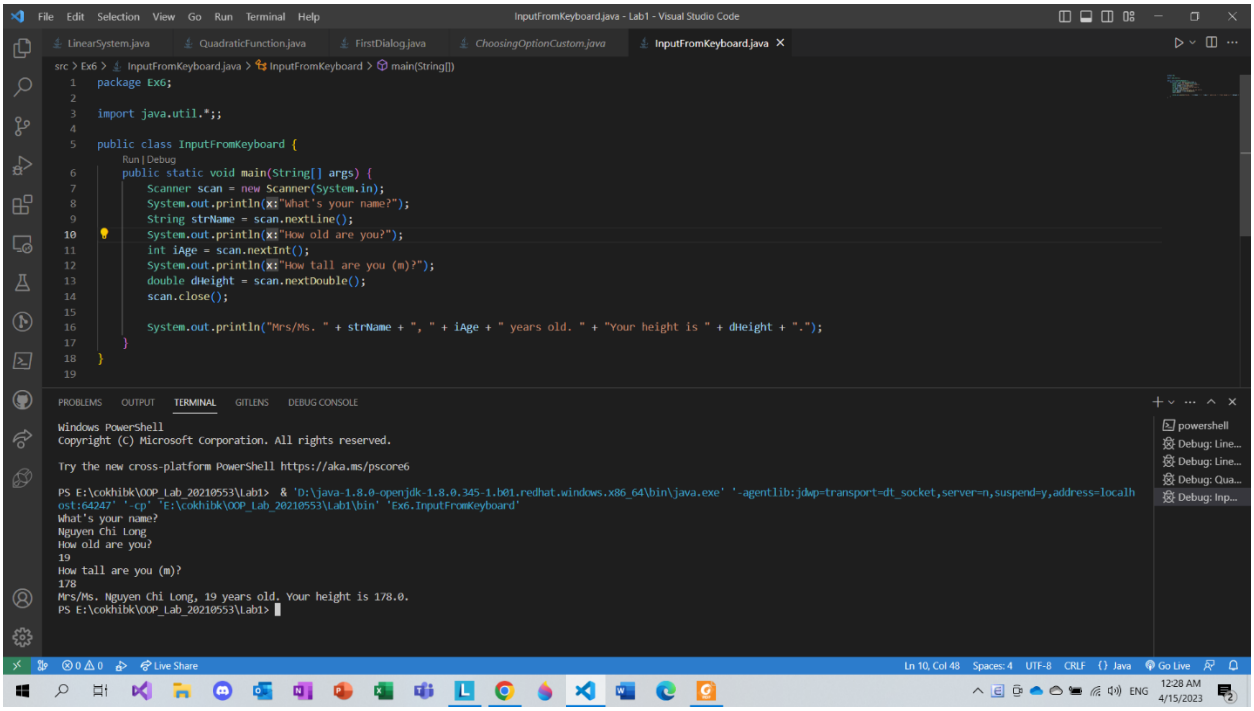
- If users choose “Cancel”, their choice are changed to ”No”.



- To fix this, I builded a new file ChoosingOptionCustom.java.



6.2. Write a program for input/output from keyboard



```
package Ex6;

import java.util.*;;

public class InputFromKeyboard {
    Run | Debug
    public static void main(String[] args) {
        Scanner scan = new Scanner(System.in);
        System.out.println(x:"What's your name?");
        String strName = scan.nextLine();
        System.out.println(x:"How old are you?");
        int iAge = scan.nextInt();
        System.out.println(x:"How tall are you (m)?");
        double dHeight = scan.nextDouble();
        scan.close();

        System.out.println("Mrs/Ms. " + strName + ", " + iAge + " years old. " + "Your height is " + dHeight + ".");
    }
}
```

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS E:\cokhibk\OOP_Lab_20210553\Lab1> & 'D:\java-1.8.0-openjdk-1.8.0.345-1.b01.redhat.windows.x86_64\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:64247' '-cp' 'E:\cokhibk\OOP_Lab_20210553\Lab1\bin' 'Ex6.InputFromKeyboard'
What's your name?
Nguyen Chi Long
How old are you?
19
How tall are you (m)?
178
Mrs/Ms. Nguyen Chi Long, 19 years old. Your height is 178.0.
PS E:\cokhibk\OOP_Lab_20210553\Lab1>
```
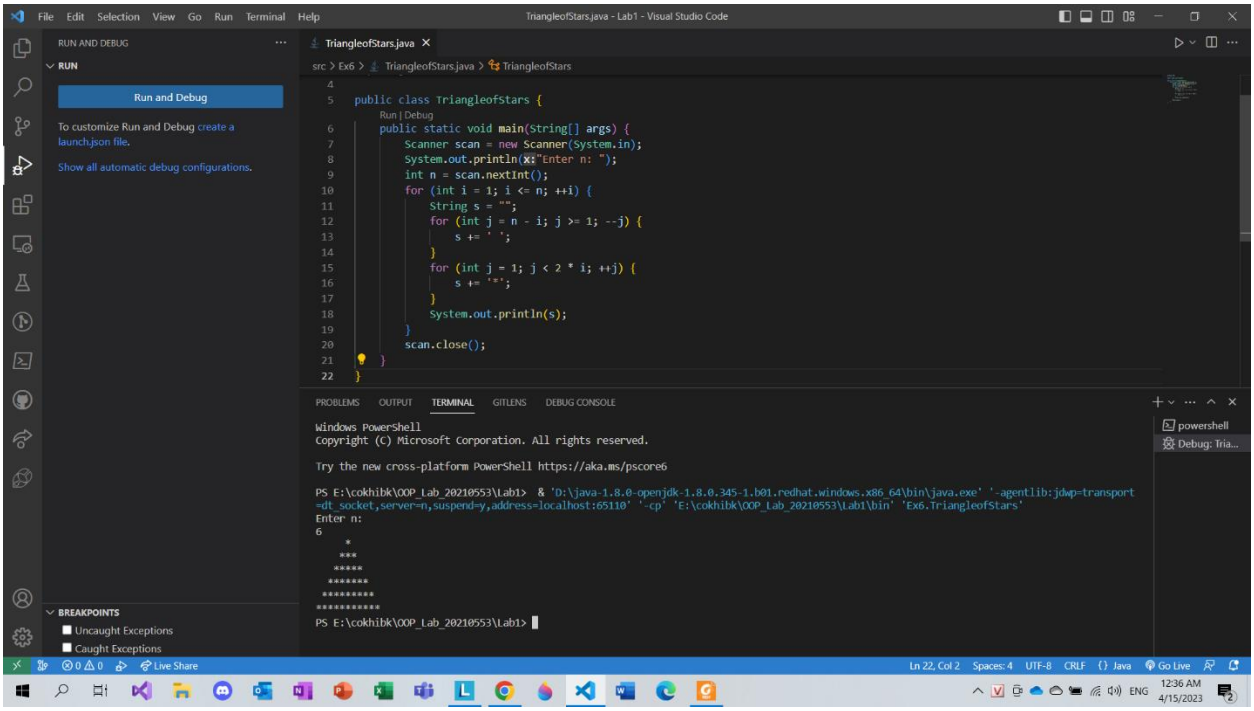

6.3 Write a program to display a triangle with a height of n stars (*), n is entered by users.



```
public class TriangleofStars {
    Run | Debug
    public static void main(String[] args) {
        Scanner scan = new Scanner(System.in);
        System.out.println(x:"Enter n: ");
        int n = scan.nextInt();
        for (int i = 1; i <= n; ++i) {
            String s = "";
            for (int j = n - i; j >= 1; --j) {
                s += ' ';
            }
            for (int j = 1; j < 2 * i; ++j) {
                s += '*';
            }
            System.out.println(s);
        }
        scan.close();
    }
}
```

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS E:\cokhibk\OOP_Lab_20210553\Lab1> & 'D:\java-1.8.0-openjdk-1.8.0.345-1.b01.redhat.windows.x86_64\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:65110' '-cp' 'E:\cokhibk\OOP_Lab_20210553\Lab1\bin' 'Ex6.TriangleofStars'
Enter n:
6
     *
    ***
   *****
  *******
 *********
***********
PS E:\cokhibk\OOP_Lab_20210553\Lab1>
```
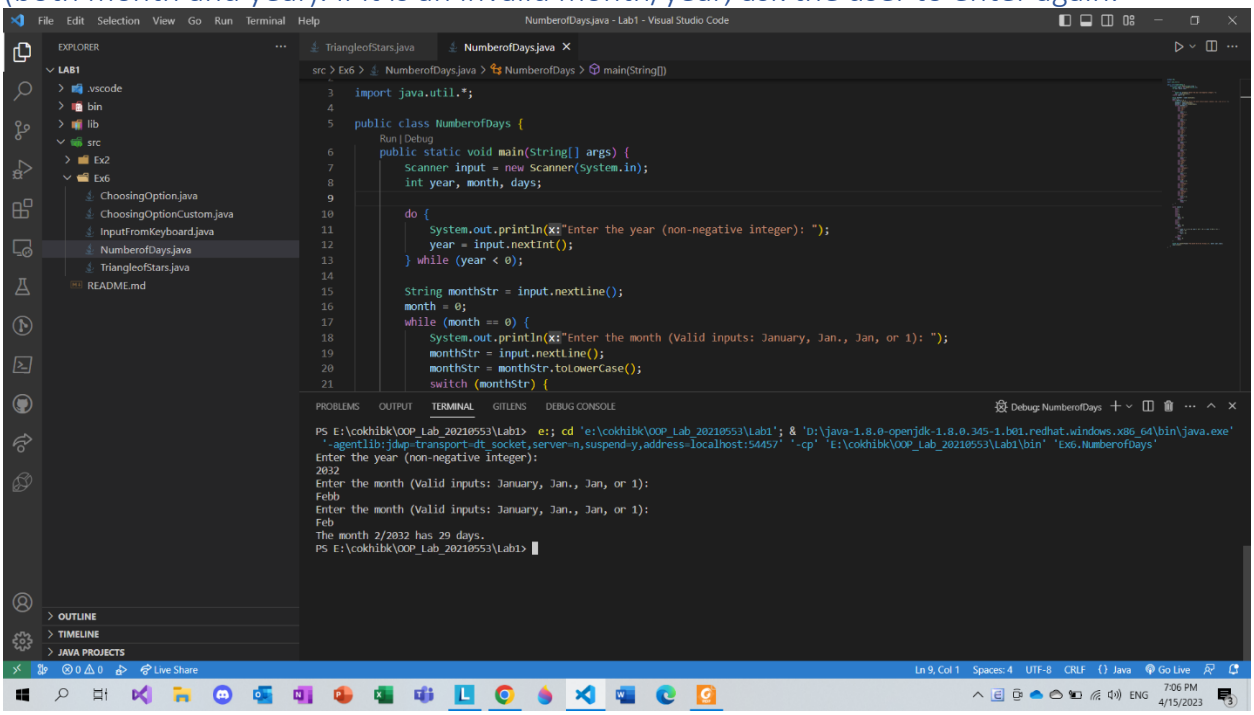
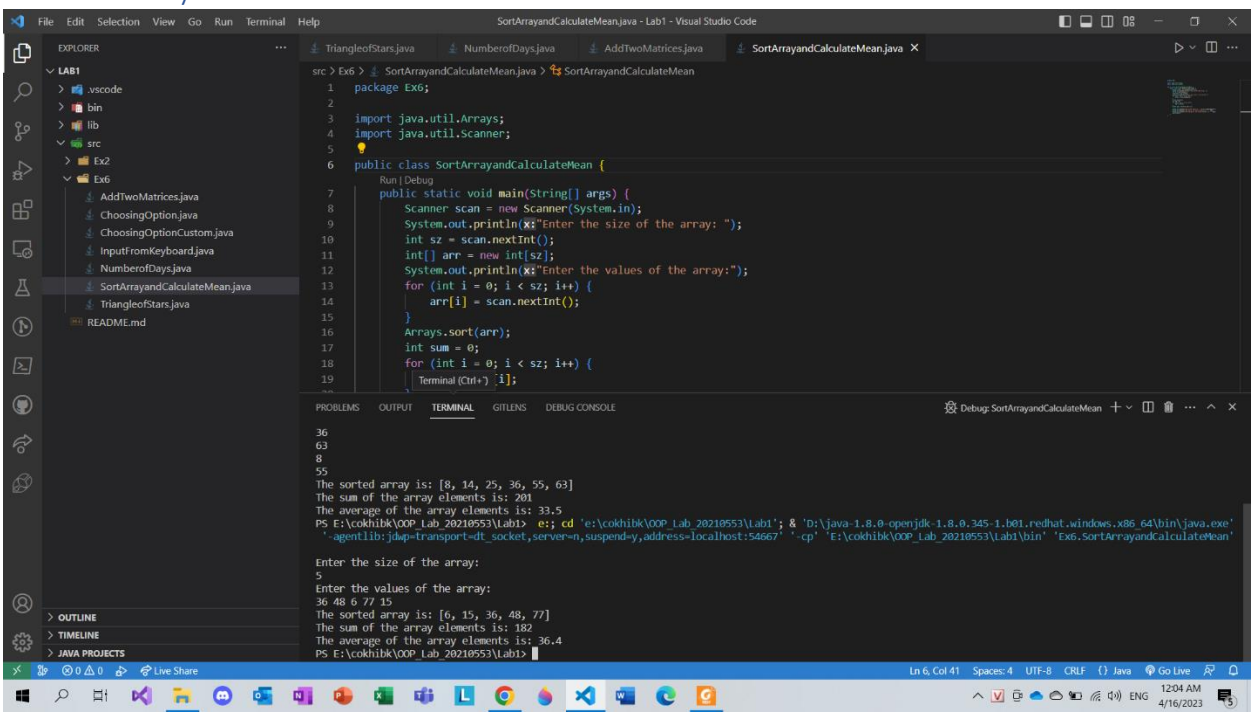

6.4 Write a program to display the number of days of a month, which is entered by users

(both month and year). If it is an invalid month/year, ask the user to enter again.



6.5 Write a Java program to sort a numeric array, and calculate the sum and average value of array elements.



6.6 Write a Java program to add two matrices of the same size.