BÁO CÁO THỰC HÀNH LAP 1
LẬP TRÌNH HƯỚNG ĐỐI TƯỢNG

Mục Lục

The Very First Java Programs

2.2.1 Write, compile the first Java application:

```
Lab1 > HelloWorld.java > HelloWorld
1   //Example 1: HelloWorld.java
2   // MSSV: 20184092
3   // Ho va ten: Le Anh Hao
4   public class HelloWorld{
5
        Run | Debug
6       public static void main(String args[]){
7           System.out.println(x: "Xin chao \n cac ban!");
8           System.out.println(x: "Hello \t world!");
9       }//End method
10  }
```

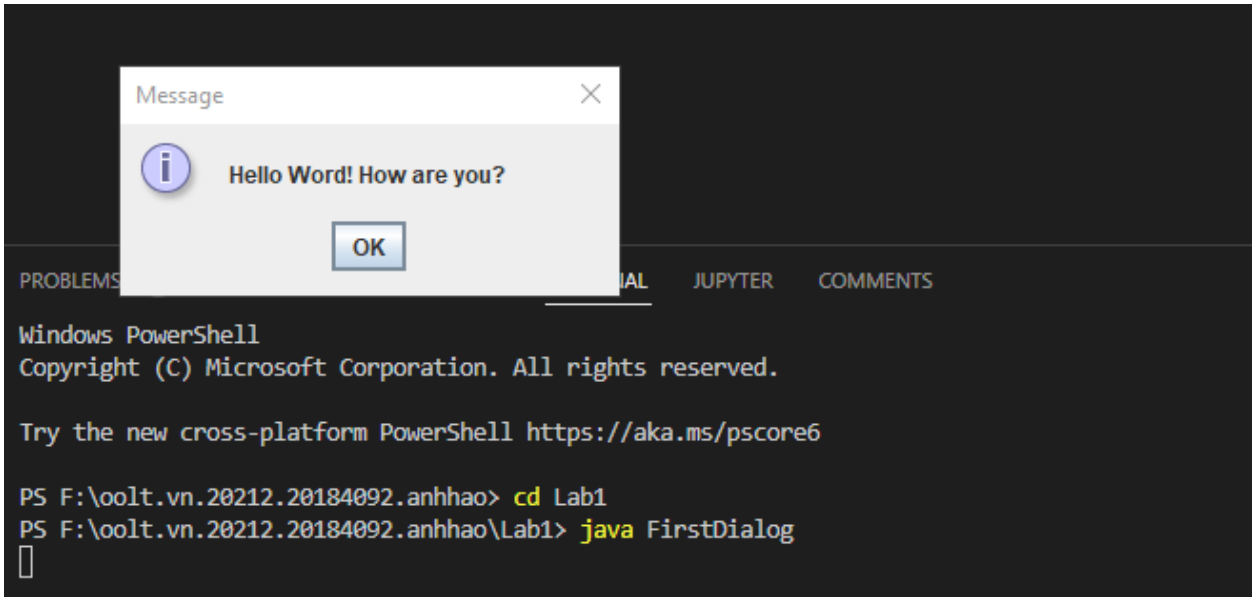
Kết quả

```
PROBLEMS 2  OUTPUT  DEBUG CONSOLE  TERMINAL  JUPYTER  COMMENTS
error: file not found: HelloWorld.java
Usage: javac <options> <source files>
use --help for a list of possible options
PS F:\oolt.vn.20212.20184092.anhhao> cd Lab1
PS F:\oolt.vn.20212.20184092.anhhao\Lab1> javac HelloWorld.java
PS F:\oolt.vn.20212.20184092.anhhao\Lab1> java HelloWorld
Xin chao
 cac ban!
Hello    world!
PS F:\oolt.vn.20212.20184092.anhhao\Lab1>
```

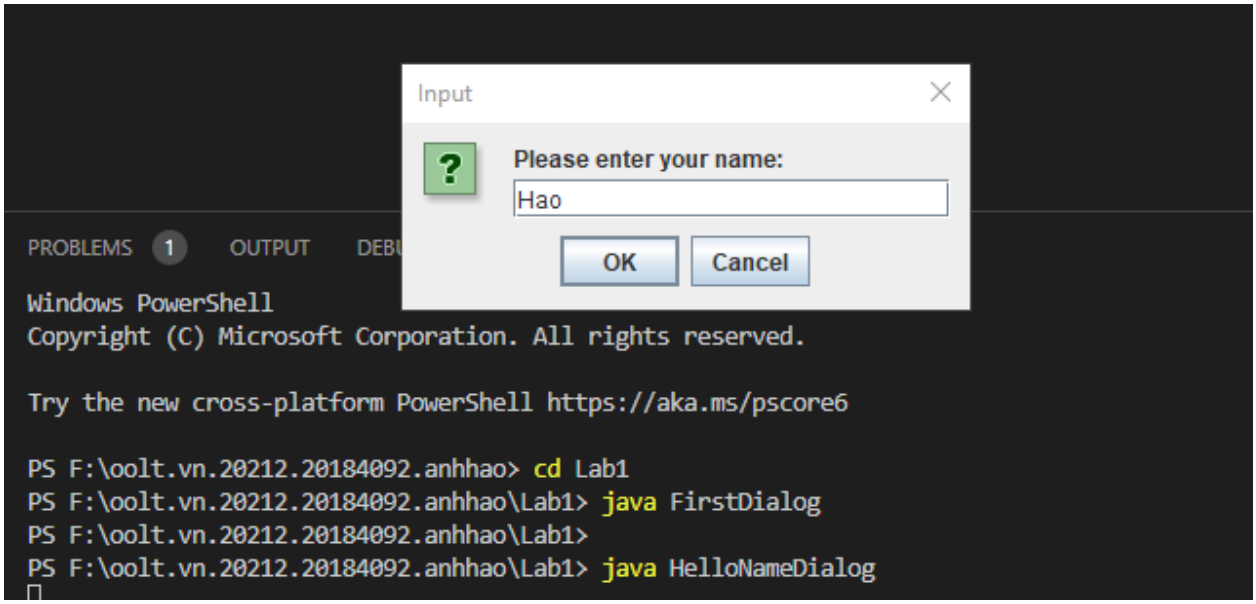
2.2.2 Write, compile the first dialog Java program

```
Lab1 > FirstDialog.java > ...
1   // Example2
2   // MSSV: 20184092
3   // Ho va ten: Le Anh Hao
4   import javax.swing.JOptionPane;
5   public class FirstDialog{
        Run | Debug
6       public static void main(String[] args){
7           JOptionPane.showMessageDialog(parentComponent: null,message: "Hello Word! How are you?");
8           System.exit(status: 0);
9       }
10  }
```

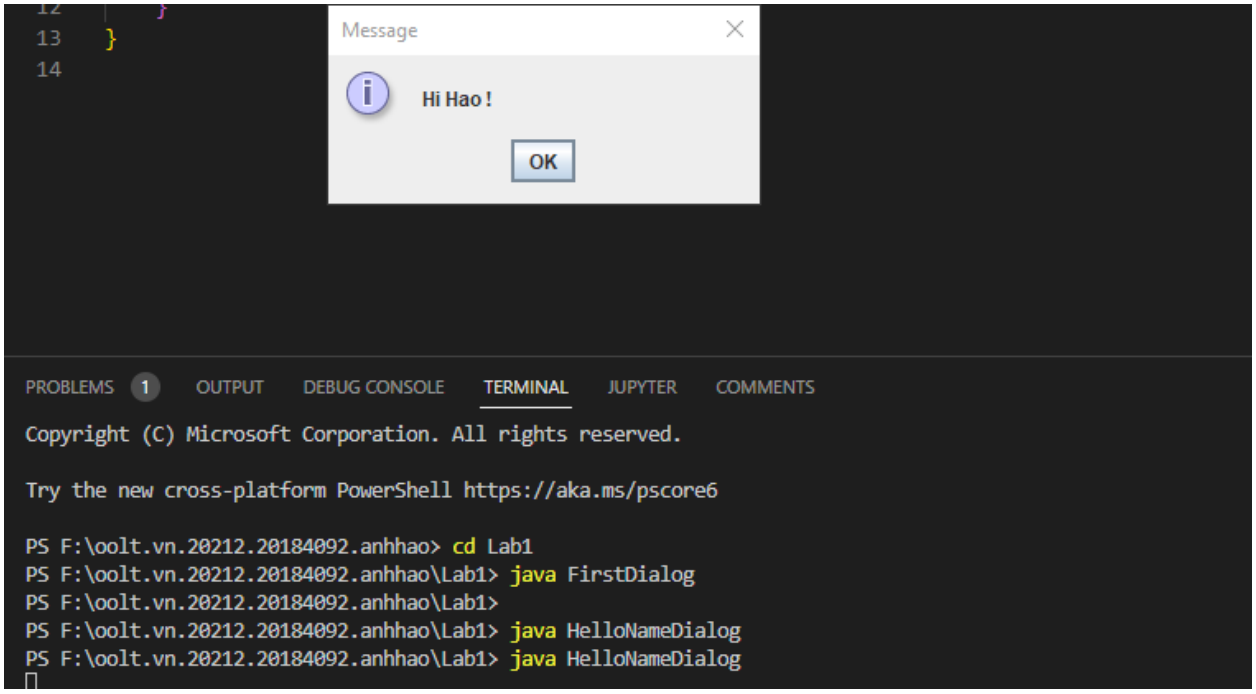
Kết quả



2.2.3 Write, compile the first input dialog Java application

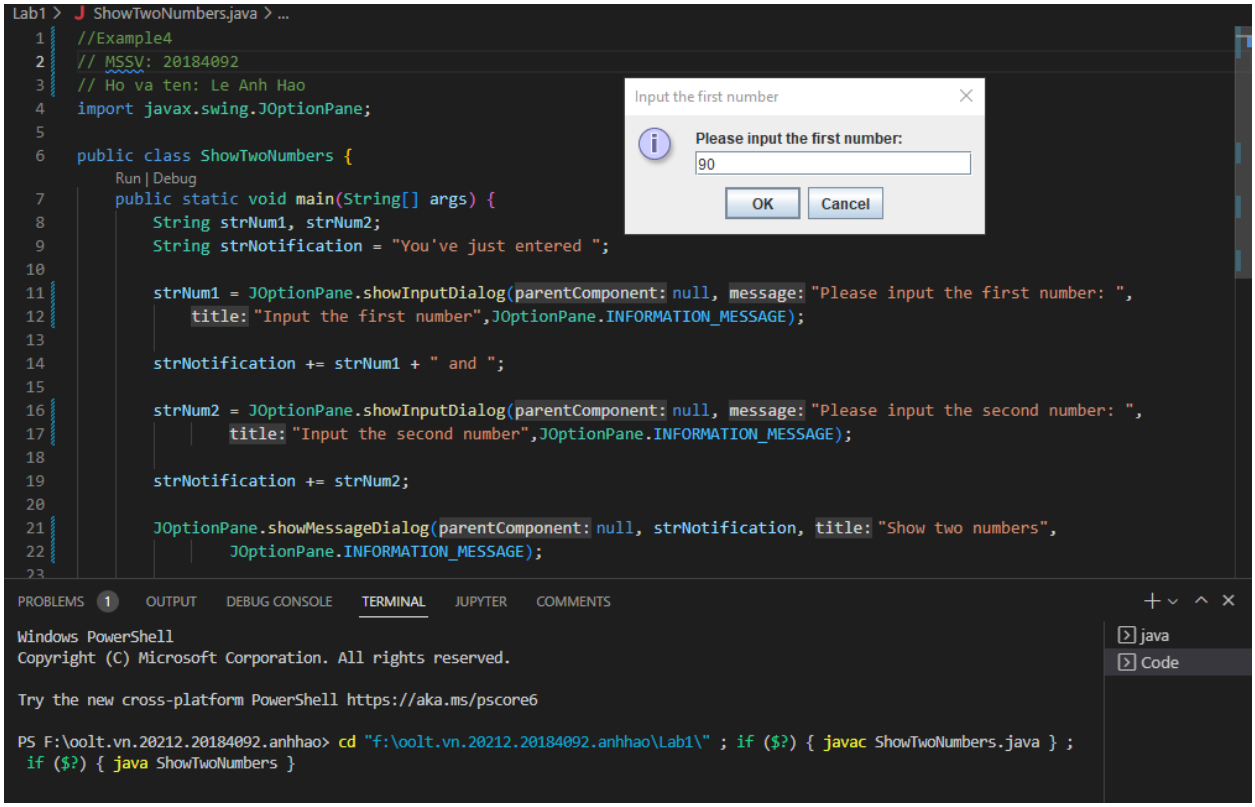

Input
Please enter your name:
Hao
OK
Cancel
PROBLEMS 1 OUTPUT DEBU
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS F:\oolt.vn.20212.20184092.anhhao> cd Lab1
PS F:\oolt.vn.20212.20184092.anhhao\Lab1> java FirstDialog
PS F:\oolt.vn.20212.20184092.anhhao\Lab1>
PS F:\oolt.vn.20212.20184092.anhhao\Lab1> java HelloNameDialog

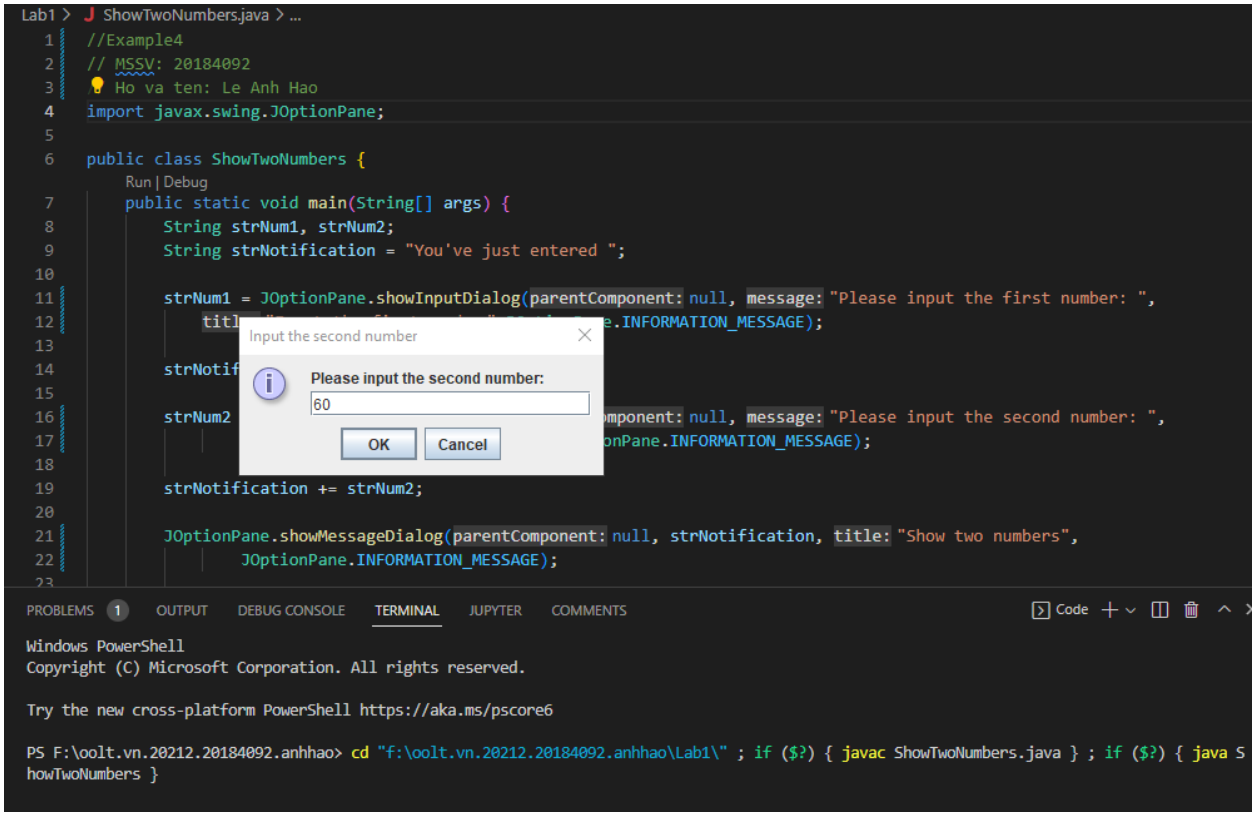
Kết quả


13 }
14
Message
Hi Hao !
OK
PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL JUPYTER COMMENTS
Copyright (C) Microsoft Corporation. All rights reserved.
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS F:\oolt.vn.20212.20184092.anhhao> cd Lab1
PS F:\oolt.vn.20212.20184092.anhhao\Lab1> java FirstDialog
PS F:\oolt.vn.20212.20184092.anhhao\Lab1>
PS F:\oolt.vn.20212.20184092.anhhao\Lab1> java HelloNameDialog
PS F:\oolt.vn.20212.20184092.anhhao\Lab1> java HelloNameDialog

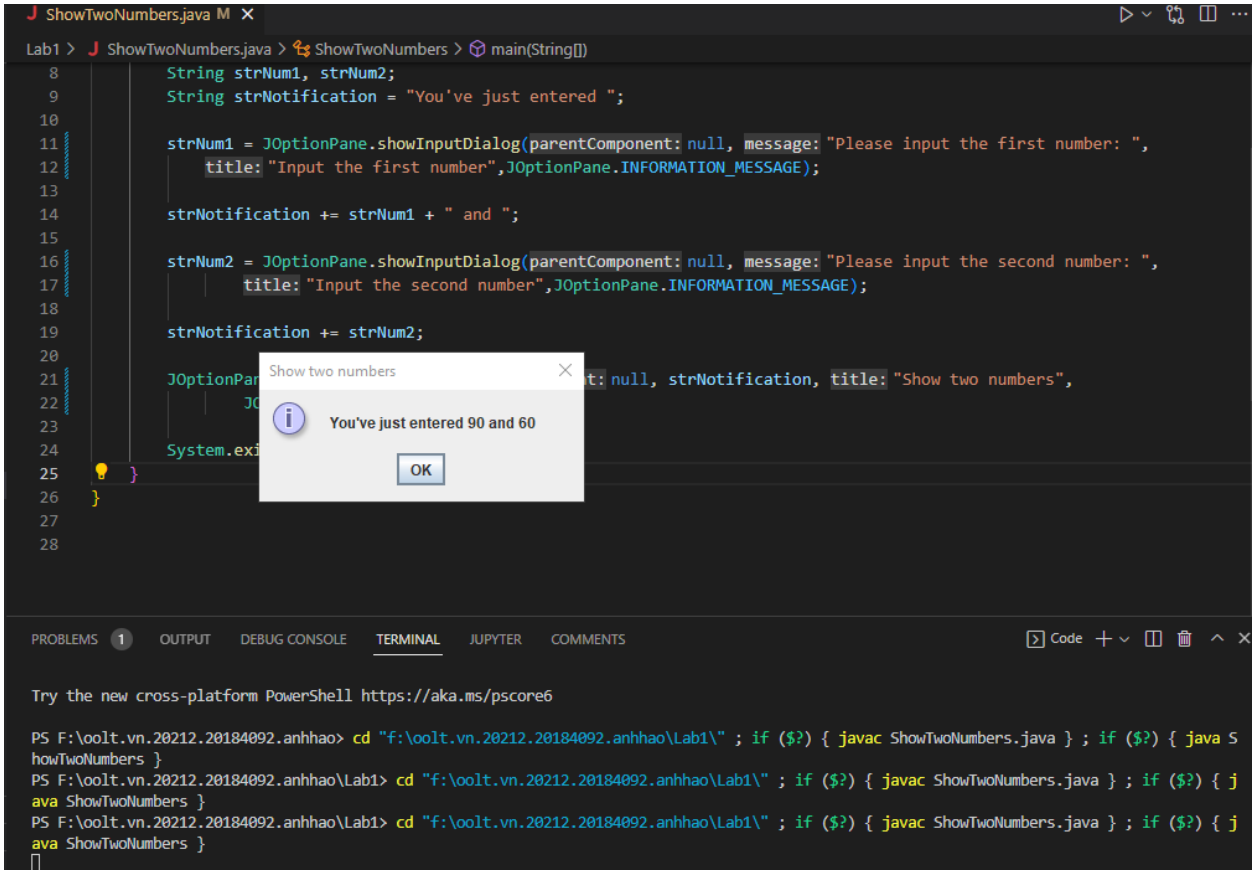
2.2.4 Write, compile, and run the following example:

```java
//Example4
// MSSV: 20184092
// Ho va ten: Le Anh Hao
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);

        strNotification += strNum2;

        JOptionPane.showMessageDialog(parentComponent: null, strNotification, title: "Show two numbers",
                JOptionPane.INFORMATION_MESSAGE);

        System.exit(status: 0);
    }
}
```




Lab1 > ShowTwoNumbers.java > ...
//Example4
// MSSV: 20184092
Ho va ten: Le Anh Hao
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: ",
.INFORMATION_MESSAGE);
strNum2
onPane.INFORMATION_MESSAGE);
strNotification += strNum2;
JOptionPane.showMessageDialog(parentComponent: null, strNotification, title: "Show two numbers",
JOptionPane.INFORMATION_MESSAGE);
Input the second number
Please input the second number:
60
OK
Cancel
PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL JUPYTER COMMENTS
Code
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS F:\oolt.vn.20212.20184092.anhhao> cd "f:\oolt.vn.20212.20184092.anhhao\Lab1\" ; if ($?) { javac ShowTwoNumbers.java } ; if ($?) { java S
howTwoNumbers }

Kết quả



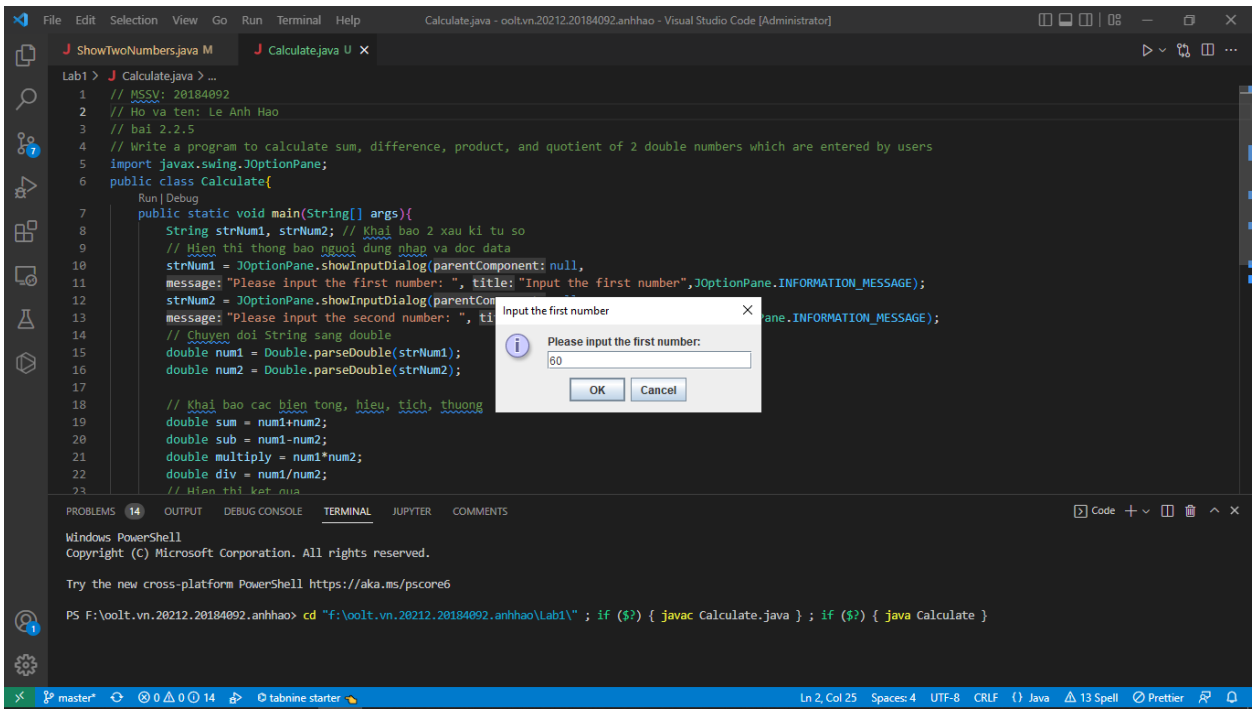
2.2.5 Write a program to calculate sum, difference, product, and quotient of 2 double numbers which are entered by users.

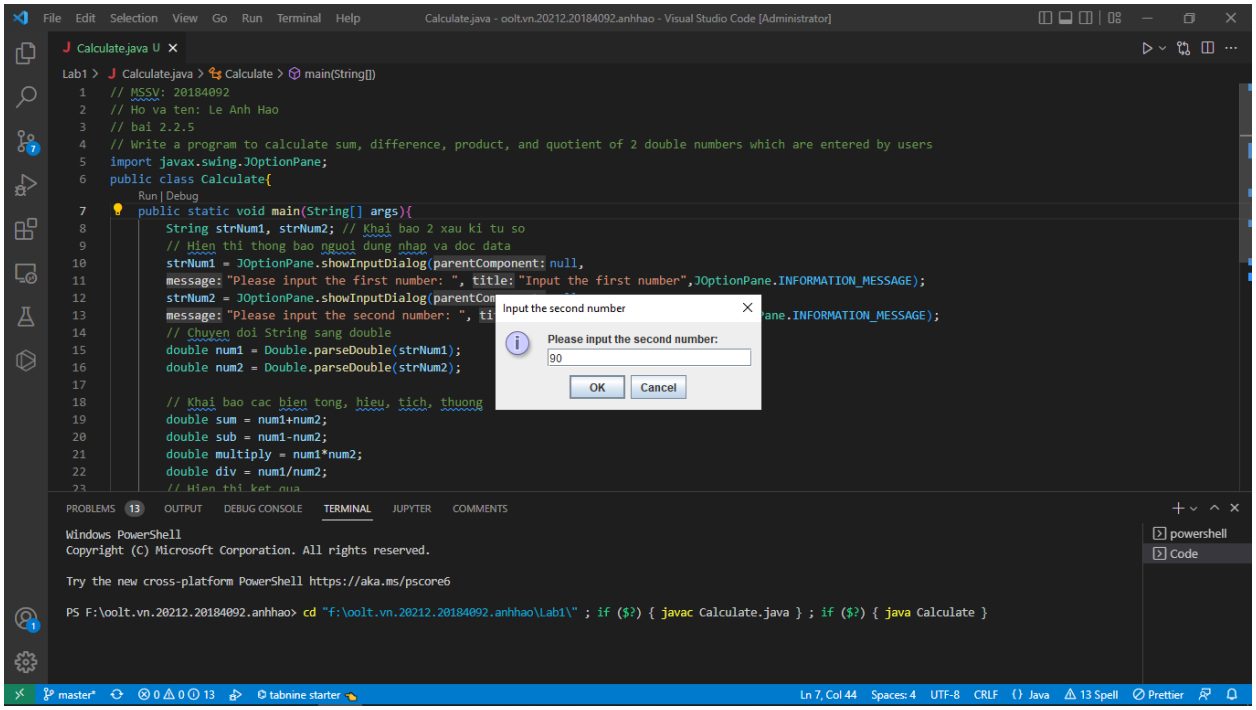
Notes

- To convert from String to double, you can use
  double num1 = Double.parseDouble(strNum1)
- Check the divisor of the division

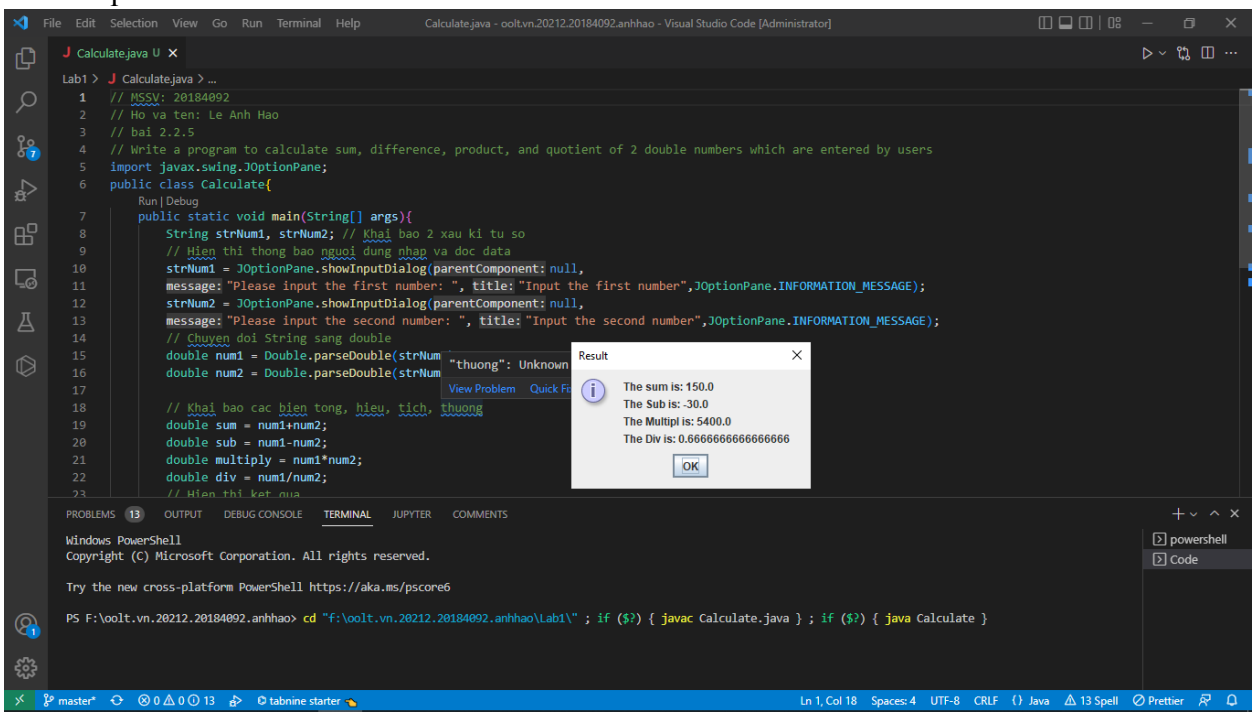
```java
// MSSV: 20184092
// Ho va ten: Le Anh Hao
// bai 2.2.5
// Write a program to calculate sum, difference, product, and quotient of 2 double numbers which are entered by users
import javax.swing.JOptionPane;
public class Calculate{
    Run | Debug
    public static void main(String[] args){
        String strNum1, strNum2; // Khai bao 2 xau ki tu so
        // Hien thi thong bao nguoi dung nhap va doc data
        strNum1 = JOptionPane.showInputDialog(parentComponent: null,
        message: "Please input the first number: ", title: "Input the first number",JOptionPane.INFORMATION_MESSAGE);
        strNum2 = JOptionPane.showInputDialog(parentComponent: null,
        message: "Please input the second number: ", title: "Input the second number",JOptionPane.INFORMATION_MESSAGE);
        // Chuyen doi String sang double
        double num1 = Double.parseDouble(strNum1);
        double num2 = Double.parseDouble(strNum2);

        // Khai bao cac bien tong, hieu, tich, thuong
        double sum = num1+num2;
        double sub = num1-num2;
        double multiply = num1*num2;
        double div = num1/num2;
        // Hien thi ket qua
        JOptionPane.showMessageDialog(parentComponent: null,
        "The sum is: " + sum + "\nThe Sub is: " + sub + "\nThe Multipl is: " + multiply + "\nThe Div is: "
        + div + "\n",title: "Result", JOptionPane.INFORMATION_MESSAGE);

    }

}
```

Chạy chương trình





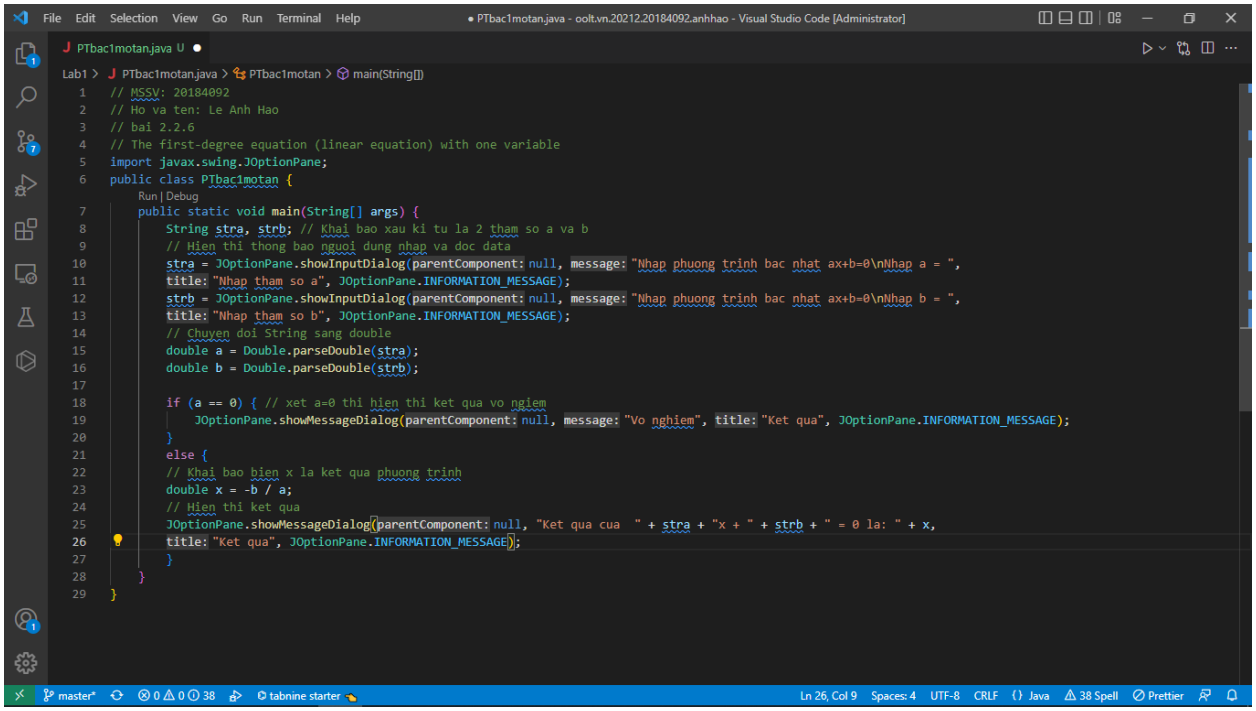
Kết quả



2.2.6 Write a program to solve:

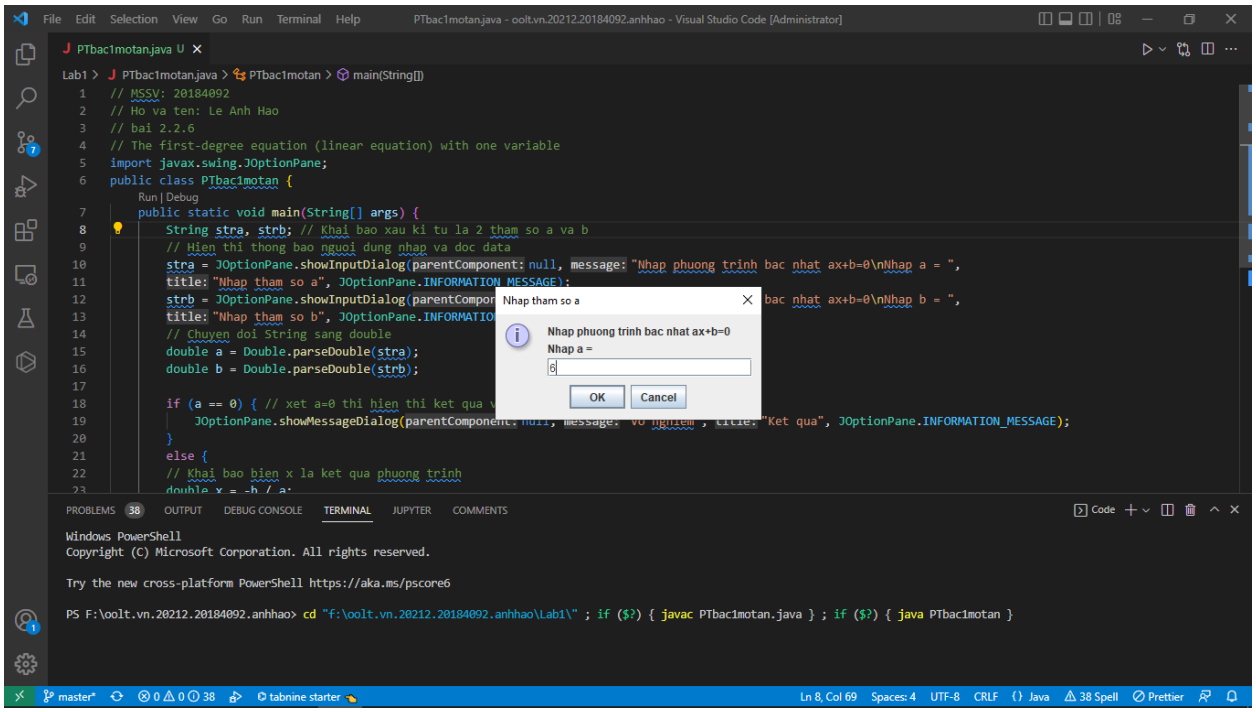
For simplicity, we only consider the real roots of the equations in this task.

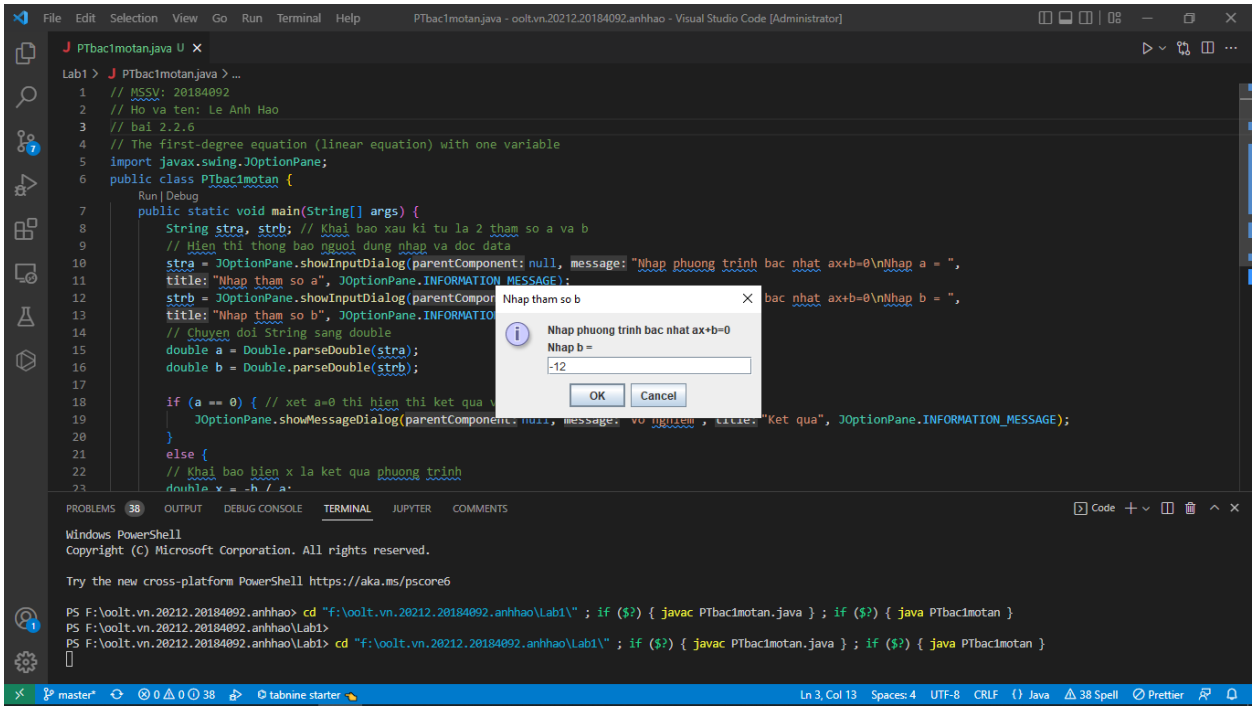
- The first-degree equation (linear equation) with one variable



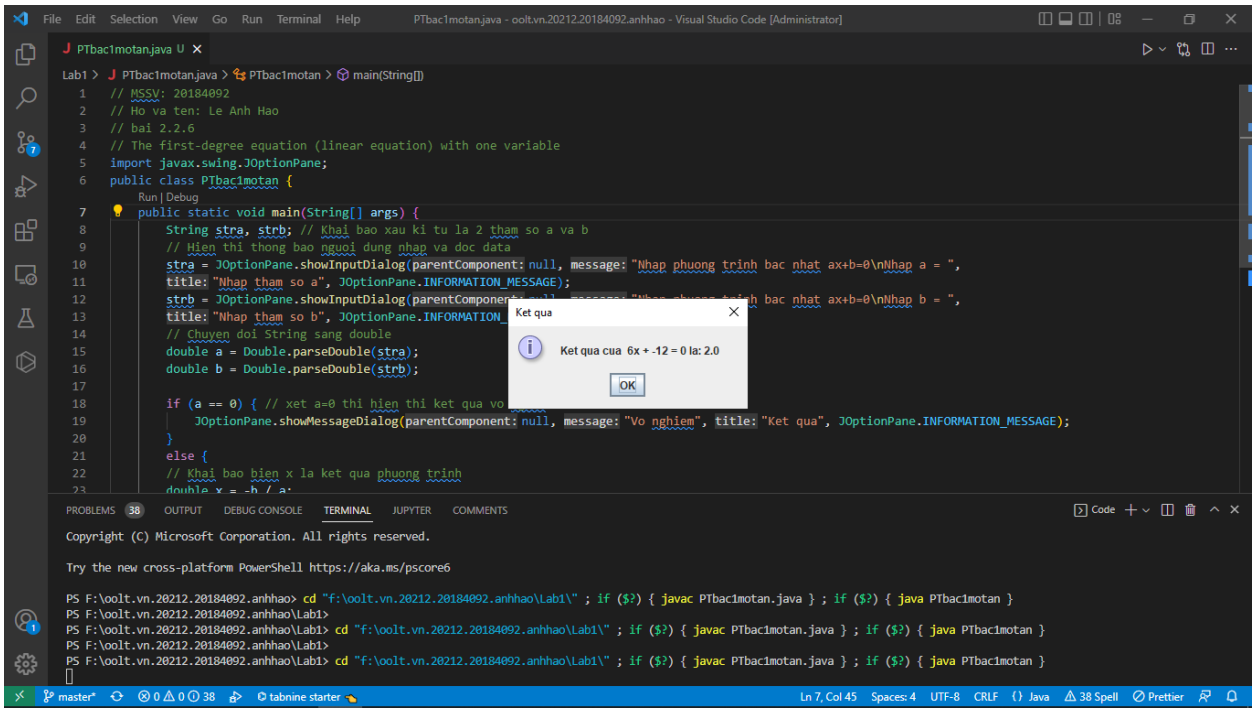
```java
// MSSV: 20184092
// Ho va ten: Le Anh Hao
// bai 2.2.6
// The first-degree equation (linear equation) with one variable
import javax.swing.JOptionPane;
public class PTbac1motan {
    Run | Debug
    public static void main(String[] args) {
        String stra, strb; // Khai bao xau ki tu la 2 tham so a va b
        // Hien thi thong bao nguoi dung nhap va doc data
        stra = JOptionPane.showInputDialog(parentComponent: null, message: "Nhap phuong trinh bac nhat ax+b=0\nNhap a = ",
        title: "Nhap tham so a", JOptionPane.INFORMATION_MESSAGE);
        strb = JOptionPane.showInputDialog(parentComponent: null, message: "Nhap phuong trinh bac nhat ax+b=0\nNhap b = ",
        title: "Nhap tham so b", JOptionPane.INFORMATION_MESSAGE);
        // Chuyen doi String sang double
        double a = Double.parseDouble(stra);
        double b = Double.parseDouble(strb);

        if (a == 0) { // xet a=0 thi hien thi ket qua vo ngiem
            JOptionPane.showMessageDialog(parentComponent: null, message: "Vo nghiem", title: "Ket qua", JOptionPane.INFORMATION_MESSAGE);
        }
        else {
        // Khai bao bien x la ket qua phuong trinh
        double x = -b / a;
        // Hien thi ket qua
        JOptionPane.showMessageDialog(parentComponent: null, "Ket qua cua  " + stra + "x + " + strb + " = 0 la: " + x,
        title: "Ket qua", JOptionPane.INFORMATION_MESSAGE);
        }
    }
}
```

Chạy chương trình





Kết quả



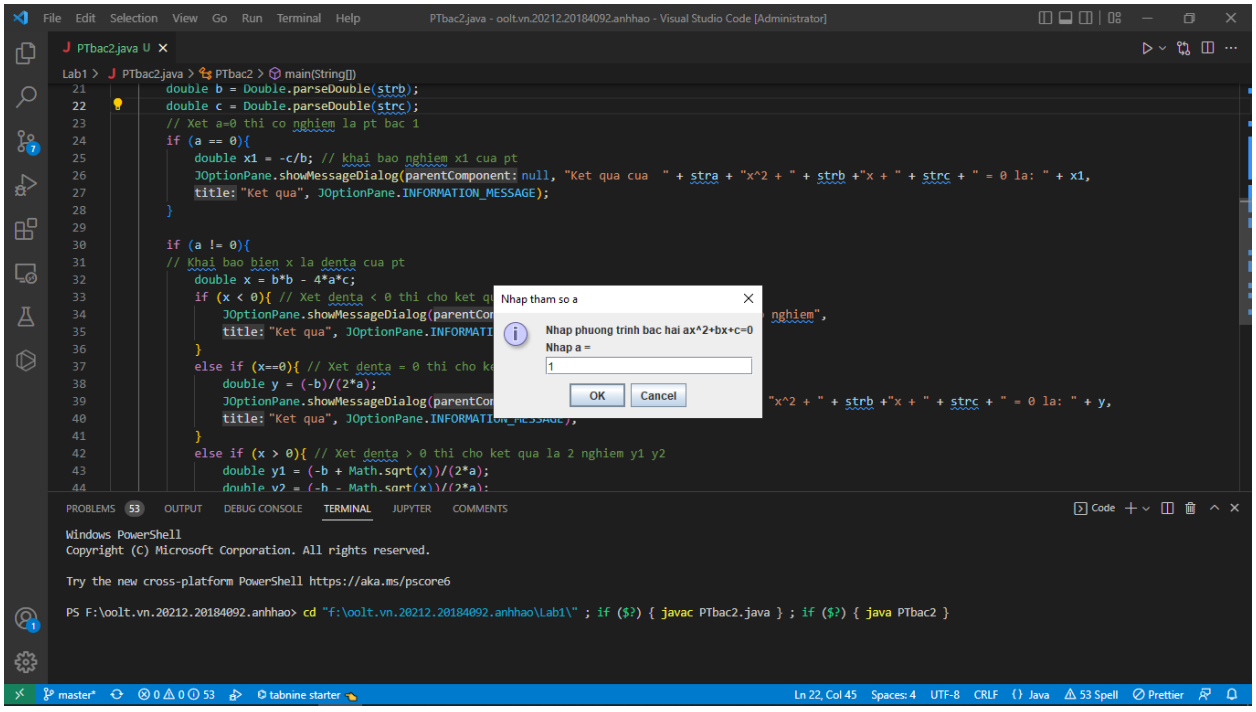
- The system of first-degree equations (linear system) with two variables

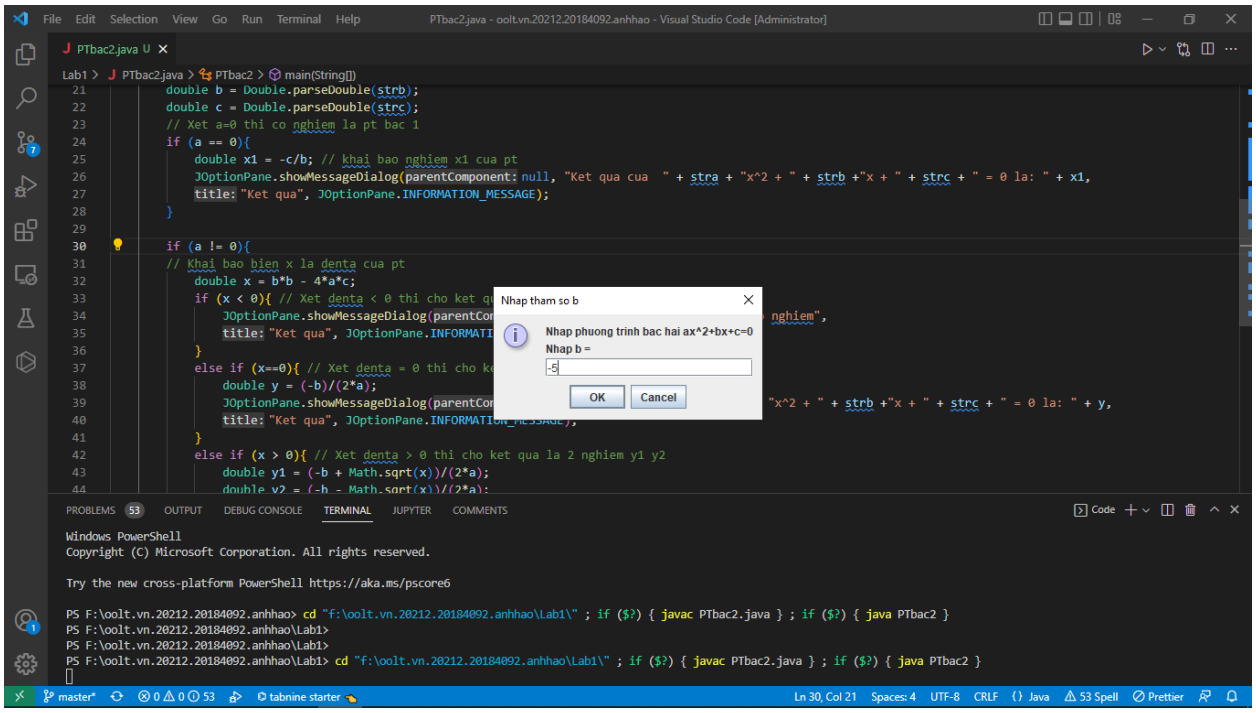
- The second-degree equation with one variable

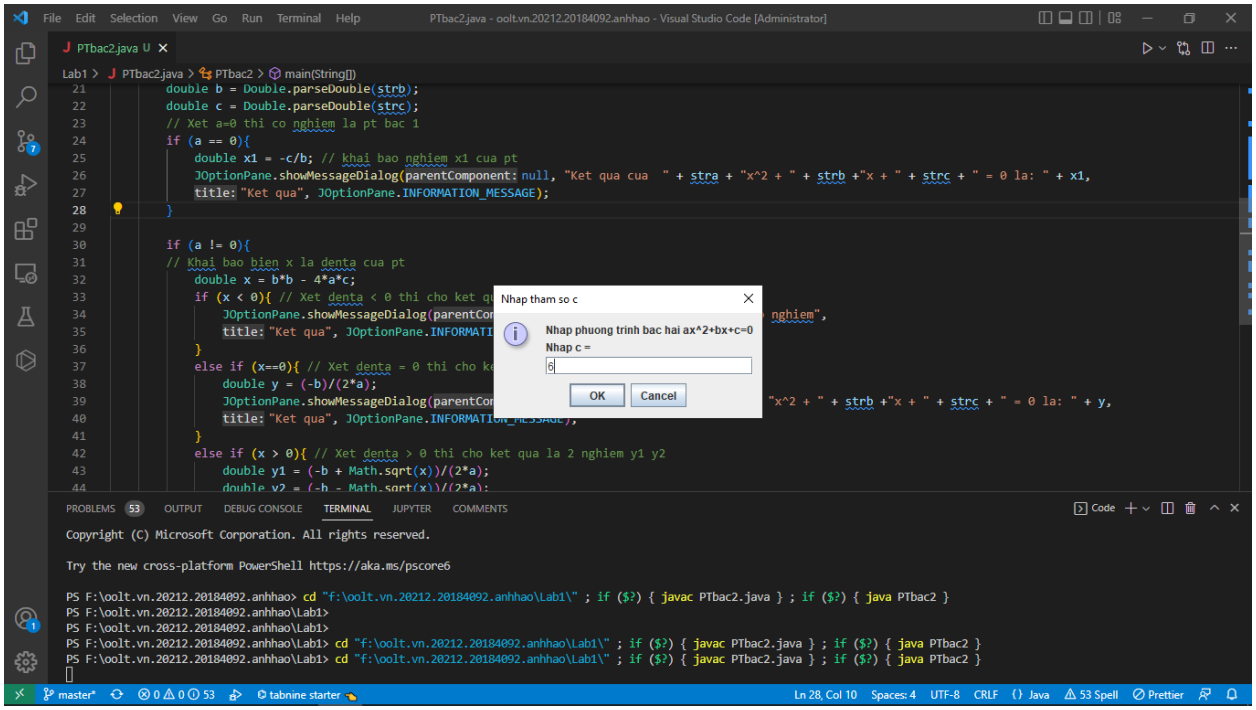
```java
// MSSV: 20184092
// Ho va ten: Le Anh Hao
// bai 2.2.6
💡 The second-degree equation with one variable
import javax.swing.JOptionPane;
import java.lang.Math;
public class PTbac2 {
    Run | Debug
    public static void main(String[] args) {
        String stra, strb, strc; // Khai bao xau ki tu la tham so cua phuong trinh bac hai
        // Hien thi thong bao nguoi dung nhap va doc data
        stra = JOptionPane.showInputDialog(parentComponent: null, message: "Nhap phuong trinh bac hai ax^2+bx+c=0\nNhap a = ",
        title: "Nhap tham so a", JOptionPane.INFORMATION_MESSAGE);
        strb = JOptionPane.showInputDialog(parentComponent: null, message: "Nhap phuong trinh bac hai ax^2+bx+c=0\nNhap b = ",
        title: "Nhap tham so b", JOptionPane.INFORMATION_MESSAGE);
        strc = JOptionPane.showInputDialog(parentComponent: null, message: "Nhap phuong trinh bac hai ax^2+bx+c=0\nNhap c = ",
        title: "Nhap tham so c", JOptionPane.INFORMATION_MESSAGE);

        // Chuyen doi String sang double
        double a = Double.parseDouble(stra);
        double b = Double.parseDouble(strb);
        double c = Double.parseDouble(strc);
        // Xet a=0 thi co nghiem la pt bac 1
        if (a == 0){
            double x1 = -c/b; // khai bao nghiem x1 cua pt
            JOptionPane.showMessageDialog(parentComponent: null, "Ket qua cua  " + stra + "x^2 + " + strb +"x + " + strc + " = 0 la: " + x1,
            title: "Ket qua", JOptionPane.INFORMATION_MESSAGE);
        }
```

```java
        if (a != 0){
        // Khai bao bien x la denta cua pt
            double x = b*b - 4*a*c;
            if (x < 0){ // Xet denta < 0 thi cho ket qua vo nghiem
                JOptionPane.showMessageDialog(parentComponent: null, message: "Phuong trinh vo nghiem",
                title: "Ket qua", JOptionPane.INFORMATION_MESSAGE);
            }
            else if (x==0){ // Xet denta = 0 thi cho ket qua nghiem kep y
                double y = (-b)/(2*a);
                JOptionPane.showMessageDialog(parentComponent: null, "Ket qua cua  " + stra + "x^2 + " + strb +"x + " + strc + " = 0 la: " + y,
                title: "Ket qua", JOptionPane.INFORMATION_MESSAGE);
            }
            else if (x > 0){ // Xet denta > 0 thi cho ket qua la 2 nghiem y1 y2
                double y1 = (-b + Math.sqrt(x))/(2*a);
                double y2 = (-b - Math.sqrt(x))/(2*a);
                JOptionPane.showMessageDialog(parentComponent: null, "Ket qua cua  " + stra + "x^2 + " + strb +"x + " + strc + " = 0 la: " + y1 + "va" + y2,
                title: "Ket qua", JOptionPane.INFORMATION_MESSAGE);
            }
        }
    }
}
```

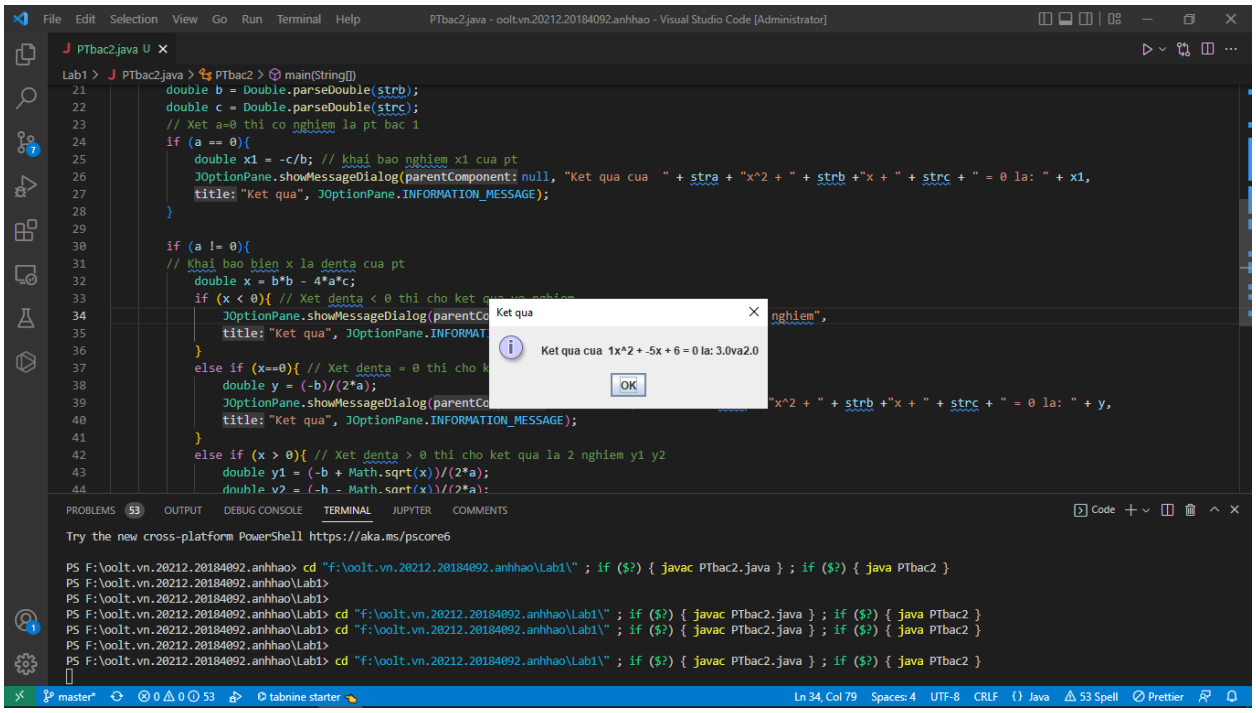
Chạy chương trình


File Edit Selection View Go Run Terminal Help
PTbac2.java - oolt.vn.20212.20184092.anhhao - Visual Studio Code [Administrator]
PTbac2.java U
Lab1 > PTbac2.java > PTbac2 > main(String[])
double b = Double.parseDouble(strb);
double c = Double.parseDouble(strc);
// Xet a=0 thi co nghiem la pt bac 1
if (a == 0){
double x1 = -c/b; // khai bao nghiem x1 cua pt
JOptionPane.showMessageDialog(parentComponent: null, "Ket qua cua " + stra + "x^2 + " + strb +"x + " + strc + " = 0 la: " + x1,
title: "Ket qua", JOptionPane.INFORMATION_MESSAGE);
}
if (a != 0){
// Khai bao bien x la denta cua pt
double x = b*b - 4*a*c;
if (x < 0){ // Xet denta < 0 thi cho ket q
JOptionPane.showMessageDialog(parentCo
title: "Ket qua", JOptionPane.INFORMATI
}
else if (x==0){ // Xet denta = 0 thi cho k
double y = (-b)/(2*a);
JOptionPane.showMessageDialog(parentCo
title: "Ket qua", JOptionPane.INFORMATI
}
else if (x > 0){ // Xet denta > 0 thi cho ket qua la 2 nghiem y1 y2
double y1 = (-b + Math.sqrt(x))/(2*a);
Nhap tham so a
Nhap phuong trinh bac hai ax^2+bx+c=0
Nhap a =
1
OK
Cancel
nghiem",
"x^2 + " + strb +"x + " + strc + " = 0 la: " + y,
PROBLEMS 53 OUTPUT DEBUG CONSOLE TERMINAL JUPYTER COMMENTS
Code
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS F:\oolt.vn.20212.20184092.anhhao> cd "f:\oolt.vn.20212.20184092.anhhao\Lab1\" ; if ($?) { javac PTbac2.java } ; if ($?) { java PTbac2 }
master* 0 0 53 tabnine starter
Ln 22, Col 45 Spaces: 4 UTF-8 CRLF Java 53 Spell Prettier


File Edit Selection View Go Run Terminal Help
PTbac2.java - oolt.vn.20212.20184092.anhhao - Visual Studio Code [Administrator]
PTbac2.java U
Lab1 > PTbac2.java > PTbac2 > main(String[])
double b = Double.parseDouble(strb);
double c = Double.parseDouble(strc);
// Xet a=0 thi co nghiem la pt bac 1
if (a == 0){
double x1 = -c/b; // khai bao nghiem x1 cua pt
JOptionPane.showMessageDialog(parentComponent: null, "Ket qua cua " + stra + "x^2 + " + strb +"x + " + strc + " = 0 la: " + x1,
title: "Ket qua", JOptionPane.INFORMATION_MESSAGE);
}
if (a != 0){
// Khai bao bien x la denta cua pt
double x = b*b - 4*a*c;
if (x < 0){ // Xet denta < 0 thi cho ket q
JOptionPane.showMessageDialog(parentCo
title: "Ket qua", JOptionPane.INFORMATI
}
else if (x==0){ // Xet denta = 0 thi cho k
double y = (-b)/(2*a);
JOptionPane.showMessageDialog(parentCo
title: "Ket qua", JOptionPane.INFORMATI
}
else if (x > 0){ // Xet denta > 0 thi cho ket qua la 2 nghiem y1 y2
double y1 = (-b + Math.sqrt(x))/(2*a);
Nhap tham so b
Nhap phuong trinh bac hai ax^2+bx+c=0
Nhap b =
-5
OK
Cancel
nghiem",
"x^2 + " + strb +"x + " + strc + " = 0 la: " + y,
PROBLEMS 53 OUTPUT DEBUG CONSOLE TERMINAL JUPYTER COMMENTS
Code
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS F:\oolt.vn.20212.20184092.anhhao> cd "f:\oolt.vn.20212.20184092.anhhao\Lab1\" ; if ($?) { javac PTbac2.java } ; if ($?) { java PTbac2 }
PS F:\oolt.vn.20212.20184092.anhhao\Lab1>
PS F:\oolt.vn.20212.20184092.anhhao\Lab1>
PS F:\oolt.vn.20212.20184092.anhhao\Lab1> cd "f:\oolt.vn.20212.20184092.anhhao\Lab1\" ; if ($?) { javac PTbac2.java } ; if ($?) { java PTbac2 }
master* 0 0 53 tabnine starter
Ln 30, Col 21 Spaces: 4 UTF-8 CRLF Java 53 Spell Prettier


Nhap tham so c
Nhap phuong trinh bac hai ax^2+bx+c=0
Nhap c =
6
OK
Cancel

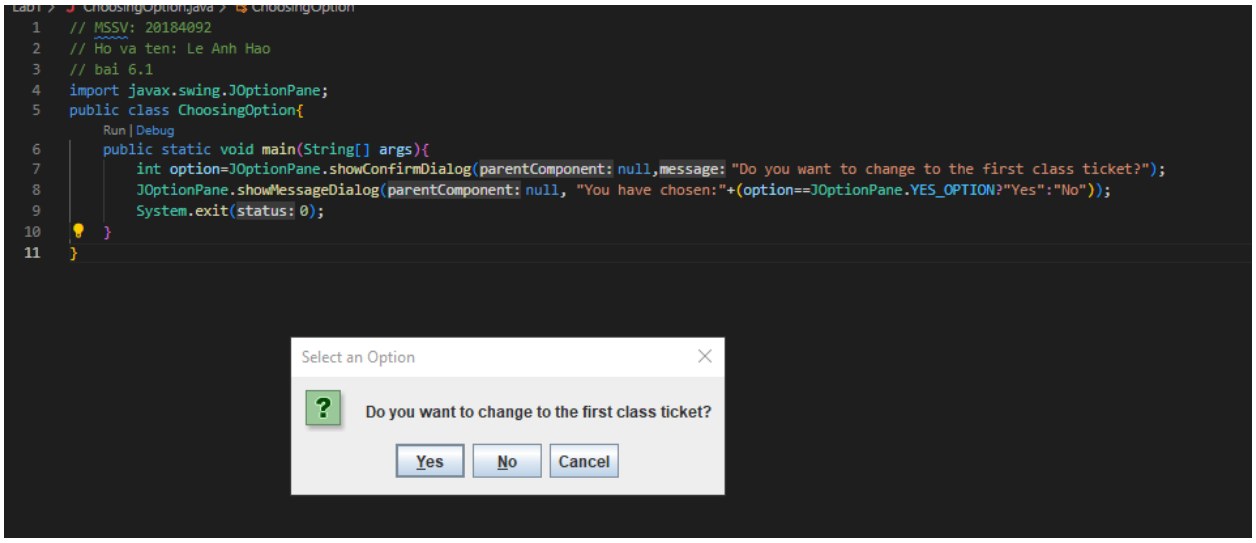
Kết quả

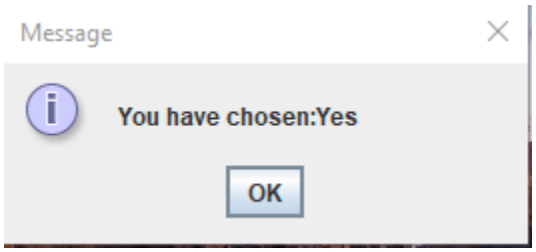

Ket qua
Ket qua cua 1x^2 + -5x + 6 = 0 la: 3.0va2.0
OK

6.1 Write, compile and run the ChoosingOption program

```java
// MSSV: 20184092
// Ho va ten: Le Anh Hao
// bai 6.1
import javax.swing.JOptionPane;
public class ChoosingOption{
    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 have chosen:"+(option==JOptionPane.YES_OPTION?"Yes":"No"));
        System.exit(status: 0);
    }
}
```

Kết quả





6.2 Write a program for input/output from keyboard

```java
// MSSV: 20184092
// Ho va ten: Le Anh Hao
// bai 6.2
import java.util.Scanner;

public class InputFromKeyboard {
    Run | Debug
    public static void main(String[] args) {
        Scanner keyboard=new Scanner(System.in);
        System.out.println(x: "What is your name?");
        String strName=keyboard.nextLine();
        System.out.println(x: "How old are you?");
        int iAge=keyboard.nextInt();
        System.out.println(x: "How tall are you?");
        double dHeight=keyboard.nextDouble();
        System.out.println("Mrs/Ms "+strName+","+iAge+" years old. "+"You height is "+dHeight+".");
    }
}
```

Kết quả

```
PS F:\oolt.vn.20212.20184092.anhhao\Lab1> cd "f:\oolt.vn.20212.20184092.anhhao\Lab1\" ; if
What is your name?
Hao
How old are you?
22
How tall are you?
170
Mrs/Ms Hao,22 years old. You height is 170.0.
PS F:\oolt.vn.20212.20184092.anhhao\Lab1>
```

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

E.g. n=5:

```
    *
   ***
  *****
 *******
```

****

Note: You must create a new Java project for this exercise.

PTbac2.java U | AddMatrices.java U | Tamgiac.java 1, U | Calculate.java U

Lab1 > Tamgiac.java > ...

```java
// MSSV: 20184092
// Ho va ten: Le Anh Hao
// bai 6.3
import java.util.Scanner;
public class Tamgiac {
    Run | Debug
    public static void main(String[] args) {
        int h; // Khai bao chieu cao của tam giac
        Scanner scanner = new Scanner(System.in);
        System.out.println(x: "Nhap vao chieu cao cua tam giac: ");// nhap chieu cao
        h = scanner.nextInt();
        for (int i=1; i<2*h; i += 2)
{
    // ve tam giac
    for (int k=0; k < (h-1 - i / 2); k++)
    {
        System.out.print(s: " ");
    }
    for (int j=0; j<i; j++)
    {
        System.out.print(s: "*");
    }
    System.out.println(x: "");
}}
}
```

Kết quả

```
PS F:\oolt.vn.20212.20184092.anhhao> cd "f:\oolt.vn.20212.20184092.anhhao\Lab1\"
Nhap vao chieu cao cua tam giac:
5
    *
   ***
  *****
 *******
*********
PS F:\oolt.vn.20212.20184092.anhhao\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.

Note: You must create a new Java project for this exercise.

Lab1 > J dayofamonth.java > dayofamonth

```java
// MSSV: 20184092
// Ho va ten: Le Anh Hao
// bai 6.4
import java.util.Scanner;

public class dayofamonth {

    Run | Debug
    public static void main(String[] args) {
        int month; // khai bao thang
        int year; // khai bao nam
        Scanner scanner = new Scanner(System.in);
        System.out.println(x: "Month: "); // nhap thang
        month = scanner.nextInt();
        System.out.println(x: "Year: ");// nhap nam
        year = scanner.nextInt();

        switch (month) {
            // thang 1 3 5 7 8 10 12 co 31 ngay
            case 1:
            case 3:
            case 5:
            case 7:
            case 8:
            case 10:
            case 12:
                System.out.println("Month " + month + " year " + year + " have 31 days.");
                break;
            // thang 4 6 9 11 co 30 ngay
            case 4:
            case 6:
            case 9:
            case 11:
                 System.out.println("Month " + month + " year " + year + " have 30 days.");
                break;

            // thang 2 co 28 hoac 29 ngay tinh theo nam nhuan
            case 2:

                if ((year % 4 == 0 && year % 100 != 0) || (year % 400 == 0)) {
                    System.out.println("Month " + month + " year " + year + " have 29 days.");
                } else {
                    System.out.println("Month " + month + " year " + year + " have 28 days.");
                }
                break;
            default:
                System.out.println(x: "Error");
            }
    }

}
```

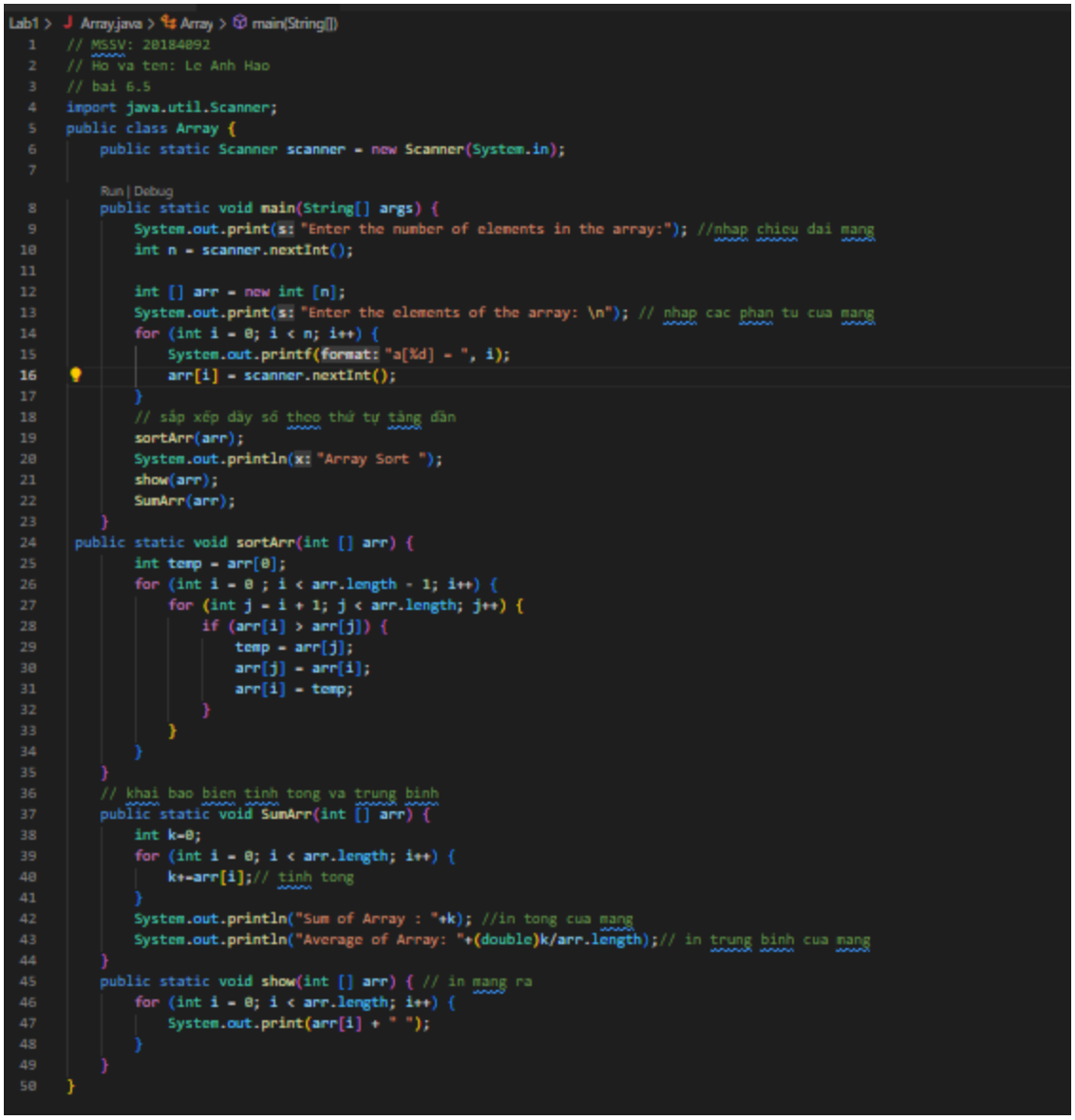
Kết quả

```
PS F:\oolt.vn.20212.20184092.anhhao\Lab1> cd "f:\oolt.vn.20212.20184092.anhhao\Lab1\" ; if
Month:
5
Year:
2000
Month 5 year 2000 have 31 days.
PS F:\oolt.vn.20212.20184092.anhhao\Lab1>
```

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

Note: You must create a new Java project for this exercise.

- The array can be entered by the user or a constant.



```java
// MSSV: 20184092
// Ho va ten: Le Anh Hao
// bai 6.5
import java.util.Scanner;
public class Array {
    public static Scanner scanner = new Scanner(System.in);

    Run | Debug
    public static void main(String[] args) {
        System.out.print(s: "Enter the number of elements in the array:"); //nhap chieu dai mang
        int n = scanner.nextInt();

        int [] arr = new int [n];
        System.out.print(s: "Enter the elements of the array: \n"); // nhap cac phan tu cua mang
        for (int i = 0; i < n; i++) {
            System.out.printf(format: "a[%d] = ", i);
            arr[i] = scanner.nextInt();
        }
        // sắp xếp dãy số theo thứ tự tăng dần
        sortArr(arr);
        System.out.println(x: "Array Sort ");
        show(arr);
        SumArr(arr);
    }
    public static void sortArr(int [] arr) {
        int temp = arr[0];
        for (int i = 0 ; i < arr.length - 1; i++) {
            for (int j = i + 1; j < arr.length; j++) {
                if (arr[i] > arr[j]) {
                    temp = arr[j];
                    arr[j] = arr[i];
                    arr[i] = temp;
                }
            }
        }
    }
    // khai bao bien tinh tong va trung binh
    public static void SumArr(int [] arr) {
        int k=0;
        for (int i = 0; i < arr.length; i++) {
            k+=arr[i];// tinh tong
        }
        System.out.println("Sum of Array : "+k); //in tong cua mang
        System.out.println("Average of Array: "+(double)k/arr.length);// in trung binh cua mang
    }
    public static void show(int [] arr) { // in mang ra
        for (int i = 0; i < arr.length; i++) {
            System.out.print(arr[i] + " ");
        }
    }
}
```

Kết quả

```
PS F:\oolt.vn.20212.20184092.anhhao\Lab1> cd "f:\oolt.vn.20212.20184092.anhhao\Lab1\"
Enter the number of elements in the array:6
Enter the elements of the array:
a[0] = 5
a[1] = 2
a[2] = 7
a[3] = 1
a[4] = 62
a[5] = 40
Array Sort
1 2 5 7 40 62 Sum of Array : 117
Average of Array: 19.5
PS F:\oolt.vn.20212.20184092.anhhao\Lab1>
```

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

Note: You must create a new Java project for this exercise.

- The matrices can be entered by the user or constants.

Lab1 > AddMatrices.java > AddMatrices > main(String[])

```java
// MSSV: 20184092
// Ho va ten: Le Anh Hao
// bai 6.6
// Cong hai ma tran
import java.util.Scanner;
public class AddMatrices {
    Run | Debug
    public static void main(String args[])
    {
        int m, n, c, d; // Khai bao hang cot, 2 bien lap
        Scanner in = new Scanner(System.in);

        System.out.println(x: "Input number of rows of matrix");
        m = in.nextInt();
        System.out.println(x: "Input number of columns of matrix");
        n  = in.nextInt();

        int array1[][] = new int[m][n]; // Khai bao ma tran 1
        int array2[][] = new int[m][n]; // Khai bao ma tran 2
        int sum[][] = new int[m][n]; // Khai bao tong ma tran
       // Nhap ma tran 1
        System.out.println(x: "Input elements of first matrix");

        for (  c = 0 ; c < m ; c++ )
           for ( d = 0 ; d < n ; d++ )
              array1[c][d] = in.nextInt();
           // Nhap ma tran 2
        System.out.println(x: "Input the elements of second matrix");

        for ( c = 0 ; c < m ; c++ )
           for ( d = 0 ; d < n ; d++ )
              array2[c][d] = in.nextInt();
          // Tong hai ma tran
        for ( c = 0 ; c < m ; c++ )
           for ( d = 0 ; d < n ; d++ )
               sum[c][d] = array1[c][d] + array2[c][d];
// in ma tran tong
        System.out.println(x: "Sum of the matrices:-");

        for ( c = 0 ; c < m ; c++ )
        {
           for ( d = 0 ; d < n ; d++ )
              System.out.print(sum[c][d]+"\t");

           System.out.println();
        }
    }
}
```

Kết quả

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

PS F:\oolt.vn.20212.20184092.anhhao> cd "f:\oolt.vn.20212.20184092.an
Input number of rows of matrix
2
Input number of columns of matrix
3
Input elements of first matrix
1
2
3
4
5
6
Input the elements of second matrix
6
5
4
3
2
1
Sum of the matrices:-
7       7       7
7       7       7
PS F:\oolt.vn.20212.20184092.anhhao\Lab1>
```