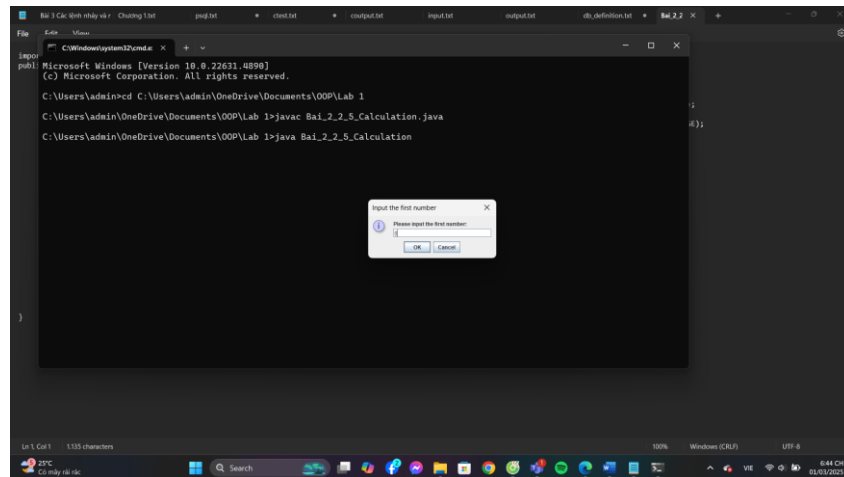


LẬP TRÌNH HƯỚNG ĐỐI TƯỢNG LAB 1

2.2.5: Viết một chương trình để tính tổng, hiệu, tích và thương của 2 số do người dùng nhập.



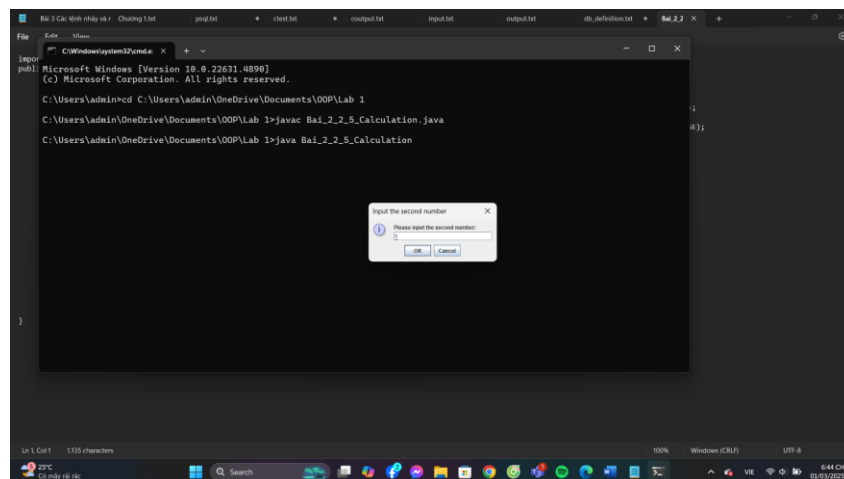
```
Microsoft Windows [Version 10.0.22631.4890]
(c) Microsoft Corporation. All rights reserved.

C:\Users\admin>cd C:\Users\admin\OneDrive\Documents\OOP\Lab 1
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>javac Bai_2_2_5_Calculation.java
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>java Bai_2_2_5_Calculation
```

Input the first number

Please input the first number:

OK Cancel



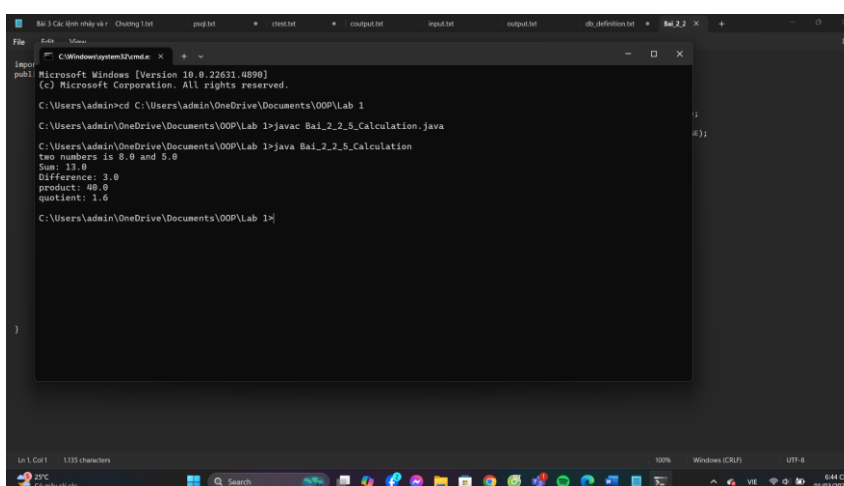
```
Microsoft Windows [Version 10.0.22631.4890]
(c) Microsoft Corporation. All rights reserved.

C:\Users\admin>cd C:\Users\admin\OneDrive\Documents\OOP\Lab 1
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>javac Bai_2_2_5_Calculation.java
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>java Bai_2_2_5_Calculation
```

Input the second number

Please input the second number:

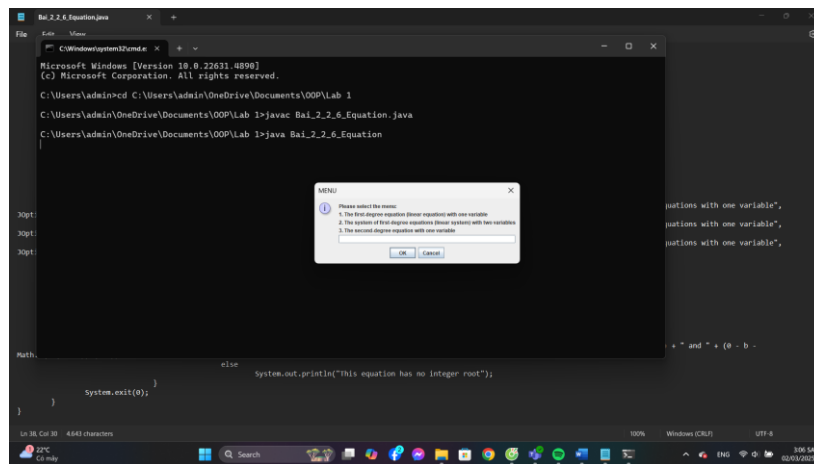
OK Cancel



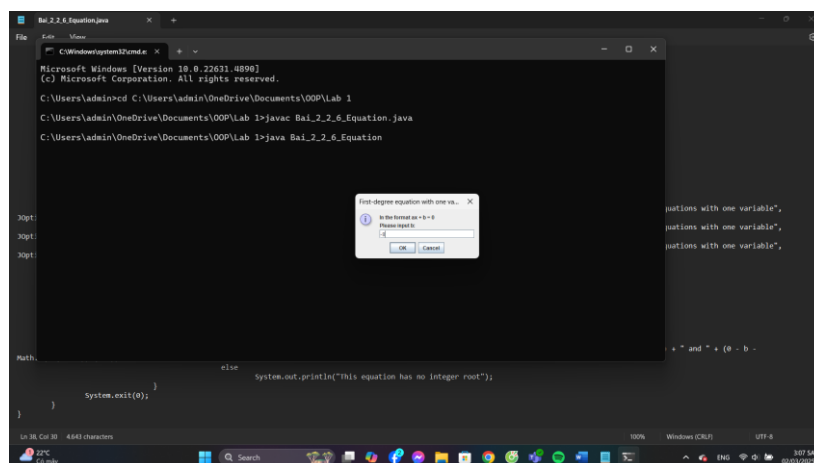
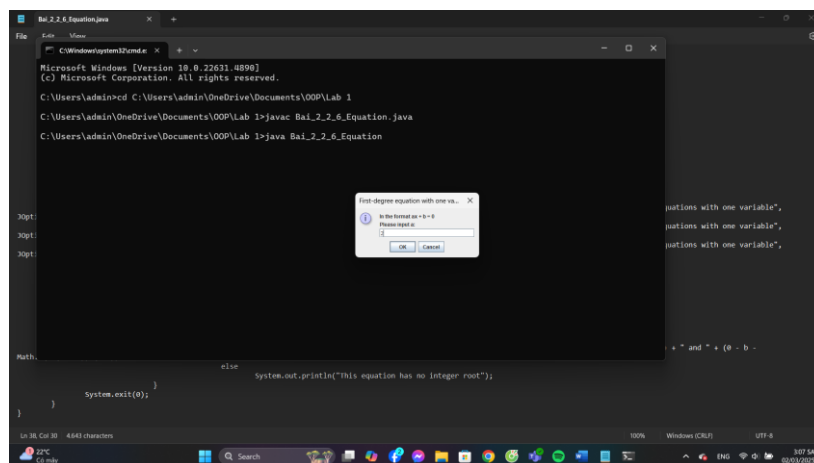
```
Microsoft Windows [Version 10.0.22631.4890]
(c) Microsoft Corporation. All rights reserved.

C:\Users\admin>cd C:\Users\admin\OneDrive\Documents\OOP\Lab 1
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>javac Bai_2_2_5_Calculation.java
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>java Bai_2_2_5_Calculation
two numbers is 8.0 and 5.0
Sum: 13.0
Difference: 3.0
product: 40.0
quotient: 1.6
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>
```

2.2.6: Phương trình và hệ phương trình



Phương trình bậc nhất một ẩn:



```
Bai_2_2_6_Equation.java
File Edit View
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.22631.4890]
(c) Microsoft Corporation. All rights reserved.
C:\Users\admin>cd C:\Users\admin\OneDrive\Documents\OOP\Lab 1
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>javac Bai_2_2_6_Equation.java
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>java Bai_2_2_6_Equation
Your equation is: 2.0x + -8.0 = 0
This equation has a unique solution of 4.0
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>

30pt:
30pt:
30pt:

Math:
else System.out.println("This equation has no integer root");
    System.exit(0);
}
```

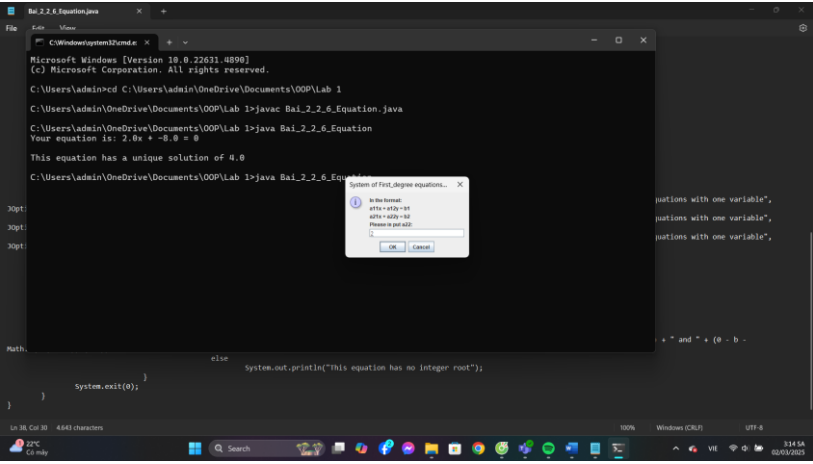
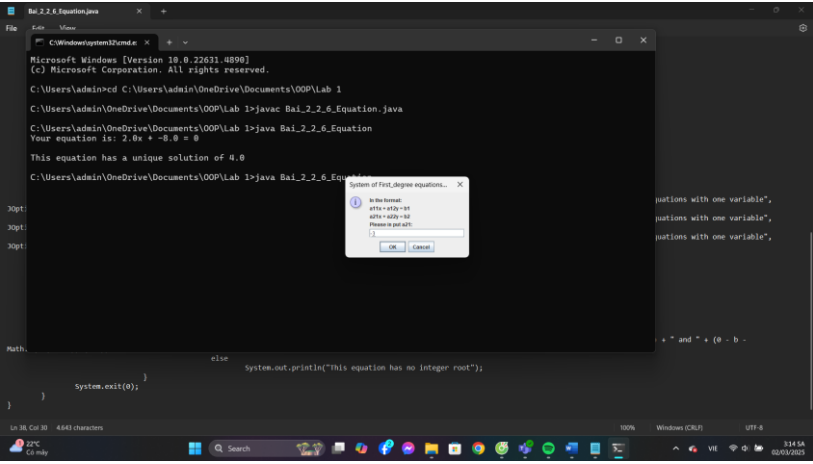
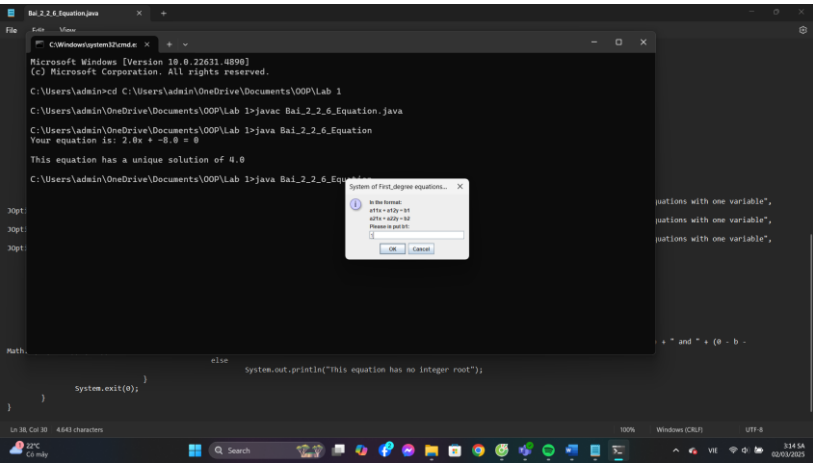
Hệ phương trình bậc nhất hai ẩn:

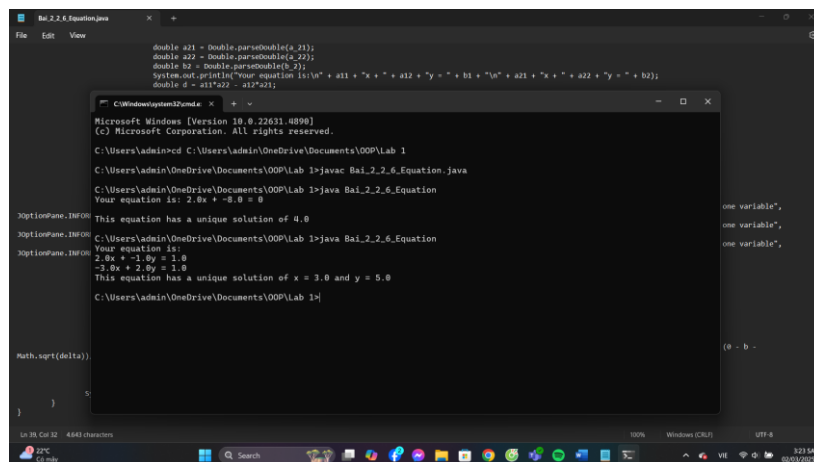
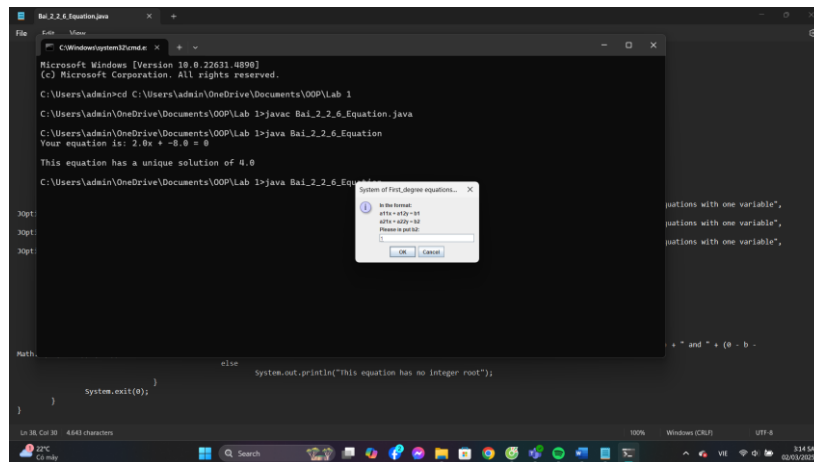
```
Bai_2_2_6_Equation.java
File Edit View
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.22631.4890]
(c) Microsoft Corporation. All rights reserved.
C:\Users\admin>cd C:\Users\admin\OneDrive\Documents\OOP\Lab 1
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>javac Bai_2_2_6_Equation.java
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>java Bai_2_2_6_Equation
Your equation is: 2.0x + -8.0 = 0
This equation has a unique solution of 4.0
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>java Bai_2_2_6_Equation

System of First degree equations...
In the format:
a1x1 + a2x2 = b1
a3x1 + a4x2 = b2
Please to put a1:
2
OK Cancel
```

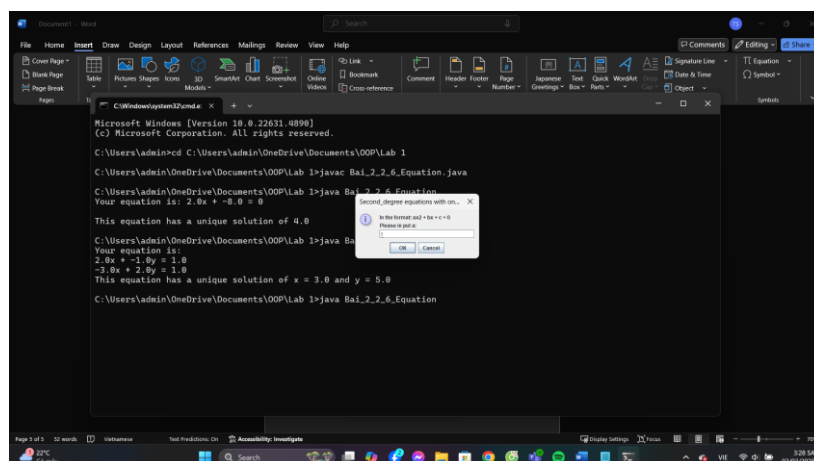
```
Bai_2_2_6_Equation.java
File Edit View
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.22631.4890]
(c) Microsoft Corporation. All rights reserved.
C:\Users\admin>cd C:\Users\admin\OneDrive\Documents\OOP\Lab 1
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>javac Bai_2_2_6_Equation.java
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>java Bai_2_2_6_Equation
Your equation is: 2.0x + -8.0 = 0
This equation has a unique solution of 4.0
C:\Users\admin\OneDrive\Documents\OOP\Lab 1>java Bai_2_2_6_Equation

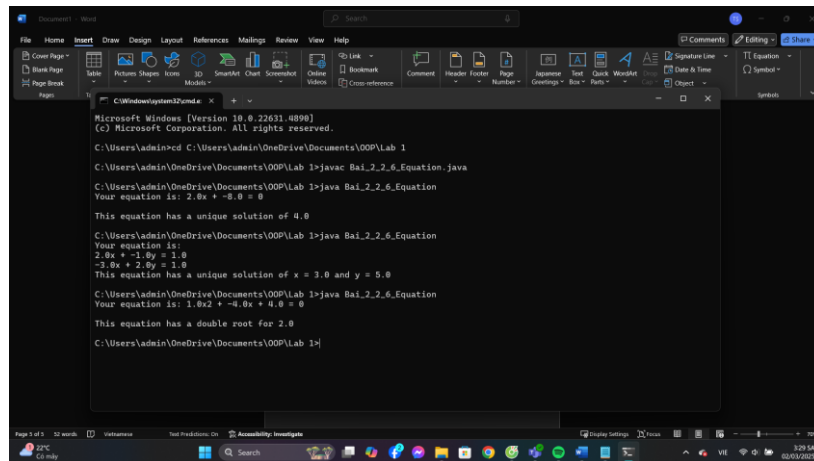
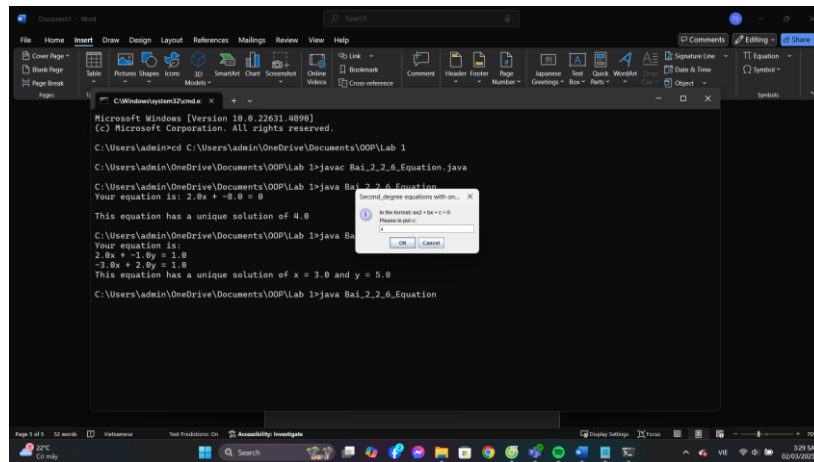
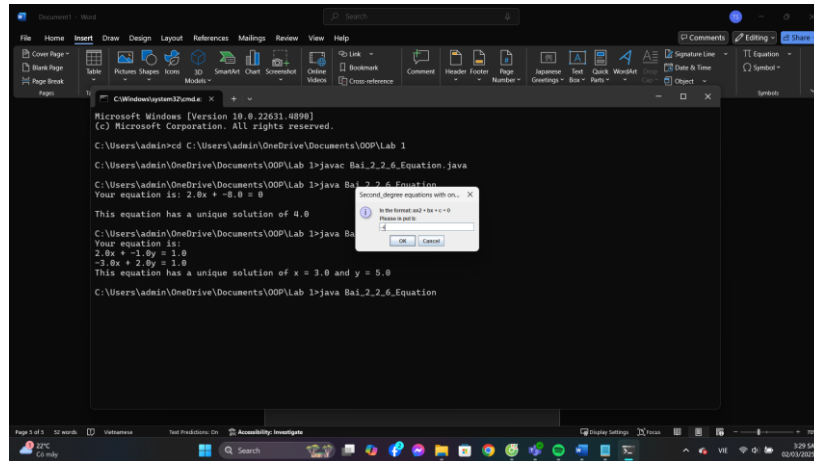
System of First degree equations...
In the format:
a1x1 + a2x2 = b1
a3x1 + a4x2 = b2
Please to put a1:
2
OK Cancel
```



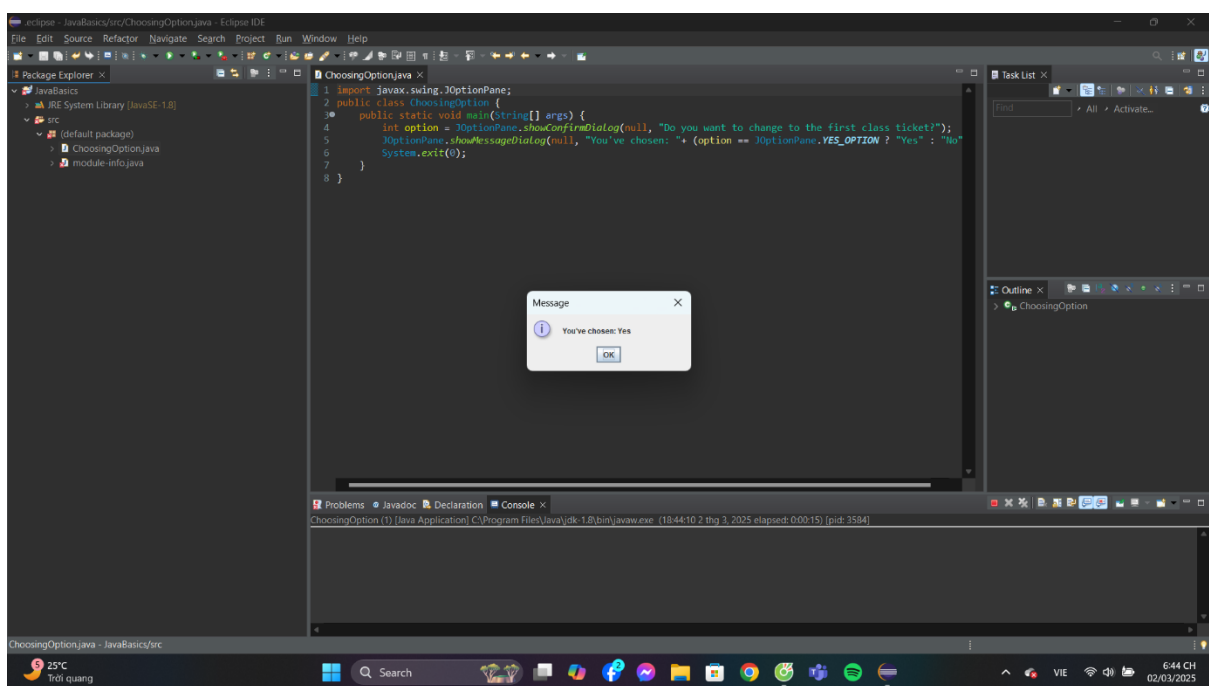
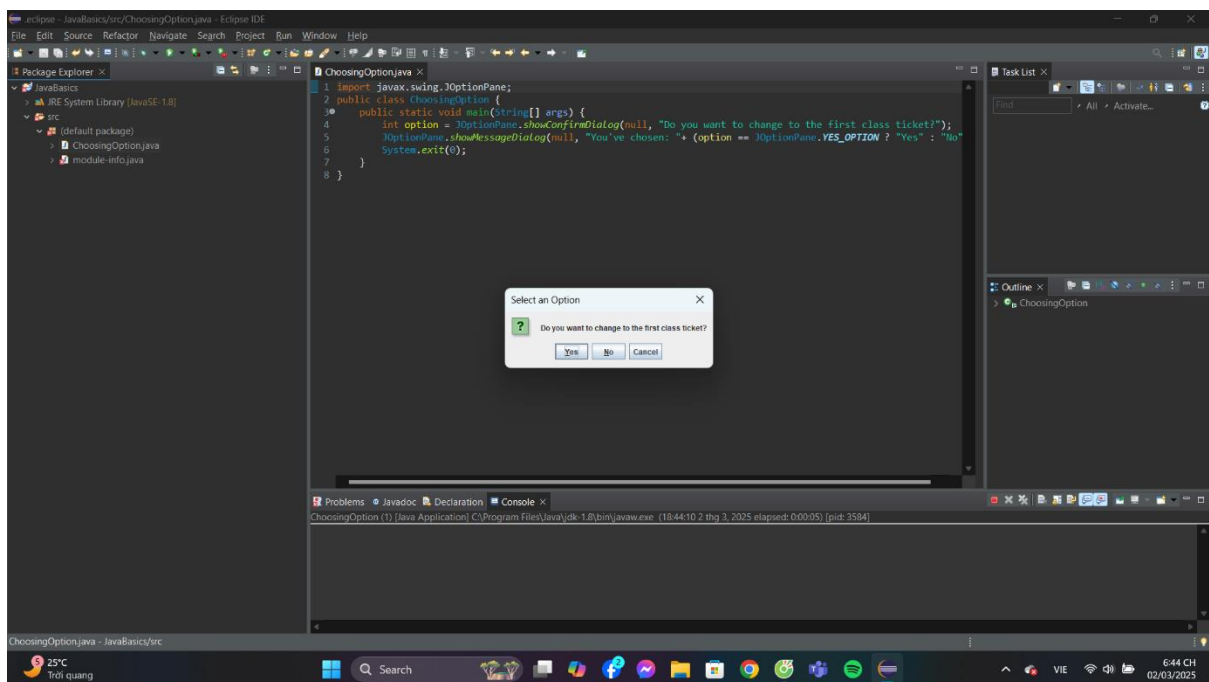


Phương trình bậc 2 một ẩn:





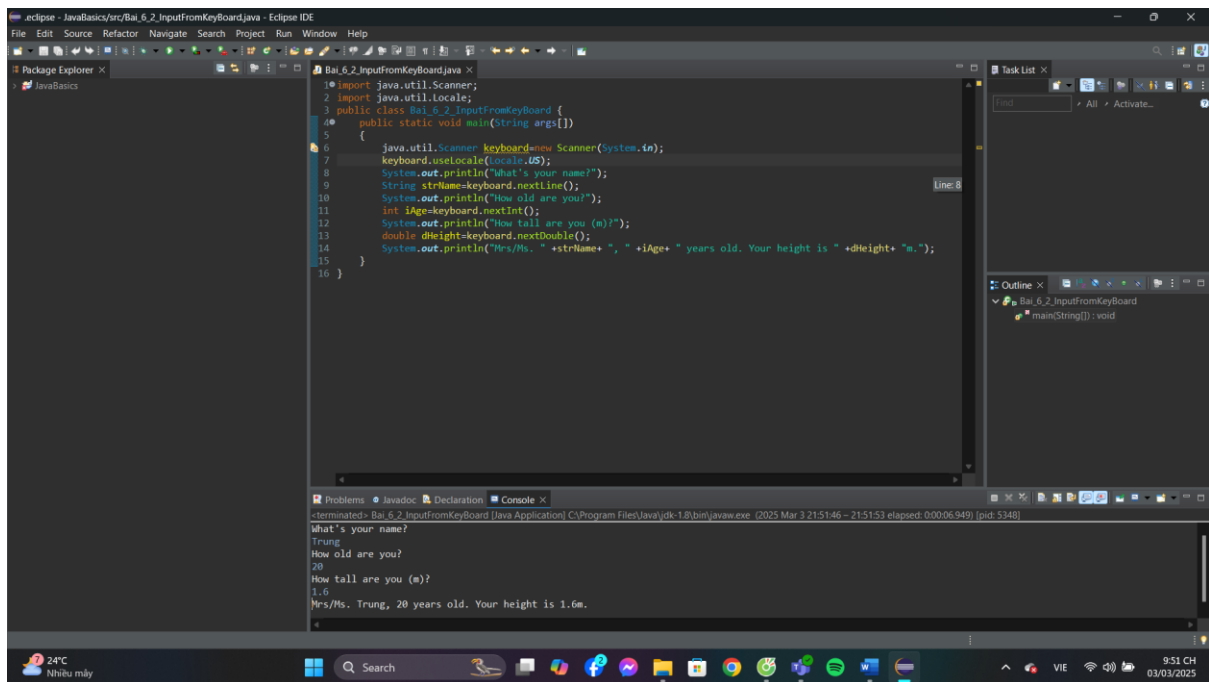
6.1: Choosing Option



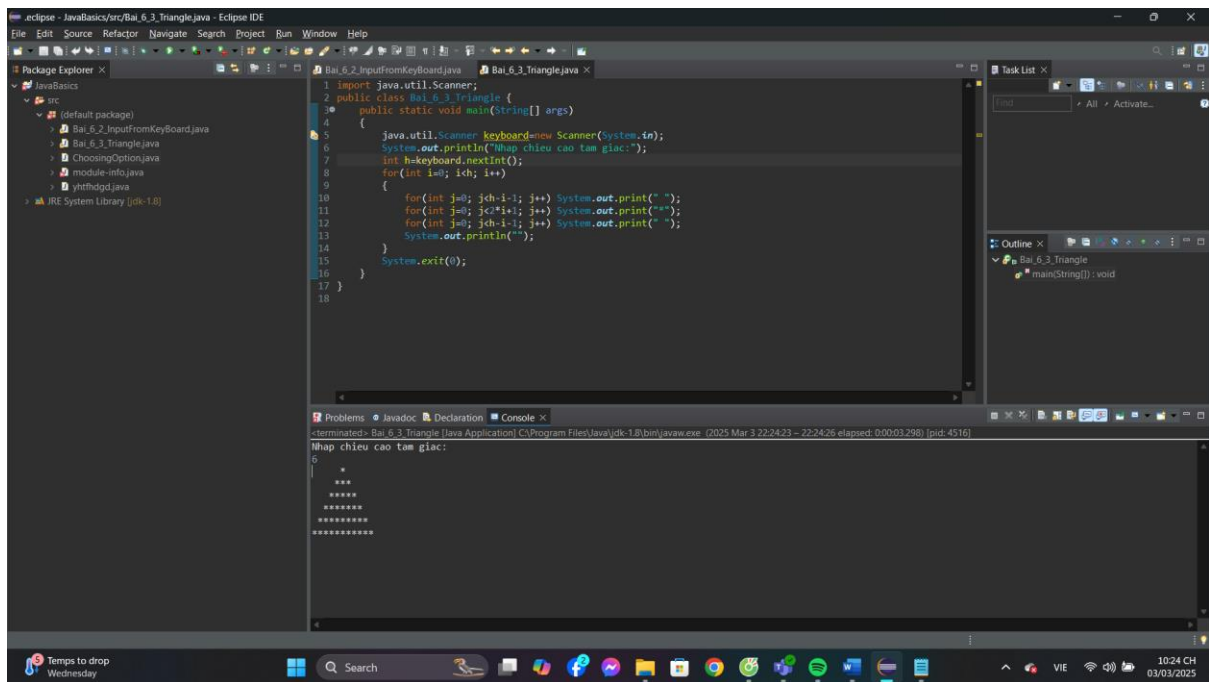
Khi người dùng chọn Cancel, chương trình sẽ tương đương với việc chọn “No”, từ đó đưa ra hộp thoại “You’re chosen: No”.

Để tùy chỉnh các option cho user, ta có thể sử dụng mảng Object[] options = {“I do”, “I don’t”}; hoặc Object[] options = {“Yes”, “No”};

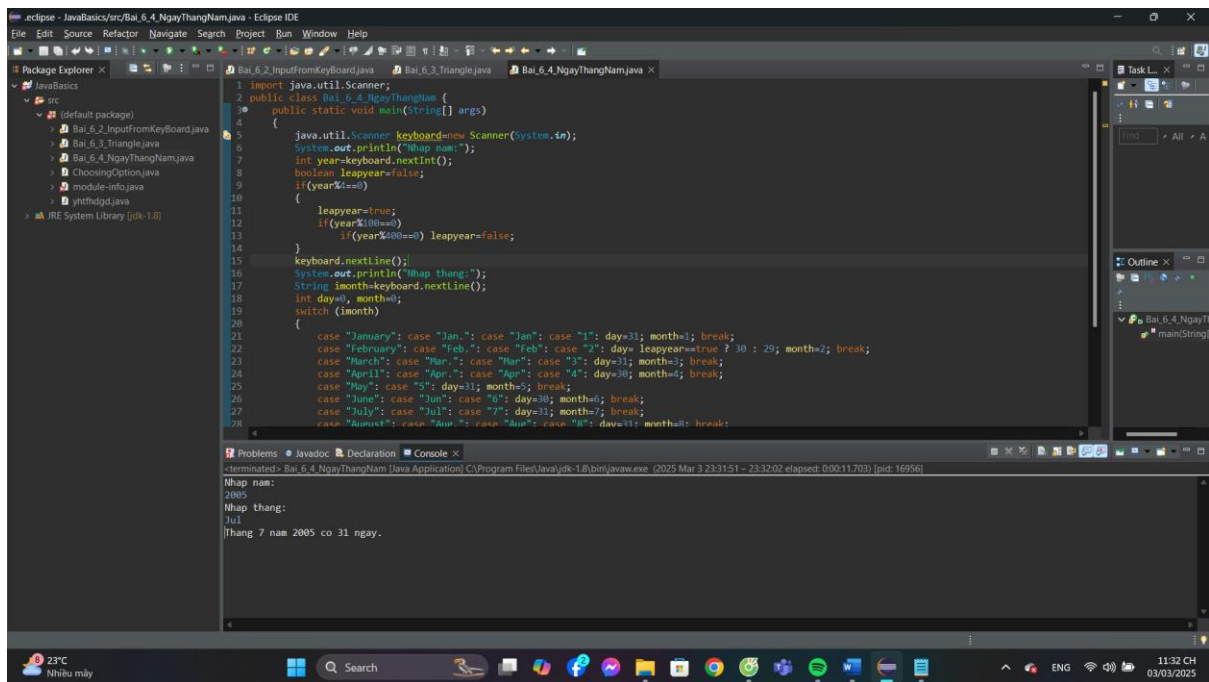
6.2: Viết một chương trình nhập vào từ bàn phím.



6.3:



6.4:

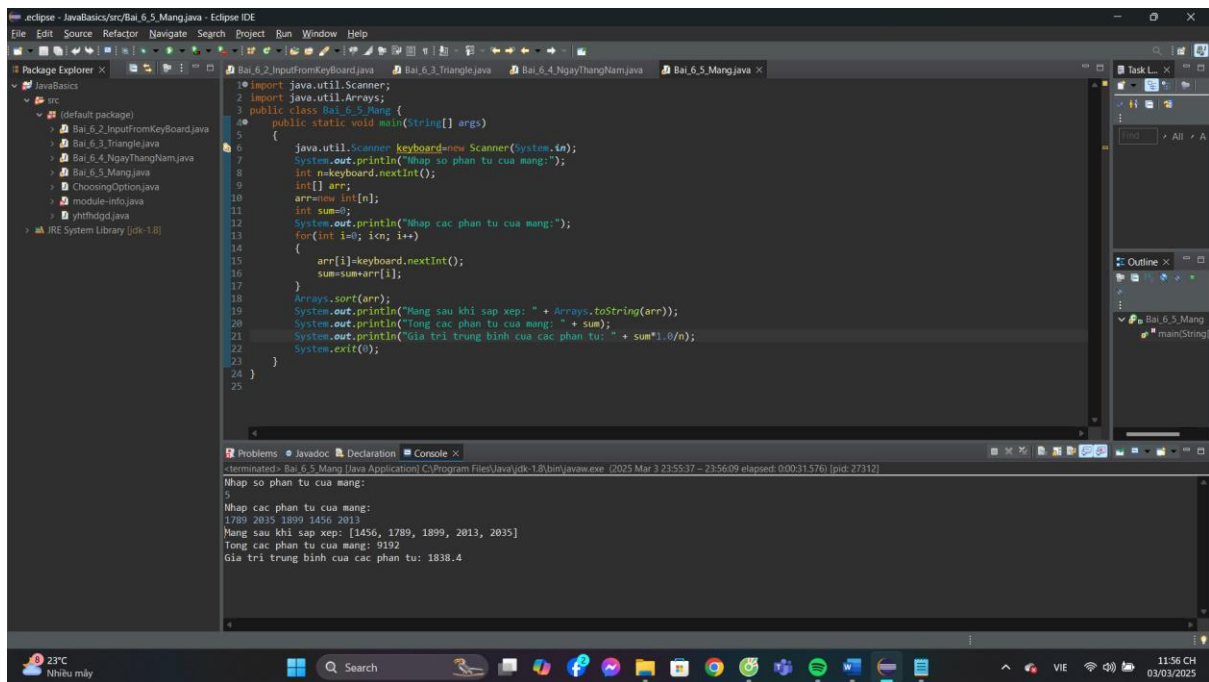


```
1 import java.util.Scanner;
2 public class Bai_6_4_NgayThangNam {
3     public static void main(String[] args) {
4         java.util.Scanner keyboard=new Scanner(System.in);
5         System.out.println("Nhap nam:");
6         int year=keyboard.nextInt();
7         boolean leapyear=false;
8         if(year%4==0)
9         {
10             leapyear=true;
11             if(year%100==0)
12                 if(year%400==0) leapyear=false;
13         }
14         keyboard.nextLine();
15         System.out.println("Nhap thang:");
16         String imonth=keyboard.nextLine();
17         int day=, month=;
18         switch (imonth)
19         {
20             case "January": case "Jan.": case "Jan": case "1": day=31; month=1; break;
21             case "February": case "Feb.": case "Feb": case "2": day= leapyear==true ? 30 : 29; month=2; break;
22             case "March": case "Mar.": case "Mar": case "3": day=31; month=3; break;
23             case "April": case "Apr.": case "Apr": case "4": day=30; month=4; break;
24             case "May": case "5": day=31; month=5; break;
25             case "June": case "Jun": case "6": day=30; month=6; break;
26             case "July": case "Jul": case "7": day=31; month=7; break;
27             case "August": case "Aug": case "8": day=31; month=8; break;
28         }
29     }
30 }
```

Console Output:

```
terminated> Bai_6_4_NgayThangNam [Java Application] C:\Program Files\Java\jdk-1.8\bin\javaw.exe (2025 Mar 3 23:31:51 - 23:32:02 elapsed: 0:00:11.703) [pid: 16956]
Nhap nam:
2005
Nhap thang:
31
Thang 7 nam 2005 co 31 ngay.
```

6.5:

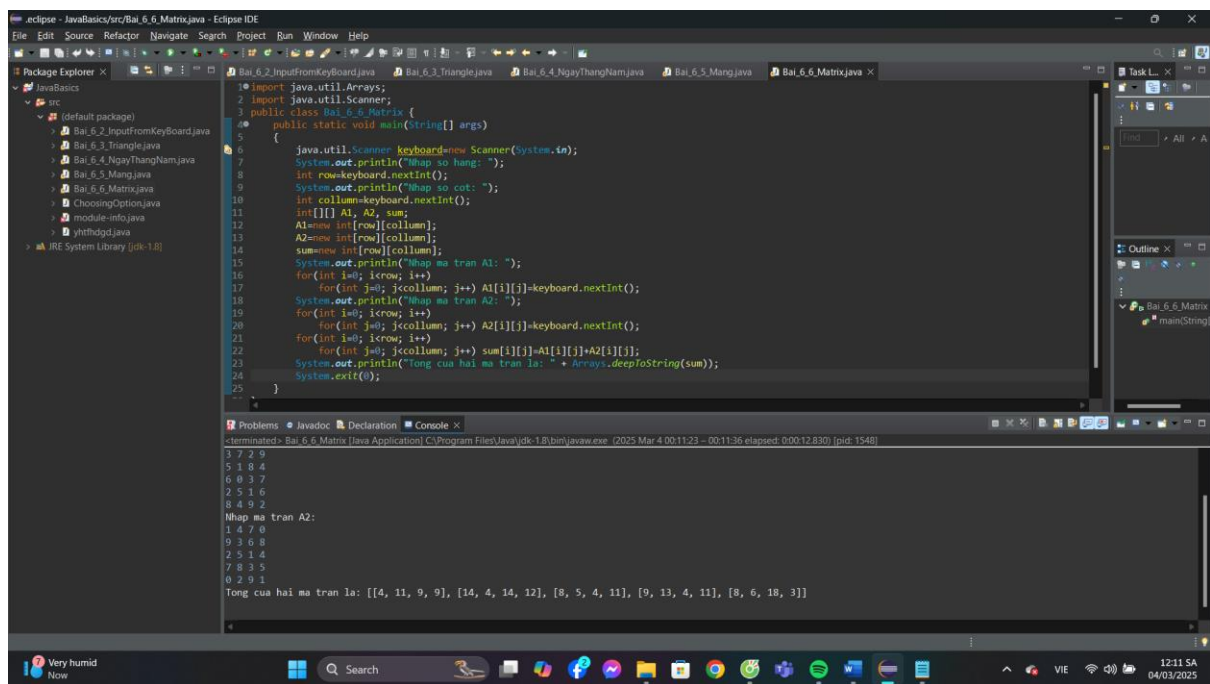


```
1 import java.util.Scanner;
2 import java.util.Arrays;
3 public class Bai_6_5_Mang {
4     public static void main(String[] args) {
5         java.util.Scanner keyboard=new Scanner(System.in);
6         System.out.println("Nhap so phan tu cua mang:");
7         int n=keyboard.nextInt();
8         int[] arr;
9         arr=new int[n];
10         int sum=0;
11         System.out.println("Nhap cac phan tu cua mang:");
12         for(int i=0; i<n; i++)
13         {
14             arr[i]=keyboard.nextInt();
15             sum=sum+arr[i];
16         }
17         Arrays.sort(arr);
18         System.out.println("Mang sau khi sap xep: " + Arrays.toString(arr));
19         System.out.println("Tong cac phan tu cua mang: " + sum);
20         System.out.println("Gia tri trung binh cua cac phan tu: " + sum*1.0/n);
21         System.exit(0);
22     }
23 }
24
25
```

Console Output:

```
terminated> Bai_6_5_Mang [Java Application] C:\Program Files\Java\jdk-1.8\bin\javaw.exe (2025 Mar 3 23:55:37 - 23:56:09 elapsed: 0:00:31.576) [pid: 27312]
Nhap so phan tu cua mang:
5
Nhap cac phan tu cua mang:
1789 2035 1899 1456 2013
Mang sau khi sap xep: [1456, 1789, 1899, 2013, 2035]
Tong cac phan tu cua mang: 9192
Gia tri trung binh cua cac phan tu: 1838.4
```

6.6:



The screenshot shows the Eclipse IDE with a Java project named 'JavaBasics'. The package explorer on the left shows a 'src' package containing several files, including 'Bai_6_6_Matrix.java'. The editor window displays the code for 'Bai_6_6_Matrix.java', which is a Java class with a 'main' method. The code imports 'java.util.Arrays' and 'java.util.Scanner'. It prompts the user to enter the number of rows and columns, then reads two matrices, A1 and A2, from the keyboard. It calculates the sum of the two matrices and prints the result. The console window at the bottom shows the output of the program, including the input values and the resulting sum matrix.

```
1 import java.util.Arrays;
2 import java.util.Scanner;
3 public class Bai_6_6_Matrix {
4     public static void main(String[] args)
5     {
6         java.util.Scanner keyboard=new Scanner(System.in);
7         System.out.println("Nhap so hang: ");
8         int row=keyboard.nextInt();
9         System.out.println("Nhap so cot: ");
10        int column=keyboard.nextInt();
11        int[][] A1, A2, sum;
12        A1=new int[row][column];
13        A2=new int[row][column];
14        sum=new int[row][column];
15        System.out.println("Nhap ma tran A1: ");
16        for(int i=0; i<row; i++)
17            for(int j=0; j<column; j++) A1[i][j]=keyboard.nextInt();
18        System.out.println("Nhap ma tran A2: ");
19        for(int i=0; i<row; i++)
20            for(int j=0; j<column; j++) A2[i][j]=keyboard.nextInt();
21        for(int i=0; i<row; i++)
22            for(int j=0; j<column; j++) sum[i][j]=A1[i][j]+A2[i][j];
23        System.out.println("Tong cua hai ma tran la: " + Arrays.deepToString(sum));
24    }
25 }
```

terminated> Bai_6_6_Matrix [Java Application] C:\Program Files\Java\jdk-1.8\bin\javaw.exe (2025 Mar 4 00:11:23 - 00:11:36 elapsed: 0:00:12.830) [pid: 1548]

```
3 7 2 9
5 1 8 4
6 0 3 7
2 5 1 6
8 4 9 2
Nhap ma tran A2:
1 4 7 0
9 3 6 8
2 5 1 4
7 8 3 5
0 2 9 1
Tong cua hai ma tran la: [[4, 11, 9, 9], [14, 4, 14, 12], [8, 5, 4, 11], [9, 13, 4, 11], [8, 6, 18, 3]]
```