BÁO CÁO THỰC HÀNH LAB 1 LẬP TRÌNH HƯỚNG ĐỐI TƯỢNG LỚP: 143577 (LT) – 732870 (TN)

The Very First Java Programs

2.2.1 Write, compile the first Java application:

```
HelloWorld.java 🔞
     // Example 1: HelloWorld.java
1
     // Text-printing program
2
3
    □public class HelloWorld {
          public static void main(String args[]){
4
              System.out.println("Nguyen Huu Duc - 20210192");
5
              System.out.println("Xin chao \n cac ban!");
6
              System.out.println("Hello \t world!");
7
          } // end of main
8
9
10
```

```
File Edit View Terminal Tabs Help

Nguyen Huu Duc - 20210192
Xin chao
    cac ban!
Hello world!

(program exited with code: 0)
Press return to continue
```

2.2.2 Write, compile the first dialog Java program

```
FirstDialog.java 🔞
1
    // Example 2: FirstDialog.java
    import javax.swing.JOptionPane;
2
   □public class FirstDialog {
3
4
        public static void main(String[] args){
5
             JOptionPane.showMessageDialog(null, "Nguyen Huu Duc -
             20210192\nHello world! How are you?");
6
             System.exit(0);
7
        }
8
9
```

```
FirstDialog.java @
1
    // Example 2: FirstDialog.java
     import javax.swing.JOptionPane;
2
3
   □public class FirstDialog {
         public static void main(String[] args){
4
5
              JOptionPane.showMessageDialog(null, "Nguyen Huu Duc -
              20210192\nHel
                                               you?");
6
              System.exit(0
                                 Nguyen Huu Duc - 20210192
7
         }
                                 Hello world! How are you?
8
    }
                                      OK
9
```

2.2.3 Write, compile the first input dialog Java application

```
HelloNameDialog.java @
1
      // Example 3: HelloNameDialog.java
      // Input Dialog
3
      // Nguyen Huu Duc - 20210192
      import javax.swing.JOptionPane;
 5
 6
    □public class HelloNameDialog {
          public static void main(String args[]){
7
8
              String result;
              result = JOptionPane.showInputDialog("Message from 20210192: Please enter your name: ");
9
              JOptionPane.showMessageDialog(null, "Hi " + result + "! I'm Nguyen Huu Duc.");
10
11
              System.exit(0);
12
13
```

```
HelloNameDialog.java @
      // Example 3: HelloNameDialog.java
      // Input Dialog
3
      // Nguyen Huu Duc - 20210192
     import javax.swing.JOptionPane;
6
    □public class HelloNameDialog {
          public static void main(String args[]){
8
              String result;
              result = JOptionPane.showInputDialog("Message from 20210192: Please enter your name: ");
9
10
              JOptionPane.showMessageD
11
              System.exit(0);
12
                                              Message from 20210192: Please enter your name:
13
     }
                                         ?
                                              Huu-Duc Nguyen
14
                                                                   Cancel
```

```
HelloNameDialog.java @
      // Example 3: HelloNameDialog.java
      // Input Dialog
      // Nguyen Huu Duc - 20210192
3
4
     import javax.swing.JOptionPane;
    □public class HelloNameDialog {
6
7
          public static void main(String args[]){
8
              String result;
9
              result = JOptionPane.showInputDialog("Message from 20210192: Please enter your name: ");
10
              JOptionPane.showMessageDialo
                                                                                          ):
                                                              Message
              System.exit(0);
11
12
13
                                                  Hi Huu-Duc Nguyen! I'm Nguyen Huu Duc.
14
                                                                OK
```

2.2.4 Write, compile, and run the following example:

```
ShowTwoNumbers.java 🔞
1
      // Example 4: ShowTwoNumbers.java
      // Nguyen Huu Duc - 20210192
2
      import javax.swing.JOptionPane:
3
 4
    □public class ShowTwoNumbers {
 5
          public static void main (String[] args) {
              String strNum1, strNum2;
 6
7
              String strNotification = "DucNH210192: You've just entered";
8
              strNum1 = JOptionPane.showInputDialog(null,
9
                  "DucNH210192: Please input the first number: ",
10
                  "Input the first number", JOptionPane.INFORMATION_MESSAGE);
              strNotification += strNum1 + " and ";
11
12
              strNum2 = JOptionPane.showInputDialog(null,
13
                  "DucNH210192:Please input the second number: ",
                  "Input the second number", JOptionPane.INFORMATION MESSAGE);
14
              strNotification += strNum2;
15
              JOptionPane.showMessageDialog(null, strNotification,
16
                  "Show two numbers", JOptionPane.INFORMATION MESSAGE);
17
18
              System.exit(0);
19
          }
20
```

```
ShowTwoNumbers.java @
     // Example 4: ShowTwoNumbers.java
      // Nguyen Huu Duc - 20210192
3
      import javax.swing.JOptionPane;
4
    public class ShowTwoNumbers {
5
          public static void main (String[] args) {
6
              String strNum1, strNum2;
              String strNotification = "DucNH210192: You've just entered";
7
8
              strNum1 = JOptionPane.showInputDialog(null,
9
                  "DucNH210192: Please input the first number: ",
10
                  "Input the first number
                                                         Input the first number
              strNotification += strNum1
11
12
              strNum2 = JOptionPane.show
                                                 DucNH210192: Please input the first number:
13
                  "DucNH210192:Please in
14
                  "Input the second numb
15
              strNotification += strNum2
                                                                    Cancel
16
              JOptionPane.showMessageDia
17
                  "Show two numbers", Jou
18
              System.exit(0);
19
```

```
ShowTwoNumbers.java @
1
      // Example 4: ShowTwoNumbers.java
2
      // Nguyen Huu Duc - 20210192
3
      import javax.swing.JOptionPane;
    □public class ShowTwoNumbers {
 4
 5
          public static void main (String[] args) {
 6
              String strNum1, strNum2;
              String strNotification = "DucNH210192: You've just entered";
7
8
              strNum1 = JOptionPane.showInputDialog(null,
9
                  "DucNH210192: Please input the first number: ",
10
                  "Input the first numb
                                                       Input the second number
11
              strNotification += strNum
12
              strNum2 = JOptionPane.sho
                                               DucNH210192:Please input the second number:
                                         (i)
13
                  "DucNH210192:Please i
                                               20210192
14
                  "Input the second num
15
              strNotification += strNum
                                                                   Cancel
                                                           OK
16
              JOptionPane.showMessageDi
                  "Show two numbers", J
17
18
              System.exit(0);
19
20
  1
      // Example 4: ShowTwoNumbers.java
      // Nguyen Huu Duc - 20210192
 3
      import javax.swing.JOptionPane;
 4
    public class ShowTwoNumbers {
5
          public static void main (String[] args) {
6
              String strNum1, strNum2;
              String strNotification = "DucNH210192: You've just entered";
 7
8
              strNum1 = JOptionPane.showInputDialog(null,
9
                  "DucNH210192: Please input the first number: ",
10
                  "Input the first nu
                                                          Show two numbers
11
              strNotification += strN
12
              strNum2 = JOptionPane.s
13
                  "DucNH210192:Please
                                            DucNH210192: You've just entered 6688 and 20210192
                  "Input the second r
14
15
              strNotification += strN
16
              JOptionPane.showMessage
17
                  "Show two numbers",
18
              System.exit(0);
19
20
```

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

```
Calculator.java @
 1
      import java.util.Scanner;
 2
      // Nguyen Huu Duc - 20210192
    □public class Calculator {
 3
 4
          public static void main(String[] args) {
 5
              Scanner input = new Scanner(System.in);
              // get input from user
 6
 7
              System.out.print("(DucNH210192) Enter the first number: ");
              double a = input.nextDouble();
 8
              System.out.print("(DucNH210192) Enter the second number: ");
 9
              double b = input.nextDouble();
10
              input.close();
11
12
              // Sum of the numbers
              System.out.printf("Sum of the numbers: %5.3f\n", a+b);
13
14
              // Difference of the numbers
15
              System.out.printf("Difference of the numbers: %5.3f\n", a-b);
16
              // Product of the numbers
17
              System.out.printf("Product of the numbers: %5.3f\n", a*b);
              // Quotient of the numbers
18
              System.out.printf("Quotient of the numbers: %5.3f\n", a/b);
19
20
              System.exit(0);
          }
21
22
23
Kết quả:
File Edit View Terminal Tabs Help
(DucNH210192) Enter the first number: 6.8
```

```
(DucNH210192) Enter the first number: 9
(DucNH210192) Enter the second number: 0
Sum of the numbers: 9.000
Difference of the numbers: 9.000
Product of the numbers: 0.000
Quotient of the numbers: Infinity

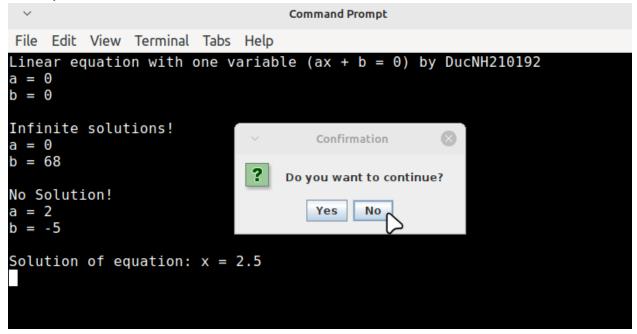
(program exited with code: 0)
```

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

```
LinearEquation.java 🔞
      import java.util.Scanner;
      import javax.swing.JOptionPane;
      // Nguyen Huu Duc - 20210192
    □public class LinearEquation {
          public static void main(String[] args) {
               System.out.println("Linear equation with one variable (ax + b = 0) by DucNH210192");
 6
               Scanner input = new Scanner(System.in);
while (true) {
 8
                    System.out.print("a = ");
                    double a = input.nextDouble();
10
11
                    System.out.print("b =
12
                    double b = input.nextDouble();
13
                    System.out.println();
14
                    if (a == 0) {
15
                        if (b == 0) System.out.println("Infinite solutions!");
16
                        else System.out.println("No Solution!");
17
                    } else System.out.println("Solution of equation: x = " + (-b/a));
                    int option = JOptionPane.showOptionDialog(null, "Do you want to continue?", "Confirmation", JOptionPane.YES_NO_OPTION,JOptionPane.QUESTION_MESSAGE, null, new Object[] {"Yes", "No"}, null);
18
19
                    if (option!=J0ptionPane.YES_OPTION) break;
20
21
22
23
24
               input.close();
               System.exit(0);
25
```



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

```
LinearSystem.java 🔞
      import java.util.Scanner; // Nguyen Huu Duc - 20210192
 2
    □public class LinearSystem {
 3
          public static void main(String[] args) {
 4
              Scanner scanner = new Scanner(System.in);
 5
              System.out.println("Linear system by DucNH210192");
 6
              System.out.println("all * x1 + a12 * x2 = b1");
 7
              System.out.println("a21 * x1 + a22 * x2 = b2");
 8
              // Get input from users
 9
              System.out.print("Enter all, al2, bl: ");
10
              double all = scanner.nextDouble():
              double a12 = scanner.nextDouble();
11
12
              double b1 = scanner.nextDouble();
13
              System.out.print("Enter a21, a22, b2: ");
14
              double a21 = scanner.nextDouble();
15
              double a22 = scanner.nextDouble();
              double b2 = scanner.nextDouble():
16
17
              scanner.close();
18
              double det = all * a22 - a21 * al2; // calculate the determinant
19
              double dx = (a22 * b1 - a12 * b2);
20
              double dy = (a11 * b2 - a21 * b1);
21
              if (det == 0){
22
                  if (dx!=dy) System.out.println("Infinite solutions!");
23
                  else System.out.println("No unique solution!");
24
              } else {
25
                  double x1 = dx / det;
                  double x2 = dy / det;
26
27
                  System.out.println("x1 = " + x1 + ", x2 = " + x2);
28
29
              System.exit(0);
          }
30
31
```

```
File Edit View Terminal Tabs Help

Linear system by DucNH210192

all * x1 + al2 * x2 = b1

a21 * x1 + a22 * x2 = b2

Enter all, al2, bl: 1 1 5.0

Enter a21, a22, b2: 2 -1.0 1

x1 = 2.0, x2 = 3.0

(program exited with code: 0)
```

- The second-degree equation with one variable

```
QuadraticEquation.java @
      import java.util.Scanner;
      // Nguyen Huu Duc - 20210192
 3
    □public class QuadraticEquation{
 4
          public static void main(String[] args){
 5
              System.out.println("Quadratic equation (ax^2 + bx + c = 0) by DucNH210192");
 6
              // Get user's input
 7
              Scanner input = new Scanner(System.in);
 8
              System.out.print("Enter a: ");
 9
              double a = input.nextDouble();
10
              System.out.print("Enter b: ");
11
              double b = input.nextDouble();
12
              System.out.print("Enter c: ");
13
              double c = input.nextDouble();
14
              double d= b*b-4*a*c; // calculate Delta
15
              if (a==0) {
                  if (b == 0) {
16
17
                      if (c == 0) System.out.println("Infinite solutions!");
18
                      else System.out.println("No Solution!");
19
                  } else System.out.println("The root is " + (-c/b));
20
21
              else if (d>0.0){
22
                  double r1 = (-b+Math.pow(d, 0.5))/(2*a);
23
                  double r2 = (-b-Math.pow(d, 0.5))/(2*a);
24
                  System.out.println("The roots are " + r1 + " and " + r2);
25
              } else if (d==0.0){
26
                  double r1 = -b/(2*a);
27
                  System.out.println("The root is " + r1);
28
              } else System.out.println("No Solution!");
29
              System.exit(0);
30
31
```

```
File Edit View Terminal Tabs Help

Quadratic equation (ax^2 + bx + c = 0) by DucNH210192

Enter a: 0

Enter b: 0

Enter c: 0

Infinite solutions!

(program exited with code: 0)
```

```
File Edit View Terminal Tabs Help

Quadratic equation (ax^2 + bx + c = 0) by DucNH210192

Enter a: 0

Enter b: 5

Enter c: -25.5

The root is 5.1

(program exited with code: 0)
```

```
File Edit View Terminal Tabs Help

Quadratic equation (ax^2 + bx + c = 0) by DucNH210192

Enter a: 1

Enter b: -5

Enter c: 4

The roots are 4.0 and 1.0

(program exited with code: 0)
```

```
File Edit View Terminal Tabs Help

Quadratic equation (ax^2 + bx + c = 0) by DucNH210192

Enter a: 6

Enter b: 0

Enter c: 36

No Solution!

(program exited with code: 0)
```

Exercises

MSSV: 20210192

6.1 Write, compile and run the ChoosingOption program

```
ChoosingOption.java @
      import javax.swing.JOptionPane;
      // Nguyen Huu Duc - 20210192
 2
     // Choosing only "Yes" or "No"
    □public class ChoosingOption {
 5
          public static void main(String[] args){
              int option = JOptionPane.showOptionDialog(null, "DucNH210192:
              Do you want to change to the first class ticket?",
              "Confirmation", JOptionPane.YES NO OPTION, JOptionPane.
              QUESTION MESSAGE, null, new Object[] {"Yes", "No"}, null);
 7
              JOptionPane.showMessageDialog(null, "DucNH210192: You've chosen
              "+(option==JOptionPane.YES OPTION?"Yes":"No"));
 8
              System.exit(0);
 9
          }
10
Kết quá:
 ChoosingOption.java @
      import javax.swing.JOptionPane;
      // Nguyen Huu Duc - 20210192
 2
 3
     // Choosing only "Yes" or "No"
    □public class ChoosingOption {
 5
          public static void main(String[] args){
 6
                                                     nlog(null, "DucNH210192:
              int
                                  Confirmation
              Do y
                                                       ss ticket?",
              "Con DucNH210192: Do you want to change to the first class ticket?
                                                       ION, JOptionPane.
              QUES
                                                       "Yes", "No"}, null);
                                 Yes No
              JOptionrane.snownessageviacog(nucc, vucNH210192: You've chosen
 7
              "+(option==J0ptionPane.YES OPTION?"Yes":"No"));
 8
              System.exit(0);
 9
10
 ChoosingOption.java @
      import javax.swing.JOptionPane;
 1
      // Nguyen Huu Duc - 20210192
     // Choosing only "Yes" or "No"
 3
 4
    □public class ChoosingOption {
 5
          public static void main(String[] args){
              int option [
                                             tionDialog(null, "DucNH210192:
              Do you want
                                                rst class ticket?",
                          i DucNH210192: You've chosen Yes
                                                 NO OPTION, JOptionPane.
              "Confirmati
              OUESTION ME
                                               ect[] {"Yes", "No"}, null);
              JOptionPane.snowmessagevracog(mull, "DucNH210192: You've chosen
 7
              "+(option==J0ptionPane.YES OPTION?"Yes":"No"));
 8
              System.exit(0);
 9
          }
10
```

6.2 Write a program for input/output from keyboard

```
InputFromKeyboard.java @
     import java.util.Scanner;
     // Nguyen Huu Duc - 20210192
    □public class InputFromKeyboard {
         public static void main(String[] args)
             Scanner input = new Scanner(System.in);
             System.out.println("From DucNH210192 ...");
 6
             System.out.println("What's your name?");
 7
 8
             String strName = input.nextLine();
             System.out.println("How old are you?");
 9
10
             int iAge = input.nextInt();
11
             System.out.println("How tall are you (m)?");
12
             double dHeight = input.nextDouble();
13
             System.out.println("Mr/Mrs. "+strName+", "+iAge+" year(s) old. Your height is "+dHeight+"m.");
14
             System.exit(0);
15
16
17
```

```
File Edit View Terminal Tabs Help
From DucNH210192 ...
What's your name?
Huu Duc
How old are you?
21
How tall are you (m)?
180
Mr/Mrs. Huu Duc, 21 year(s) old. Your height is 180.0m.

(program exited with code: 0)
```

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

```
DisplayTriangle.java @
1
      import java.util.Scanner;
      // Nguyen Huu Duc - 20210192
 3
    □public class DisplayTriangle{
          public static void main(String[] args) {
 4
 5
              Scanner input = new Scanner(System.in);
              System.out.print("DucNH210192: Enter height of triangle ... ");
 6
              int height = input.nextInt();
 7
 8
              System.out.println();
              input.close();
9
              int w = 1:
10
11
              for (int i = 1; i <= height; i++) {
                   for (int j = 1; j <= height-i; j++) System.out.print(" ");</pre>
12
                   for (int k = 1; k <= w; k++) System.out.print("*");</pre>
13
14
                  w+=2:
15
                   System.out.println();
16
17
              System.exit(0);
18
          }
19
20
```

Kết quả:

6.4 Write a program to display the number of days of a month

```
import java.util.Scanner;
      // Nguyen Huu Duc - 20210192
    □public class DisplayDaysOfAMonth {
3
4
          public static void main(String[] args) {
5
              Scanner scanner = new Scanner(System.in);
6
              int month;
7
              System.out.println("Nguyen Huu Duc - 20210192");
8
              System.out.println("Enter a month (E.g. January, Jan., Jan, or 1); ");
9
              String inputMonth = scanner.next();
10
              switch (inputMonth) { // convert month to int type
                  case "January":
11
12
                  case "Jan.":
13
                  case "Jan":
                  case "1":
14
15
                      month = 1;
16
                      break;
17
                  case "February":
18
                  case "Feb.":
19
                  case "Feb":
20
                  case "2":
21
                      month = 2;
22
                      break;
23
                  case "March":
24
                  case "Mar.":
25
                  case "Mar":
26
                  case "3":
27
                      month = 3;
28
                      break;
29
                  case "April":
30
                  case "Apr.":
                  case "Apr":
31
                   case "4":
32
33
                      month = 4;
34
                      break;
35
                   case "May":
36
                   case "5":
37
                      month = 5;
38
                      break;
39
                  case "June":
40
                   case "Jun":
                   case "6":
41
42
                      month = 6;
43
                      break;
44
                   case "July":
                  case "Jul":
45
                   case "7":
46
47
                      month = 7;
48
                      break;
49
                  case "August":
                  case "Aug.":
50
51
                  case "Aug":
52
                   case "8":
53
                      month = 8;
54
                      break;
55
                   case "September":
56
                  case "Sept.":
                  case "Sep":
57
                   case "9":
58
59
                      month = 9;
60
                       break;
```

```
61
                   case "October":
 62
                   case "Oct.":
 63
                   case "Oct":
                   case "10":
 64
 65
                       month = 10;
 66
                       break;
 67
                   case "November":
 68
                   case "Nov.":
 69
                   case "Nov":
                   case "11":
 70
 71
                       month = 11;
 72
                       break;
 73
                   case "December":
                   case "Dec.":
 74
 75
                   case "Dec":
                   case "12":
 76
 77
                       month = 12;
 78
                       break:
 79
                   default:
 80
                        System.out.println("Invalid month!");
 81
                        scanner.close();
 82
                        return;
 83
               System.out.println("Enter a year (E.g: 1999): ");
 84
 85
               int year = scanner.nextInt();
 86
               if (year <= 0) {
 87
                   System.out.println("Invalid year!");
 88
                   scanner.close();
 89
                   return:
 90
 91
               scanner.close();
               boolean isLeapYear = false;
 92
 93
               /* Check leap year
                * If a year is fully divisible by 400 or
 94
 95
                * is divisible by 4 and not divisible by 100, it is a leap year.
 96
 97
               if ((year % 4 == 0 && year % 100 != 0) || year % 400 == 0) isLeapYear = true;
 98
               if (isLeapYear && month == 2) {
 99
                   System.out.println("29 days."); // In Leap year, February has 29 days.
100
                   return;
101
               } else if (month == 2) {
102
                   System.out.println("28 days.");
103
                   return:
104
105
               switch (month) { // April, June, September and November have 30 days.
106
                   case 4:
107
                   case 6:
108
                   case 9:
109
                    case 11:
110
                       System.out.println("30 days.");
111
                        return;
                   default: // Otherwise 31 days.
112
113
                        System.out.println("31 days.");
114
                        return;
115
               }
           }
116
117
      }
118
```

Kết quả:

```
File Edit View Terminal Tabs Help
Nguyen Huu Duc - 20210192
Enter a month (E.g: January, Jan., Jan, or 1);
February
Enter a year (E.g: 1999):
2003
28 days.
(program exited with code: 0)
File Edit View Terminal Tabs Help
Nguyen Huu Duc - 20210192
Enter a month (E.g: January, Jan., Jan, or 1);
Enter a year (E.g: 1999):
2003
30 days.
(program exited with code: 0)
File Edit View Terminal Tabs Help
Nguyen Huu Duc - 20210192
Enter a month (E.g: January, Jan., Jan, or 1);
Enter a year (E.g: 1999):
2004
29 days.
(program exited with code: 0)
File Edit View Terminal Tabs Help
Nguyen Huu Duc - 20210192
Enter a month (E.g: January, Jan., Jan, or 1);
Enter a year (E.g: 1999):
2023
31 days.
(program exited with code: 0)
```

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

```
SortArray.java 🔞
      import java.util.Arrays;
      import java.util.Scanner;
 2
 3
      // Nguyen Huu Duc - 20210192
 4
    □public class SortArray {
 5
          public static void main(String[] args) {
 6
              Scanner input = new Scanner(System.in);
 7
              System.out.println("Nguyen Huu Duc - 20210192");
 8
              System.out.print("Enter array size: ");
 9
              int size = input.nextInt();
10
              int[] arr = new int[size];
11
              double sum = 0;
12
              for (int i = 0; i < size; i++){ // get each int number</pre>
13
                  arr[i] = input.nextInt();
14
                  sum += arr[i]; // calculate sum
15
16
              double avg = sum / size; // calculate average
17
              input.close();
18
              System.out.print("The original array is: "); // before sort
19
              System.out.print(Arrays.toString(arr));
20
              Arrays.sort(arr);
21
              System.out.print("\nThe sorted array is: ");
22
              System.out.print(Arrays.toString(arr)); // sorted array
23
              System.out.println("\nSum of the array elements is: " + sum);
24
              System.out.printf("Average value of the array elements is: %2f\n", avg);
25
              System.exit(0);
26
27
28
```

```
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Enter array size: 6
21 09 2003 2021 68 0192

The original array is: [21, 9, 2003, 2021, 68, 192]

The sorted array is: [9, 21, 68, 192, 2003, 2021]

Sum of the array elements is: 4314.0

Average value of the array elements is: 719.000000
```

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

```
AddTwoMatrices.java 🔞
       import java.util.Scanner;
       // Nguyen Huu Duc - 20210192
 3
     □public class AddTwoMatrices {
 4
           public static void main(String[] args) {
 5
               Scanner input = new Scanner(System.in);
 6
               System.out.println("Nguyen Huu Duc - 20210192");
 7
               System.out.print("Enter the number of rows of the matrix: ");
 8
               int rows = input.nextInt();
 9
               System.out.print("Enter the number of columns of the matrix: ");
10
               int cols = input.nextInt();
               int[][] firstMatrix = new int[rows][cols];
11
12
               int[][] secondMatrix = new int[rows][cols];
13
               int[][] sumMatrix = new int[rows][cols];
14
               // get the first matrix's elements
15
               System.out.println("Enter the first matrix (row by row): ");
16
               for (int i = 0; i < rows; i++){</pre>
17
                   for (int j = 0; j < cols; j++) firstMatrix[i][j] = input.nextInt();</pre>
18
19
               // get the second matrix's elements and calculate sum matrix
20
               System.out.println("Enter the second matrix (row by row): ");
               for (int i = 0; i < rows; i++){</pre>
21
22
                   for (int j = 0; j < cols; j++){</pre>
23
                       secondMatrix[i][j] = input.nextInt();
24
                       sumMatrix[i][j] = firstMatrix[i][j] + secondMatrix[i][j];
25
                   }
26
27
               input.close();
               System.out.println("The sum matrix: ");
28
29
               for (int i = 0; i < rows; i++){</pre>
30
                   for (int j = 0; j < cols; j++){</pre>
                       System.out.print(sumMatrix[i][j] + " ");
31
32
33
                   System.out.println();
34
               }
35
           }
36
37
Kết quả:
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Enter the number of rows of the matrix: 3
Enter the number of columns of the matrix: 3
Enter the first matrix (row by row):
4 3 5
6 8 2
1 9 7
Enter the second matrix (row by row):
2 6 9
5 7 1
8 3 4
The sum matrix:
6 9 14
11 15 3
9 12 11
```