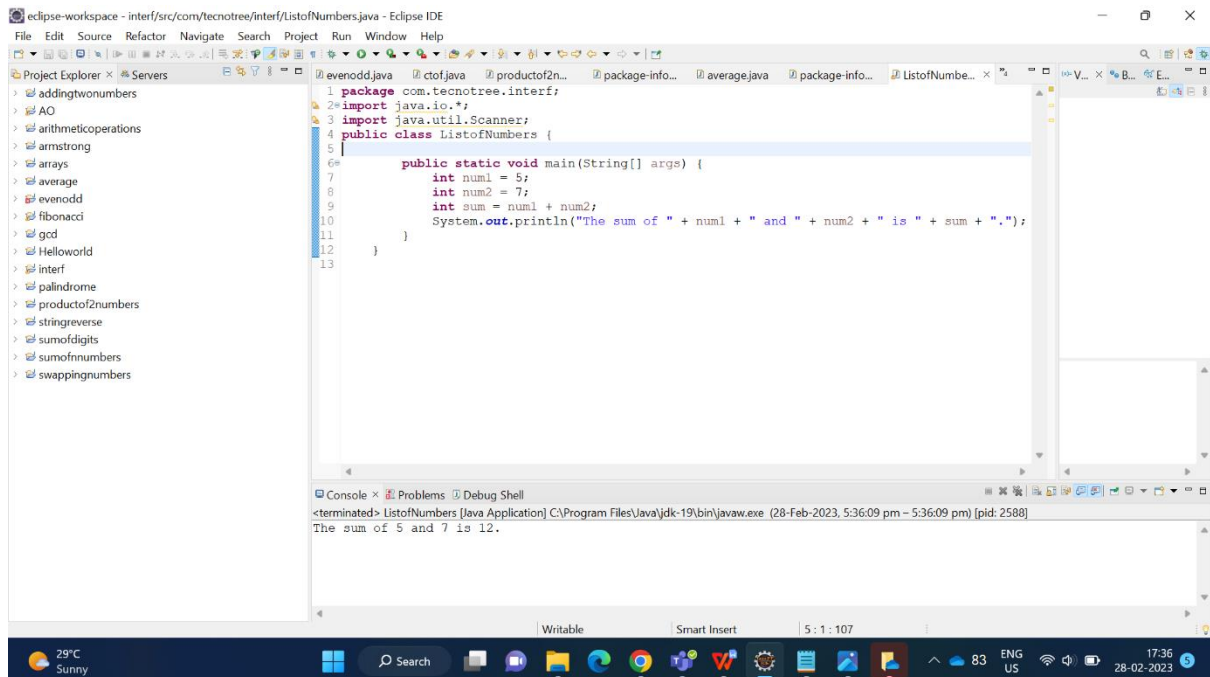


Java Assignment-3

Topic: Variables ,Data types and String manipulations

1. Declare two variables of type int, and assign values to them. Add the two variables together and print the result.



The screenshot shows the Eclipse IDE with a project named 'interf'. The 'Project Explorer' on the left lists several packages, including 'interf'. The main editor displays the source code for 'ListofNumbers.java'. The code declares two integer variables, 'num1' and 'num2', with values 5 and 7 respectively. It then calculates their sum and prints it using 'System.out.println'. The 'Console' at the bottom shows the output: 'The sum of 5 and 7 is 12.'.

```
1 package com.tecnotee.interf;
2 import java.io.*;
3 import java.util.Scanner;
4 public class ListofNumbers {
5
6     public static void main(String[] args) {
7         int num1 = 5;
8         int num2 = 7;
9         int sum = num1 + num2;
10        System.out.println("The sum of " + num1 + " and " + num2 + " is " + sum + ".");
11    }
12 }
13
```

Console Output:
<terminated> ListofNumbers [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 5:36:09 pm - 5:36:09 pm) [pid: 2588]
The sum of 5 and 7 is 12.

CODESHARE LINK: <https://codeshare.io/zyAY6O>

2. Declare two variables of type double, and assign values to them. Multiply the two variables together and print the result.

The screenshot shows the Eclipse IDE with a project named 'interf'. The 'Project Explorer' on the left lists several packages, including 'interf'. The 'ListofNumbers.java' file is open in the editor. The code defines a class 'ListofNumbers' with a 'main' method that takes two arguments, calculates their product, and prints the result. The console output shows the result of the calculation: 'The product of 2.5 and 3.8 is 9.5.'

```
1 package com.tecnotree.interf;
2 import java.io.*;
3 import java.util.Scanner;
4 public class ListofNumbers {
5
6     public static void main(String[] args) {
7         double num1 = 2.5;
8         double num2 = 3.8;
9         double product = num1 * num2;
10        System.out.println("The product of " + num1 + " and " + num2 + " is " + product);
11    }
12 }
13
```

Console Output: <terminated> ListofNumbers [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 5:39:01 pm - 5:39:02 pm) [pid: 16844]
The product of 2.5 and 3.8 is 9.5.

CODESHARE LINK: <https://codeshare.io/dwQxdM>

3. Declare two variables of type boolean, and assign values to them. Print out the value of the logical AND operator applied to the two variables.

The screenshot shows the Eclipse IDE with the same project and file as the previous image. The 'ListofNumbers.java' file is open, and the code has been updated to declare two boolean variables, 'bool1' and 'bool2', and use the logical AND operator to calculate a result. The console output shows the result: 'The result of bool1 && bool2 is false.'

```
1 package com.tecnotree.interf;
2 import java.io.*;
3 import java.util.Scanner;
4 public class ListofNumbers {
5
6     public static void main(String[] args) {
7         boolean bool1 = true;
8         boolean bool2 = false;
9         boolean result = bool1 && bool2;
10        System.out.println("The result of bool1 && bool2 is " + result + ".");
11    }
12 }
13
```

Console Output: <terminated> ListofNumbers [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 5:40:41 pm - 5:40:42 pm) [pid: 12660]
The result of bool1 && bool2 is false.

CODESHARE LINK: <https://codeshare.io/lonxbD>

4. Declare a variable of type String, and assign it a value. Use the String class method length() to print out the length of the string.

The screenshot shows the Eclipse IDE with a project named 'interf'. The 'Project Explorer' on the left lists various Java files. The main editor displays the file 'ListofNumbers.java' with the following code:

```
1 package com.tecnotree.interf;
2 import java.io.*;
3 import java.util.Scanner;
4 public class ListofNumbers {
5
6     public static void main(String[] args) {
7         String myString = "Hello, world!";
8         int length = myString.length();
9         System.out.println("The length of the string \"\" + myString + "\" is \"\" + length
10     }
11 }
12
```

The 'Console' at the bottom shows the output: 'The length of the string "Hello, world!" is 13.'

CODESHARE LINK: <https://codeshare.io/78mLpj>

5. Declare a variable of type String, and assign it a value. Use the String class method toUpperCase() to print out the string in all uppercase letters.

The screenshot shows the Eclipse IDE with the same project 'interf'. The main editor displays the file 'ListofNumbers.java' with the following code:

```
1 package com.tecnotree.interf;
2 import java.io.*;
3 import java.util.Scanner;
4 public class ListofNumbers {
5
6     public static void main(String[] args) {
7         String myString = "Hello, world!";
8         String uppercaseString = myString.toUpperCase();
9         System.out.println("The uppercase version of \"\" + myString + "\" is \"\" + upper
10     }
11 }
12
```

The 'Console' at the bottom shows the output: 'The uppercase version of "Hello, world!" is "HELLO, WORLD!".'

CODESHARE LINK: <https://codeshare.io/WdE4lv>

6. Declare a variable of type String, and assign it a value. Use the String class method substring() to print out a portion of the string.

The screenshot shows the Eclipse IDE with a project named 'interf'. The 'Project Explorer' on the left lists various Java files. The main editor displays 'ListofNumbers.java' with the following code:

```
1 package com.tecnotree.interf;
2 import java.io.*;
3 import java.util.Scanner;
4 public class ListofNumbers {
5
6     public static void main(String[] args) {
7         String myString = "Hello, world!";
8         String substring = myString.substring(7);
9         System.out.println("The substring of \"\" + myString + "\" starting at index 7 is " + substring);
10    }
11 }
12
13
```

The 'Console' at the bottom shows the output: 'The substring of "Hello, world!" starting at index 7 is "world!".'

CODESHARE LINK: <https://codeshare.io/OdEolg>

7. Declare a variable of type String, and assign it a value. Use the String class method `indexOf()` to find the index of a specific character in the string.

The screenshot shows the Eclipse IDE with the same project. The main editor displays 'ListofNumbers.java' with the following code:

```
1 package com.tecnotree.interf;
2 import java.io.*;
3 import java.util.Scanner;
4 public class ListofNumbers {
5
6     public static void main(String[] args) {
7         String myString = "Hello, world!";
8         int index = myString.indexOf('o');
9         System.out.println("The index of the first occurrence of 'o' in \"\" + myString + "\" is " + index);
10    }
11 }
12
13
```

The 'Console' at the bottom shows the output: 'The index of the first occurrence of 'o' in "Hello, world!" is 4.'

CODESHARE LINK: <https://codeshare.io/yo0Ypb>

8. Declare a variable of type char, and assign it a value. Convert the character to its ASCII code and print out the result.

The screenshot shows the Eclipse IDE with a project named 'interf'. The 'Project Explorer' on the left lists several packages, including 'interf'. The 'ListofNumbers.java' file is open in the editor. The code is as follows:

```
1 package com.tecnotree.interf;
2 import java.io.*;
3 import java.util.Scanner;
4 public class ListofNumbers {
5
6     public static void main(String[] args) {
7         char myChar = 'a';
8         int ascii = (int) myChar;
9         System.out.println("The ASCII code for the character '" + myChar + "' is " + ascii);
10    }
11 }
12
13
```

The 'Console' at the bottom shows the output: 'The ASCII code for the character 'a' is 97.'

CODESHARE LINK: <https://codeshare.io/1Y8yp3>

9. Declare a variable of type int, and assign it a value. Convert the integer to a String and print out the result.

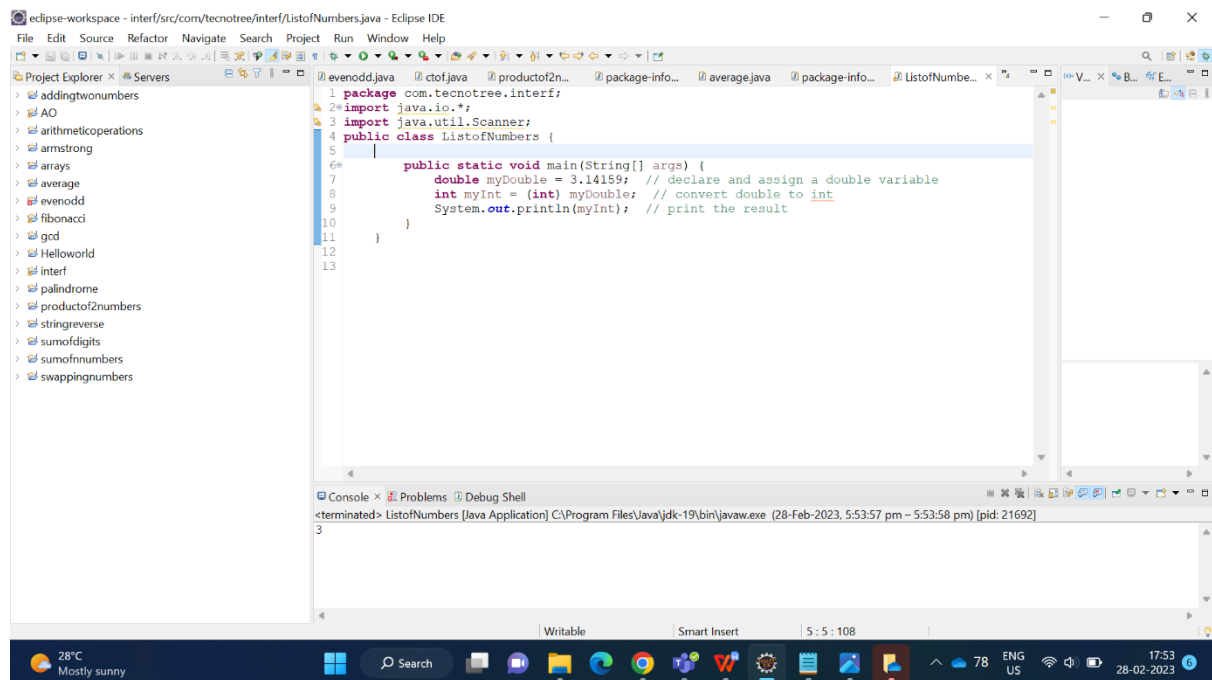
The screenshot shows the Eclipse IDE with the same project and file. The code is as follows:

```
1 package com.tecnotree.interf;
2 import java.io.*;
3 import java.util.Scanner;
4 public class ListofNumbers {
5
6     public static void main(String[] args) {
7         int myInt = 42; // declare and assign an int variable
8         String myString = Integer.toString(myInt); // convert int to String
9         System.out.println(myString); // print the result
10    }
11 }
12
13
```

The 'Console' at the bottom shows the output: '42'.

CODESHARE LINK: <https://codeshare.io/JbMKAZ>

10. Declare a variable of type double, and assign it a value. Convert the double to an int and print out the result.



CODESHARE LINK: <https://codeshare.io/8pILZv>