Intro to Java Week 5 Coding Assignment

Points possible: 70

Category	Criteria	% of Grade
Functionality	Does the code work?	25
Organization	Is the code clean and organized? Proper use of white space, syntax, and consistency are utilized. Names and comments are concise and clear.	25
Creativity	Student solved the problems presented in the assignment using creativity and out of the box thinking.	25
Completeness	All requirements of the assignment are complete.	25

Instructions: In Eclipse, or an IDE of your choice, write the code that accomplishes the objectives listed below. Ensure that the code compiles and runs as directed. Take screenshots of the code and of the running program (make sure to get screenshots of all required functionality) and paste them in this document where instructed below. Create a new repository on GitHub for this week's assignments and push this document, with your Java project code, to the repository. Add the URL for this week's repository to this document where instructed and submit this document to your instructor when complete.

Coding Steps:

1. Create an interface named Logger.
2. Add two void methods to the Logger interface, each should take a String as an argument
   a. Log
   b. Error
3. Create two classes that implement the Logger interface
   a. AsteriskLogger
   b. SpacedLogger
4. The log method on the AsteriskLogger should print out the String it receives between 3 asterisks on either side of the String (e.g. if the String passed in is "Hello", then it should print ***Hello*** to the console.
5. The error method on the AsteriskLogger should print the String it receives inside a box of asterisks, with the String preceded by the word "ERROR:". For example, if "Hello" is the argument, the following should be printed:

****

Error: Hello

****

6. The SpacedLogger should add spaces between each character of the String argument passed into its methods.
7. If the log method received "Hello" as an argument, it should print H e l l o
8. The error method should do the same, but with "ERROR:" preceding the spaced out input (i.e. ERROR: H e l l o)
9. Create a class named App that has a main method.
10. In this class instantiate an instance of each of your logger classes that implement the Logger interface.
11. Test both methods on both instances, passing in Strings of your choice.

Screenshots of Code:

```java
1⊖ /**
2    *
3    * @author Khongmong Thao
4    * Logger for Promineo Tech assignment
5    *
6    */
7
8  //Interface
9  interface Logger{
10     public void log(String input);
11     public void error(String input);
12 }
13
14
15 class AsteriskLogger implements Logger{
16
17⊖    /**
18      * This method takes an input and prints it with 3 trailing asterisks
19      * @param - String input - the string to print after modifications
20      */
21⊖    @Override
22     public void log(String input) {
23         System.out.println("***"+input+"***");
24
25     }
26
27⊖    /**
28      * This method takes an input and prints 3 lines, the center line is modified to have Error: at the front, and surrounded by asterisks, including using the other 2 lines
29      * @param - String input - the string to print after modifications
30      */
31⊖    @Override
32     public void error(String input) {
33     String centerOutput = "***Error: " + input + "***";
34     String asteriskCover = new String(new char[centerOutput.length()]).replace('\0', '*');
35     System.out.println(asteriskCover+"\n"+centerOutput+"\n"+asteriskCover);
36     }
37
38 }
39
40 class SpacedLogger implements Logger{
```

```java
40  class SpacedLogger implements Logger{
41⊖     /**
42       * This method takes a string and prints it with spaces between each character
43       * @param - String input - the string to be spaced and printed
44       */
45⊖     @Override
46      public void log(String input) {
47          String centerOutput = "";
48          String[] spacedInput = input.split("");
49          for(String iterate: spacedInput) {
50              centerOutput+= iterate + " ";
51          }
52          centerOutput.trim();
53          System.out.println(centerOutput);
54
55
56      }
57
58⊖     /**
59       * This method takes a string and prints it with "ERROR: " at the front, and spaces between each character
60       * @param - String input - the string to be spaced and printed with "ERROR: "at the front
61       */
62⊖     @Override
63      public void error(String input) {
64          String centerOutput = "";
65          String[] spacedInput = input.split("");
66          for(String iterate: spacedInput) {
67              centerOutput+= iterate + " ";
68          }
69          centerOutput.trim();
70          System.out.println("ERROR: "+centerOutput);
71
72
73      }
74
75 }
76
77
78  public class App {
```

```
78  public class App {
79      //Main method
80⊖    public static void main(String[] args) {
81          //Instantiate both classes
82          AsteriskLogger myAsteriskLogger = new AsteriskLogger();
83          SpacedLogger mySpacedLogger = new SpacedLogger();
84
85          String myString = "This is my string!";
86          //Use methods of classes
87          myAsteriskLogger.log(myString);
88          myAsteriskLogger.error(myString);
89          mySpacedLogger.log(myString);
90          mySpacedLogger.error(myString);
91
92      }
93
94  }
95
```

Screenshots of Running Application:

```
***This is my string!***
********************************
***Error: This is my string!***
*******************************
T h i s   i s   m y   s t r i n g !
ERROR: T h i s   i s   m y   s t r i n g !
```

URL to GitHub Repository:

https://github.com/rainphantasm/PromineoTechWeek5