Step 1:

Create a hw6 folder to hold the files for this assignment. When you are finished, compress the directory and submit it on Moodle.

View these instructions in a browser and read them before starting to code.

In this program, you will read a file, line by line, using a BufferedReader object, created after reading the filename in a JOptionPane. The goal of this program is to print out the number of lines, words, and characters in the file and then output the file in a JTextArea on the GUI.

The GUI components have been set up in the main method and the constructor. The part of the program that reads from the data file and counts the characters, words, and lines is in the processInput() method.

Notice how the JTextArea is set up in the constructor:

```java
textInput = new JTextArea();
textInput.setBackground(Color.WHITE);
textInput.setLineWrap(true); // this line and the next make the
// text wrap on word boundaries
textInput.setWrapStyleWord(true);
```

The JButton is initially set to be not enabled. The main method contains the JOptionPane asking the user for an input file name and then sets the JButton to be enabled. The processInput() method is called from the actionPerformed method when the JButton is pressed.

The actions taken after a text file is entered are all written in the processInput() method. In this file, you should instantiate a BufferedReader as shown in class and in homework 5. Instead of throwing an Exception, you should put the instantiation of the BufferedReader in a try block and make a catch clause for Exception. You should also use a try...catch block around the while loop that reads the file. Caution: declare all local variables outside the try blocks or your code will not compile.

You will need to break the input into an array of Strings as shown in the slides for lecture 15. When the lines are displayed in the JTextArea, they should contain all the space and punctuation as in the input file. You will also need to count the number of lines and number of characters in the file.
There are 2 different input files that can be downloaded from the course web page:

- ears.txt (speech by Marc Antony in Shakespeare’s play)
- gettys.txt (The Gettysburgh address by Lincoln)

Your results for the ears.txt file should be similar to that shown in the rightmost figure above.

The results for the input file gettys.txt should be:

Number of Lines: 32
Number of Words: 272
Number of Characters: 1493