Homework 6
CMPU102 – Spring 2017
Due Thursday, April 20th

 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
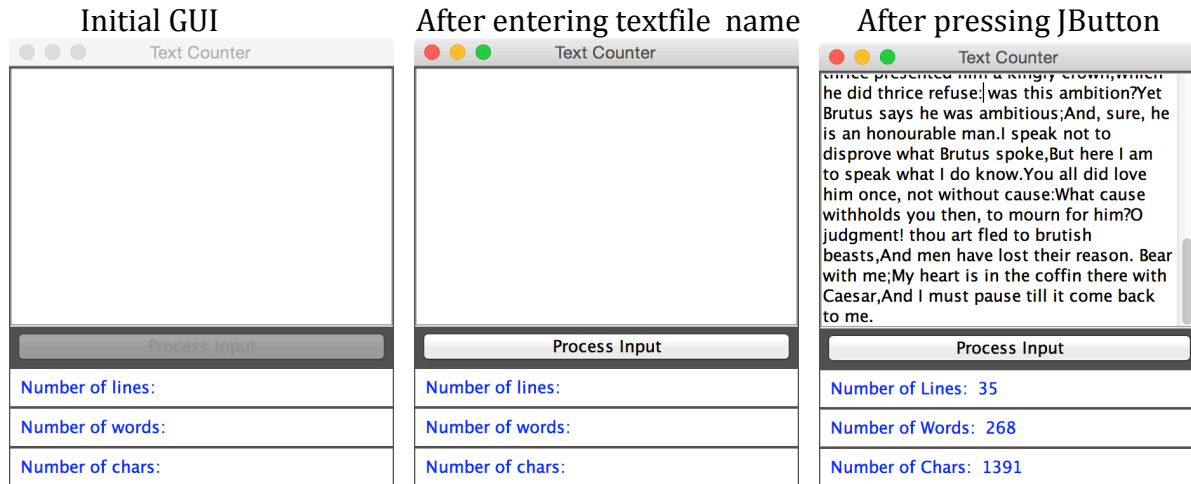the processInput() method.

Notice how the JTextArea is set up in the constructor:

```
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.

Initial GUI	After entering textfile name	After pressing JButton
Text Counter	**Text Counter**	**Text Counter**
		thrice presented him a kingly crown,which he did thrice refuse: was this ambition?Yet Brutus says he was ambitious;And, sure, he is an honourable man.I speak not to disprove what Brutus spoke,But here I am to speak what I do know.You all did love him once, not without cause:What cause withholds you then, to mourn for him?O judgment! thou art fled to brutish beasts,And men have lost their reason. Bear with me;My heart is in the coffin there with Caesar,And I must pause till it come back to me.
Process Input	Process Input	Process Input
Number of lines:	Number of lines:	Number of Lines: 35
Number of words:	Number of words:	Number of Words: 268
Number of chars:	Number of chars:	Number of Chars: 1391

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