CECS 174 – Assignment 3

Part A – String Functions – Have the user input a quote or string of words and store it in a variable. Then using String class methods, complete the following tasks and display with descriptive text:

1. Print out how many characters are in the string.
2. Print out what the 3rd character in the string is.
3. Print out what the last character in the string is.
4. Print out where the first occurrence of the letter 'e' is.
5. Print out the last word of the sentence.
6. Create a new string by adding some text to the end of the string variable by using the + (concatenate) operator. Display the new string in all caps.

Use the class notes and the Java API on **String**s to review the use and functionality of the methods. http://docs.oracle.com/javase/6/docs/api/

Example Output:
```
Please enter your name:  John Jacob Jingleheimer Schmidt

Your name is 31 characters long
The 3rd character is: h
The last character is: t
The first 'e' is at position 17
The last word is: Schmidt
Hi JOHN JACOB JINGLEHEIMER SCHMIDT, THAT'S MY NAME TOO!
```

Part B – String Formatting – Receipt Printer – You are creating a receipt printer for a small general store. It needs to print out the name of the item, how much it costs, how many were sold, what the total is (assume that this store only sells one type of item at a time), how much money the customer gave (amount tendered), and the amount of change due. Prompt the user for the item name, price, and quantity. Calculate and display the total and then ask for the amount tendered. Calculate the amount of change due and then use the println() and printf() functions to display all of the information as a receipt in the following format (ie. colons are aligned, decimal points are aligned, etc):

Example Output:
```
+----------------------------------+
|      Barney's General Store      |
|                                  |
|         Item: XXXXXXXX           |
|        Price: $ XXX.XX           |
|     Quantity:      XX            |
|                                  |
|        Total: $ XXX.XX           |
|                                  |
|     Tendered: $ XXX.XX           |
|   Change Due: $ XXX.XX           |
|                                  |
+----------------------------------+
```