TCSS143 Fundamentals of Object-Oriented Programming
Theory and Application
Extra Credit Assignment
10 Points

1. Write a static method **collapse** that takes an ArrayList of Strings as a parameter and that collapses successive pairs into a single String. Each pair should be collapsed into a new String that has the two values inside parentheses and separated by a comma.

For example, if a variable called "list" initially stores these values:

["four", "score", "and", "seven", "years", "ago"]

and we make the following call:

collapse(list);

Your method should collapse the first pair into "(four, score)", the second pair into "(and, seven)" and the third pair into "(years, ago)" so that list stores the following values:

[(four, score), (and, seven), (years, ago)]

Notice that the list goes from having 6 elements to having 3 elements because each successive pair is collapsed into a single value. If there are an odd number of values in the list, the final element is not collapsed.

For example, if the original list had been:

["to", "be", "or", "not", "to", "be", "hamlet"]

It would again collapse pairs of values, but the final value ("hamlet") would not be collapsed, yielding this list:

[(to, be), (or, not), (to, be), hamlet]

2. Write a static method called **stutter** that accepts an ArrayList of strings as a parameter and that replaces every string with two of that string. For example, if the list stores the values [“ how”, “ are”, “ you?”],
after the call it should store [“ how”, “ how”, “ are”, “ are”, “ you?”, “ you?”].

YOUR METHODS MUST MODIFY THE LIST PROVIDED AND RETURN TYPE OF THE METHODS MUST BE VOID.

Submission and Grading:

There will be points taken off for not following the conventions listed in this document regarding submissions, outputs and naming conventions.

You are required to properly indent your code and will lose points if you make significant indentation mistakes. See the coding conventions document on the course web page for an explanation and examples of proper indentation.

Give meaningful names to methods and variables in your code. Localize variables whenever possible -- that is, declare them in the smallest scope in which they are needed.

Include a comment at the beginning of your program with basic information and a description of the program **and include a comment at the start of each method**. Your comments should be written in your own words and not taken directly from this document.

You should include a comment at the beginning of your program (for each class) with some basic information and a description of the program, as in:

```
// Menaka Abraham
// 1/28/16
// TCSS 143
// Assignment #8
//
// This program will...
```

Your files **Collapse.java, Stutter.java** must be submitted on the course web page. Each file must contain a main method with all the tests.