DUE DATES:
Tuesday recitations: 9:00 PM on 5/2
Wednesday recitations: 9:00 PM on 5/3
Thursday recitations: 9:00 PM on 5/4
Friday recitations: 9:00 PM on 5/5

Finally!
This lab is the third of the three TextTwist labs - and the last lab of the semester!

Be sure you review the lab 8 and lab 10 descriptions before you begin this lab. In this lab you will add functionality to lab 10 to make a complete game! In case you did not come up with a complete working solution to lab 10 one has been provided in the repository. You do not need to use our solution - go ahead and use yours if it was complete and correct.

Ready!
1. Log in
2. Start Eclipse
3. Switch to the CVS Repository Exploring perspective
4. Either:
   a. Make a copy of your CSE115-Lab10 project in your Eclipse workspace (select the CSE115-Lab10 project in the package explorer, right click and select copy, then select paste, choosing CSE115-Lab12 as its name)
   b. Check out the CSE115-Lab12 project from the Labs repository. This has our solution to lab 10.
5. Switch to the Java perspective

Set!
As with lab 10 we are NOT providing JUnit tests. You will verify that the user interface is working correctly by running the program and interacting with it.

There are several pieces of functionality you should build to complete the basic game, as well as additional functionality that can earn you extra credit. Note that some functionality is dependent on other functionality. For any feature you choose to build you must build its prerequisite functionality in order to get credit.

Keep in mind that any work you submit must be your own. Submitting work done by someone else as your own is academically dishonest, and will result in immediate failure in the course.
Go!

CLEAR BUTTON [10 points]

Pressing the clear button must move any letters from the guess back to the inventory, and update the GUI.

SHUFFLE BUTTON [10 points]

Pressing the shuffle button must randomly shuffle the letters currently in the inventory, and update the GUI. The letters in the guess must not be affected.

SUBMIT BUTTON [20 points]

Pressing the submit button must submit the letters in the guess as a word. The order of letters must be exactly as displayed in the GUI. For example, if the letters are ‘o’, ‘p’, ‘t’ and ‘s’ in that order, the word submitted is "opts" and not some other arrangement of the letters, such as "tops" or "spot" or "pots".

If the submitted word is one of the words to be guessed, then that word must be revealed in the word list at the top of the GUI window. The letters from the guess must be returned to the inventory.

If the submitted word is NOT one of the words to be guessed some indication must be given to the player that the word was not in the list (beyond just not displaying a word in the top of the GUI window). The letters from the guess must be returned to the inventory.

DISPLAY WORDS TO GUESS [40 points]

The top panel of the JFrame must display the words that have been guessed, as well as the words that remain to be found. The words that have not yet been guessed must be shown in a way that their length is evident. The display need not be exactly as shown below - these are just examples:
At start of game:

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INVENTORY: rsetirt
GUESS: shuffle clear submit
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After guessing several words, with 'stir' as a guess which has not yet been submitted:
After submitting 'stir' but before submitting 'sir':

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INVENTORY: rett GUESS: sir
shuffle|clear|submit
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**END GAME [20 points]**

Once all the words have been guessed some message must be displayed to the player that they got all the words.

**RESIGN BUTTON [20 points]**

Pressing a 'resign' button must reveal all the unguessed words, highlight in Color.RED. This game cannot be allowed to continue at this point, but if the play-again button (see below) is implemented then the player can choose to quit or play again.

**PLAY AGAIN BUTTON [20 points]**

At the end of a game (whether it ends by finding all the words or by the player...
resigning) the player should be able to either quit the game (exit program) or play again (start a new game).

**GAME OPTIONS: UNTIMED vs TIMED [20 points]**

Whenever the player plays the game they must be given the option of playing either the regular (untimed) or timed game. The untimed game allows unlimited time to guess all the words. The timed game places a time limit (# of words to guess * 10 seconds per word) on the game. The time remaining must be displayed to the player somehow. If the player successfully finds all the words within the time limit they are given the option to quit or play again (see above). If they player does not find all the words in the allotted time they automatically resign the game (see above).

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**Submitting your project to Web-CAT**

Make sure you submit your work on time; due dates are listed at the beginning of this lab description. Unlike earlier labs, this one will be MANUALLY GRADED by the graduate teaching assistants. This means that Web-CAT will display at most 5/100 when you submit (assuming you get all early submission bonus points). If you submit on-time but not early, Web-CAT will display 0/100.

You may submit as many times as you wish. Your last submission is the one that will be graded (so consider carefully whether you want to make any late submissions, as the late penalty is 20 points per day or portion thereof late).