Coding Challenge Requirement:

1. Read input from a file of words;

2. Find the largest word in the file

3. Transpose the letters in the largest word

4. Show the largest word and the largest word transposed

5. Please use automated test cases using a test framework

6. Demonstrate positive and negative test cases

7. Your challenge should allow the user to pass in a file

8. Ensure you document code and instructions for building and running based on the response best practices above

Assumptions:

* Assuming the input file format is text file only.
* Assuming the file is not having two longest words (i.e duplicate words or two words having same length).
* If the file is having two longest words, then print the first occurrence of longest word.
* Ignoring the blank and white spaces in a word

Design:

1.Class -TransposeLongestWord:

Methods:

public static String longestWord(String Filepath) : Read the file and return the longest word

public static String TransposeWord(String longestword): Reverse the given string and return it.

public static void main(String [] args) ; To run or test the above methods with user interaction

2.Class - JunitTest: Created a class using Junit testing framework to test the above methods with different test data

Positive Tests:

* public void testvalidfile\_first()
* public void testvalidfile\_middle()
* public void testvalidfile\_last()
* public void testvalidfile\_numbersonlyword()
* public void testvalidfile\_charsnumswords()
* public void testvalidfile\_charsnumswords()

Negative Tests:

* public void testInvalidfileformat()
* public void testfilenotfound()
* public void testEmptyfile()

3. Class- TestRunner: This class is used to run the JunitTest Test methods in the command prompt