

CS 212 – Spring 2022 – Project 3

Assigned: 11 April 2022
Due: 25 April 2022
Cutoff: 29 April 2022

This project will add on to what you did for project 2.

Create a GUI with a File Menu

Create a complete GUI with a File menu that has menu items for Open and Quit. Clicking on Open should allow the user to choose a file to be read, and the file should be opened and displayed in the six cells of the grid layout.

Create an Exception for Words and Handle It

The constructor of the *Word* class should check that the word is valid (has only letters) and throw an *IllegalWordException* if it is not. Use a regular expression to check for validity, and print invalid words to the console. You will need to create a class for the *IllegalWordException*.

Use a TreeMap to Sort the Words

Rather than using a *SortedWordList* to sort the words, use a *TreeMap*. The *keys* for the *TreeMap* are *Words*. For the values you can use *null*. The *TreeMap* can be instantiated as *TreeMap<Word><Word>*.

Submit a jar file.

Create a jar file called **Project3.jar** making sure that it contains source code (.java files) of all the classes necessary (except *TextFileInput* and the input file) and submit that.

Upload your project to Blackboard by the due date for full credit. Do not send projects by email.