# Word Counter SDD
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| WordCounter.java |
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| FileStream.java |
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| FileStreamTest.java |
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| Controller.java |
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| FileStreamTest.java |
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| main(args: String[]): void |
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**FileStream.java**
- words: ArrayList<String>

-count:ArrayList<Integer>

+ countWords(fileName: String)

+ printResults()

+ punctuationRemover(fileName: String)

+ getWords()

+ getCount()

**FileStreamTest.java**
+ testCountWords(fileName: String)

+ testPrintResults()

+testPunctuationRemover(fileName: String)

**Controller.java**
+actionPerformed (ActionEvent ae) {

**FileStreamTest.java**
+ public WordCounterGUI(Controller cs){

## Design

Word Counter

Choose any text file and I'll count the how many times each word is used!

Select text file

## Actual

Word Counter

billy occurred 2 times
bob occurred 5 times
steve occurred 4 times

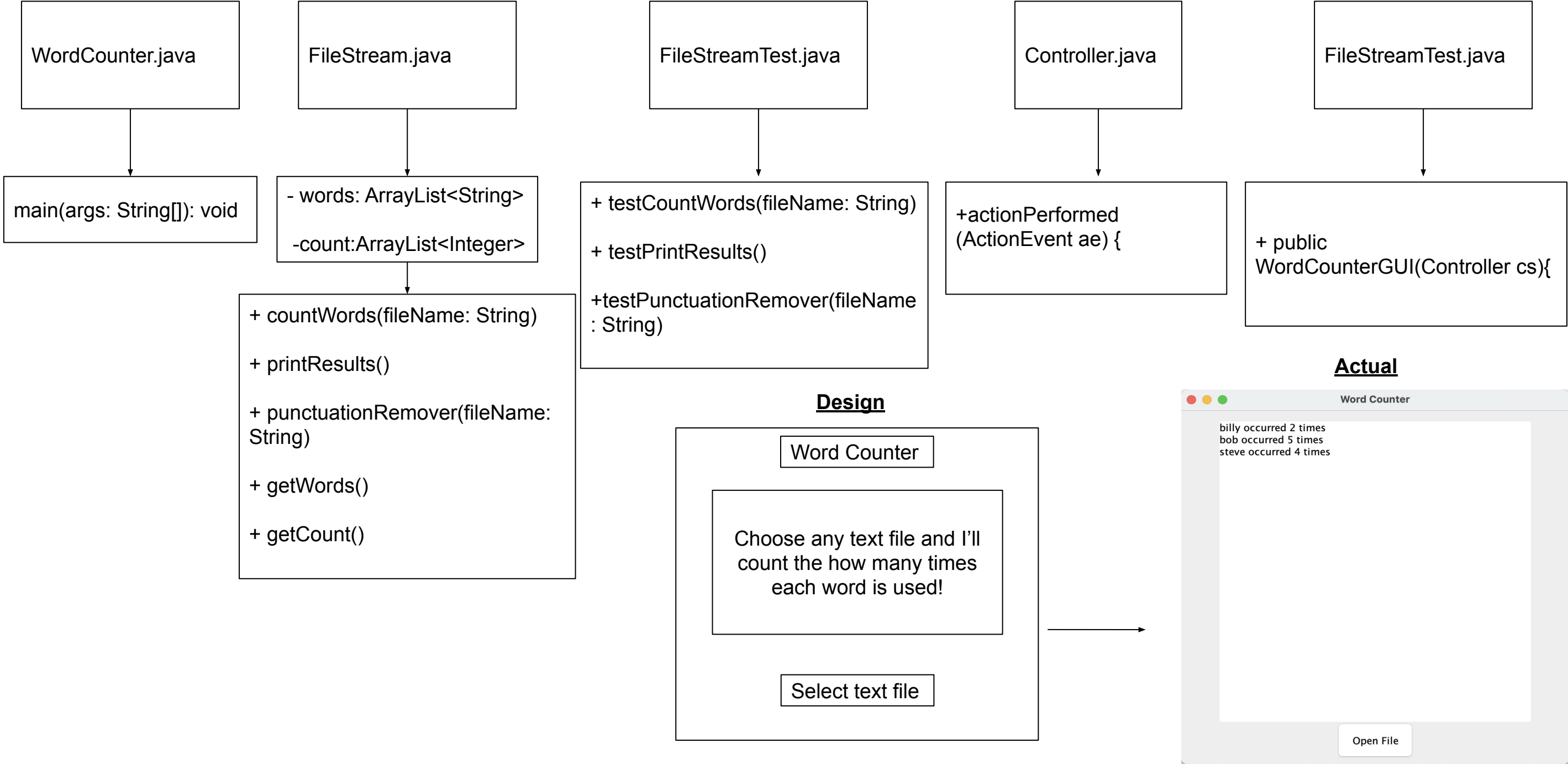Open File

Word counter uses instance variables words and count to store the frequency count of words in a given file. The countWords method takes the name of a file and counts the frequency of each word in the file, storing the results in the words and count arrays. The printResults method prints the words and their corresponding frequencies in dictionary order. The punctuationRemover method removes any punctuation from a given word and converts it to lowercase, this is all done in the StreamFile class. In the main class the file is called, counted, and the results are printed clearly.

To test the class, intricate tests were made to confirm the functionality of each method. @testcountWords, @testPrintResults and @testPunctationRemover. @getWords and @getCount are used to access to the lists of words and counts for JUnit tests.

WordCounterGUI and Controller classes are implemented to allow the user to input the name of the file to be processed and display the results in a more tangible/user-friendly format. As you can see above it is pretty clean and simple, containing a button to select a txt file of the user's choice. Once it is selected the results from the WordCounter will display in the text area.