

CS 212 – Spring 2024 – Project 4

Assigned: 2 May 2024
Due: 15 May 2024
Cutoff: 15 May 2024 (midnight; no exceptions)

Frequency Count of Words

Write a program that will read from a file and display to the console all the words in the file in alphabetical order along with the number of times each word appeared in the file. For example, if the input file is:

```
This is an example, of an input file
for project four, as an example.
```

The output to the console would be:

```
an - 3
example - 2
file - 1
for - 1
four - 1
input - 1
is - 1
of - 1
project - 1
This - 1
```

To get the individual words from each line of the file use a regular expression (perhaps with the *split* method of class *String*) as shown in lecture. Note that the input file may contain reasonable punctuation marks separating the words.

Use a *TreeMap* to store the words and their counts (that is, *TreeMap* <*String*,*Integer*>). You will need to use the wrapper class *Integer* to hold the count of the words as *TreeMaps* do not store primitives.

Allow the user to select the input file using a *JFileChooser*.

Since this project can be done with one class, you do not need to create a jar file. You can submit the file *Project4.java* to Blackboard. Make sure you upload the correct file by the due date (which is also the cutoff date) as there will be no opportunities for resubmission of projects.