Java Programming Test

Please write, in Java, an API to read the contents of a plain text file and enable the display of the total number of words, the average word length, the most frequently occurring word length, and a list of the number of words of each length.

Submit your code, along with unit tests, and Maven POM file, in a zip file or GitHub repository, via email along with instructions for its installation and use. We will use your POM file to build and run your solution with a successful build required for progression to grading. Be sure to state any assumptions that you have made about what defines a word (using as a basis the rules that can be deduced from the example below).

For example, given a file that contains the following text:

>   Hello world & good morning. The date is 18/05/2016

We would expect the following output:

Word count = 9
Average word length = 4.556
Number of words of length 1 is 1
Number of words of length 2 is 1
Number of words of length 3 is 1
Number of words of length 4 is 2
Number of words of length 5 is 2
Number of words of length 7 is 1
Number of words of length 10 is 1
The most frequently occurring word length is 2, for word lengths of 4 & 5

Note that we will test code submissions with several files of various lengths ranging from the above example through to large books such as the Bible (https://janelwashere.com/files/bible_daily.txt).

Clue – Do not forget to consider formatted numbers.

On the code test:

- This is as much about reading and understanding the problem statement as it is about coding.
- We are looking for eloquent, efficient, machine efficient code.
- Use advanced coding features to help with the above.
- The corollary of the above - do not over complicate the solution.
- Make sure the completed version works!

We prefer submissions via GitHub.

Any feedback provided is given in the strictest of confidence and is not to be disclosed.