

Lab07 – map & multimap

Note: this lab exercise will be marked and contribute to your course's final result. Ask your instructor on how to submit your work.

Implement a C++ program that counts the frequency of words in a text file. The program should make use of STL data structures such as map or multimap.

Input data is given as a text file. Words are separated by 'white' characters (e.g. spaces, tabs, newline..). Singular and plural forms, e.g. *book* and *books*, are considered two different words. Word case is significant, e.g. *book* and *Book* are considered two different words.

Results are to be written to a text file, each word together with its frequency appear in one line in the form: **<word><tab><number_of_occurences>**

Words are sorted in lexicographic order. At the end of the output file is an empty line resulted from the last word's "write line".

Input is from the file named test.in, and output is to the file named test.out.

Note:

1. Output file must be composed exactly as specified above. There should be no extra white space.
2. Assume that the input file exists and input data is valid, i.e. no input verification is required.
3. There's no limit on input data size.

Example:

Input: test.in

```
"Great minds discuss ideas. Average
minds discuss events. Small minds
discuss people."
    Eleanor Roosevelt
```

Output: test.out

```
"Great 1
Average 1
discuss 3
Eleanor 1
events. 1
ideas. 1
minds 2
people." 1
Roosevelt 1
Small 1
```