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Touchsides Technical Assignment

Thank you for the time you're investing into our recruitment process. This is the technical challenge which I'd like you to complete. Please try do it without Googling it too much. Where you do Google resources, please cite them.

QUESTION 1

Please develop a console / GUI application that is used to determine the frequency of each word that appears in the book War and Peace by Leo Tolstoy. Your application can be written in C# or Java.

Ideally your application will have a user interface that allows the user to select/specify the input file and displays the answers to the below questions as static output.

Output:

Most frequent word: {word} occurred {x} times

Most frequent 7-character word: {word} occurred {x} times

Highest scoring word(s) (according to Scrabble): {word} with a score of {x}

QUESTION 2

Please assess the performance of your application using the usual measures. Please write a paragraph or two describing the performance achieved and possible ways you could improve it.

Resource 1

Project Gutenberg download for War and Peace: http://www.gutenberg.org/files/2600/2600.txt

Resource 2

Scrabble letter scores appear below. If you do not know how Scrabble works please read up on the Wikipedia about the game.

Letter	Score
Α	1
В	3

Letter	Score
J	8
K	5

Letter	Score
S	1
Т	1

С	3
D	2
Е	1
F	4
G	2
Н	4
1	1

I	i
L	1
Μ	3
Ν	1
0	1
Р	3
Q	10
R	1

U	1
V	4
W	4
Х	8
Υ	4
Z	10