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/*************************************************************
* Class:  CSC-415-03 Fall 2020
* Name: Zachary Ma
* Student ID: 916750281
* GitHub ID: Area-Turtle
* Project: Assignment 4 – Word Blast
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* File: Ma_Zachary_HW4_Writeup
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* Description: A short write up for the program
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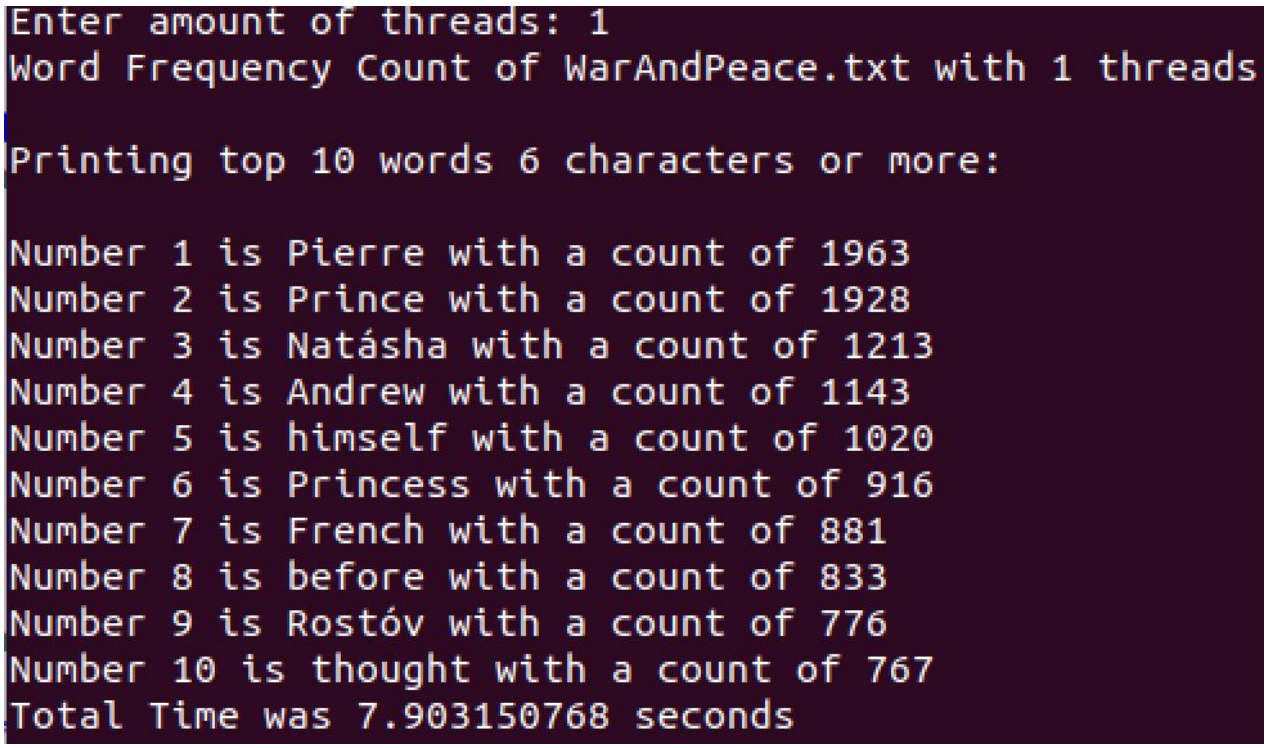
Description:
So the program I was supposed to write had to take a file, in this case it was already given to us, War and Peace, and it was supposed to count the words, and print out the top 10 most frequent words that appeared in the text. The project required us to code in multithreading which was supposed to speed up the reading/computing process of the program. At the end the program would output the total time it took to run through the whole process.

Analysis: So I was able to get the program to accept the example file, and got it to count/compute the words that were in the file as well. As for why the times are longer is because I don't think I quite implemented the multithreading right. I mean I got them to appear, but I don't think my program actually does anything with them. Its weird that the more threads I enter the longer it takes. I don't think its supposed to work like that, but I got it to mostly work so I am happy.

Execution output:



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Enter amount of threads: 2
Word Frequency Count of WarAndPeace.txt with 2 threads

Printing top 10 words 6 characters or more:

Number 1 is Pierre with a count of 1963
Number 2 is Prince with a count of 1928
Number 3 is Natásha with a count of 1213
Number 4 is Andrew with a count of 1143
Number 5 is himself with a count of 1020
Number 6 is Princess with a count of 916
Number 7 is French with a count of 881
Number 8 is before with a count of 833
Number 9 is Rostóv with a count of 776
Number 10 is thought with a count of 767
Total Time was 8.454057622 seconds
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Enter amount of threads: 4
Word Frequency Count of WarAndPeace.txt with 4 threads

Printing top 10 words 6 characters or more:

Number 1 is Pierre with a count of 1963
Number 2 is Prince with a count of 1928
Number 3 is Natásha with a count of 1213
Number 4 is Andrew with a count of 1143
Number 5 is himself with a count of 1020
Number 6 is Princess with a count of 916
Number 7 is French with a count of 881
Number 8 is before with a count of 833
Number 9 is Rostóv with a count of 776
Number 10 is thought with a count of 767
Total Time was 8.382925246 seconds
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```
Enter amount of threads: 8
Word Frequency Count of WarAndPeace.txt with 8 threads

Printing top 10 words 6 characters or more:

Number 1 is Pierre with a count of 1963
Number 2 is Prince with a count of 1928
Number 3 is Natásha with a count of 1213
Number 4 is Andrew with a count of 1143
Number 5 is himself with a count of 1020
Number 6 is Princess with a count of 916
Number 7 is French with a count of 881
Number 8 is before with a count of 833
Number 9 is Rostóv with a count of 776
Number 10 is thought with a count of 767
Total Time was 8.592910717 seconds
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