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Programming Assignment 4

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Abstract

The objective of this program is to, given a randomized dictionary, a spell checker, and a book, and load it into a series of MyLinkedList objects. We implemented 26 objects, one for each letter of the alphabet. We decided that the first LinkedList, the words would begin with the letter ‘a’, while in the last list the words begin with the letter ‘z’. This is the reason the number 97 is in our code multiple times, as it is the ASCII Unicode for ‘a’. We had to compare a text file with the dictionary, as well as find out the average of how many comparisons it took to find a word in the given LinkedList, as well as the average of number of comparisons it took not found. The number of times we go through the loop tells us the number of comparisons per word. While reading the .txt file, the process of parsing and searching for the words occurs. The Found and NotFound comparisons are also added up simultaneously. In the end, the average comparisons for wordsFound and wordsNotFound are printed and displayed on screen. In the end, the average number of words found was 3,554, while the average number of words not found was 7,433. We found 911,672 words in 3,240,290,803 comparisons, and for wordsNotFound, we found 64,139 in 476,755,465 comparisons.

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run:
Average Number of Words Found: 3554
Average Number of Words Not Found: 7433
Number of Words Found: 911672 in 3240290803 comparisons
Number of Words Not Found: 64139 in 476755465 comparisons
BUILD SUCCESSFUL (total time: 42 seconds)
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