Lyndsey Arnold

Programming Assignment 5

Programming Exercise 5

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For this program, we converted our previously made spell checker into an array of Binary Search Trees, one for each letter. Binary Search Trees are a data structure that allows for efficient searching because they do not have to look at each individual element to find a particular element. Binary Search Trees are good for this because they have branches that allow for quicker searching and reading. Linked Lists are not as efficient because of the constant need to start and look through each individual element. It is linear meaning that it has nodes that point to each other and a natural order to follow with one going after the other. With our searching and adding the time complexity does not change but if we were setting a specific element in the array list the time complexity would be better. With the binary search tree implementation, the comparisons were much smaller.