Programming Assignment 5

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The Parse program in Personal assignment 5 has a few changes from the original Parse program in PA4. First it creates a dictionary Binary Tree. Once this is completed it imports random\_dictionary.txt to fill the binary tree. The program changes every dictionary word to lower case before it stores the value to make spellcheck comparisons less complex. Once the dictionary is filled, it reads oliver.txt. When reading oliver.txt, it reads the first character in the word, converts it to lowercase, and also checks to make sure it is not whitespace or an invalid character that is not a word. Once it passes these checks it uses the first letter in the word to check the dictionary linked list and uses the contains method to check if the dictionary contains the word being read from the book. If the comparison is found it increments the double variables Found by 1 and compsFound by how many comparisons it made to get to that word. If the comparison is not found, the program will increment two other variables by how many comparisons it made. To increment the compsFound variable properly you overload the search method in the BinaryTree to accept an int input to increment every time a comparison is made. Once it finishes these operations it then prints found and prints the comparisons found, the quotient of the comparisons and again for comparisons for words that are not found. These are printed to test and see if the spellchecker is accurately spellchecking the document.