Assignment 3 – Spell Checker

For this assignment, you are tasked to build a console-based spell checker that will be used to show the spelling mistakes in a standard text document.

The application will start by reading all the words in a dictionary file that has been provided for you. The file is not a complete dictionary. It simply contains all the correct spelling for specific words in alphabetic order. The dictionary words will be the basis for a custom binary search tree in your application.

You will then use a programmatic means to balance the binary search tree. It will be up to you to choose and implement how the tree will be balanced. Feel free to choose any method that works!

Once the binary search tree has been filled and balanced, you will read in a second file that is a sample document needing spell checking. All the words in the document needing checking are located in the dictionary (and now in the binary search tree). You will then compare each word in the document against the binary search tree. If the search fails, you will display the misspelled word to the console.

Along with displaying a list of all the misspelled words to the console, the program should also write the balanced tree output to a file for later examination.

Note: You cannot modify either the provided dictionary file or document file. However, you may find it easier to test your application with a smaller dictionary and/or document before testing against the given files.