Submit screenshots of the results, and code files in a zip file.

**A screenshot of a computer program

Description automatically generated**

**Figure 1.** Searching the dictionary and adding two words.

A screen shot of a computer

Description automatically generated

**Figure 2.** Displaying dictionary entries via in-order traversal. “apples” becomes the new leftmost leaf node in the binary search tree, so it’s visited first in an in-order traversal.

A screen shot of a computer

Description automatically generated

**Figure 3.** Displaying dictionary entries via in-order traversal. “zebra” becomes the new rightmost leaf node in the binary search tree, so it’s visited last in an in-order traversal.

Creating the dictionary takes advantage of the sorted nature of the input file. The code jumps to the middle of the file less ½ of the desired number of words to insert to the binary search tree. These words are read into a vector, and the words are added to the AVL tree starting from the beginning of the vector. After an insertion, imbalance causes the appropriate right, left, right left, or left right rotation of a subtree.