Outlab5 – Dictionary Application

Due: submit by midnight, Apr 2

Objective
You must develop a graphical dictionary program that lets a user enter a word and provides the definition. It should use a binary search tree to store the words and definitions.

Required (20 pts)

- A working GUI-based dictionary that uses binary search trees to store and search for user-entered words.
- You can find lists of words and their definitions on the web, e.g. http://www.freevocabulary.com/
- You should create a simple text file from a word/definition list and then have your program read that in to create its internal dictionary. You should first read the file in, then randomly re-order the words so that when you create the tree it will be more balanced. One way to do this is by randomly swapping pairs of words a number of times (I'll discuss this more in class.)

Optional (2 bonus pts each)
- User-defined words: Modify your program so that if a word is not in the dictionary, the user can optionally provide the correct definition and save it to their local dictionary.
- Implement a simple form of spelling correction: if the user types a word that is not in the dictionary but is just one letter away, provide a "did you mean this word?" suggestion, e.g. if you enter "teble", it suggests "table", etc. Design a nice interface for handling this.

What to Turn In

Use D2L to submit your project (in Netbeans). Running the main method in the project should launch your program.