CS341: Data Structure and Algorithms   **Due: March 25, 2010**
Homework #4

Purpose:
To implement a dictionary ADT using binary search trees.

Description:
Write, run, and test a Java program that stores and retrieves dictionary data in a binary search tree.

1st: Create a dictionary interface that allows you to:
- add a node (given both a name and description)
- remove a node by name
- lookup a definition/description by name

2nd: Create the implementation of the interface. In the implementation, build upon the binary search tree implementation by aggregating an instance of a binary search tree.

3rd: Write a main program. Your program will read data in from a dictionary file. I have made two data files available to you, but you may use any dictionary of data that interests you. Your program should support reading in any data file in the format:
<name1> <description1> // separated by white space
<name2> <description2>
…
<nameN> <descriptionN>

The main program uses the data from the file to populate the dictionary. After reading in the data, the program should allow the user to select what they would like to do from a menu. Options should include those things listed as interface requirements. After one selection is completed, the menu should be displayed again. The menu should also include the option to exit the program.

For this project, you should submit: (1) your code (2) a listing of enough test cases to demonstrate your code is working correctly. Good luck and have fun!

Submit via email in the usual fashion before class time.