Homework 9

Due by Thursday, November 30th, 2017 23:59.
To be completed in your assigned teams.

This assignment is in the C programming language. There are many online tutorials that can help familiarize newcomers to the quirks of ANSI C. You should avoid features specific to C++. You can also consult resources on binary search trees.

All Linux machines in the System Lab can be used to execute your code for this assignment. Assuming your code is written in the file `mycode.c`:

- Compile through the GNU C Compiler (gcc):
  ```
  gcc -o mycode mycode.c
  ```

- Run the program as you have done with other executables in the past:
  ```
  ./mycode
  ```

Binary Tree of Words

We have provided you with function stubs in the file `tree-skeleton.c`

1. Write a function `addNode` for entering a new word into a tree of `treeNodes`.
2. Write a function `traverse` to print on standard output the words of `treeNodes` in alphabetical order.

You can implement your tree as a binary search tree (https://en.wikipedia.org/wiki/Binary_search_tree), but you are not required to do so. If you choose to implement a binary search tree, you need to be careful in the way you insert nodes, but `traverse` can be simple. If you do not use a binary search tree, you can add nodes anywhere in the binary tree, but you need to implement a more complicated `traverse` function.

You should submit via the `turnin` system:
  i.   a file named `tree.c` with the implemented functions outlined above.
  ii. a directory named `testcases` containing files with the testcases you ran against your implementation.