## **Lab 3: Binary Search Tree**

Using the source code provided as a solution for last week's lab, extend your program to use a binary search tree of strings.

Use the modern features of C++ discussed in the lecture this week as well as the example of the linked list from last week to write your tree so that it manages its own memory and its automatically freed when it is no longer in use

Use the discussion we had in this week's chat to guide your implementation here. Note that this must be a binary search tree, not a binary heap although we compared these in the chat.

Once this has been done have a look at the api documentation for boost::program\_options (http://www.boost.org/doc/libs/1\_53\_0/doc/html/program\_options/tutorial.html ). Write a command line parser consistent with the assignment 1 requirements. Until you have sufficient implementation completed to plug this component in with the rest of the program, just print out messages indicating what options were selected.