Programming Assignment 2 – Approach

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CSIS 215-B01

My approach to this assignment is to begin with making the edits to the BSTNode since this will be required to implement the BST. It also seems that less work is needed to get the BSTNode operational, whereas the BST will require more work.

Regarding BSTNode, I will begin by adding indicators for whether the node pointer is a thread or a regular pointer. I plan to accomplish this with an unsigned int instead of a Boolean value. I will then incorporate these into the setter methods before finally adding the getter methods.

Next, I will begin building out my *test.cpp* file so that I can test any changes made in the BST edits. While the next paragraph deals exclusively with how I plan to tackle the BST portion, I intend on testing each phase of development by adding it to this *test.cpp* file as I go.

Moving to the BST, I’ll begin with editing the inserhelp() method. Using several *if* statements, I plan to utilize the fact that the pointer can be a regular pointer or a thread. After this, I’ll work on getting the printhelp() method to use threaded nodes—again relying on if-then logic to print the BST correctly. I will then add the printInorder() and printReverse() methods to also utilize the threaded nodes, but alter the order in which the tree is traversed. I don’t plan on adding any helper methods (edit: I later ended up adding two helper methods printInOrderHelp() and printReverseHelp() to assist with the different tree traversal orders).

*Please Note ~*

*The executable file for this program can be found in the zip file at:*

***Luke\_Orth\_Bag\_Assignment / Debug / Luke\_Orth\_Binary\_Tree\_Assignment.exe***