Project 2

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This program was written with visual studio code in c++. To run, have the extension called Code Runner installed and simply right click on the editor and select run code, or press ctrl+alt+n. To test the order traversals, I called them in main but commented out for the terminal’s sake, to test them or heap functions you can just un-comment them.

In this assignment, our task was to create a working binary tree with multiple functions such as search, max and min, and insert. This part of the project went smoothly for the most part. I decided to declare and initialize the BST class in a separate header file for easier readability, even though I felt I didn’t really need to at this point. I decided to break ties to the left for insertion, simply because that is what I was comfortable with. I wanted to find a practical way that the search function would be used and include it in my project, but ran out of time so you would have to boringly call it manually. Preorder, postorder, and inorder were very simple but required a lot of trial and error for me to get right. Although for most of these functions, I did not have to catch the case if root is null because we can assume it’s the first element in the array, I had to anyways because I was getting a segmentation fault otherwise. For the maxheap functions

<https://www.geeksforgeeks.org/building-heap-from-array/>

<https://www.youtube.com/watch?v=YJa3GpNUrNs>

sources I used