

Lab report

The key to solving the both pre-order and in-order traversals was the use of stacks. Without any sort of way to move around the tree and without recursion, any sort of traversal through the tree would be impossible

Using and manipulating the stack flow to traverse a tree is quite clever, as you can order both a pre-order and an in-order traversal based on the pushing and popping of nodes at certain times. For the in-order traversal specifically, we would travel down the left side and moving the right whenever it exists, therefore checking every single possible path. This was doable by pushing left values onto the stack, popping when they move up, etc.

The use of nested if/else cases were important too, as there are a lot of cases and factors to consider, especially when creating a flexible code that can be used for any size binary tree. While loops were important too, which in theory acted like the "recursion" and only exited when everything was done.