**Binary Tree Report**

\*\* I have to shoutout the Codeium, I first started this assignment without it and after I installed it, I was able to accomplish so much in a shorter amount of time that it would’ve taken me! I especially love the way it helps me with comments and docstrings! It can predict what I would’ve written and helps with the format especially since I don’t remember how to format it sometimes! \*\*

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* TreeNode class is created to define the structure of a node within a tree data structure.
* The BinaryTree class is defined with internal method such as adding nodes, dynamically retrieving the depth/height of the tree, and different traversal methods.

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* My implementation of the order transversals requires a public and private method since I need to be able to pass in the root node address. Generally, the root node should be private and inaccessible outside of the class methods. (I should probably make it as \_\_root so that it is a private variable)
* I recursively traverse through the tree, appending the root, then travel the left node, and then the right node

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* Similar to before, I just needed to switch where I am appending the node, so I moved to append to the middle since in-order traversal is L-N-R

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* As usual, I just moved the append to the end since post-order traversal is L-R-N

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* I had trouble thinking about the iterative way to approach level-order traversal, and I think I couldn’t wrap my head around it at first. Eventually it worked, and I was able to use this same concept in adding a node to the tree!

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* For testing, I created a method to dynamically retrieve the depth of the tree to test for different sizes of trees.
* Construct\_tree method is just a simple way to create a tree of a certain size (amount of elements)