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**Assignment 5 Lessons Learned**

During this assignment I learned how to create and traverse a tree with code. I became more comfortable with recursive tree traversal algorithms. I even got the LNRouputTraversal method to work on my first try.

I also learned that calling methods defined within your class within your classes constructor can be useful. In this assignment we used the buildTree() method to fill the morse code tree with each letter of the english alphabet at the time that the morse code tree object is constructed.

I struggled with understanding the design, however. I am confused about the intention of some of these methods. Why does the insert method exist if all it does is call the addNode method? Is it because the user is supposed to call insert and not addnode because obtaining the root node themselves would be annoying (you’d have to call getRoot())? I had the same issue understanding the fetch and fetchNode methods. But I assume the intention is the same. However, if this is the case, then why is addNode and fetchNode public? Shouldn’t they be private?

In the future I would like to become more comfortable with utilizing recursive methods for a wider variety of problems. There are still some questions on leetcode that I can identify that would be great for recursion, but I struggle to find a working implementation. I think this is likely just due to lack of experience/practice, but it is something I would like to get better at. I think this assignment was a good step in that direction because a lot of the methods had to be implemented recursively.