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CS-211 Data Structures

PA#4

The hardest part of the assignment was really just figuring out how to get it started. Initially, I had reused the binary node class, but it caused more problems than it solved, it felt like, so I scrapped that idea and wrote a similar class from scratch that was able to handle things better. I was also initially planning on using polymorphism, i.e. having separate classes for question and answer nodes, but after reading over the specifications, I decided that since the only difference between the two, especially once the tree started to get bigger and bigger, was that the answers caused the main function to react differently on a yes, so I switched to only having one class that had a flag for whether it was for a question or a guess. Once all of that was in place the assignment became easy to take one step at a time: get it to build and navigate a tree, then get it to do that from a file, etc.

The most fun aspect was watching all the pieces fall into place towards the end. Getting to watch it slowly resemble the final product with each time I ran it was fun.

My advice to a future student working on this would be a) if you think you’re overthinking it you are, and b) get it able to build a small tree and successfully play within that’s bounds, then start adding on all the other features.

Biggest thing I would change would be de-emphasizing the BinaryNode.h file, since it sent me and a few other students off in the wrong direction of trying to fit its square peg into a round hole, when writing an original class based off of it is a) probably better practice for things like class design, and b) less problem-prone.