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CST 211 Lab 9

Observations

So working with chrono has been pretty nice compared to using the GetTicks64() method. I found that with GetTicks() it uses your system clock so if you’re debugging it continues to tick and doesn’t count solely the time the program takes to run. Chrono fixes this but comes with some other interesting errors. When casting to milliseconds, if the total time the operation took was not long enough it would just print out 0 instead of a float so I had to just use nanoseconds instead for simplicity. My first attempt was going to just have everything in main() since I thought making a whole class for passing in a container and doing things outside of main would be too much for a timing lab. I moved the work out into functions later to clean up main() and at first I was going to pass in the container and a key so that I could use the proper insertion function for a particular container but I soon found out that that wouldn’t work because my templated variable container still needs to be able to use the different functions to compile. My solution to that was to make 4 functions, one for each container type for inserting and 4 more for searching. Not the most elegant solution and I’m sure I could find a way to template the function better. This lab also pointed out that my BSTree’s destructor was actually broken. Turns out I was improperly deleting nodes and would throw an error out in xstring. I fixed that error by properly deleting nodes recursively and setting the root to nullptr. I was doing this before but something in my old purge function was not working as desired.