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CS 202 Project 3

Debugger Analysis

This project gave me lots of useful experience using GDB. I was able to track down some compound issues by stepping through functions with the -tui option enabled. Specifically, I had an operator overload issue that was nested within an RTTI issue. Using the print function to compare values and ensure I was taking the path I *thought* I was taking, I was able to track down and solve both problems within a reasonable amount of time. The lighter version of GDB without the graphic interface was also useful for looking into errors created by edits to small amounts of code. If most of the program is the same and a small change has caused a segmentation fault, it’s often easier to simply run GDB and find out where in the code to look by line number.

Valgrind was very useful as well. Using the full leak check, I was easily able to track down the source of memory leaks in my code and ensure all new allocations were eventually deleted. The use of this tool requires a bit more time, because using it to its full potential requires taking every possible path through the execution of the program.