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CS202

Program 1 GDB Writeup

In coding program 1, GDB proved indispensable for determining exactly which functions were being called and where segmentation faults were occurring. This was especially true given the hierarchy that was necessary in this program. Since by necessity I have a bunch of functions within classes that call similar functions in other classes (most commonly, display()), using the -tui option for GDB and stepping through function calls through their entire depth helped me to determine with the necessary precision exactly where the program was crashing. This allowed me to quickly fix my code and move on to the next problem.

Given the often-unhelpful nature of segmentation fault messages in the command line, the ability to set breakpoints and move through code starting somewhere specific was critically valuable. I was thereby able to save time and use it for more “front facing” features of my program. Luckily, I set out from the very beginning of this project with the intention of working in a very incremental manner. This meant that I ultimately spent less time debugging and more time implementing features. Therefore, I avoided using GDB for much more than locating segmentation faults, since I was sure to keep my changes between successful compiles at a minimum.