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CS202

Debugger Writeup

In completing Programming Assignment 3, the GDB debugger was mainly helpful in determining if my data structure was populating correctly. Using the -tui option, I was able to quickly and effectively see if my pointers were correct and the tree was populating as desired.

One challenge I ran into while using GDB in this configuration was that I did not at first know how to recall the previously executed command. Unlike the command line, the up arrow is not used for recall, but rather for scrolling in the active window (which happens to be the one with the program code in it). I learned the shortcut Ctrl-r, which populates the command line in GDB with the previously executed command. This allowed me to quickly string together function calls to determine the order of Apps in the tree, rather than go through my recursive calls to accomplish the same thing.

Valgrind helped me to find out if I had any memory leaks. I was able to quickly locate and eliminate leaks once I ran the tool using the –leak-check=full option. I was ultimately successful in eliminating all memory leaks by searching for and freeing all allocations.