Kyle Zalewski

CS202

Programming Assignment 5 Efficiency

Once I began working on the second data structure and some truly object-oriented methods for building that and the tree structure (to improve on the assignment 4 section), the amount of work positively exploded. It would likely have been easier had I read in restaurant and dish data from a file instead of creating everything manually, but I unfortunately ran out of time and needed to focus my attention to more crucial parts of the program’s performance.

Once again, the IDE proved to be an extremely quick assistant for troubleshooting. Not only do methods with future compilation errors get underlined before I even hit build, but in function calls, each passed in variable is labelled right there in line, making it very easy to tell if my functions are being called correctly. It’s not even fair to the linux coding environment to compare it to the IDE. With the right plugins, I’m sure you can get the linux environment close to the same level of user-friendliness, but particularly with IdeaVim, it’s simply not even a contest. Trying to dig deeply into nested data structures in GDB is a drawn out and confusing process, which usually requires multiple attempts to reach the proper lines of code, especially in recursive-function-laden programs.

I still have not found a way to avoid setters and getters in certain classes given the size and scope of this assignment. I limit their use to classes that define and manage a data structure, so I don’t think that using them prevents my program from being object-oriented. The operation of the code from both the client side and the backend is still very focused on function calls using objects. I believe in this way I’ve succeeded in keeping the program by and large object-oriented.

I think that there are some aspects of coding in this environment that encourage object-oriented programming and some that do not. For instance, the function call assistance that I previously mentioned is so smooth and visual that it encourages the programmer to design classes to utilize that functionality as much as possible. On the other hand, I still haven’t figured out why the IDE will allow me to access the protected data fields of a completely separate class. This behavior is decidedly not object-oriented, so of course I avoided using it, though it still strikes me as odd that it exists in the first place.