

CSC-365 Lab 1 Write up:

Initial decisions: programming language, development environment

The programming language I decided to go with is Python. The reason why I decided to go with python is because it is the language I have the most experience with and am the most comfortable with. The development environment I used and plan on using for the rest of the quarter is VS code. The reason I like VS code is because it can support many different languages for larger projects and has nice extensions.

Notes on chosen internal architecture:

The most used data structure that I used is HashMaps, I used HashMpas to keep things organized and to have fast look ups. Each category has a HashMap with the respective data. The reason why I went with multiple HashMaps vs just one was because I was more focused on time complexity.

Task log:

After R3-R5 when I figured out, I wanted to parse the file and put everything in HashMaps, I realized that the other tasks had the same logic but slightly different approaches. Figuring out my foundation R3-R5 took around one hour, implementing the rest plus clean up took around 2-3 hours. Total time taking around 3-4 hours.

Final Notes:

I was considering memory and runtime when debating what to put to each respective HashMap key, and only put what was requested. However, thinking about it now if this were a project I probably should have put every detail about the student since users would/should be able to request more information based off what they input. Since I was focused on run time and I was looking for “cheap” ways to save a little space I only put what was requested by each command, however in the future I might reconsider this.