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Software Development

### Experience

We chose Python 3 as our language for these exploratory assignments. Our first exploratory assignment was using the language to handle command line input. We found the task relatively easy to complete, however, we lost most of our points due to not pushing an executable main file. From this experience we learned that we could push files as executables if we did it from a Unix machine. For the next assignment we created a program that processed multiple JSONs and could output two new JSONs with the count and a reordering of the JSONs. We learned how to handle and process JSONs with the help of the json library through this assignment. We also got to try out using makefiles to make our code executable. We had a lot of trouble interpreting the projects requirements at the beginning of the assignment, especially concerning the format of our test files. In the next project we had to figure out how to use a GUI library. This was difficult for us as the school's Linux servers did not come equipped with any GUI libraries for our language, and we did not have access to most methods for installing them. We got around this issue by making virtual environments, which allowed us to install certain libraries. We how to make much better use of the make file with this assignment, and it became essential for creating the virtual environments for us. In the final exploratory assignment, we reimplemented the code for the json project, but enabled it to take input over a TCP connection. This assignment went much more smoothly than the previous assignments since we knew how to use virtual environments and makefiles to simplify the development process. We re-used most of our code from our previous assignment, so we could focus on creating the TCP connections and passing the data.