

For this part of the project, we had to finalize the UI of the processor that we had worked on for program 2. Since I had put all my methods into one .cpp file, my first task was to attempt to clean up the methods and put them into a different class. I had realized that earlier compilation errors were likely due to the way my header files and implementation files were set up, so I sought to fix those first. I removed any #include methods that mentioned .cpp files, and ensured that only header files were being included. Then, I had to modify the tasks.json file of the program to read multiple .cpp files, as it would only usually take one .cpp file. I had also realized that the inheritance that I had set up did not actually work and was another source of my compilation errors. I opted to then only have one header and implementation file, named "Part". With this, I was able to compile everything correctly and run my main .cpp file, prog3-ui.cpp.

Next came making the UI and terminal interface more interactable for users inside the main .cpp file. Instead of only comparing the user's input to a specified string like I had done previously, I decided to use regex so that the program would be able to detect common variations in how a user may input certain words while still getting their desired output. I created a regex for each part, items I had available for each part, as well as a few miscellaneous user inputs, such as them greeting the program. I also created a defaultMessage() method if the user had inputted anything that the program was not able to handle. While I still used a do-while loop, I made regexes for the quit commands too, and added any variations of goodbye as well to function the same way in exiting the loop. This helped to condense the code a little bit while also helping make it more flexible to user input. However, there are still a lot of if statements that I would like to minimize if possible. Possibly putting them into a method and calling that method instead would have made the main() less cluttered.

Overall, while most of the methods had already been done in the second project assignment, there was still a decent amount of work I had to do here to ensure that my code was sufficient with the requirements.