

CS 161 Assignment 3 - Reflection

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To start, I have to say that I learned a lot with this particular group of projects - not only in the coding aspect but also the preliminary concept stage. Up until this point, I have always been familiar with creating a rough outline of what I intended to code. However, I rarely did this because I felt as though it was a waste of time. Now, I don't feel like I will hesitate to at least draft out outlines of how something should run, and what the expected result is before getting into the code itself. It helped immensely with this project.

When I got down to creating the test plan, I actually ended up messing up the design and test case for [3b] because I had a brain fart and misinterpreted the directions. I didn't realize I needed to take the sum of the values and output it to a text file. As a result my test case and design map for that part was relatively barebones. So, I went in and made sure to alter the test plan as to ensure that it accounted for situations where the user input an incorrect / nonexistent file name, and also made it so that the final product included an output file.

For the other parts, there were some minor alterations. For example, in part [3a] I had to alter the initial values for min and max because my testing ended up revealing a bug. When the user only inputted negative integers, because the min and max values were set to 0, it would only ever assign a min value. The max value was set to 0 and because the if/else statement was checking against the max value (0), it wasn't updating the max value. I fixed this by making sure min and max were initialized in the beginning, and a value was assigned to them as the loop ran. So, each time the loop ran it checked the min and max against the values that it had held in context (rather than 0).

For part [3c] I ended up with a peculiar situation where I found that the while loop was not appropriate for this specific situation. I ended up opting for a do-while loop which was a lot easier to control, and was a lot more clear as to what was going on in the program. Part [3c] ended up being the one program that didn't stray too far from the initial test/design phase.

For the most part, I was able to use my book to problem solve a lot of the issues I had. I also used resources like cplusplus.com which had a lot of samples that I could look at and learn from. However, the book was the most useful resource I had.

Going forward into future projects, I believe that I will focus on creating relatively straight-forward test cases, and robust pseudo-code design mock ups in order to help establish what the program should look like on paper. The benefit of this is that it's cross-language, i.e. I can apply my design to languages other than C++ because of how unspecific the design is.