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CS 2060-002

10/21/2021

Iteration 01 Reflection

I had quite a bit of fun with this assignment. It was enjoyable to look at the problems and figure out ways to abstract them so I could accomplish multiple tasks with a single function. I figured out how to select a shirt’s size and color with one function as well as set the price and donation percentage with a single function. There were some troubles there and some of my solutions could probably be better, mainly with using strings so that I could display an appropriate message to the user. The solutions I implemented to these problems did work, however I think I could find a better way in a newer implementation to keep that generalized spirit alive. I used my design as a starting point to understand what functions I needed, as well as the general logic I was aiming for. I followed my design faithfully, except for some areas where I devised a better solution, such as how I ended up generalizing a function to be able to do both setting the price and donation percentage.

I did several things that would constitute quality code. I wrote my functions in a way that they could be used for a variety of problems. I kept repetition to a minimum, no two functions were doing the same thing. I used similar methods to solving problems in some functions, but they were different enough that they warranted different function definitions. The project itself is maintainable. I used constants for many key attributes, and for arrays I kept size definition abstract (except for characters where the column row would only need to be 1). I kept size definition for arrays abstract by using the sizeof() method as well as constants that could be changed in one place with ease. I wrote this project with security in mind, as can be seen with how I used the scanf and printf functions. I always filled both parameter areas and kept it in a way that it would be more secure. I checked all user inputs to ensure that they were valid and within the range of values that each function was willing to accept.

There are a few things I would do differently in future iterations to this project. I would search for even more ways to generalize the problem and make greater use of pointers. I did not store the values for the shirts, and in the future would like to add structs so that I can keep creating “objects” that store the value for each shirt. I think this would make the project that much more useful for users in the future.