Khoa Phan
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CS 161 – Assignment 3

Assignment 3 Reflections;

Understanding:

Going into the program I had an understanding of many of the chapter 4 and 5 items. If/else statements, logical operators, do-while loops, for loops, etc. is not new information to me. However, I did not know how to fully utilize them until after I completed the assignments. A big reason why I had a better understanding was the way the assignments were structured. They were done in a way that allowed me to use the concepts one at a time with a clear direction. Being able to see what needs to be done at the end of the program allowed me to really go through a trial and error, and at the same time, allowed me to learn as I went. Assignment 3a had me thinking of how an if-else statement can be implemented.

Testing Plan:

The testing plan was a great way to use the program without actually having to write it or knowing all the coding needed to achieve it in the end. I initially had a hard time trying to figure out why an equation would not work because I missed an important step. For example, I had forgotten to set the min and max for the first input in my code. This did not allow the inputs after to have anything to compare it to, so my code failed.

Design:

For my first design, I did not really understand the order in which I needed to set the min and max value. It was difficult for me to see where I needed to implement a buffer where the number was to be decided which category it would be in or if it should go into any category at all. The next was how I ended the program with issues from my min and max values, which was solved after implementation.

Implementation:

While writing the code, I compiled it in my IDE and kept receiving infinite loops where my loop was created. I initially used a while loop, which initialized the first input, then kept asking the question for the next input infinitely. After looking at the book and doing a quick review on for-loops, I decided to go with that instead. The next issue I had was setting the number of inputs the user wanted to have within the for-loop. I had tried to use the number as a base for the for loop but realized I made an error by using the wrong variable. I realized I needed to implement the new variable for the loop so that it can run correctly. Once this was done, the program worked as I had planned.

Improvement:

The best way to solve my problems moving forward is to design the flowcharts in a way that can implement code concept ideas as well. I did not use pseudocode for this assignment, but I think by doing both flowcharts along with pseudocode, I will be able to avoid a few areas in which took me more time to develop. Also, I realized I must not try and think I can write the line of code that works and not review it. I am better off writing the code in blocks of ideas THEN work from there to use the correct code.