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Intro to internet Computing (COP3813)

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Project 3

General Experience

Once again, I found this project annoying to start. Initially, my understanding of Javascript was poor. The arithmetic, error checking, & even computing with more than 3 numbers sounds simple to me. But figuring out how to gather user input & display my computations was mind-itching.

As soon as I figured out how to take user input, the rest of the project was fun. I gathered user input into an array, did the computations, & displayed them. I took the freedom of error checking as well, which took slightly longer than expected. What I thought would be simple kept becoming a more complicated problem, but it wasn’t a headache.

Editor

The editor I used was Visual Studio Code (VSC). I’m not switching the editor. I’m used to this software & enjoy it’s tools. Something I learned during this project was that I did not have to keep dragging the HTML to Chrome to see my changes; I only had to refresh the page. Also, I learned how to use the Chrome console.

Mistakes & Time Consumes

The most painful part, as previously mentioned, was gathering user input. Once I got user input, I simply used the parse function that was taught in zybooks.

Validation

I first tested with Chrome. I continuously checked after every significant update, as any coder would. I tested for every possible numerical error I could think of. I used negatives, large numbers, scientific notation, smaller scientific notation numbers, decimals. I did not account for fractions as that is merely division to me. I’ve tested on Chrome, Firefox, & Edge, per usual; but of course, it looks wrong on the phone again. That will be fixed shortly.

Possible Improvements

* A better looking bootstrap?

I suppose I could have used a more pleasant bootstrap, but I don’t feel bootstrap adds anything of value to this project. If I had more features, I’d use a template with more elegance.

* More statistics?

Variance & standard deviation would be fun but honestly, those are extremely simple formulas. Mode it was I’m interested in. If someone entered 500 numbers, wouldn’t I need many variables to count the many different numbers? For example, a variable to count the 71’s, a variable to count the number of 36’s, ect. Calculating mode for an array of 3 is practical, but I’m not too sure how to calculate mode for 100 different numbers because that requires many different counter variables.

* More variables?

I would not mind writing code that accounts for more than 3 numbers. Part of my code does that actually. However, I am short on time as of this moment & would like to keep the project simple for future reference, as it was already a pain with the Javascript.

That being said, if I were to implement a single textbox field to for someone use any amount of numbers, I would do it like this:

1. I would record the string from the textbox field the same way I did in the project
2. I’d use a for loop to add each individual character to a variable named sample
3. Then, for every ‘,’ character, I’d add push sample onto an array, then empty the string so it can record the next number.
4. Once loop counter reaches last character in textbox, it will add sample to the array, because nobody is going to end the textbox with a ‘,’.
5. After all strings are recorded into the array, I would have another for-loop to check if each element is a number using my “isNum” function.
6. If the array is full of numbers, then I will sort it the same way I did in the project.
7. From there, my calculations will compute, as I have already accounted for more than 3 numbers in my code.
8. After all that, I would still have to edit my code for the errors & delete the textboxes.

I would like to do this right now but unfortunately, I’m short on time & prefer to keep the project focused around Javascript input & output rather than arithmetic / logic.

Conclusion

I’m sure I’ll use this project again, as it provides a nice foundation for when I forget how to write Javascript. I believe I might even enhance the calculator using my “pseudo-code” above, to accommodate for future projects. This was an interesting project.