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Project 3 Report

I found this project to be significantly harder than the previous ones. I was able to get a handle on the HTML and CSS fairly easily with the help of the Zybooks exercises, but it was not quite as intuitive for me learning Javascript. The most challenging part I think is getting the javascript linked to the html file. In Zybooks, you don't have to worry about that as they do it for you, but when you are using your own system, you need a way to ensure that the files can communicate properly. Another thing I noticed is just how particular the grammar of Javascript is. It would bring up errors related to the amount of spaces in a statement, or a combination of tabs and spaces. I had never had a language so specific about what it required to run.

Another unfortunate discovery was that I couldn't seem to find a way to check the Javascript for errors except to run the html file. It took quite a while to go down the list of errors and warnings to arrange the code in exactly the way that the language wanted. At a certain point, I stopped testing the interaction in the browser because I found that it wasn't responding as I expected it to based on the code. I'm not sure if the abundance of errors actually affected the interaction in the browser, but I figured it could be a possibility. The buttons would produce alerts with text that didn't match the current version of the file.

The most prominent but hardest to solve problems were the errors related to the absence of a defined "document". I would attempt to use `getElementById()` to receive the value placed in the input box, but it would consistently return an error. I suppose this has to do with the absence of a stated document within the Javascript file. It seems to work fine within the browser itself. I don't know if this would be an issue. I saw in the other project that I did, the javascript file provided within the template also returned a lot of errors, but it worked as it was supposed to within the browser. Obviously I don't have the experience to know whether this is normal, so the best I can think to do is get the website itself working and possibly come back later to troubleshoot any errors within the javascript file.

There are many things that could make this project more streamlined and versatile. For one, it would be useful to have a way to enter more than just three numbers. This could be achieved by either providing a text box and splicing the text input into an array of integers, or possibly by creating a button that would add additional input boxes when clicked by the user. To do either of these, you would need to format the functions to be able to take an arbitrary number of arguments in order to find the max, min, average, median, and range.

Another improvement could be compressing all the functionality into one button. This button could either do the same alert display, or, with an additional change, create new html elements in which to display the results. This would be a step up from simply creating the elements already within the html code and then depositing the results of the function calls into

those elements. I'm not entirely sure if it is acceptable to store function calls within text elements in html, but it is worth looking into for the future.

I think the most important factor in any of the future development of this project should definitely include failsafes in the case of a wrong input. The code as of this moment doesn't test to make sure that the input is an integer as we would expect. I'm not entirely sure if it accounts for the entered numbers being floats, but that could also be an issue to look more into. It could also be worthwhile to see if there could be a larger function which could aggregate all the inputs once and then call each other function as necessary, since I am searching for each input value within all the function methods currently.

I opened the website on Firefox desktop and mobile. The footer is excessively large in both mediums, but thankfully the text and input boxes are more of a reasonable size in the mobile version. You can make the desktop version more visually appealing by shrinking the browser, but I haven't been able to make it so that it appears nice through both mediums.

Unfortunately I have not managed to complete the functionality of this project. I am not entirely happy with the theme (mostly because I haven't managed to get bootstrap cdn to work with a template I find off the internet). I also cannot figure out what is going wrong with my Average and Median functions. They both are not responding to any changes I make to the functions themselves. At this point, I don't know what else I could do to remedy the issue and I've already missed the deadline, so the project will go unfinished.