Reflection

Part 1: Bugs encountered

Overall, the addition of JavaScript was relatively straightforward. Despite that, I did still encounter a few bugs with my code that took a bit of problem-solving to debug. The first was primarily involving modifying the DOM of the webpage. Specifically, the way I wanted to set up my options were that the user had to select both a color and a size for the product before being allowed to add the item to their cart. The way I signified that was until that happened, the "add to cart" button had an appended "disabled" class, that would prevent the user from using that button. However, when I implemented that change, it wouldn't remove the class from the HTML button. I solved this by Googling the methods to modify the DOM, and realized that I can append classes with a specific command, but the better method for removing classes would to be to rename the class overall. After doing so, the feature worked. To mitigate this in the future, I will research the appropriate Javascript functions to know that I am doing the correct operation I intended to do.

Another bug was that I wasn't able to realize why some of my changes weren't working.

After extensive Googling, and combing through my code, I found that it wasn't a typo, or a mistake in the programming, what I had done was confused two similarly named variables and was operating on the wrong one. To mitigate this in the future, I made my variable names more distinct and representative of the value they represented.

Part 2: JavaScript concepts

- Changing the DOM- I did this in several instances. One was when I added the item(s) to
 the cart, the cart icon updated to show the amount of items in the cart. This was done
 by creating a Javascript variable, and using the .innerHTML function to update the HTML
 information.
- 2. **Local Storage** I did this to be able to store what the user added to their cart even if they navigated away from the specific tab, or even reloaded their screen. It would store each item in a dictionary, with the key being the quality (size, color, etc) and the respective value being the trait (tiny, green, etc).
- 3. **Flag variable** I used this to indicate when the user is allowed to add their desired item to their cart. There were two: one for when the user selected size, and another for when they selected color. They started as "false" and turned to "true" when the user selected that option. Only when they were both "true" did the "add to cart" button become active.
- 4. **For loop-** I used this for selecting colors. When a user selects a color, the color button acquires a border, and if there was a previously selected color, that previous selection returns to normal. I used a for loop to loop through the buttons to find the previous selection to revert.
- 5. **Global variable** I used a global variable to initialize the empty dictionary that would store the cart item values. It initiated as var itemAdded = {}, as a one time occurrence.