Assignment 6 Reflection

Brady Baldwin – PUI Fall 2020

Link to Repository: https://github.com/Bradybaldwin/PUI-2020/tree/main/homework_6

Link to Live Site: https://bradybaldwin.github.io/PUI-2020/homework_6/

1. **Bugs Encountered**
    a. Throughout this assignment (both 6a and 6b) I certainly encountered my fair share of bugs. Many that I initially had to deal with concerned the temporal issue of variables in my JS file being declared before the HTML page loaded. For instance, if I wanted to declare a variable that would reference an innerHTML of an element, it would register an error because the page hadn't loaded yet! I solved most of these issues by assigning onload properties to page elements and linking them to the functions I needed to run once the page loaded.
    b. The one big bug I had that I could not figure how how to fix was the fact that my local storage cache would be re-formatted every time I refreshed the product detail page. I set it up this way so that the local storage was updated on page unload, making it possible to add multiple items to the cart and have the local storage ingest every item you added to the cart once the page unloads. The only issue is that if you navigate from the cart page back to the product detail page and then unload the product detail page (with a refresh or by navigating back to the cart) the local storage function will run and push a new array to local storage that is empty (or contains whatever the user submitted when they went back to the product detail page). To fix this I would need to find a way to *Append* the array of items added to the cart to local storage, rather than overwrite the local storage array, but I couldn't figure out this process and for my purposes it was a minor enough bug that I left it for this iteration.

2. **Programming Concepts Learned**
    a. The first and foremost concept I learned was how to push items to and retrieve them from local storage. Having to .stringify the array I sent to local storage and then parse it upon retrieval using JSON was confusing at first but eventually made sense and enabled me to carry arrays from one page to the other with ease.
    b. I learned a lot about using functions to create HTML elements and have them dynamically populate a page. When my cart page loads, it can parse the array from local storage and for each object in the array it creates a div with nested divs that I assign classes to via a function which are then styled by my CSS page.

c. Probably the most difficult coding challenge for me was figuring out how to implement the remove cart item feature. Because I was generating divs on the cart page in JavaScript, I had to include all of the code for removing a cart item in an onclick function that I added to the div within the function that creates the div in the first place (a hard concept to wrap my brain around at first). I don't know if this was the best way of accomplishing the goal, and the function for removing the cart item splices the removed object from local storage and reloads the page to update the cart, which may or may not be the most efficient way of doing it, but it worked for me!
d. Figuring out how to change the item image and the color square next to the dropdown menu based on what color the user selected for the product was a challenge for me at first. Eventually I was able to create a few if statements which determine the value of the dropdown selection and alter the styling of the color square and the source of the image.
e. Creating a class and generating objects from these classes using iteration was something I had done before but I felt that I improved on the skill quite a bit with this assignment. I was able to leverage the resulting array using iteration to build out my cart list (such as putting the objects in an array called cartItemArrLoaded and accessing the name of each object in the array with cartItemArrLoaded[i].name).