Darren Mok
April 9th, 2021
05-430 Assignment 6b
Reflection + Programming Concepts

Reflection:

There were definitely a few issues and bugs I encountered throughout the assignment that I struggled with. First and foremost, trying to understand how local storage worked with more complex objects as a little confusing at first - I had to experiment with `JSON.parse` so that I could best utilize the information that was being stored. For example, in my setItems function, it keeps track of all items that have been added to the cart as well as it's quantity. Something I had to consider was when it was necessary for me to stringify, when I had to parse, as well as considering the various use cases that would affect the overall product number and local storage variables.

I also struggled with utilizing the `innerHTML` function. While it was somewhat easy to understand its function and utility, using it in practice to manipulate pages using `localStorage` was definitely more complex than I had anticipated. In my `displayCart` function, if it were not for an YouTube tutorial explaining the += sign and how it can be used for `innerHTML`, I think I would have struggled to realize I needed to use a map function as well as as well as utilizing `${}`. Both of which were crucial in creating a shopping cart that reflects the items that you have "added to cart".

Finally, something I struggled with was creating working buttons in my cart. Supposedly the left and right arrows in the "quantity" section will update the number of items in the cart as well as the total & the trash button should remove an item from the cart - I didn't have enough time to figure out how to properly implement this. This was definitely something that was harder for me as I initially struggled with some of the `innerHTML` work previously that was required for me to have before I could start working on this next step.

Programming Concepts:

I feel that in my reflection I already covered several programming concepts I learned, but in this section I will more explicitly explain them.

1. `localStorage` - While I had a basic understanding of how to utilize localStorage from last week's assignment 6A, having to use it as a more complex object is a completely different story. It becomes so much more powerful and allows you to create more intricate web experiences, such as a shopping cart that can remember the products you have selected. It is used in the functions: `loadCartCount(), cartCount(product), setItems(product), totalCost(product), setDetail(product),`

`loadDetail()`, `displayCart()`. Basically, every function that is related to the shopping cart.

2. `innerHTML` - This function allows for you to change the HTML within other pages, which was super practical when it came up updating the product detail page and shopping cart page. Used in functions: `loadDetail()` and `displayCart()`, which are used to update the original product detail and cart page with information from localStorage

3. `document.querySelector('').textContent` - Similar to innerHTML, this allows for you to change the text inside of a specific section in another HTML page. Useful for when you have to make simple and minor updates. I used it once again in my loadDetail() function.

4. `addEventListener` - A very commonly used function to detect if a trigger has been set off. In this case, I used it in two for loops that would populate localStorage variables with either the right product details or number whenever "Add to Cart" or an image from the product browsing page was clicked.

5. `if (true) {}` - This concept that was particularly helpful for me was first setting a variable to be a class that only exists in a specific HTML page, ie, `let productContainer = document.querySelector(".products");` Next, using an if statement to run the function only if that we are on that specific page, ie, `if (productContainer) { /* remainder of function */ }`. I utilized this in my `displayCart()` and `loadDetail()` functions such that the HTML code wouldn't raise an error whenever the user was on pages without those classes.