Emmet Mack
HW 6B Reflection
Due 03/25/2020

Reflection:

As expected, while working on HW6, I came across several issues/bugs. The first and main issue was that when I first started the cart, I had little to no understanding of localStorage or sessionStorage so I was confused about how to retain information about the cart across pages. Because this was before lab, I took to Google. My first searches were mainly about how to get information across website pages with just Javascript. I didn't have the information necessary for the implementation, so I used online resources to find it. After discovering this capability, I began to try and implement it. Then came my next hurdle: I wasn't able to store my Cart object in localStorage because localStorage only allowed for strings. As such, I was able to Google again to find more information about storing and accessing objects in localStorage. This pattern was quite effective for me throughout the homework. If there was anything that I didn't know or wanted to try and better understand, Google often had information or tutorials to clarify whatever question I had. Of course, sometimes the first link was enough, but other times I would have to do a little more digging. Overall, this strategy of Googling was quite effective for any error, syntax question, or even larger concepts such as effective ways for structuring my cart in JavaScript. In the future I don't know if there will be a way to mitigate the kind of issues I Googled. Rather, I think this homework revealed how effective it can be. It isn't the end all be all solution by any means, but when I am stuck or when I can't think of the syntax, I have an effective strategy to get answers.

Another issue that I often faced was that I had a difficult time keeping track of whether or not a number or value was a string or number or whether or not it was even defined. With values moving in and out of forms or localStorage they often would become strings or had yet to be defined and for my cart to properly function it was important that I knew if I had to use parseInt or set the value to zero and then add to it or for other reasons. As such, a way to overcome this problem was a lot of console.log () statements and using inspect on the page. This would let me see what value was stored in a variable and to better understand the flow of data throughout the site. This was one of the biggest skills I learned from this project because I have previously had little experience working with and programming pure JavaScript. Whenever I do web programming going forward, I know I will utilize this skill. Additionally, to mitigate this problem going forward, I can use typeof() log statements to definitively know what is going on and more. However, just like with what I learned above; these kinds of issues can't be completely mitigated. Thus, this assignment was great for teaching me the ways to overcome these issues rather than mitigating them completely.

Overall, I learned a ton about web programming and JavaScript with this assignment. I was able to successfully create a solid cart. It taught me a lot about important JavaScript and how to successfully debug it and maximize its potential. It taught me how to find the right help and sources online, as well as how to fully utilize the inspect tab to solve any issues I come across.

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Programming Concepts:

1. localStorage:

The first concept that I learned was localStorage. I used this JavaScript concept to store my Cart object as well as other information like the current price of all the items and the number of items in the cart. This allowed information to be passed from the product detail page to the cart page and allowed information about the cart size to be updated on every page of the site.

2. Objects:

The second concept that I learned and utilized were objects. Because my cart and items all had similar structures, I created a cart object and an item object. The cart object was an array of item objects. Item objects included information about the individual items price, quantity, name, and features that the user would select like color and size. These objects were very valuable because it helped reduce the amount of repeated code and provided a good structure to how I created and kept track of items. Whenever I wanted to add an item, I could create a new object and put into the Cart objects array.

3. for loops:

For loops were also very valuable. Once I added new items to my cart object, I had to display them on the actual website. To do so, I utilized a for loop to go through all the items in the cart array and create a new table row and table cell for the information to be entered. This allowed me to update the cart page with each new item after it was added. I had experience with for loops in other languages, but they were very useful and applicable in this case to the JavaScript I was writing.

4. JS functions:

JavaScript functions were another important concept that I learned. They helped me write code that was reusable and could be called in the HTML and in other functions. For example, I had a function that updated the navigation bar on each page to change the “Cart(0)” link to reflect the amount of items. I had other functions like addToCart() and displayCart(). By making functions it was easier to reuse code and to debug any errors that happened. Also, by having different functions I could call them in different places. For example, I could call one function at the end of another function or in a different event such as onclick or onload.

5. The DOM:

Finally, the DOM was very useful. In order to display cart items, I need to access the DOM to get the table on the page. Then I had to get the new information, create a button, and then append them to the DOM and update it. I needed to create new objects such as buttons and table cells and rows and then add them to the DOM. The DOM was the backbone and structure of the whole site and I learned how to better utilize it through this assignment.