Assignment 6 – Adding Functionality to a Website with Javascript

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Git repo: https://github.com/hongeunl/homework_6b.git

Link: https://hongeunl.github.io/homework_6b/

Reflection

One of the issues that I encountered during this assignment was getting the website to update the item list on the cart page after an item was removed. I assumed that removing the corresponding object in my array of "checkout" objects saved in the local storage would automatically remove and update the list. I found out after a few hours of searching that there was a location.reload() method that reloads the website. After removing an object in the array and updating the locally saved array, the method made the website reload to display the new array. Another bug that I encountered had to do with the scope of the variable for the array of "checkout" objects. In the beginning, I globally scoped the variable, placing it outside the function brackets in my javascript file. I kept getting errors saying that the array was null. I couldn't push any new object into the array. After hours of debugging, I realized that globally scoping the "checkout" objects array was not being updated properly. Instead of declaring the variable for the array outside the functions, I declared the variable individually within each function. This made it much easier to manage the scope of the variable and solved this issue.

Programming Concepts

1) Loop: I learned to use "for" loops in Javascript. I was familiar with "for" loops in Python, but it was my first time using them in Javascript. I had to learn specific ways in which "for" loops in Javascript had to be written. Instead of writing different conditions out across multiple lines, I had to write out three relevant conditions within a pair of parentheses. Ex) for (let i=0; i<savedCartArray.length; i++)
2) Local Storage: I learned to use local storage to store data in the user's computer. Before integrating this concept into my code, all the input data disappeared when I refreshed the page. However, with local storage, I was able to keep using the data across different pages within the website. I was able to save an array of "checkout" items in the local storage and have it accessible throughout the entire shopping session on my website. Ex) var savedCartArray = JSON.parse(localStorage.getItem("savedCartArray") || "[]");
3) If statement: I learned to use the if statement in Javascript. Similar to "for" loops, I knew how to write if statements in Python but was unfamiliar with writing them in Javascript. The format was slightly different in that I had to write the condition within the

parentheses and open and close the statement with brackets. Ex) if (numItemsCart > 0) { what is executed }

4) Javascript functions: Throughout the assignment, I had to write multiple functions, and I was able to learn how to write functions in Javascript. After writing the word “function,” I had to add in the name of the function with parentheses where the parameters could be placed. It also had to write the code to be executed within brackets. Ex) function updateCartItems(){}
5) document.getElementById & innerHTML: One of the concepts that I found very useful was the HTML DOM document. Particularly, document.getElementById and innerHTML were very helpful in finding and using the element and updating HTML elements without having to manually change them in the HTML file.

Bonus

I added a useful Javascript functionality, the “clear-all” button, on my cart page. By pressing the button, the user can clear all the items in the cart and start fresh.