Youie Cho
PUI Section D

Assignment 6 – Adding Functionality to a Website with JavaScript

Reflection

One of the challenges was correctly displaying the products added to the cart on the cart page. After some trial and error, I created a table within the for loop that updates the cart. I initially tried to style a grid made through html, but it did not work because each item and its information had to be entered through a for loop for every case. Within JavaScript, I could append the components to specific cells by accessing the correct rows and columns, then use left and right separation to enter the items into two columns across the page. The odd-number items show on the left side of the page, then the even-number ones show on the right.

I encountered many errors while getting the items to be removed correctly. There were many errors that I could check through Console and fix. Also, it often helped to separate out long commands into new functions so that they were more organized. It was also quite confusing to display all the functions in the correct order. In general, I also struggled with putting the functions in the correct order. For example, I initially had removing item functions towards the end of the code, but this did not work. I had trial and error to find out that I has to be called earlier, and I ended up making several functions with specific purposes to call them appropriately with more flexibility.

Programming Concepts

1. One concept that I learned is representing the cart as an array of objects. I declare newProducts = [];, and I push new information indices into this array – newProducts.push(products[i] and products = newProducts;. This was critical because I was conveniently storing various elements within this variable.

2. Perhaps the most important concept to apply for this assignment was local storage. I had to store the information about the products that I am adding to cart, and access them from the storage to update the display. I used localStorage.getItem and localStorage.setItem. This way, the cart items would stay saved even when the user goes to another page.

3. I utilized mathematical concepts. I use Math.floor and modulo to find out whether the length of new products is odd or even. I used +, -, *, and / for selecting the number of rolls on the detail page. Because I used – and + buttons instead of a dropdown to decrement or increment the roll number option, I needed to have some settings so that the numbers would only go through 1, 3, 6, and 12, within this given range.

4. I used appendChild, append, and innerHTML as methods to insert text or image to display. I use innerHTML to add number or text to the display, and I use append and appendChild to add components to the container, which is the bounding container for each cart item that is being added into the div in html. (new information gets put into it.

5. I used event listeners to control clicking inputs with JavaScript, instead of using onclick within html. For example, the Edit button on the cart page links the user back to the products detail page for them to reselect product options. I used document.location.href from this event listener. Then, I used another event listener for the Delete button, which calls the onDeleteItem. The onDeleteItem function deletes the cart items that are clicked.