

Assignment 6

Reflection

This was a rather difficult assignment for me. I have some experience working with JavaScript from the course I took over the summer, but I had no experience passing data between separate HTML pages. The concept of stringifying and then parsing values to different keys wasn't concrete until I was completing this assignment. However, having used these concepts, I think I have a better grasp on using local storage. I started running into bugs when adding different product objects into an array that was then added to local storage. The issue came from the fact that there were essentially 2 separate arrays that I was juggling at any given time: the array of products pulled from local storage and the array that I was building on the product details page. The bug occurred when I went to add the array to local storage. I was essentially writing over the previous value in local storage rather than adding to the data that was already present. I was able to overcome this by parsing and then adding the contents of local storage to a fresh array every time a page loaded, and then new products were added to that same array before being placed back into local storage. As you might be able to tell from the way I am writing about this concept, I am still struggling to understand exactly what is happening in the local storage process, but I believe that I have enough practical knowledge to use local storage as a tool in JS.

The second bug I struggled with was using local storage and innerHTML to create HTML elements on the cart page. I had to use w3schools to understand that I needed to loop through the cart items array in order to build multiple divs and their respective child elements. The other issue I had was that because I used IDs to style the cart items, I needed to use the loop to add differentiation (`id="cartItem" + i + ""`) that could be referenced later in the remove function.

Learned Programming Concepts

1. **Key/Value pairs** was a concept that this assignment made clear to me. Arrays made more sense to me at the beginning of this assignment, and I was struggling to see that value of unordered lists of information that were indexed using a string as a key. The best example in this assignment was the key/values in local storage, versus the array created to store the product objects. I see now that their purpose is different, one is to keep a relatively ordered list while the other is more of a storage and reference tool.
2. **Specificity hierarchy** is another concept that was solidified in this assignment. At first they seem like arbitrary differentiators for HTML objects, but having a working understanding around the need to change groups of items versus specific items made this concept crystallize for me. For example on the cart page, I used class selectors to

style all of the divs at once, I could use ID selectors to affect individual elements like when running `removeCartItem(i)`.

3. **Booleans** were another concept that I had to gain a better understanding of for this assignment. I had a simple understanding previously of boolean functions, but here I had to combine boolean values together. In my `fieldsCheck()` function I used the combination of multiple boolean values to ensure that all the required information was selected before allowing the user to add a product to the cart.
4. **Javascript objects and constructors** helped me complete this assignment. I used objects to build new products to add to the cart array. The constructor was called in the `addToCart()` function and was used to pass the subsequent information (name, size, color, price, quantity, image) into the array to be loaded into the cart page later.
5. **HTML DOM** was a concept learned in class that was made practical to me in this assignment. I think that this idea is also combined with the specificity hierarchy concept mentioned earlier. For example in the `strawberrySelect()`, `blackberrySelect()`, `crazyberrySelect()` and `fireOrangeSelect()` functions (which I think could have been one function) I used the DOM selector `getElementById()` to manipulate what image was being featured based on the selected color.