Homework 6 Reflection

Reflection:

I encountered several issues while finishing this assignment. The first was coming up with a unique identifier for each product variation. I didn't want the same product variant to appear twice in the cart, instead I just wanted the quantity to increase. To solve this, I made the key of the product object a SKU which took the following form: [ProductName]-[Color]-[Size]. This allowed me to check if the product was already in the cart and then add to its quantity, and if not, add the product to the cart.
The second issue was deciding on a data structure to store products in sessionStorage. I initially, added the products to sessionStorage by using the SKU as the key and the product object as the value, but this method became complicated when I wanted to display the cart items. On the cart page, I needed to loop through the sessionStorage to find products, but because I also stored "totalQty" and "totalPrice" in sessionStorage, I needed a way to verify that the key in the sessionStorage was actually a product. Instead, I created a "products" dictionary within the sessionStorage. This let me loop through the products dictionary and not have to worry about other things stored in sessionStorage.
The last issue was that I wanted to dynamically add a "line item" to the cart page based on the items in the cart. As a work around, I used raw html as a string and used string interpolation to add the line item to the page based on the cart contents and the specific item's details.

Programming Concepts:

1. Learned how to make a dictionary of dictionaries
    a. "products" variable stored "product" dictionaries that had SKU's as Keys
2. How to loop through a dictionary in JavaScript
    a. for([SKU, product] of Object.entries(products)) {}
3. How to delete from a dictionary in JS
    a. delete products[SKU];
4. Using JSON to store information in sessionStorage
5. How to create seemingly dynamic content on a static webpage using .innerHTML and JS