I really enjoyed the process of completing Assignment 6. I actually found Assignment 5 to be a bit more challenging, as it took me a while to get used to the syntax of HTML, CSS, etc. However, I was able to focus more on the logic side of programming to reason through how to make the interactive components of this assignment work, which was pretty cool.

I encountered several challenges while working through this assignment. One of the challenges I encountered was making the product detail page update with user selections. The specific issue with this was getting the right button to change color when the user clicked on it, while keeping the other buttons their default color. I solved this problem through the use of arrays. I made one array of each button's id and another corresponding array of each button's option (color, material, etc). I then used a "for loop" to check each button's id, and change the selection based on the elements of the corresponding array. Another challenge I encountered was storing the orders into local storage so that they would be available for the shopping cart page. After much trial and error, I successfully created a function that would create an object for the order when the user clicks the submit button, which would then be stored in local storage. The syntax was more my issue here- I kept running into bugs like previous orders being overwritten, not being stored at all, etc. The final challenge that I encountered was getting each item to be removed when the user clicks the remove button. It took me a bit to figure out how to get my script to figure out which order was being removed, and delete it from the array I created. I eventually made a function for this that assigned each order an index. Everytime the user clicked on the remove button of an item, the script would extract that index and remove the corresponding item from the array I created in local storage. These problems were actually fun for me to try to figure out how to implement.

One important programming concept I learned with this assignment was about local storage. By storing each item in local storage, I was able to store customer orders across pages and pull from local storage to update the shopping cart page. Another programming concept I learned about was objects. I stored each order as a separate object in local storage with product, color, material, and quantity properties. An additional programming concept I learned was about arrays. Arrays were very helpful throughout this process, as I used them to store things such as element ids, colors, materials, and links to the images I used. Another programming concept I learned more about was the DOM. I realized that if I wanted to dynamically update the shopping cart page, I would need to change the DOM using Javascript. I did this by creating new elements and appending children to existing elements as appropriate, to create new sections on my page for each order. The final programming concept I learned was about event handling in Javascript. I created onclick events in Javascript that would trigger functions for users to change, remove, and submit orders.

If I had some more time, I would have loved to add functionality that would allow the user to edit their selections directly on the shopping cart page itself. This is something I started to do, by creating drop down menus on the shopping cart page. However, I did not have enough time to figure out how to create events to update orders using this.