Assignment 6B

Reflection

This assignment is particularly challenging because of the involvement of local storage and managing arrays in JavaScript. With in lab examples, I was able to create new objects from product selection and add them to the cart array to keep track. However, a major challenge arose, where I have to use template in HTML to display and remove items in the cart page. This is a challenge because of the CSS grid system I'm using for my HTML pages, which requires grid elements to be direct children of the grid container. In this case, it's hard to create a new grid container for each new item in the cart and keep these containers distinct. I chose to use a single container for the items area in the cart, which resolved some basic styling issues. However, this makes removing items from the cart and the cart page more challenging, because there are no direct parent node containing just the content for a single item. I resolved this problem by using for-loops to remove a certain number of sibling nodes in HTML to completely remove each item. For future references, CSS grid should be used carefully when DOM is extensively used.

A minor challenge was to keep the cart count in my side navigation up to date with each add to cart or remove from cart action. To resolve this, I created a cartCount() function that's called on load of each page or following each cart editing action, and the locally stored cart would be called for count and update the displayed cart count in side navigation.

Programming concepts learned

HTML-DOM - to interactively update the HTML page, the HTML DOM structure is widely used in this assignment. For example, when removing items from cart, the item nodes and sibling nodes would need to be called to be manipulated

MVC - this concept is clearly demonstrated when making this assignment interactive. Specifically, a locally stored cart array is used as the Model to store cart content. The cart page is a main View of the Model (cart) content, and the remove buttons and add to cart buttons are used as Controller for users to manipulate the Model (cart), and those changes are reflected in the View (cart page)

Objects - to properly store cart items, each added item is represented as an object in this assignment (the Pillow(kind, color, fill, quant) function)

Arrays - cart is represented and stored as an array in this assignment, and this array is being updated when users add or remove items from cart (variable “cart” in the JavaScript file)

<template> tags - to display multiple items and allow interaction, items on the Cart page are coded under the <template> tag, and this tag is called to be updated and displayed for each item in the cart that needs to be shown

Bonus Points

I have created product pages for all my products. Each product can be configured and added to cart, and the cart can display different products as well.