

Reflection

The first problem I encountered was to use local storage properly. I started with the detail page and focused on how to update the number on the shopping cart icon. I had no idea how I should set the key and value to store the item the user selected. At first, I thought of using the product id to locate the choice of the user. However, one selection can have the same product id but different size and color. The two selections should be presented differently in the shopping cart. If I stored the key as their product id, then the new selection of the same product would replace the old one. I needed to think of another way of naming the key. Then I started thinking what were some factors that determine the difference between the same product? It's the product Id, color, and size. Product Id is used to differentiate the product from another product. Selected color and size are used to differentiate different composition of selections of the same type of product. After taking care of the name of the key, I assigned the quantity as its value to store in the local storage.

The second major problem I encountered was to make the webpages "talk" to each other. When I did HTML and CSS, it was easy to link between pages by using links. However, at this time, I needed to use local storage to make webpages to talk each other. I have already set up the local storage in detailed product page, and all I needed to do was to figure out a way to get items from that storage and use it on the shopping cart page. The logic was to get the item key when the user selected an item and then updated the information on the shopping cart. The logic in general was on the right track, however, how to update information on the cart became a problem. The items I had in my cart was generated by HTML code, but the item card should be added if the user chose to add something in the cart. There should be nothing if the cart was empty, and a new item card should be generated if the user added something into the cart. We have not learnt how to do this in class, and I was stuck. With the minimal knowledge on JavaScript, I was not aware of the available tools I could use, so I asked help from my friend (I could not even find the proper language to search help on Google). My friend then helped me search on Google how to generate a new HTML element by using JavaScript. By following the steps on Stackoverflow, I managed to accomplish the goal of generating new item cards in the shopping cart. The rest of the function such as deleting an item, changing quantity all shared similar logic but with other nitty gritty details to make them work.

Those were two of the major difficulties I have encountered that prevented me from making process for a while. But I have so much more struggles with this assignment and they couldn't even fit in one-page reflection. There were many small issues along the way and I just lost count of them, such as split strings, getting items from an array, changing something in HTML by using JavaScript, and many more. I think at this stage, the most takeaway I had was to learn lots of basic functions in JavaScript and by repeatedly using them when writing functions, I understood the basic logic and language, so I had no problem finding solutions online. However, for more abstract and conceptual problems such as generating new HTML in the DOM was hard for me. I believe I would still stumble if I encounter similar abstract issues. Sometimes it is easy to think of logic flow, but it is more challenging to connect the logic nodes. I think it is always no shame to ask for help from others. The process of this assignment is very painful.

Programming Concepts

1. LocalStorage

This is the hardest concept but the core of this assignment. In order to update the number of items in shopping cart, the user's selections should be stored in local storage, so even when they refresh the page, the items won't disappear. I created an array first to include everything that needed to be recorded and updated later. Then I combined product id, selected color and selected size into one variable to be the key of the local storage, and the value is the quantity of the product. In the product Id, the name, price, photo is included. I also created a key named quantity to keep a track of the total number of products the user has selected, so that number can be updated on the shopping cart.

2. Functions

JavaScript is basically composed with functions. For example, I wrote a function for selecting the colors(detailedpage.js, buttonOnClick). I want one default color selected and when user selects one button the previously selected button pops up and the current selected button presses down.

3. Class

In this assignment, I only created one class to store the information of each individual products. The class name is Product. Base on that class, I have learned to create new incidences (individual product) of the class. I also learned to use class attributes to extract specific information. For example, I want to extract the current selected product's price for summary calculation, I would use product.price to get the price.

4. For loops

There are also lots of use of for loops. For example, I use for loops to check product id to see if the product has already existed in the local storage. If it exists, then a new card in the shopping cart should be created base on the information of that product. The loop wouldn't stop until it finds the matching product id.

5. If else

This is my favorite concept so far because, as for me, its logic is the closest to natural language. I usually use this to set conditions. For example, in my local storage, there are other system based local storage data and I don't need them when accessing the local storage. Thus, I created a variable named keys to store only user-selected data. The data got store only if the string begins with "cat". This is how I distinguish between user selected data versus system data.