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PUI Assignment 6b – Low Fidelity Prototype

Github Link: https://github.com/eycho97/pui-bunbun

Reflection

Most of my issues had to do with implementing the JavaScript portion, which was the cart and the carousel. For example, while adding the remove item functionality, I had trouble getting the specific index of the item I wanted to remove. Initially, the remove button would get rid of a random item in the cart. To solve this, I added an index attribute to the 'cartItem' class, so I could better keep track of the specific index of the item I wanted to remove.

Another problem I had was with creating the cart items html within JavaScript. It was hard to visualize and calculate in my head the hierarchy of classes in the cart and where exactly smaller elements would appear. I decided to hold off on the JavaScript, and made a template in the html page for how the cart items should look like. Once I made that template, it was easier to create the html elements in my updateCart() function.

For other small bugs, I made profuse use of the console to print out what certain variables contained and test why something might be null.

Programming Concepts

1. addEventListener – Observer Pattern

For many buttons (Add to Cart, remove, etc.) I had to use the addEventListener method, mostly for when users clicked on the button. I had learned about the observer design pattern before, so it was cool to see the pattern being used in this context.

2. JSON.parse/stringify

I was initially scratching my head on how exactly to store the cart information into localStorage, so these JSON methods came in handy. Once I learned to use this, storing and retrieving cart

information was very simple, and I developed an appreciation for how much these methods must do behind the scenes.

3. InnerHTML

InnherHTML was a very powerful tool I learned, especially in implementing the cart page. I could easily reset the contents of entire div tags and create completely new elements that weren't present in the original html file. This was crucial for showing different pages on the cart page when the user had items in the cart vs. when the cart was empty.

4. Arrays and for loops

Although I had a good grasp on these concepts, the rules differ for different languages, so it was a good opportunity to learn how they work in JavaScript specifically. I used arrays to store the cart items as a 2d array. I appreciate how flexible arrays are in JavaScript, without the type checking that Java has.

5. Debugging

Debugging is another general concept that has different applications for different languages, and I think the browser console is a beautiful way to debug, since it shows you how the html, CSS, and JavaScript are working. Debuggers like GDB might be more powerful in reading the code line by line or setting breakpoints on functions or specific addresses. However, the console is very elegant and visually shows the user how the changes you make affect the website immediately.