

## Reflection

### Challenges

I encountered many issues with storing the item data properly across my different functions in Javascript. I faced a lot of issues with invalid product when accessing from my object, but I used console.log statements as well as the debugger in the developer tool in Chrome to locate this bug and write a condition to address it. I realized that the invalid variable only occurred on the initial load, so I wrote an if statement to account for that before products are added.

In addition, I faced issues with formatting with css because for the shopping cart I didn't use a table. I ended up accounting for this by tinkering with the various margin pixel sizes as well as alignment and float to ensure that the values were lined up to the heading titles.

Lastly, I had a lot of issues with manipulating the stored data of products and using that to delete and edit the shopping cart. I ended up just instead having the option to clear the entire shopping cart by pressing on the 'x' and reloading the page to update the new shopping cart.

### Programming concepts

1. Using onhover() and onclick() and connecting Javascript functions to html and adding functionality → I used onclick() to add the ability to click on items to view more details and onhover() to change the color of the collar or harness on the pet
2. Using localStorage → I used this to store information on items in the cart as well as the number of each item in order to display this on different pages and allow the user to return to their cart to continue where they left off even after closing their tab
3. Updating HTML with javascript → I used innerHTML in order to locate different areas of HTML that could be updated, including the number for the shopping cart that increases as well as the information to be displayed on the popup for item description
4. Editing SVGs in order to add customization → I learned how to locate hex values and manipulate SVG colors so that we could add the different collar or harness colors on hover
5. Storing and using attributes for item details → I learned how to manipulate object attributes in order to store information about items as well as use these stored values to calculate total costs from quantities in the shopping cart