

Assignment 6B: Javascript

Challenges

Since I have no programming background, this assignment was very challenging given the requirement of using much more JavaScript than previous assignments. In particular, it took me a long time to fully understand local storage and how to utilize that to build out a functional shopping cart. I initially was not able to figure this out because the process seemed very complex. However, after reviewing material from PUI labs, I learned the high-level concept of creating an array/objects, adding the product specifications to this for each product, sending this array to the local storage, and then pulling the array for the shopping cart. This started to make more sense to me, and helped me break down the coding issue into actionable steps.

I also had difficulty figuring out how to get the cart totals to properly showcase how much the items added up to. I solved this by using pseudocode to create a simple framework of what I needed to do--create a variable that is the price multiplied by the quantity for each item, and then to create a total variable that is equal to adding up all the items' costs in the array. Lastly, I also struggled to get the cart to remove items. I spent a long time trying to understand how to indicate through JavaScript which specific item should be deleted in the array, which I eventually solved by creating a "remove" div for each item, which when clicked would use it's index in the array to remove that item. Overall these challenges were difficult, but I truly did enjoy the process of learning to overcome them and making my code actually work.

Programming Concepts

1. Local Storage: Prior to this assignment, I was not aware of localStorage and how to store variables across websites without using cookies. For this assignment, I used localStorage as a method of creating a shopping cart that worked across pages and I was able to add or remove items and have it stay consistent. I enjoyed learning this concept because it made my website feel more functional like a real website.
2. Nested JavaScript functions: Another concept that I learned was how to use nested JavaScript functions for more advanced functionality. I used this concept for functions like creating the shopping cart where I created additional functions nested within this function, such as removing items, since I was able to use variables specific to the nested function as well as the parent function. This concept was incredibly helpful to implement multiple functionalities within one function.
3. addEventListener: I learned how to use this concept to create functions that worked after an HTML element was clicked. This was useful for removing items from the cart, where I created an event listener that attached clicking the "remove" text with the function of finding the index and splicing it from the array. This was useful because it allowed me to tie HTML elements to JavaScript functions.

4. Adding HTML through JavaScript: I learned that using JavaScript, I can add HTML elements like divs to create various elements within the HTML. This was extremely helpful for the creation of the cart, where I used this concept to create divs for the various blocks of the cart, and used `.appendChild` to nest divs within parent divs. This was useful because it allowed me to create dynamic HTML content.
5. Template in HTML: I learned how to use `<template>` in HTML to create divs that are in the HTML but not shown on the website. Initially, I was struggling with how to create a cart and style it with CSS but this concept was very helpful in creating the structure of the cart, since I was able to add divs and use `<template>` to create the structure in the HTML but have it not show on the website. This was useful because it allowed me to create a structure for the cart before using JavaScript to add HTML elements that were already styled using the div structure created with `<template>`.

Bonus

1. I created a product carousel that rotates through different images of featured products on the products page. When clicked, the user is taken to the product page of that specific item.
2. I created product pages for each of the products offered by Muddy Paws. Each of the products can be clicked on in the products page which will take the user to the specific page for that item.

Sources

1. Code pen for Cart: <https://codepen.io/arkanecow/pen/mdMpJxr>
2. Unsplash for images (also credited in code)
3. Owl Carousel Library for bonus:
<https://owlcarousel2.github.io/OwlCarousel2/demos/demos.html>