External Sources: Images were taken from https://unsplash.com/

Issues/Bugs

The first problem that I had with my code was that even though I had created an external javascript file and linked it to my html pages, none of the functions in my file worked. After research I found that this was because I had added my <script> tag in the header which meant that the javascript file was running before any of the html elements were loaded since html loads from top to bottom. To fix this issue, I moved my <script> tag to the bottom of the html page. This change made everything work properly.

Another issue that I encountered a lot was that my variables were not being recognized in some of my functions. This would throw a lot of errors. W3schools helped me understand that javascript variables have 3 different types of scopes: function, global and block. I realized that if I declared a variable through the “let” or “const” keyword within a block, it would not be recognized outside of that block. To solve this problem, I simply declared my variables outside of blocks to give them global scope and have them be accessible to all functions.

Finally, I had a hard time accurately displaying the product listing on my cart page. I was able to capture the correct product selections (glaze and quantity) but it was challenging to make the product listing look exactly how I had designed it in figma. In this case, pseudo code helped me clearly list out all the elements that I needed to create, the values that I needed to assign to them as well as the class or id names that they needed to have in order for my css to work properly. Pseudo code also helped me think through the order in which I needed to append everything in order to set up the proper hierarchy of all the elements. This process worked well, but I also recognize that my code is very long and wordy. For future work, I want to learn how to make this creation of the product listing more succinct.

Programming Concepts

1. **Local Storage:** I learned how to add my radio button selections to local storage (through setItem()) and also how to retrieve items (through getItem()). My major learning point for this concept was the use of JSON.stringify() when adding items to localstorage. Through research I found that local storage can only store strings so in order to store objects, I needed to convert them to strings first and then parse them later on to get back the objects.
2. **Switch Statements:** Another valuable concept I learned through this assignment was the use of switch statements. Through switch statements, I was able to carry out different actions based on which case was true. This was particularly helpful when I wanted to change my images in the product listing on the cart page based on the product selections. Based on which glaze type was selected, I could define a different image source for the product.
3. **Event Listeners:** Event listeners were very helpful in capturing click events on my pages. This was useful for my "add to cart" button. With a click event listener added to the button, my program was able to detect when the button was clicked and accordingly add all the product selections to local storage.
4. **QuerySelectorAll:** For my radio buttons on the flavor detail page, I needed a way to iterate through all the options and check which one was selected to add to local storage. I found that getElementsByClassName would not work since it does not return an element but instead returns a group of elements. To avoid this issue, I found querySelectorAll()

would work since it returns a single element each time. Using this, I was able to execute a for loop that would iterate over each element and check for which one was selected.

5. **Form Inputs:** This project really helped me understand the many different features of form inputs. According to my design, I used radio buttons for my product detail page options. Through W3schools, I found that I could use ".checked" to check for whether or not a specific radio button was selected. I also learned that I could directly use ".value" to access the value of a specific button. Previously I used to hand-code different input types which was a very tedious process. Looking through which tags are already available in html and learning how to access different values from them made my workflow much faster than before.