

**Website:** <https://janiexue.github.io/pui/hw6b>

**Repo:** <https://github.com/janiexue/pui>

## Reflection

The most challenging part of this assignment was figuring out how to represent and store cart items. To properly display and remove items from the cart, I needed to store each item's chosen bun type, quantity, and glaze. I wanted the items to display in the correct order in the cart as well. After browsing through online solutions, I found the Javascript Map object to have the features I desired. I chose to use a Map object to hold all cart items because of its ability to hold key-value pairs while iterating in the order of insertion. This allowed me to remove items from cart via keys within the map while rendering the cart items in the temporal order. I then used custom objects to store individual items into the map with the appropriate type, quantity, and glaze selections.

Due to my unfamiliarity with Javascript, I also had to spend some time understanding how to render the cart successfully. In particular, I was confused about dynamically adding and removing HTML for each cart item. I found a solution that involved looping through the cart map and adding HTML for each object within the map. Prior to this assignment, I did not realize that direct HTML code could be added in combination with object properties (ex. `<div class="inCart" id="${item.id}">`). I find that this method is an easy way to edit a large amount of HTML directly in conjunction with Javascript. I use the same method later to add text to the cart page when the cart is empty.

## Programming Concepts

1. I used constructors to represent chosen cart items as objects and their properties as attributes. For example, I would store the selected flavor, glaze and quantity properties within a cartItem object.
2. I used sessionStorage to store and access variables across different pages and render the cart correctly. For example, I store each cartItem object when the customer clicks on add-to-cart and then I retrieve the object from storage to render the cart page.
3. While maps are not identical to arrays, I used them for a similar purpose of storing and then retrieving multiple objects. For example, I used a map to store all items within the cart, and then used the map keys to access items as needed for rendering the cart or removing an item from cart.
4. I used console.log() throughout the assignment to print the results of my functions and double-check my code. For example, I would print out the cart items map to check that items were added or removed correctly.
5. I used if statements to perform certain actions under specified conditions. For example, if the number of cart items was 0, I would display text in the cart page instead of items.