

Throughout the assignment, I had to encounter some challenges and bugs while I design and develop this website. One big challenge was about writing HTML codes using javascript. For this assignment, because I was not allowed to use any external framework to build UI, I chose to write down javascript codes that append HTML codes to DOM tree in the shopping cart page. Because the items in localStorage have to be correctly displayed on the shopping cart web page, I had to write down the HTML structure that I would want for each item by the number of orders. If there is no order in the storage, I had to print out that there is no single item inside a shopping cart, which is something I should also write down new HTML codes for it. It was a tedious process, but I used a 'top-down design' approach that I have learned from a previous programming course. It is about writing down the codes from the main function (in jQuery, it would be `$(document).ready(function(){});`) and breaking down into sub-functions for each feature. I wrote different functions that do different works, and that made me easy to fix obvious errors on the webpage since I know where display errors are on the webpage and which function I should look to fix them.

I also found that it is hard to have a visually pleasing responsive website. To make a 'Bun Bun Bake Shop' website with responsiveness, I put most of the width properties as percentages so that it would shrink properly when a window size decreases. However, a challenge appeared when I saw my website on a larger display than my device. I found my images and div boxes are stretched out because their width properties are set as percentages. I had to prevent an incident when a display is too large, and every component on my website is getting stretched out. Thus, I used a 'row' div that is set to a particular pixel so my contents would always look good and have large margins on the left and right of the materials rather than every component on my contents enlarged so that it can fit the display window size. It was hard for me to classify which one and another that should have a width property as percentages and pixels. However, I learned by practice and found out that I should choose what should stay consistent and what should be flexible according to displays.