

Team Name: ByteMe

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Class: CSC 0317-04

## Group Project #4

- 1) What we Did: We developed our website further to include JavaScript. JavaScript allowed us to further simplify the development process; using the DOM, loops, and other aspects of the language, we were able to create most of the site using much less HTML than before, and it has become more dynamic and interactive. Using localStorage, users' cart selections, checkout values, and more are stored indefinitely, even if the tab is deleted. The JavaScript files are stored in a folder entitled "js" in our project directory.
- 2) Problems we Encountered & How we Solved Them:
  - a) One issue we encountered was during the creation of the "sliding" animation on each individual product page (where the user can select a mini-photo, which then becomes the main photo): although we were using appendChild on the image element in a loop running 4 times, only the last photo was being appended; the first three weren't appearing.
    - i) The solution to this was to use the cloneNode method on the image element; since each image was the same (only rotated a certain amount of degrees in the CSS), we needed to use this method in order to append it to each of the 4 places it was needed.
  - b) Another issue faced was deciding where addEventListeners would be relative to each other in the code: for instance, the "Add to Cart" button, when clicked anywhere on the site, will be replaced by a -/+ button to decrement and increment the quantity one wants of that product. Initially, the decrement and increment buttons had their addEventListener functions inside the addToCartButton's addEventListener function; however, that was not working as intended, as we weren't able to click the - or + buttons.
    - i) After researching more about the DOM, it was apparent that it was only through the initial event (the initial click of the "Add to Cart") that anything inside the function was going to be triggered. It was not the case, like we initially assumed, that the addEventListeners inside it would listen indefinitely, even after the event became over. The solution, therefore, was to put the -/+ button event listeners on the same indentation level as the "Add to Cart" button; using this solution, the buttons worked as intended.
  - c) One issue we were facing was with the coupon feature: whenever someone would enter the correct coupon, we didn't want to allow any more input, and we wanted to have the discount section in the summary of charges be green. We were using localStorage, and once the correct coupon was entered, we set the "receivesDiscount" variable in localStorage to true. However, even

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though the variable did get set to true, input was still being taken in, and the discount was not in green.

- i) The solution was to use `location.reload()` after a user clicks on the “Apply Coupon” button: this is advantageous over the solution to do everything in the click event for the “Apply Coupon” button, as you would need to recalculate the summary of charges (this would be a repetition of code). Instead, with `location.reload()`, everything is done when the page initially loads, including checking if the “receivesDiscount” variable is set to true. If it is, the summary of charges, input being disabled, and other events can be appropriately configured.