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COP3813 HW 5 Report

Purpose

This website allows a user to create a list of tasks that can be marked as done or not done, edited, or deleted. Although very simple, this kind of task board can be used to manage personal, work, or school responsibilities. With only a few controls, all of which are visible buttons, user experience is limited but easy. The design and functionality were heavily borrowed from Jon Duckett's JavaScript & jQuery example on his book's website, with minor restyling from Bootstrap. The focus of this assignment was adding more functionality to the provided example.

Design

The original design provided by Duckett had a good color scheme and layout, so it was only slightly modified. The colors were light shades of green, red, and grey, which signal done, not done, and delete, respectively. In editing mode, the yellow highlight color was added. A vertical list of items works well for this kind of application, so that was kept. I didn't like the logos provided, and so removed them, but made use of the checked, warning, and trash icons from Duckett. To maintain consistency with the homework portal, the list was put inside Bootstrap's Jumbotron template. Typeface was changed to match this template as well. Using this color scheme and layout also gives the app mobile responsiveness, which is a necessity.

Unfortunately, the app suffers a major flaw when input strings are very long. Because of fixed-width buttons inside a variable-width container, text overflows are not handled at all, and list items will break their layout. This is especially noticeable on mobile browsers, where the column width is much more limited.

Development

Tools

- Brackets for coding.
- jQuery for DOM manipulation.
- Original design and jQuery code from Jon Duckett's website for JavaScript & jQuery.
- Bootstrap for template, stylesheet, and JavaScript.
- Favicon-generator.org for favicon.
- OSX Terminal and Cyberduck for SSH and SFTP to LAMP server.
- GitHub repository management.
- Safari (OSX and iOS), Chrome, Firefox for viewing and testing.
- Nu HTML Checker for validation (no errors or warnings found).
- JSLint in Brackets for JavaScript validation (inline variable declaration warnings).

This has been the hardest assignment so far. My experience with JavaScript and jQuery is limited, and so taking an existing program apart and rebuilding it was tremendously challenging. My initial efforts on the assignment were just getting the provided app to fit inside my template, which still took several hours. The vast majority of the work was implementing new features. Duckett handled only single clicks on list items and form submission, so I had to write handlers for clicks on different parts of list items, and form submission in two states. The problem was that list data and list design were tightly coupled, and managing these two components made very ugly code. This also gave me a lot of trouble implementing local storage, as I had thought that I would be using JSON to store list data. After a great deal of back-and-forth with Prof. Marques, another student mentioned the .html() method, which I implemented in about 15 minutes and achieved persistence. Overall, the assignment has taken about 15 hours to complete, but still has issues.