

5-2 Milestone Four: Enhancement Three: Databases

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CS 499: Computer Science Capstone

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February 6, 2022

Databases Artifact

Artifact Description

The artifact I have chosen to showcase my Database capabilities is KnowOne'sWebsiteOfEverything.com, a website I have built from scratch over the past few months. This project was created between course assignments while at SNHU, utilizing HTML elements to layout the page content, CSS to style the page in an aesthetic manner, and JavaScript to populate page data from centralized JSON files. Some list pages also include links to content pages in a filterable table format with comprehensive query and sorting options that dynamically responds to input. The JSON files hold concise entries, which each content page corresponds to one to one. The list pages, along with some other pages that reference content pages directly, also reference these entries to generate their page content.

Important note, this project is rather large for an assignment submission. As a result, I have only selected the spells.json file, spell.html page, and the pages linked within the spells filter table for this assignment. I have included several files and folders in addition to these, but they serve only to support the files above through CSS styling, HTML element import, and image storage. In order to effectively test this submission, you will need to open the submission folder using Visual Studio Code and open the spell.html file using the Live Server Extension by Ritwick Dey. This will allow the spells.html file and scripts within to be correctly loaded in a browser page.

If you would rather look at the content of the files submitted and test their functionality on my live site via your browser, you can simply navigate to <https://knowoneswebsiteofeverything.com/caped-crusaders/character-options/spells.html> instead. This website is updated as often as I make changes to my

project files, and contains pertinent data identical to that which I have submitted. You can also view these project files (along with the files for the rest of the site) on GitHub at <https://github.com/chris-kesler/KnowOnesWebsiteOfEverything>.

Inclusion in Portfolio

This artifact serves to showcase my competency with the JavaScript programming language, Microsoft Visual Studio Code, the HTML and CSS styling markup languages, web development principles, and observation of programming best practices such as naming conventions and comment etiquette. While JavaScript is an arguably easy language to learn and use, the data centralization techniques used are far less elementary. The ability to centralize data in a concise manner so as not to repeat yourself when making changes to content is a skill I deem notably worthy of showcase in a portfolio. While this assignment is focused on the database aspect of this project, I am also including it in my portfolio as an example of my web development skills. I intend to pursue a career in software engineering and web development, and this project showcases a combination of skills relevant to both that makes it the centerpiece of my portfolio. The power of having a live website that can be linked to a prospective employer without needing to run anything from GitHub is likely of considerable value as well.

Enhancement Progress

As with my other artifacts, the first element of this project that I tended to was the comment etiquette. I failed to include proper comments throughout the HTML, CSS, and JavaScript elements. I began by creating a generic page layout with appropriate comments describing each element, then applying that generic layout to all of my content pages. The generic layout was then utilized and populated with a more comprehensive and adaptive JavaScript function, which I filled with descriptive

comments as I refactored it. There were quite a few loops that were implemented correctly and variables that were entirely unnecessary. While the page loading speed wasn't impacted in a manner that can be noticed by the naked eye, the code is far easier to understand and modify now that improvements have been made. All too often I found myself breaking the entire function and loading a blank page after making a seemingly small change to the script, only to find that it caused a series of issues elsewhere in the function. I hope to continue improving these JavaScript function in the future, but they are in a state that I am proud to showcase as of now.

Enhancement Reflection

While enhancing this artifact, I noticed that my filter table functionality is incredibly unstable and needs massive amounts of refactoring. The script is bulky and difficult to modify, and the functionality is less than ideal even though it functions as expected flawlessly. I also noticed that my CSS file is incredibly dense, potentially having a great deal of redundant content within it. I am also still in the process of converting my old classes and ids from camelcase to lowercase with hyphens instead of spaces, whatever that naming convention may be called. Otherwise, I didn't necessarily realize anything new upon revisiting this artifact since I have been working on it intimately nearly every day for the last four months. I am constantly learning new ways to improve my website, and I do get the occasional revelation, but those are far less dramatic than the insight I gained from revisiting my other artifacts.