**Final Project Summary: Simpson’s Archives**

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For this final course project, I chose to reverse engineer Chris Geelhoed’s “Simpsons Archives” with the following goals in mind:

1. Ensure the functionality of (my version of) Simpsons Archives matches the functionality of the provided site.
2. Provide additional opportunities for user interaction.
3. Offer informative information regarding Simpson’s Characters.

To start off with the replication of Simpsons Archives, I first created a database with a table containing the information for each character. Some information was either incorrect or missing, such as Moe’s voice actor and Maggie’s age. This information was easy enough to retrieve and include though, thanks to the Simpson’s Wiki. Once the information was retrieved and inputted into the database, I was able to retrieve that data in the form of JSON to use within my project.

Further down the line, re-read the instructions and saw that I had missed the keyword “file” within the instruction: *“…the backend data will be provided as a JSON file.”* Along with the attached JSON file. At this point though, creating my own JSON file was easy as all I had to do was copy, paste, and format the JSON data I had retrieved during the first iteration of my project using the database to make it readable. I then removed reference to this database, however I have included the database within my project repository as reference to the steps taken towards getting Simpsons Archives to the state it is currently at. My regular git commits will also show this shift.

One thing that bothered me about Chris’s version of Simpsons Archives is the fact that even though the voice actor for each character is provided, we had no way of hearing what each character sounds like! To remedy this, the feature I chose to add to this website was short audio clips for each character. This, of course, presented its own difficulties – although these were not PHP-related difficulties.

Once I had collected the required mp3 files, added them to the JSON file (manually – at this time I stopped using the database), and included them in each character’s PHP-generated “card” I then came to the issue of adding JavaScript event listeners and handlers for each audio clip. Since each character’s profile was being automatically generated, I couldn’t get each audio/button by ID, furthermore I knew this wasn’t the way to go about this as having too many event listeners/handlers can slow down a website. After some head-scratching, I decided to use HTML’s audio controls with source files retrieved from characters.json. After that, the only JavaScript code I needed was to modify the volume levels for each item.