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PUI, Final Project Write-Up

Screen Sizes:

1920 x 1080, 1536x864, *functional on an iPad & iPhone.*

Part 1:

The purpose of SpeakSpace is to provide a simple and engaging beginner-level introduction to Spanish phrases and greetings. I found inspiration for this idea due to my recent activity on Duolingo and my love for my language. The information I convey in my website includes a spanish lesson with 12 english phrases translated to spanish with phonetic spelling, a randomized game-style test of the lesson material which differs every time, and a feedback report from the exam results including completion time and accuracy. My main methods for keeping the website interesting and engaging was the use of widgets like my carousel slider and an entertaining exam. I utilized an animated carousel slider library to provide dimension to the lessons. Additionally, I included phonetic spellings for the Spanish portions to influence users to try out verbalizing the phrases. Within the exam, must match randomized English phrases from the lesson to their Spanish counterparts. I used shadow effects and an increase in size upon hovering each tile in effort to keep the design fun and bright. The target audience for SpeakSpace are users who have an interest in Spanish but no experience and are hoping to explore the language. Due to this, I stressed on the importance of having a calm, intuitive, and open design.

Part 2:

- Carousel slider to navigate the lesson.

- o In the lessons page, users can navigate the lesson slides by clicking and dragging the lesson sheet towards the direction they want to move in. Users can also navigate the mechanism with navigational arrows or by clicking through the three carousel indicators located beneath the lesson sheet to reach their desired lesson subdivision.
- Exam Mechanisms
  - o Each time the exam is taken, the randomized tiles will not repeat. With a new board each time, users can get a fresh experience on the exam page before receiving their performance overview.

Part 3:

Owl Carousel:

I chose to use owl carousel to assist me in the development of a sleek, animated carousel. By using this library, I was able to convert my lesson sheets into a sleek carousel by organizing the content into containers, and permitting the parent div, class owl carousel, to manipulate the DOM. I imported the owl carousel stylesheets and scripts, then spent time reformatting and altering the library's values to reduce lesson sheet overshadowing and alter the DOM to fit SpeakSpace's needs. The carousel adds another layer of dimension to SpeakSpace and carries on the interactive learning trend upholded by the tile-inspired exam.

jQuery:

I utilized the jQuery library to simplify my functions and the overwhelming javascript methods. My main use of the jQuery library occurred within the exam page. Through using jQuery, I was able to alter and reference HTML and DOM elements far easier than what would have been necessary using general javascript. This library took a lot of getting used to, in terms of syntax, but made a significant impact on the way I

organized, structured, and executed my code. My use of jQuery permitted me to add a more advanced element to the exam by assisting me in the development of a randomized board with deviations as I was able to access inputs and values that directly felt far more complicated to reach with generic javascript.

Part 4:

I made a fair number of changes to my initial plans and design concepts throughout the course of this project. Initially, I planned on storing additional languages to choose from within the SpeakSpace website. However, as I proceeded in development I strayed visually and conceptually from the blueprint. My color scheme was originally orange, yet I pivoted towards blue to increase ease of digestibility for those who struggle with their vision and those who prefer a tamer, more relaxed look. As I coded the javascript for the exam, I understood that I had my hands full with one language and settled on transitioning SpeakSpace to a Spanish-focused environment. Throughout the process, I also reformatted my html structure and selectors in use as I had to create a more polished, refined base for my javascript additions. These changes appeared in the form of organizing and diversifying my standard divs, classes, and id's with inputs, labels, and spliced, tile-specific values.

Part 5:

The main challenge I experienced within this process was developing an html blueprint and realizing that it was not sustainable or hospitable to my javascript endeavors. This occurred quite a bit of times, and I had to get back to the drawing board to visualize and develop my coding plan in the long run. Familiarizing myself with jQuery and Owl Carousel was difficult initially as I struggled to feel compatible with the syntax and library standards. However, the more time I put in, the more I began to acclimate to the libraries and feel more comfortable using them within my javascript.