**Documentation For Quiz Game**

**What did you know about this?**

Before I began this assignment, I knew what I learned from the training course and some basic java script with a background in Java for guidance. I have built games before so I have some experience in game logic. My python internship also taught me to recognize tags and what they did, so I was not entirely in the dark when it came to the HTML.

**What did you have to research?**

I researched arrays and array methods for java script as well as how to manipulate html attributes. I researched how to get and send information from java script to HTML and vice versa. I looked up JSON formatting and getting JSON information with java script. The most research however was just in general java script syntax.

**What did you feel was easy?**

I believe the easiest part was randomizing the data. I have worked with the random library before in Java and had a fairly good idea on what to do. Thanks to the modules provided most of the project was simple, if time consuming for me. Setting and getting attributes was also easy once I found the right syntax. I like how java script creates the attribute dynamically if it is not there. The timer also did not take very long to implement using the given code. The code showed me how it starts and all I had to do was figure out how to stop it and reset it.

**What did you feel was hard?**

Draggables gave me trouble until I learned about set and get attributes. JSON took the longest and every part of that feature was what took up most of the time spent on this project. I had a hard time figuring out how to parse out the information once it was in an array of arrays. I have dealt with dictionaries before so I knew more or less what I should do but could not find the correct syntax. Getting the JSON to only run once also was hard for me. I left it for the end and by this point my code felt so entangled.

**In what order did you accomplish your tasks and your research?**

* First I made a very crude GUI just so I had something to visualize. Later we were given a better GUI which I used instead.
* Draggables
* Making information appear and disappear where appropriate.
* Making the play button change to other states
* Timer
* Undo functionality
* JSON
* Game logic or the flow of the game
* Comparisons to check for answer correctness
* Scoreboard
* Get JSON only once

**Do you believe you accomplished all the main objectives?**

Yes, I do believe I accomplished the minimum requirements. My game is fully functional. Given more time I would have liked to make my code neater and more efficient. I would also have liked to work on the CSS portion of the project.

**Did you accomplish any of the optional objectives?**

I was not able to get to any of the optional objectives in the given time limit.

**Resources**

* Stack overflow
  + For general syntax information
* W3Schools
  + For finding functions and accompanying examples code such as the random function, change color of div, attribute manipulation
* MDN web docs
  + Referenced for further understanding of objects in java script, specifically the difference between an object and an array.
* <https://howtocreateapps.com/fetch-and-display-json-html-javascript/>
  + Guide for the JSON