# Assignment One Documentation – Math Quiz

## Overview

The purpose of this assignment is to demonstrate good problem-solving skills, architectural design, and the ability to incorporate all of the materials I learned into this first project.

- Modularization: The ability to reuse material from class.
- Scalability: Able to extend the functionality of the modules.

## Constraints

- Browser support is the latest chrome.
- No full frameworks such as Angular or backbone are permitted, although libraries such as Json was acceptable.
- A written description and/or comments in my code explaining what and why that code is placed where it's placed.

## Background

I just graduated this past May with a bachelor's in computer science, and I have basic knowledge in web development. In college, we developed web apps using HTML, CSS, PHP, and basic JavaScript. We did not go deep into web apps since it was just a semester class, but it did prepare me for this project. I thought the CSS was easy, but the JavaScript was tough. It took up most of my time trying to accomplish the JavaScript for this project.

Considering the amount of time, I had for this particular challenge, I tackled it based on what I felt was most important.

1. Modular Reusability from the ground up.
2. Planning it out what functions/files I will need to complete this project instead of diving into coding without a plan.

I tackled the project as follows:

1. Design Diagram (2 hour)
2. Assignmentjuan.html (2 hours)
3. Assignmentjuan.js (2-4 days)
4. Stopwatch.js (5 hours)
5. Quiz.json (2 hours)
6. Assignmentjuan.css (3 hours)

## Potential Improvement

There are many things that can be done from this work in order to improve upon this first project. This is the list:

1. Linking the Json file to my JavaScript.
2. Make the "Show Results" button work.
3. Make the stopwatch in sync with the entire game.
4. More comments in my code.
5. Adding unit testing.
6. Spacing between each function.
7. Better CSS or looks.
8. Making sure all the buttons work correctly.

## Conclusion

Overall, this project included JavaScript, HTML, CSS, and Json. I learned how to tackle a huge problem one step at a time, instead of diving in and tackling the problem without a plan. I learned how to create and build a drag and drop game using mostly JavaScript, and I believe that was the hardest part of the project for me because I barely knew JavaScript. I was familiar with Json, but my professor in college never taught us how to incorporate the data into our web page. I did not accomplish most of the button functionality and the score results, including the Json data file. One thing that I will improve on next time I have a project is time management and research to have enough time to actually finish the project. I ran into problem in this first project because of time management and not having enough research. For research, I use w3schools, YouTube, and google for my research. Overall, this was a good project that taught me how to tackle a problem one step at a time, and I learned a lot of JavaScript including improving my skills in HTML.