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COMP 5460

Assignment One Report

The purpose of this paper is to show the issues faced, lessons learned, and any remaining bugs in my assignment one, as well as list any extra effort that was put into the assignment past the requirements.

My first issue that I faced was moving the simple code out of the original html file into the JavaScript file. The source of this issue was that I was not sure what the code was doing, and after reviewing the PowerPoint slides from the class as well as some searching on my own, I found the purpose of the vertex shader and the fragment shader. They are variables representative of an objects position and colors. After looking into the shaders, putting them into the JavaScript file was easy.

Setting up the triangle itself was given to us so that was no problem, but the real issues of this assignment came in during the animation portion. After finding a method of choosing the colors to cycle through, making the animation was the difficult part, specifically most of the code in the render function. Looking through the code that was given to us as well as some code from the book, I was at a good starting place.

I ran into a bit of a wall when trying to get the shaders to work properly with the animation. After some of my own research I was able to find the solution, and that was making and compiling the shader program. Using the gl.createProgram in conjunction with gl.compileShader function in the correct context was the key to getting the shader working correctly and the animation running.

After getting the animation running properly, I was able to customize and go for a little extra credit. I figured the easiest way to do this was making the animation speed variable. I found out JavaScript does not have the same sleep function that c has, so I searched for the closest thing and found ‘setTimeout(() => {}, speed);’. This function does the code will essentially produce a similar effect to sleep in other languages where the ‘speed’ variable is the sleep time. The only other thing I customized is making the animation appear to shrink into the center, and this was done by simply changing the position of the x and y coordinates so that it stays in the center which took a little trial and error.

Those were the major things I had to deal with to complete this assignment. The things not mentioned such as the color selection were simple enough to not need explanation as it is just an array of colors that gets cycled through. Below is a screenshot of the program running in case it is needed.

