CS 330 Module Seven Final Project

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Going into this course I was a little anxious considering my coding experience is extremely limited in general, but I also have no experience in openGL. With this under my belt I’m pleasantly surprised with how things went and openGL is absolutely fascinating. I struggled quite a bit and definitely bit off more than I could chew with my choice of scene and final objects. I wanted to create a scene that portrayed my desk and keyboard along with some accent pieces like my mouse and monitor. This was way too much for my experience level as I spent a lot of time troubleshooting why I couldn’t get some functions to work such as the texture loading and lighting features. This leaves me with my final scene of textured plane acting as a foundation for my pyramid to rest on and mimic the white wood grain of my desk as my texture. I really wanted to add more detail and depth to it but I need to throw my head into it for a while before I can reach that point.

For viewing my 3D scene I implemented a controllable camera that can move in many different forms. The camera is controlled through the W, A, S, and D keys on the keyboard as well as moving the mouse and the mouse wheel. With these hotkeys the user can easily look at the scene from any angle and any distance allowing for a full view of the 3D models. Coming from a background of computer use and video game experience W, A, S, and D just felt natural to have as the camera controls, but these keys can be remapped to any on the keyboard.

My code has a lot of cleanup to make it look more organized and easier to read but right now it works as intended. I spent a lot of time mapping the vertex points for each triangle and shape in order to make up my 3D scene. Although this is very time consuming for me in the beginning once I have the piece down I am able to reuse each shape accordingly throughout my other pieces. This comes into perfect play when making the different sides of a model since I only have to adjust slightly to flip them. I also spent a lot of time researching and watching youtube videos in order to get my code working correctly and to better understand how things are working. When it comes to the texture mapping and the lighting its still very daunting but functional for now. For example my textures weren’t loading correctly for the longest period but that was because I simply did not have the jpg in the project directory under the resources folder which took far to long to figure out. OpenGL has been very fun to mess around with and learn and hopefully I’ll see more of it in my future so I can better broaden my skills.