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CS-330

December 7, 2023

Project Reflection

**Development Choices**

When choosing the photo I wanted to recreate, I wanted to add a little bit of a challenge to try and create more complex objects. Unfortunately, I was unable to create the torus or sphere because I could not figure out the best way to produce either within a week’s time to try and finish the project.

Programming the required functionality was very easy due to having learned a piece or two each week from both reading and working through the module assignments. Each piece of functionality was added right after I finished the assignment to make sure I could remember how I needed to code the function into the project to allow myself to memorize how OpenGL is supposed to be coded.

**User Navigation**

For the virtual camera in my project, I set it up mainly to use the keyboard to allow anyone that wants to move around to be able to. I set W as forward, A as left (towards negative x infinity), S as backwards, and D as right (towards positive x infinity). I also set up Q to move upwards and E to move downwards to allow for views at the top and bottom of objects. The mouse is set up to allow for the camera to look different ways to allow for more precise movement to allow people to look at each side without having to hold A or D while also being able to go wherever in the scene.

**Custom Functions**

Some custom functions that I added were shown to me throughout the course, some of them being texture wrap mode changes, lamp orbiting, and projection changes. Each of these were very interesting to learn about and each one was very helpful in learning how I can change certain things. The biggest one that gave me a challenge was changing between projection views. The only reason I had a hard time was due to the orthographic projection not wanting to work, luckily I was able to figure it out after looking up the issue on Google and finding out someone else had the same issue I was having (Ams1901).

**References**

Ams1901. (2022, April 9). *GLM::Ortho doesnt display anything*. Stack Overflow. https://stackoverflow.com/questions/71810164/glmortho-doesnt-display-anything