Final Project Reflection

CS330 Comp Graphics and Visualization

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**CS330 Final Project**

I struggled early on trying to work on this project. Trying to follow along with the tutorials didn’t help at all. I had thought I chose a relatively simple picture to recreate, but little did I know how hard it actually would be. I chose the simplest objects in the photo to recreate. I had help in the very beginning with the bowl being provided, but from there I added spheres for the ice cream scoops, probably the easiest shapes to create. Next, I added the plane to be the surface of the table, I knew from the beginning I would be texturing the table first. I knew I needed to have an object that was built of more than one shape and at that point, I realize how hard a spoon would be so I decided to work on the wine bottle. The wine bottle is actually made up of 4 shapes, 3 cylinders, the body, the skinny part of the neck, and the cork, while I used a prism for the slanted part leading to the neck. I enjoyed texturing this and really turning it into a wine bottle. The last object I decided to add was a spoon because I came up with the idea to take the code that made the bowl and transform it into the end of the spoon. This was easy, the hardest part was adding a cylinder and making it look like the handle, and rotating it to make it look accurate. The trouble I was having transforming it is why it is not in the same location as it is in the photo. I was unable to put it in that spot and make the handle not poke out through the end of the spoon and look silly, it looks more aesthetically pleasing beside the bowl.

Part of the requirements of this assignment was that the camera would move along the x, y, and z axis with both the WASD & QE keys as well as the mouse cursor and scroll. To do so I copied the code over from the tutorials. I follow along with the tutorial to add the keystrokes and tied the camer.h to the project so that when the code called for the action it would be there to tell the camera what to do. However, I quickly realized that I had to create my own code in order to add QE movement. To keep with the same style I just added UP & DOWN to camera.h as well as the actions it needed to follow in order to move the camera in the correct directions. I did the same with the mouse movement and just followed the tutorial to add it to my own code. One thing that I realized I forgot to add was perspective and orthographic changes.

Only because I struggled so much with just the basics of the code I didn’t make my code very modular or “organized”. However, after I have learned the code as a whole this is how I would break it up to make it more modular. I would take out the vertex and fragment shaders and put them into their own cpp file just like the meshes.cpp. Another cpp file I would make would be for the textures because in the end I had a lot of them and my scene wasn’t even that busy. The last part I would pull out would be the lighting and also make it into its own cpp file and call on it when its needed for each object. I know that breaking up the code like this and not having it all in one cpp file like currently have would make it much easier to navigate and make changes.