David Anguiano

Professor Wabara

7-1 Final Project

10/16/2022

**Development Choices**

When developing the 3D scene, I struggled with a multitude of issues. Most rooting from my understanding of how OpenGL functions work then it stemmed out to how to manipulate and render multiple shapes. After hours of researching and grinding I was able to comprehend the tools at my disposal and how to use them. The provided tutorials also gave a ton of insight with their detailed Read Me files and sample code to review. With these aides, I learned to create various shapes and compiled them together to create my 3D scene. Using the tutorials and sample code I was able to create functions which allow the user to move up and down the Z axis and navigate the scene with a faster speed.

**Navigation**

The user can navigate the 3D scene by using the WASD keys to move Forward, Left, Backward, and Right respectively on the keyboard. The user can also use their mouse wheel to increase and decrease camera speed for faster navigation within the scene.

This was achieved by reviewing the tutorials and altering the camera header file. I was able to add additional inputs to the default methods allowing my camera to move up and down.

**Custom Functions**

During development I created and modified a multitude of functions that allowed me to dynamically feed information in which allowed me to create and manipulate shapes easily. I created methods to create different shapes and altered my render method so that I can openly transform my shapes scale, rotation, translation, textures, etc. This allowed me to only worry about placement and size of the shapes while not reproducing multiple lines of code.