Marcus Zambito

CS-330 Comp Graphic and Visualization

Module 7 Final project

My scene mostly focuses on complex objects made with simple objects. These simple objects are much easier to program and apply textures to, with movement and stretching allowing them to mimic more complicated objects. This allowed me to learn the complexities behind the coding itself much deeper and gave me practice manipulating the objects in 3D space. The required functionality of the program was focused on recreation of a scene, and movement controls to navigate said scene- I was able to meet this goals via the learning resources provided, and with great assistance from the 1-2 example program. Being able to read the program from start to finish gave me a much clearer idea of how to guide my project, and seeing examples of different skills at work (such as texturing and lighting) was a great resource.

My scene utilizes WASD for movement- it is an intuitive system that most people who use a keyboard are familiar with. The triangle direction the keys have in relation to each other intuitively implies which direction each will guide the camera, while Q and E function as “up and down” respectively. To utilize the keys, in the ViewManager.cpp file, I used the “glfwGetKey”. This function monitors for key presses, and then directs the camera in the direction indicated by the key press.

My custom functions are mainly a KeyBoardKey function- this calls to create a square mesh that’s pre-angled to sit perfectly on top of the KeyBoardBase I had created earlier. This is highly reusable- a simple copy paste, followed by a short correction to coordinates, allowed me to recreate the keys on a keyboard quite quickly. This otherwise would’ve been an extremely time consuming task, and could be prone to errors depending on typing accuracy. These are also kept compact and nearby each other for easy readability.