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SNHU CS-330

Final project

The scene that I chose was a desk with a cup of coffee and a doughnut for breakfast. This seemed very obvious to me because I spend about 14 hours a day sitting at a desk. The other reason that I chose a desk was because most of the objects on a desk don’t follow many complex shapes. Most of them are different shapes of boxes, cylinders, or spheres. After my original proposal, I also added a few things to make it a little nicer to spend time at. I installed a rear wall with a glass window, and I also added a designer lamp. Behind the wall and window was a view of a nice garden.

Many of these objects were basic shapes and the textures did most of the work, but there were some that required more. One of those was the wall/window with the garden behind it. It took many segments to construct the wall and then the glass. I added the garden behind it so that it would give the view of the garden changing while the camera moved around. I also added a light source between the garden and the wall to make it look like there was an outside light source. The other alt light source is the lamp on the desk. I set the lamp with a yellow bulb and then worked to place a light source inside of that bulb. This gives the view of the reflections and glair as if they were coming from the lamp. But most of the programming came from doing a little math and trial/error. I would make a movement and then view the scene to see how it changed.

The navigation of the system used all of the functions that were required from the lesson. The W,A,D,Q, and E keys are used for navigating around the scene. The W and A keys are used for moving front to back, the A and D keys are used for moving from side to side, and the Q and E keys are used to move the camera up and down. There was also the addition of the T and G keys. Those are used to change the view from Orthographic and back to Perspective.

As for some custom functions, there were a few that I added. My custom functions were based around the camera viewing. First off, I didn’t like using only the mouse for my ability to look around. It was very restrictive so I programmed the directional arrow keys to perform the function of looking around. I also wanted the ability to skip to different viewing locations, so I programmed the 1, 2, and 3 keys to skip to selected views. The 1 key will always return you to the home view. The 2 key will act like you are standing up and looking out the window. The 3 key will give you the view of standing next to the desk and looking down at it. The last custom thing that I programmed was a set of instructions at the launch of the program. These will outline what all the different keys will do and what you can expect from them. When I first programmed the directional arrows for looking around, I was able to save those lines of code and then load them into every other project that I worked on. I found this to make it much easier when building new things and observing light from different angles.