Christian Pagano

SNHU CS-330

10/21/2023

Week 7 Project

I had originally chosen my scene without knowing much about OpenGL. I created an image in paint attempting to have an interesting project for my portfolio while looking for shapes that met the guidelines. I think having a mix of two simple objects and three more complex objects (sphere, gem, and the torus) was a good way to have an interesting scene. I used comments to help guide me on keeping track of the points and objects I created along with having the vertices, lighting, and texture all together in the line like in the examples I’ve seen.

The user can navigate my 3D scene using a mixture of “A”, “S”, “D”, “W” for basic movement and to go up and down with “Q” and “E”. I also enabled the scroll wheel to allow the user to change the speed at which the camera moves to allow more flexibility in how they view the scene. With this we also have the mouse which allows the user to tilt the camera in directions too and finally we have the “P” button for perspective from the 3D perspective to 2D.

I think some of the organization I did was creating objects with comments and names. I used a lot of the examples, but I had a few custom functions for look up and look down which both change the perspective from 2D to 3D and vice versa. I also decided to use an image like some tricks I’ve seen in video game development sprites. The image I used was to create multiple textures of different colors that way it could simplify changing textures while creating the objects, it was a bit odd at first, but I created at sheet to help me visualize the points for quick references.