CS 330 Module 7 Final Project Design Decisions

Southern New Hampshire University

Trey Patten

A picture containing text, sunset, orange, colorful

Description automatically generated

The picture I chose was this mystical and fantasy image that I found on the internet. I felt like this would be cool because I could see this in one of those first-person shooting games like Microsoft’s Halo. In the image you can see a floating pyramid object and below it is another pyramid shaped for the bottom. I decided to focus on modeling the main features that stood out to me, which formed a diamond shape. This was the main focus of the 3D project; I used two pyramids to form a diamond which is a pyramid on top and a upside down pyramid on the bottom. To showcase the pyramid, I added lighting to the scene. I used directional lighting to highlight the pyramid's features to give it a dramatic effect. I also experimented with different camera angles to capture the pyramid's shape and enhance its visual impact. For the texture wrapping I tried to find something that will give it some realism and something that’ll make it dynamic. I went with a dark grey stone image to give it some roughness.

For the moon, I used a single sphere, and kept it well lighted to cast the light onto the pyramid.

For the sky or background I changed the color to give it a reddish eerie look. I also applied a texture for the ground creating the fiery volcanic look. For the trees, I used narrow cones that I had to play with the scale to give it a tall narrow look. To navigate my 3D scene, the user can use either the keyboard or mouse to control the virtual camera. I set up different input devices to allow for different types of navigation. For example, the user can use the W, A, S, and D keys to move the camera forward, backward, left, and right. The user can use the Q and E keys to move the camera up and down. The user can also use the mouse along with the keys above to look around the scene.

In conclusion, I am pleased with the results of this project. Through this project, I gained valuable experience in creating 3D scenes and using Visual Studio. The lighting and camera angles added depth and visual impact to the showcase the pyramid. I feel like that the skills and knowledge I gained from this project will be useful in future projects.