Brandon Myers

CS330

Final Project

The photo that I selected for this assignment is a picture that included three vases of different shapes and sizes. An Ipad is also included in the picture. There is an award that I received a few years ago that has a glass face that is see threw. In one of the vases there are flowers and in another vase there are two pencils.

I selected the picture because of the variety of shapes. The basic shapes are spheres, cylinders, cubes, rectangles, and torus. The sphere is used for the orange, apple, and one of the vases. The second vase was created by a cylinder. The Ipad is made using a cube. The IPad screen protector is made using a cube but the cube is thin enough to resemble a rectangle. The award is created with cubes. The top of the vase is created using a torus. The background of the picture is a brick wall and the plane is the wooden table.

The program is designed to use the “W”, key to move forward. The program is also designed to move backwards when using the “S”, key. To move to the left the “A”, key is used. To move to the right the “D”, key is used. To move the camera up the “Q”, key is used, and the move down the “E” key is used. The look in different positions while staying stationary the mouse is used. The lighting varies depending on the angle that the camera views.

While the majority of the program ran smoothly there were a few hiccups. The first problem that I ran into was figuring out how to combine the shape. The first attempt to combine the shapes was the vase. The vase consisted of a sphere and two torus. One of the torus was used for the neck of the vase. The second torus was used for the opening of the vase. The second problem that I ran into is the flowers in the vase. Deciding on the shapes needed to make the flowers turned out to be a major challenge. In the early weeks I believed that cubes would be needed to create the brick wall background. While creating each brick individually would have given the best 3D effect completing the task would be time consuming and inefficient. The alternative approach that I used is I texture. I went with a flat plane and added a brick wall texture. The texture was based off of a picture that was of the wall. By using the texture it allowed an accurate model of the brick walls, including the chipped bricks and the bricks that are slightly damaged. A problem that I was not able to overcome is the IPad. I was unable to find a jpg of an IPad. As a temporary solution I used stainless steel for the texture in or to view the shape more accurately to modify it.

In order to keep the code as readable as possible I tried to keep the format as consistent. In the scene manager, I made sure to have the shader color. Following the shading color I included the texture next. Finally I included the material code which helped with the reflection that the lighting provided.