Jenna Case

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CS 330 Project

The choices I made for my 3D scene were based on the basic shapes that I could pick out of the image. For the cooked egg, I used two cylinders to make it a complex object. I chose the egg white size and location in the space, and then I created the same cylinder but smaller. This way I was able to create the illusion of a cooked egg. I also tried to use a plane to make a plate but I had issues getting my second triangle to show up. The idea was to use two triangles to make a square to act as the plate underneath the food.

A user can navigate the 3D scene by using keys on the keyboard. The W key allows the user to move forward, the S key allows the user to move backward, the A key allows the user to move to the left, the D key allows the user to move right, the Q key allows the user to move up, and the E key allows the user to move down. The user can use the scroll function on the mousepad to toggle the speed that the camera moves. Using a camera like this allows the user to move around the scene.

I used a couple of different functions in order to simplify how I create shapes in the program. I used code from Professor Gray and from my own code earlier in the class to create shape functions to call. I did this with the cylinder function, this way I just called that function and changed different aspects of the cylinder in order to make a complex shape. This made the code a lot easier to read and to keep track of since I did not have a separate function for each shape I created. If I wanted to add a second plate of breakfast I could easily do so with this functions, but I would just make sure they were all moved to a different spot so they would be duplicates.

I struggled a lot with OpenGL, but towards the end it started to come together a bit more. I continued to have a tough time debugging the code and figuring out where things went wrong when I would run it. I was able to reference the tutorials and past submitted assignments to try to find areas that looked incorrect. With the development of the skills separately, like textures and lighting, I was able to just copy those sections of code from an assignment into the milestones. The only thing I had to make sure of was that the Create and Destroy functions were updated. This allowed me to implement these new additions a lot easier.

I do have some shapes missing in my final project, but I wanted to make sure that everything else was solid in the build. I was able to fix up the textures and the cameras to make the complex object I had look a lot better than it did before.