CS -330 Comp Graphic and Visualization

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7-1 Reflection

The objects that I chose for this project were from my study table. I spend many hours there doing my homework, and it is also one of my favorite parts of the room. The objects I replicated for my 3D scene are a candle, an air purifier, a quoted frame, and my MacBook. To replicate my candle, I used two cylinders and an elongated sphere for the flame. For the air purifier, I used the shape cylinder. For the frame, I used two boxes with increased length so it will look like a rectangle, and a plane to replicate the table and MacBook. I placed all the objects using the X, Y, and Z coordinates to match the photograph by placing the objects in their locations. I also used different textures, lighting and materials on my objects to bring the scene to life. I wouldn’t have imagined that I would end up enjoying this course so much, especially after struggling the first five weeks.

For users to navigate my 3D scene, I set up to control the virtual camera using two different input devices, the keyboard and mouse. Users can use the W and S keys to zoom in and out. The A and D keys to pan left and right. The Q and E keys to pan up and down. The P and O keys to change the viewport display of all objects in the scene between orthographic and perspective views. Users can use the mouse cursor to change the orientation of the camera so it can look up and down, and adjust the sensitivity of the camera movement by using the mouse scroll.

A lot of the functions in the code are reusable, such as the functionality of the input devices (camera and mouse) to be able to control the virtual camera for the 3D scene and the function to change the viewport display of all the objects in the scene between orthographic and perspective views.