7-1 Final Project Reflection

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# CS-330

Justify development choices for your 3D scene

Choosing a scene to create in a 3D environment was a difficult task. There are so many possibilities to choose from and no matter what I chose I felt it was incorrect. However, I finally settled on a simple scene. A table, a coffee cup, two pencils and a calculator. I felt that this was the scene I wanted to recreate not only for its usage of many different shapes, but also for the fact that it was simple in concept, yet all too relatable. I could have opted to recreate something more lavish and interesting to the eye, but in the end my choice of scene was not only effective in testing my skills with 3D modeling, but also allowed me to recreate something that most people could relate to.  
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Explain how a user can navigate your 3D scene

Users can navigate my scene with keyboard and mouse. By using the keys w, a, s, and d users can control the camera and move it forward, left, backwards, and right respectively. Q and e also serve functions as to raise and lower the camera. Finally, p and o can toggle between perspective views and orthographic views. As for mouse controls, users can pan the camera around to look at the scene in different angles, as well as use the mouse wheel to increase or decrease the camera speed if desired.

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Explain the custom functions in your program that you are using to make your code more modular and organized.

The following functions LoadSceneTextures(), SetUpSceneLights(), and RenderScene() all help clear up this massive program. By having these functions, it allows for easier debugging. Throughout the development process, I had plenty of errors I had to go back and fix. Textures not loading properly, shapes not being placed properly, and lighting issues. By having these functions, it allowed me to quickly navigate to the proper function to correct the issues present. If I had to adjust lighting, I could do so by quickly navigating to the light function, for example.