Colton Stiff

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CS-330: 7-1 Final Project

SNHU

The development choices that I made for my scene were comprised of a cube, a plane, a sphere, and a cylinder. The cube was modified to create the laptop and backlight as the lighting source. The plane was used as the desk, while the cylinder was used as a pen/pencil holder. Lastly the sphere was used as a stress ball. It was quite challenging piecing the scene together with all the primitive and 3D objects, but I believe I was able to satisfy the project’s requirements.

Navigating my 3D scene is quite simple. Once the program is executed, the camera is placed directly in front of the laptop and the desk it sits on top of. The “S” key will zoom the camera out, while the “W” key will zoom the camera in. To move directionally, the following keys will need to be pressed: “A” for left, “D” for right, “Q” for up, and “E” for down. Lastly the “P” key can be pressed to toggle between projection and othro view perspectives. Lastly, the movement of the mouse in any direction will change the camera’s line of site.

I created a few custom functions in my program to make my scene more engaging for a user and truer to the resemblance of the original picture I modeled my scene after. Many of the functions are reusable, such as the loading or light sources, textures, as well as the GLM functions to allow keyboard and mouse input. I also formatted the scale, translations, and spacing between all objects via a calculation for relativity. This way all the objects within my scene are relevant to each other in regard to their placement, shape, size, camera angle, lighting direction, and textures.