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CS-330 Design Decisions

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When considering objects to model I simply went off the requirements from the initial Project Proposal. I uncovered a 2D image to recreate as a 3D scene and wanted to tackle something that was manageable and not overly complex for the duration of the course. Modeling some items on my desk, I created a bottle that consists of two primitive shapes, and two boxes that have been textured to match the items in the 2D image. All the items are on a plane representing my desk, which has also been textured to match the real desk color. Each week the provided tutorials would add to the concept, and I was able to utilize those lessons to enhance my 3D scene. I also scoured the internet for tutorials and help with concepts that I found to be most difficult. What I found most helpful was reading the errors produced in the command prompt window when the program failed.

Using the keyboard and mouse, users can navigate my 3D scene and observe the objects. The Q,W,E,A,S, & D keys all have different controls. A & D move the camera to the right and left, while W & S move forward and backward. Q & E keys allow the user to move the camera above and below the plane. Panning around the scene is done with the mouse. Combining the key movement with the mouse movement allows the user to move about the 3D scene limitlessly.

Week after week I was able to create additive functions that met the requirements. By using the same source.cpp file I could build upon my project and add new features. First, I created one complex item from my scene which was the wooden box. After that I needed to add a plane, then texture. Following the weekly tutorials and scouring the internet for more help, I could add each feature. This course was the most demanding thing I have done so far at SNHU as well as during my time in a 6-month full stack coding boot camp and as a full-time time QA Engineer. I believe I have just scratched the surface of what is possible using this technology and could spend years trying to hone my skills in computational graphics.