Final Project Reflection

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For my project, I chose to recreate a scene that I put together on my computer desk. This consisted of my computer monitor, a coffee cup, a snow globe, and a pen. I tried to choose items that would not be too little of a challenge to recreate, while also not being too complex. The desktop was constructed with a plane and textured with a wood texture. It received a low shine for lighting interaction. The computer monitor was built using boxes and a tapered cylinder. The metal frame of the stand had a medium shine and a brushed metal texture. The screen of the display received a high shine and a texture of a beautiful landscape to simulate the computer being on. The bezels and the back of the monitor have a dark brushed metal texture and medium shine. The snow globe was built using spheres. The bottom sphere was a little more squished on the Y scaling to match my real-life snow globe. The bottom sphere received a low shine and a corrugated metal texture. The top sphere has a high shine as it is glass and a snow texture. The coffee cup uses the same texture as the bezels to the monitor with a high shine applied. It was built with a collection of cylinders and a flat sphere to simulate the opening of the cup. The pen was created using cylinders and a cone. There are no textures applied as the real-life equivalent is a solid color.

I utilized the RenderScene method to declare the shapes. I used the template for the OpenGL sample to base my declarations on. A lot of trial and error was involved at first to get my placements right for the objects, but it got easier as I gained more experience. The scene can easily be navigated using WASD for general movement. The mouse is captured in the window to allow for infinite panning of the camera. Pressing Q will raise the camera about the Y axis, and E will lower the camera about the Y axis. Pressing O will put the camera into an Orthographic projection at the same Y-axis value as the plane used for the table. Pressing P will put the camera back into a perspective view. I tried to get the declarations of the individual shapes into their own methods, but it was causing errors. To differentiate the items, I used comment blocks.