Nneka Hamilton

CS 330

7-1 Final Project Submission

I made a 3D scene for this project that shows a real desktop setup. I wanted it to look like a place that a real person, like a student or someone who works from home, would use. That's why I put in three key things a laptop, a coffee mug, and a book. I started with simple shapes, like boxes, cylinders, and toruses. I used texture, size, lighting, and color to make them look good together.

One of the first things I made was a laptop. I made two box shapes: one for the screen and one for the bottom, which is where the keyboard is. To make it look like a real laptop with a metal case, I scratched both sides with silver paint. The screen was bent and put behind the base, making it look like the laptop was open. Along with that, I put a small dark box on the bottom that looks like a touchscreen, just like this one. This gave the machine more depth and made it feel like it was finished.

I put a coffee mug on the laptop's left side. I used a tall cylinder shape for the mug's body and a torus shape for the handle. It looked like a shiny clay mug because I gave it the same silver texture as the laptop. Since I put the mug next to the laptop, it looked like someone had just taken a break. This made the scene seem more real, like it was a part of someone's day.

I wrote a book after that. Boxes were also used to make the book. One was used for the cover, one for the pages, and one for the spine. I made the cover look like an old hardback book by giving it a wood texture. The pages are made of a silver texture. To make it stand out, I gave the spine a red color. It looked better and was more interesting when I put the book behind the laptop and mug at an angle.

Lighting was also a big part of my plan. It was lit from one direction and given a soft, warm color. That made the shadows less sharp and made everything look more real. Light came from above and to the side, which made the forms stand out more and gave things more depth.

I changed the UV scale numbers for the texture and material settings, so the textures didn't look stretched. I also changed how shiny and bright each item was to make it look like it was made of a different material, like metal, plastic, or wood.

The problem I had while making my 3D scene is that the box shape won't load right at all. It wasn't in the scene when I tried to render it. I thought it would be there to represent things like a laptop or book. I made sure I called the right code DrawBoxMesh() and added it to the PrepareScene() method, but it still doesn't show up. I also made sure that the numbers for scale and position weren't too small or off-screen. The box mesh is still not visible, even after all of these efforts. I'm currently trying to figure out if the problem is with the loading of the mesh, the changes, or the shader settings.