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**Reflections**

**Justify development choices for your 3D scene**.

For the monitor I chose to make two different planes to signify the look of a square monitor and had to adjust the angle on them to make it look like a monitor. For the border of the monitor, I chose a plastic texture to resemble the look of how the outside of the monitor looks. I chose a Seattle Seahawks texture for the background of the monitor because that is my favorite team.

For the base of the monitor, I used a prism and a plane to simulate the base of the monitor and use the black plastic texture on both shapes. For the keyboard I used a plane and used a image of the keys of the keyboard to make it look as real as possible. For the table I used a plane with a wood texture to make it look like a table with a wood finish. For the coffee cup I used two shapes, a tapered cylinder and flipped it 190 degrees to create the look of a cup and used the torus to create the handle of the cup. I used black plastic on the handle and used a wolf image for the cup, so I couldn’t get the face of the wolf on the cup, but it still looks good with the way it was shown on the cup.

With the pencil holder I used a box shape and gave it a grayish color and used a cylinder shape to give the look of a pen. I couldn’t get the cone shape to work on the end of the pencil like I wanted it too. For the wall I used a plane and set it back behind the computer. I used a texture that looked like a brick wall. I felt the space was too bare against the wall, so I added a plane with the skyline of Seattle image. With the book stacks I used several boxes and adjusted the x rotation to make it look like they were stacked up. I used different colors to show the different books in the scene.

I would say that the hard part for me was determining how far in either direction to set the shapes so that they would align correctly with what my image of the scene should have looked like.

**Explain how a user can navigate your 3D scene**.

In ViewManager.cpp I coded the camera view so that you could use certain letter keys so you could navigate the scene. “W” and “S” are used to zoom in and out. “A” and “D” are used to pan left and right. “Q” and “E” are used to pan up and down. “1” is used to show the front orthographic view. “2” is used to show the side orthographic view. “3” is used to show the top orthographic view. “4” is used to show a perspective view.

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

In programming the different aspects of this code, it is much easier to separate the code into smaller sections to make it easier to know what the programmer is doing. I also implemented separating each of the different parts of the scene into separate functions to make the code easier to read and less cluttered. Doing this made it easier to go in and adjust the different shapes and create the scene.

The part where I had trouble was trying to determine the correct lighting.