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Design Decisions

My design for the final project includes a table, a bowl, a plate, a coaster, and a flower vase. I previously included a bottle, but I decided to remove it because the design was redundant. I chose these items partly because they were just what I had lying around, but the selection of objects I chose gave me a good set of basic shapes to work with. I used a plane for the floor, cubes for the table, cylinders for the coaster, plates and flower vase, and spheres for the flowers. I chose these shapes because I feel that they most accurately represent the objects I am attempting to replicate. The flowers would have taken much longer if I wanted to add pedals and stems, which is why I chose to use a sphere with a flower texture. There are some parts of an object where a texture is applied, but purposefully made at x0y0 for all coordinates, such as parts of the flower sphere. This is intentional, and is used to grab the background color of the texture and fill the triangles with it.

A user can navigate the render by moving with the keyboard. By using WASD or the arrow keys, the user can move the camera. If the user presses the escape key, the program closes. I chose these controls because they are the two most common ways a keyboard user would control cameras elsewhere. Sections of the code are dedicated to certain functions, such as vertices, loading textures, and manipulating shapes. This makes it easy for me to find specific code I need to modify.

I am very happy with how this project turned out. Now that I understand OpenGL, finishing this project was not too difficult, just time consuming and tedious at parts. If I had more time, I would go back and clean up my code. I have several instances of repeat vertices that I want to get rid of, as well as general organization.