Project Proposal

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The objects in my pictures are of simple primitive shapes. The primitive shapes that are in the picture are a cube, sphere, pyramid, and cylinder. The objects that will be included in the 3D representation are the soccer ball, a cup, a box of butter, and a wood block that combines two primitive shapes a pyramid and a cube. All these objects are sitting on a plane represented in the picture as a table. These will be good choices for my work because they are simple designs. As I am new to OpenGL I would like to learn more about the structure and syntax of the OpenGL API rather than struggle with the math to create complex objects. I feel like I will be challenging myself a little by stacking the pyramid on top of the butter box. I think stacking objects on top of each other may present some level of difficulty to make it look realistic and not have the two objects appear to occupy the same space.

The plane that will be used to ground the objects will be a table that is made from wood. The soccer ball’s 2D shape is a circle. Circles are usually hard to make in 3D. Typically shading is what makes the 2D representation appear to be 3D. The butter box is a cube. The 2D shape that will be used is a square. Using multiple squares that attach to each other will stretch the 2D object to give it a 3D appearance. The cup is a cylinder. If the cup is looked at straight on the cup will look like a square. It is only when looking at the cup with an angle above or below will you see a circle to show the roundness of the cylinder. The pyramid’s 2D shape is a triangle. Putting multiple triangles together on their adjacent side with a square on the bottom will give the 3D shape of a pyramid. This pyramid, however, has a cube on the bottom of it. Therefore a few more squares will need to be drawn on the bottom to give this pyramid a cube base.

A picture containing table, indoor, text, floor

Description automatically generatedA picture containing ball, football, furniture, indoor

Description automatically generatedA football ball and a pack of cigarettes on a table

Description automatically generated with medium confidenceA glass and a football ball on a table

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