Student: Joseph Balikuddembe

Student ID: 2731108

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Prof: Malcolm

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**Milestone One**

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For my 3D scene, I have selected a 2D image of a cozy coffee table setup in a living room a photo I took myself. The scene includes a coffee mug, a small potted plant, a stack of books, and a decorative candle holder. These objects are visually distinct, composed of simple geometric forms, and offer a good balance of variety and complexity. I chose this scene because it’s familiar, aesthetically pleasing, and provides a manageable challenge in terms of modeling and composition. Having taken multiple photos from different angles, I can accurately replicate the proportions and spatial relationships between the objects.

To construct the scene, I will use at least four different basic 3D shapes. The coffee mug will be modeled using a cylinder for the body and a torus for the handle. The potted plant will combine a tapered cylinder for the pot and a group of cones or spheres for the leaves. The stack of books will be made from several box shapes; each scaled to different dimensions. The decorative candle holder will be built from a cylinder base and a cone shape top. A large plane will serve as the tabletop to ground the scene. These choices are both visually interesting and technically achievable using the available shape primitives. The combination of organic and geometric forms will allow me to explore lighting, texture mapping, and spatial composition in a meaningful way.

References:

<https://www.pinterest.com/pin/618822805027413285/>

<https://learnopengl.com/Getting-started/Transformations>

<https://learn.snhu.edu/content/enforced/1969350-CS-330-15306.202556-1/course_documents/CS%20330%20Principles%20of%203D%20Shape%20Creation%2c%20Transformation%2c%20and%20Rendering.pdf?isCourseFile=true&ou=1969350>