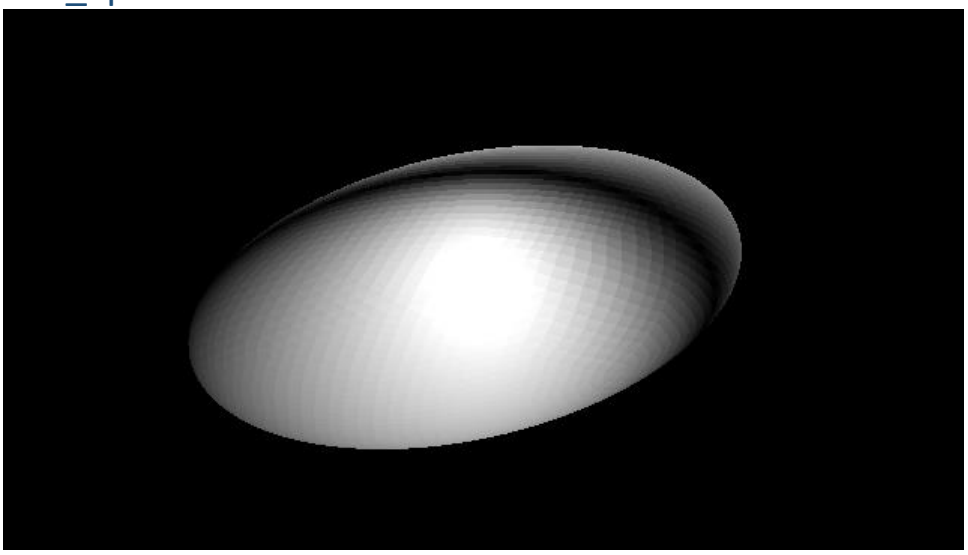
Project10 Report

Saturday, August 17, 2024 5:04 PM

Summary:

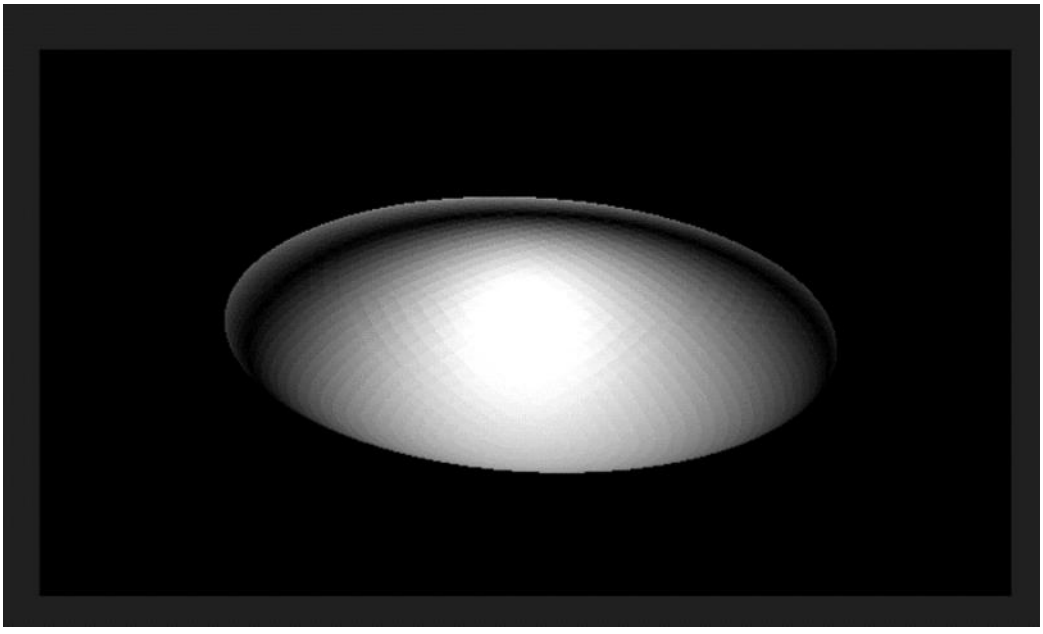
In this project I implemented subdivision surfaces and I implemented more module shapes.

Module_Sphere:



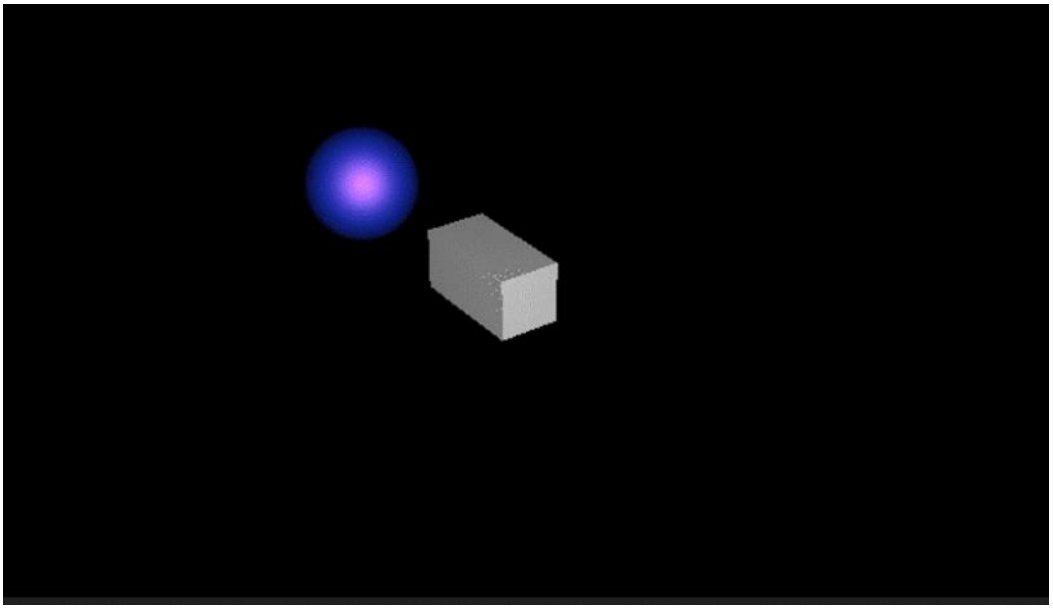
Module_sphere takes in a module and an integer called divisions. The octahedron will keep subdivide recursively until divisions equal 0. This sphere in the image use initial divisions 5.

Animated_sphere:



Using ambient light and a point light, providing complex geometry.

Putting everything together:



By now, we have modular system with subdividing triangles that can be used with lighting and shading with animation. For this frame in the gif, there are two objects in a formation. This formation is rotating around (3, 0, 0) in the scene.

Reflection:

The rendering system takes too long to generate images. For the 20 frames, it took about 1 minute to render, and there are only around 500 polygons.

Acknowledgements:

Thank you Professor and TA for teaching us!

Collaborators:

Professor Bruce Maxwell