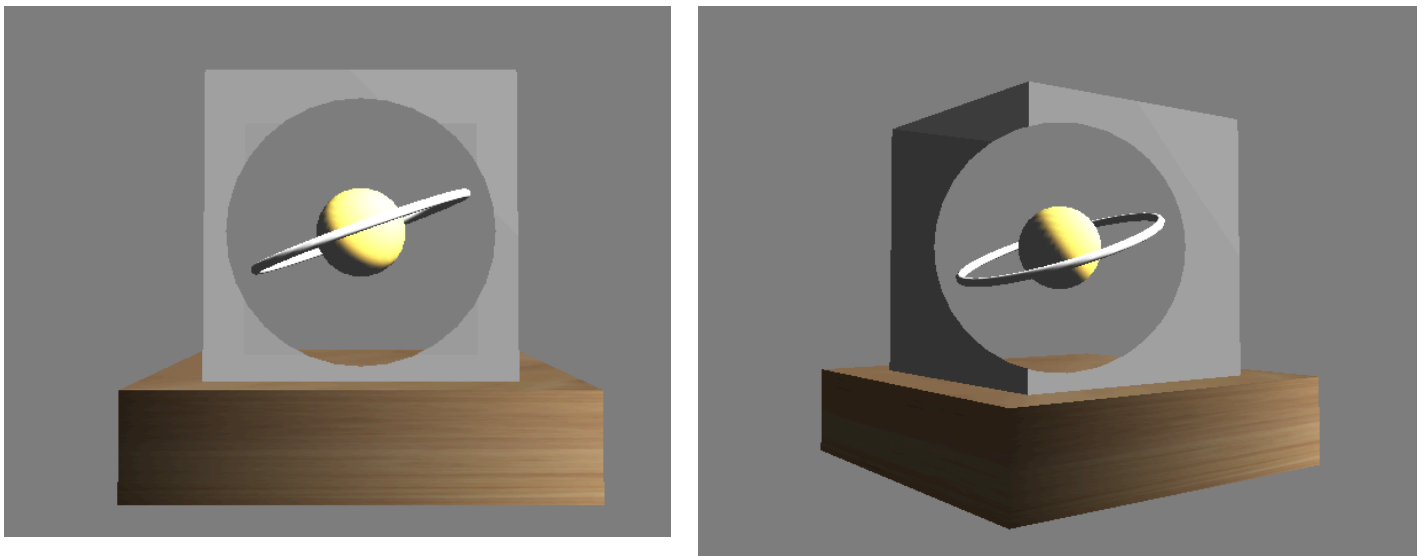


## CSC3081 - Computer Graphics Programming (23/24)

### Lab Sheet 8 - Simulating CSG Using Stencil Testing

1. Create the 3D model shown in Figure 1. The model consists of a glass cube with a hollow spherical center. The spherical part should be fully transparent. The effect of light refraction through glass should be simulated by cutting out the sphere from the cube using stencil testing. (i.e.: the spherical center should remain fully transparent all the time). Use the provided image "*base.jpg*" for the base part of the model.

Submit the modularised version/ header file of the model to the LMS assignment thread. Submit the *.cpp* file/source file ONLY if you are unable to submit the modularised version.



**Figure 1:** 3D model

Reference: <https://learnopengl.com/Advanced-OpenGL/Stencil-testing>