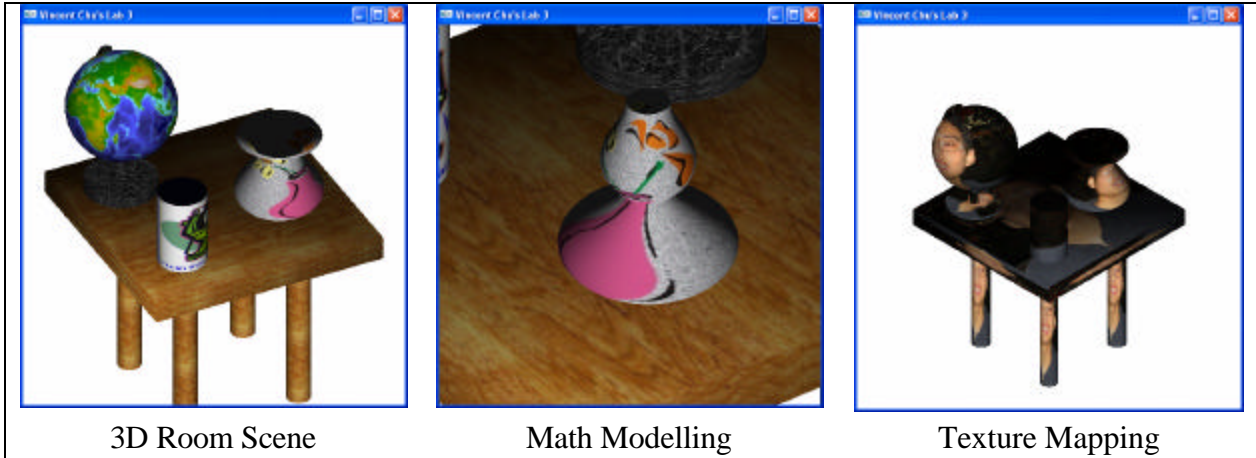


3D Room Scene

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This is an individual project done for the last lab of my computer graphics (**CMPT 361**) course. We were allowed **10 days** to work on the project. The project guideline only requires a smaller subset of what I have done. Because I enjoyed working on the project very much, I have added **additional features*** that were not required.

The main goal of the project was to create a room scene using **OpenGL** and **C++**. In particular, the lab was designed for us to practise the use of texture mapping, and composing a scene using a conceptual scene graph model**. We make use of only primitive building blocks (such as sphere, line strips, cube, etc) to create a room with a wood table, a spinning globe, a pop can and a vase. Notably, the vases are created by rotating a strip of custom defined line strip using knowledge from calculus and linear algebra – all the vases are modelled mathematically by first finding an equation that would give the desired shape.

The program is downloadable at:
<http://www.sfu.ca/~vwchu/3droomscene.html>

Thank you

*Additional features include a GUI menu to manipulate the different settings. For example, it allows the user to interactively choose the textures to map onto the objects, and adjust the shape of the vase. Only one vase was required, but I modelled quite a few based on the vases I have at home.

**Positioning the objects inside the room by specifying it relations with the other objects. With the use of OpenGL matrix stack, we can show the different objects at desired locations.