

Assignment#2

coen290/148

This assignment, you are given two data files. The data files are a representation of a face object.

The two files are:

face-vertices.data:

every line of this file is (x, y, z) coordinates of a 3D points

face-index.txt:

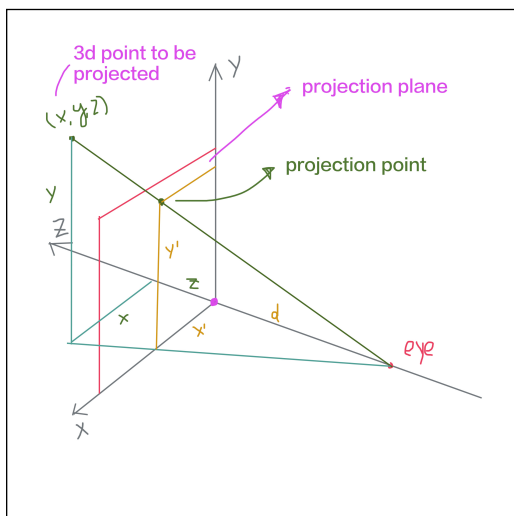
every line of this file are 3 indices.

each index is an entry in face-vertices.data file referring to one vertex coordinate
so the 3 indices indicate 3 vertices of a triangle.

Write a program (python or any other program you prefer), to read this file and display the object in two mode:

- points: display all coordinates
- wireframe: display all triangles

do not use 3D library, instead, project the 3D coordinates to 2D screen yourself, using the perspective projection equations we talked about in class.



extra credit: interactive rotation and zoom in and zoom out.