

Computer Graphics Project #3: Texture Mapping on Object Loader

- ❖ Read 'Cube.obj' file and store the following data in appropriate structures
 - Get vertices x,y,z (*v lines*)
 - Get texture cords either x,y (*vt lines*)
 - Get indices list that include vertex index, texture index, normal index, *f lines*
 - Apply Texture image to cube
- ❖ Indices format is as follows
 - $f \rightarrow v \text{ index } / vt \text{ index } / vn \text{ index}$
 - if no vt $f \rightarrow v // vn$
 - handle the error checking accordingly
 - Use 'given framework for your implementation
 - Set `gluLookAt(0,0,3,0.0,0.0,0.0,0.0,1.0,0.0);`
 - Use the Texture image from [here](#) or similar
- ❖ You will get extra 5 points for using typedef structure for own data types
- ❖ Draw the scene using the following format & follow the given key setup

```
glBegin(GL_TRIANGLES);
```

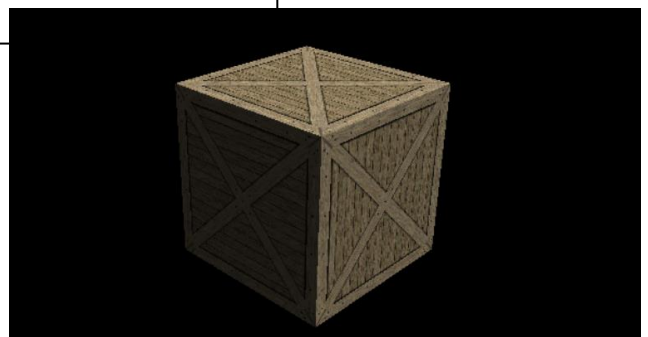
```
glNormal3f(.....  
glTexCoord2f(..  
glVertex3f(.....
```

```
glNormal3f(.....  
glTexCoord2f(..  
glVertex3f(.....
```

```
glNormal3f(.....  
glTexCoord2f(..  
glVertex3f(.....
```

```
glEnd();
```

```
GLUT_KEY_END: zoom in  
GLUT_KEY_HOME: zoom out  
GLUT_KEY_UP: Rotate Up around X-Axis  
  
GLUT_KEY_DOWN: Rotate Down around X-Axis  
  
GLUT_KEY_LEFT: Rotate Left  
  
GLUT_KEY_RIGHT: Rotate Right  
'w' : wire frame
```



Include your *Name*, *ID*, *Class* and *Project Name* at the top of the code. Please comment your code describing what each of your code line dose. Save the file as "projectXX.cpp"