6.TEA POT

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#include<GL/glut.h> #include<stdio.h> GLfloat
mat_ambient[]={0.7,0.7,0.7,1.0}; GLfloat
mat_diffuse[]={0.5,0.5,0.5,1.0}; GLfloat
mat_specular[]={1.0,1.0,1.0,1.0}; const GLfloat
mat_shininess[] = {50.0}; GLfloat light_intensity[]=
{0.7,0.7,0.7,1.0}; GLfloat
light_position[]={2.0,6.0,3.0,0.0};
void init() {
glMaterialfv(GL_FRONT,GL_AMBIENT,
mat_ambient);
glMaterialfv(GL_FRONT,GL_DIFFUSE,
mat_diffuse);
glMaterialfv(GL_FRONT,GL_SPECULAR,
mat_specular);
glMaterialfv(GL_FRONT,GL_SHININESS,
mat_shininess);
glLightfv(GL_LIGHT0,GL_POSITION,light_position
);glLightfv(GL_LIGHT0,GL_DIFFUSE,light_intensit
y);
glOrtho(-2.0,2.0,-2.0,2.0,-10.0,10.0);
glMatrixMode(GL_MODELVIEW); glLoadIdentity();
glMatrixMode(GL_PROJECTION);glLoadIdentity();
gluLookAt(2.0,1.0,2.0,0.0,0.2,0.2,0.0,1.0,0.0);
glClear(GL_COLOR_BUFFER_BIT|GL_DEPTH_BU
FFER_BIT);   }
 void teapot() {
glPushMatrix(); glTranslated(0.4,0.0,0.4); glRotated(30
,0,1,0); glutSolidTeapot(0.2); glPopMatrix();   }
 void tabletop()
{  glPushMatrix();  glTranslated(0.0,-0.3,0.0);
glScaled(7.0,0.5,7.0);  glutSolidCube(0.2);
 glPopMatrix();  }
void frontleg()
{ glPushMatrix(); glTranslated(0.5,-0.7,0.5); glScaled
(0.5,7.0,0.5); glutSolidCube(0.1); glPopMatrix(); }
void leftleg()
{ glPushMatrix(); glTranslated(-0.5,-0.7,0.5);
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glScaled(0.5,7.0,0.5); glutSolidCube(0.1);
glPopMatrix(); }
void rightleg()
{ glPushMatrix(); glTranslated(0.5,-0.7,-0.5); glScaled
(0.5,7.0,0.5); glutSolidCube(0.1); glPopMatrix(); }
void backleg()
{ glPushMatrix(); glTranslated(-0.5,-0.7,-0.5);
glScaled (0.5,7.0,0.5); glutSolidCube(0.1);
glPopMatrix(); }
 void leftwall()
  { glPushMatrix(); glTranslated(-1.0,-0.0,0.0);
 glScaled(0.1,10.0,10.0); glutSolidCube(0.2);
 glPopMatrix(); } void bottomfloor() {
 glPushMatrix(); glTranslated(0.0,-1.0,0.0);
 glScaled(10.1,0.1,10.0);
glutSolidCube(0.2); glPopMatrix(); }
void rightwall()
{ glPushMatrix(); glTranslated(0.0,0.0,-1.0);
glScaled(10.0,10.0,0.1); glutSolidCube(0.2);
glPopMatrix(); }
void display()
{ init(); teapot(); tabletop(); frontleg(); leftleg();
rightleg(); backleg(); bottomfloor(); rightwall();
leftwall(); glFlush(); }
 void main(int argc, char **argv) {
glutInit(&argc,argv);
glutInitDisplayMode(GLUT_SINGLE|GLUT_RGB|G
LUT_DEPTH);   glutInitWindowPosition(50,50);
glutInitWindowSize(400,300);
glutCreateWindow("shaded Scene");
glutDisplayFunc(display); glEnable(GL_LIGHTING);
glEnable(GL_LIGHT0);
glShadeModel(GL_SMOOTH);
glEnable(GL_DEPTH_TEST);
glEnable(GL_NORMALIZE);
glClearColor(0.1,0.1,0.1,0.0);
glViewport(0,0,640,480);
glutMainLoop();  }
```