Duplex House

#include <windows.h>

#include <GL/gl.h>

#include <GL/glut.h>

void display(void)

{

 glClear (GL\_COLOR\_BUFFER\_BIT);

 glColor3f (1.0, .0, .0);

 //first Floor

 glBegin(GL\_QUADS); //Begin triangle coordinates

 glVertex3f(.1f, 0.9f, 0.0f);

 glVertex3f(0.9f, 0.9f, 0.0f);

 glVertex3f(1.0f, 0.6f, 0.0f);

 glVertex3f(.0f, .6f, 0.0f);

glEnd();

 glBegin(GL\_TRIANGLES); //Begin triangle coordinates

 glColor3f (.0, .0, .0);

 glVertex3f(.5f, 1.0f, 0.0f);

 glVertex3f(0.6f, 0.9f, 0.0f);

 glVertex3f(.4f, 0.9f, 0.0f);

glEnd();

 //first floor door

 glBegin(GL\_QUADS); //Begin triangle coordinates

 glColor3f (1.0, 1.0, 1.0);

 glVertex3f(0.55f, 0.9f, 0.0f);

 glVertex3f(0.55f, 0.7f, 0.0f);

 glVertex3f(0.45f, 0.7f, 0.0f);

 glVertex3f(.45f, 0.9f, 0.0f);

glEnd();

glBegin(GL\_LINES); //Begin triangle coordinates

 glColor3f (.0, .0, .0);

 glVertex3f(0.5f, 0.9f, 0.0f);

 glVertex3f(0.5f, 0.7f, 0.0f);

 glVertex3f(0.45f, 0.85f, 0.0f);

 glVertex3f(0.55f, 0.85f, 0.0f);

 glVertex3f(0.45f, 0.75f, 0.0f);

 glVertex3f(0.55f, 0.75f, 0.0f);

glEnd();

 glBegin(GL\_LINES);

 glColor3f (1.0, 1.0, 1.0);

 glVertex3f(0.43f, 0.9f, 0.0f);

 glVertex3f(0.43f, 0.65f, 0.0f);

 glVertex3f(0.57f, 0.9f, 0.0f);

 glVertex3f(0.57f, 0.65f, 0.0f);

 glVertex3f(0.43f, 0.65f, 0.0f);

 glVertex3f(0.57f, 0.65f, 0.0f);

 glVertex3f(0.4f, 0.9f, 0.0f);

 glVertex3f(0.37f, 0.87f, 0.0f);

 glVertex3f(0.6f, 0.9f, 0.0f);

 glVertex3f(0.63f, 0.87f, 0.0f);

 glEnd();

 //2nd floor

 glBegin(GL\_QUADS); //Begin triangle coordinates

 glColor3f (.0, .0, .0);

 glVertex3f(0.06f, 0.6f, 0.0f);

 glVertex3f(0.94f, 0.6f, 0.0f);

 glVertex3f(0.94f, 0.1f, 0.0f);

 glVertex3f(0.06f, 0.1f, 0.0f);

glEnd();

 //3rd floor

 glBegin(GL\_QUADS); //Begin triangle coordinates

 glColor3f (1.0, .0, .0);

 glVertex3f(0.2f, 0.5f, 0.0f);

 glVertex3f(0.8f, 0.5f, 0.0f);

 glVertex3f(1.0f, 0.35f, 0.0f);

 glVertex3f(0.0f, 0.35f, 0.0f);

glEnd();

//3rd floor window1

glBegin(GL\_QUADS); //Begin triangle coordinates

 glColor3f (1.0, 1.0, 1.0);

 glVertex3f(0.15f, 0.35f, 0.0f);

 glVertex3f(0.23f, 0.35f, 0.0f);

 glVertex3f(0.23f, 0.15f, 0.0f);

 glVertex3f(.15f, 0.15f, 0.0f);

glEnd();

glBegin(GL\_LINES);

 glColor3f (0.0, 0.0, 0.0);

 glVertex3f(0.19f, 0.35f, 0.0f);

 glVertex3f(0.19f, 0.15f, 0.0f);

 glVertex3f(0.15f, 0.3f, 0.0f);

 glVertex3f(0.23f, 0.3f, 0.0f);

 glVertex3f(0.15f, 0.2f, 0.0f);

 glVertex3f(0.23f, 0.2f, 0.0f);

glEnd();

//3rd floor window 2

//3rd floor window1

glBegin(GL\_QUADS); //Begin triangle coordinates

 glColor3f (1.0, 1.0, 1.0);

 glVertex3f(0.75f, 0.35f, 0.0f);

 glVertex3f(0.83f, 0.35f, 0.0f);

 glVertex3f(0.83f, 0.15f, 0.0f);

 glVertex3f(.75f, 0.15f, 0.0f);

glEnd();

glBegin(GL\_LINES);

 glColor3f (0.0, 0.0, 0.0);

 glVertex3f(0.79f, 0.35f, 0.0f);

 glVertex3f(0.79f, 0.15f, 0.0f);

 glVertex3f(0.75f, 0.3f, 0.0f);

 glVertex3f(0.83f, 0.3f, 0.0f);

 glVertex3f(0.75f, 0.2f, 0.0f);

 glVertex3f(0.83f, 0.2f, 0.0f);

glEnd();

 glBegin(GL\_TRIANGLES); //Begin triangle coordinates

 glColor3f (1.0, 1.0, 1.0);

 glVertex3f(.5f, .52f, 0.0f);

 glVertex3f(0.65f, 0.35f, 0.0f);

 glVertex3f(.35f, 0.35f, 0.0f);

glEnd();

glBegin(GL\_LINES);

 glColor3f (0.0, 0.0, 0.0);

 glVertex3f(0.5f, 0.45f, 0.0f);

 glVertex3f(0.55f, 0.38f, 0.0f);

 glVertex3f(0.5f, 0.45f, 0.0f);

 glVertex3f(0.45f, 0.38f, 0.0f);

 glVertex3f(0.55f, 0.38f, 0.0f);

 glVertex3f(0.45f, 0.38f, 0.0f);

 glVertex3f(0.35f, 0.35f, 0.0f);

 glVertex3f(0.65f, 0.35f, 0.0f);

 glVertex3f(0.38f, 0.04f, 0.0f);

 glVertex3f(0.63f, 0.04f, 0.0f);

 glVertex3f(0.34f, 0.0123f, 0.0f);

 glVertex3f(0.66f, 0.0123f, 0.0f);

 glEnd();

 glBegin(GL\_QUADS); //Begin triangle coordinates

 glColor3f (1.0, 1.0, 1.0);

 glVertex3f(0.25f, 0.59f, 0.0f);

 glVertex3f(0.30f, 0.59f, 0.0f);

glVertex3f(.30f, 0.51f, 0.0f);

 glVertex3f(0.25f, 0.51f, 0.0f);

 glVertex3f(0.32f, 0.59f, 0.0f);

 glVertex3f(0.37f, 0.59f, 0.0f);

 glVertex3f(0.37f, 0.51f, 0.0f);

 glVertex3f(.32f, 0.51f, 0.0f);

 glVertex3f(0.39f, 0.59f, 0.0f);

 glVertex3f(0.44f, 0.59f, 0.0f);

 glVertex3f(0.44f, 0.51f, 0.0f);

 glVertex3f(.39f, 0.51f, 0.0f);

 glVertex3f(0.55f, 0.59f, 0.0f);

 glVertex3f(0.60f, 0.59f, 0.0f);

 glVertex3f(0.60f, 0.51f, 0.0f);

 glVertex3f(.55f, 0.51f, 0.0f);

 glVertex3f(0.62f, 0.59f, 0.0f);

 glVertex3f(0.67f, 0.59f, 0.0f);

 glVertex3f(0.67f, 0.51f, 0.0f);

 glVertex3f(.62f, 0.51f, 0.0f);

 glVertex3f(0.69f, 0.59f, 0.0f);

 glVertex3f(0.74f, 0.59f, 0.0f);

 glVertex3f(0.74f, 0.51f, 0.0f);

 glVertex3f(.69f, 0.51f, 0.0f);

 //Door in 2nd Floor

 glColor3f (1.0, 1.0, 1.0);

 glVertex3f(0.35f, 0.35f, 0.0f);

 glVertex3f(0.65f, 0.35f, 0.0f);

 glVertex3f(0.65f, 0.05f, 0.0f);

 glVertex3f(.35f, 0.05f, 0.0f);

 //Door in left side

 glColor3f (.0, .0, .0);

 glVertex3f(0.40f, 0.3f, 0.0f);

 glVertex3f(0.50f, 0.3f, 0.0f);

 glVertex3f(0.50f, 0.07f, 0.0f);

 glVertex3f(.40f, 0.07f, 0.0f);

 //door in Right side

 glColor3f (.0, .0, .0);

 glVertex3f(0.52f, 0.3f, 0.0f);

 glVertex3f(0.62f, 0.3f, 0.0f);

 glVertex3f(0.62f, 0.07f, 0.0f);

 glVertex3f(.52f, 0.07f, 0.0f);

 //home bottom left side

 glColor3f (1.0, .0, .0);

 glVertex3f(0.0f, .0999f, 0.0f);

 glVertex3f(0.35f, .0999f, 0.0f);

 glVertex3f(0.35f, 0.03f, 0.0f);

 glVertex3f(0.f, 0.03f, 0.0f);

 //home bottom Right side

 glColor3f (1.0, .0, .0);

 glVertex3f(0.65f, .0999f, 0.0f);

 glVertex3f(1.00f, .0999f, 0.0f);

 glVertex3f(1.00f, 0.03f, 0.0f);

 glVertex3f(0.65f, 0.03f, 0.0f);

glEnd();

//2nd floor door part one

glBegin(GL\_LINES);

 glColor3f(1.0,1.0,1.0);

 glVertex3f(0.52f, 0.25f, 0.0f);

 glVertex3f(0.62f, 0.25f, 0.0f);

 glVertex3f(0.52f, 0.15f, 0.0f);

 glVertex3f(0.62f, 0.15f, 0.0f);

 glVertex3f(0.57f, 0.35f, 0.0f);

 glVertex3f(0.57f, 0.07f, 0.0f);

glEnd();

//2nd floor door left part

glBegin(GL\_LINES);

 glColor3f(1.0,1.0,1.0);

 glVertex3f(0.40f, 0.25f, 0.0f);

 glVertex3f(0.50f, 0.25f, 0.0f);

 glVertex3f(0.40f, 0.15f, 0.0f);

 glVertex3f(0.50f, 0.15f, 0.0f);

 glVertex3f(0.45f, 0.35f, 0.0f);

 glVertex3f(0.45f, 0.07f, 0.0f);

glEnd();

glBegin(GL\_LINES);

 glColor3f (1.0, 1.0, 1.0);

 glVertex3f(0.0f, 0.0999f, 0.0f);

 glVertex3f(0.1f, 0.03f, 0.0f);

 glVertex3f(0.0f, 0.03f, 0.0f);

 glVertex3f(0.1f, 0.099f, 0.0f);

 glVertex3f(0.1f, 0.099f, 0.0f);

 glVertex3f(0.2f, 0.03f, 0.0f);

 glVertex3f(0.1f, 0.03f, 0.0f);

 glVertex3f(0.2f, 0.099f, 0.0f);

 glVertex3f(0.2f, 0.099f, 0.0f);

 glVertex3f(0.3f, 0.03f, 0.0f);

 glVertex3f(0.2f, 0.03f, 0.0f);

 glVertex3f(0.3f, 0.099f, 0.0f);

 glVertex3f(0.3f, 0.099f, 0.0f);

 glVertex3f(0.4f, 0.03f, 0.0f);

 glVertex3f(0.3f, 0.03f, 0.0f);

 glVertex3f(0.4f, 0.099f, 0.0f);

 glVertex3f(0.1f, 0.099f, 0.0f);

 glVertex3f(0.2f, 0.03f, 0.0f);

 glVertex3f(0.65f, 0.03f, 0.0f);

 glVertex3f(0.75f, 0.099f, 0.0f);

 glVertex3f(0.65f, 0.099f, 0.0f);

 glVertex3f(0.75f, 0.03f, 0.0f);

 glVertex3f(0.75f, 0.03f, 0.0f);

 glVertex3f(0.85f, 0.099f, 0.0f);

 glVertex3f(0.75f, 0.099f, 0.0f);

 glVertex3f(0.85f, 0.03f, 0.0f);

 glVertex3f(0.85f, 0.03f, 0.0f);

 glVertex3f(0.95f, 0.099f, 0.0f);

 glVertex3f(0.85f, 0.099f, 0.0f);

 glVertex3f(0.95f, 0.03f, 0.0f);

 glVertex3f(0.95f, 0.03f, 0.0f);

 glVertex3f(1.0f, 0.099f, 0.0f);

 glVertex3f(0.95f, 0.099f, 0.0f);

 glVertex3f(1.0f, 0.03f, 0.0f);

 glEnd();

glFlush ();

}

void init (void)

{

 glClearColor (1.0, 1.0, 1.0, .0); //select clearing (background) color

 glMatrixMode(GL\_PROJECTION);

 glLoadIdentity();

 glOrtho(0.0, 1.0, 0.0, 1.0, -10.0, 10.0);

}

int main(int argc, char\*\* argv)

{

 glutInit(&argc, argv);

 glutInitDisplayMode (GLUT\_SINGLE | GLUT\_RGB);

 glutInitWindowSize (600, 600);

 glutInitWindowPosition (100, 100);

 glutCreateWindow ("Duplex");

 init ();

 glutDisplayFunc(display);

 glutMainLoop();

 return 0;

}



