

Lab report on House Drawing

Course Code: CSE422

Course Title: Computer Graphics Lab

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**Source Code:**

Using Triangle , Quadrangle:

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#include <GL/gl.h>

#include <GL/glut.h>

void display(void)

{

/\* clear all pixels \*/

glClear (GL\_COLOR\_BUFFER\_BIT);

/\* draw white polygon (rectangle) with corners at

\* (0.25, 0.25, 0.0) and (0.75, 0.75, 0.0)

\*/

glBegin(GL\_QUADS); //Big Square

glColor3f (0.0, 0.0, 1.0); //blue

glVertex3f(0.4f, 0.2f, 0.0f);

glVertex3f(0.65f, 0.2f, 0.0f);

glVertex3f(0.65f, 0.55f, 0.0f);

glVertex3f(0.4f, 0.55f, 0.0f);

glEnd();

glBegin(GL\_TRIANGLES); //Roof Triangle

glColor3f(1.0,0.0,0.0); //red

glVertex3f(0.69f, 0.55f, 0.0f);

glVertex3f(0.36f, 0.55f, 0.0f);

glVertex3f(0.52f, 0.75f, 0.0f);

glEnd();

glBegin(GL\_QUADS); // Chimney

glColor3f(1.0,0.0,0.0); //red

glVertex3f(0.58f, 0.65f, 0.0f);

glVertex3f(0.60f, 0.65f, 0.0f);

glVertex3f(0.60f, 0.75f, 0.0f);

glVertex3f(0.58f, 0.75f, 0.0f);

glEnd();

glBegin(GL\_QUADS); // Door

glColor3f (0.0, 1.0, 0.0); //green

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

glVertex3f(0.55f, 0.2f, 0.0f);

glVertex3f(0.55f, 0.35f, 0.0f);

glVertex3f(0.5f, 0.35f, 0.0f);

glEnd();

glBegin(GL\_QUADS); // Left Window

glColor3f (0.0, 1.0, 0.0); //green

glVertex3f(0.45f, 0.23f, 0.0f);

glVertex3f(0.47f, 0.23f, 0.0f);

glVertex3f(0.47f, 0.26f, 0.0f);

glVertex3f(0.45f, 0.26f, 0.0f);

glEnd();

glBegin(GL\_QUADS); // Right Window

glColor3f (0.0, 1.0, 0.0); //green

glVertex3f(0.58f, 0.23f, 0.0f);

glVertex3f(0.60f, 0.23f, 0.0f);

glVertex3f(0.60f, 0.26f, 0.0f);

glVertex3f(0.58f, 0.26f, 0.0f);

glEnd();

glFlush ();

}

void init (void)

{

/\* select clearing (background) color \*/

glClearColor (0.0, 0.0, 0.0, 0.0);

/\* initialize viewing values \*/

glMatrixMode(GL\_PROJECTION);

glLoadIdentity();

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

}

/\*

\* Declare initial window size, position, and display mode

\* (single buffer and RGBA). Open window with "hello"

\* in its title bar. Call initialization routines.

\* Register callback function to display graphics.

\* Enter main loop and process events.

\*/

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

{

glutInit(&argc, argv);

glutInitDisplayMode (GLUT\_SINGLE | GLUT\_RGB);

glutInitWindowSize (600, 600);

glutInitWindowPosition (100, 100);

glutCreateWindow ("hello");

init ();

glutDisplayFunc(display);

glutMainLoop();

return 0; /\* ISO C requires main to return int. \*/

}

**Output:**

