LAPORAN TUGAS AKHIR GRAFIKA KOMPUTER



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# TUGAS AKHIR GRAFIKOM

1. **Link GitHub**

[**https://github.com/masrialzaidan/Grafika\_USB\_G**](https://github.com/masrialzaidan/Grafika_USB_G)

# Link YouTube

# https://www.youtube.com/watch?v=1FKc\_riUcwo

# 

# Source Code

from OpenGL.GL import \* from OpenGL.GLUT import \* from OpenGL.GLU import \*

w,h= 700,700

def draw\_line(x1, y1, x2, y2, color, line\_width): glColor3f(\*color)

glLineWidth(line\_width) glBegin(GL\_LINES)

glVertex2f(x1, y1) glVertex2f(x2, y2) glEnd()

def square(): #didnding kiri

glColor3f(1.0, 0.7, 0.0); # warna orange glBegin(GL\_QUADS);

glVertex2f(340, 60);

glVertex2f(340, 340);

glVertex2f(140, 340);

glVertex2f(140, 60); glEnd()

#atap kiri atas

glColor3f(0.5, 0.2, 0.0); #warna Coklat glBegin(GL\_QUADS);

glVertex2f(390, 330);

glVertex2f(390, 420);

glVertex2f(140, 420);

glVertex2f(110, 330); glEnd()

#dinding pintu

glColor3f(1.0, 0.5, 0.0); # warna orange glBegin(GL\_QUADS);

glVertex2f(550, 60);

glVertex2f(550, 270);

glVertex2f(340, 270);

glVertex2f(340, 60); glEnd()

#pintu

glColor3f(0.2, 0.2, 0.2); #abu-abu glBegin(GL\_QUADS);

glVertex2f(500, 65);

glVertex2f(500, 220);

glVertex2f(400, 220);

glVertex2f(400, 65); glEnd()

#gagang pintu glLineWidth(4);

glColor3f(0.1,0.1,0.1); glBegin(GL\_LINES);

glVertex2f(410,140); glVertex2f(410,155); glEnd()

#gagang pintu glLineWidth(2);

glColor3f(0.1,0.1,0.1); glBegin(GL\_LINES);

glVertex2f(420,147); glVertex2f(410,147); glEnd()

#atap bawah

glColor3f(0.5, 0.2, 0.0);#warna Coklat glBegin(GL\_QUADS);

glVertex2f(580,250); glVertex2f(550,320); glVertex2f(340,320); glVertex2f(310,250); glEnd()

#dinding atas atap

glColor3f(1.0, 0.5, 0.0); # warna orange glBegin(GL\_QUADS);

glVertex2f(550,320); glVertex2f(550,370); glVertex2f(340,370); glVertex2f(340,320); glEnd()

#jendela atas

glColor4f(0,0,0,0.8) # hitam glBegin(GL\_QUADS);

glVertex2f(500,330); glVertex2f(500,380); glVertex2f(400,380); glVertex2f(400,330); glEnd()

# garis vertikal jendela atas glLineWidth(1);

glColor3f(0.1,0.1,0.1); glBegin(GL\_LINES);

glVertex2f(500,350); glVertex2f(400,350); glEnd()

# garis horizontal jendela atas glLineWidth(1);

glColor3f(0.1,0.1,0.1); glBegin(GL\_LINES);

glVertex2f(450,330); glVertex2f(450,380); glEnd()

#jendela samping kiri

glColor3f(0.2, 0.2, 0.2); #abu-abu glBegin(GL\_QUADS);

glVertex2f(230,200); glVertex2f(230,300); glVertex2f(170,300); glVertex2f(170,200); glEnd()

#jendela samping kanan

glColor3f(0.2, 0.2, 0.2); #abu-abu glBegin(GL\_QUADS);

glVertex2f(310,200); glVertex2f(310,300); glVertex2f(250,300); glVertex2f(250,200); glEnd()

glLineWidth(3.0)

#pagar vertical kiri

glColor3f(1.0, 1.0, 1.0); glLineWidth(4)

glBegin(GL\_LINES) glVertex2f(130,60); glVertex2f(130,160); glEnd()

#pagar horizontal bawah glColor3f(1.0, 1.0, 1.0); glLineWidth(4)

glBegin(GL\_LINES) glVertex2f(340,62); glVertex2f(130,62); glEnd()

#pagar horizontal atas

glColor3f(1.0, 1.0, 1.0); glLineWidth(4)

glBegin(GL\_LINES) glVertex2f(340,160); glVertex2f(128,160); glEnd()

# Garis pagar

for x in range(140, 340, 10):

draw\_line(x, 60, x, 160, (1.0, 1.0, 1.0), 3)

#atap tengah triangles

glColor3f(0.4, 0.2, 0.0);#warna Coklat glBegin(GL\_TRIANGLES);

glVertex2f(570,370); glVertex2f(445,460); glVertex2f(320,370); glEnd()

#dinding triangles

glColor3f(1.0, 0.5, 0.0); # warna orange glBegin(GL\_TRIANGLES);

glVertex2f(550,370); glVertex2f(445,450); glVertex2f(340,370);

glEnd()

def iterate():

glViewport(0, 0, 700, 700) glMatrixMode(GL\_PROJECTION) glLoadIdentity()

glOrtho(0.0, 700, 0.0, 700, 0.0, 1.0)

glMatrixMode (GL\_MODELVIEW) glLoadIdentity()

def showScreen():

glClear(GL\_COLOR\_BUFFER\_BIT | GL\_DEPTH\_BUFFER\_BIT)

glLoadIdentity() iterate()

square()

glutSwapBuffers()

glutInit()

glutInitDisplayMode(GLUT\_RGBA) glutInitWindowSize(700, 700)

glutInitWindowPosition(0, 0)

wind = glutCreateWindow("OpenGL Coding Practice") glutDisplayFunc(showScreen)

glutIdleFunc(showScreen) glutMainLoop()

1. **Hasil**

