import com.jogamp.opengl.GL2;

import com.jogamp.opengl.GLAutoDrawable;

import com.jogamp.opengl.GLCapabilities;

import com.jogamp.opengl.GLEventListener;

import com.jogamp.opengl.GLProfile;

import com.jogamp.opengl.awt.GLCanvas;

import com.jogamp.opengl.glu.GLU;

import javax.swing.JFrame;

public class MdAbdulKahharSiddikiShan\_18301221\_Assignment02 implements GLEventListener{

private GLU glu;

@Override

public void display(GLAutoDrawable drawable) {

final GL2 gl = drawable.getGL().getGL2();

DDA(gl, -70,45,20,45);

DDA(gl,20,0,20,45);

DDA(gl,-70,0,20,0);

DDA(gl,-70,-45,-80,0);

DDA(gl,-70,-45,20,-45);

DDA(gl,50,-45,50,45);

}

@Override

public void dispose(GLAutoDrawable arg0) {

//method body

}

@Override

public void init(GLAutoDrawable gld) {

GL2 gl = gld.getGL().getGL2();

glu = new GLU();

gl.glClearColor(0.0f, 0.0f, 0.0f, 0.0f);

gl.glViewport(-100, -50, 50, 100);

gl.glMatrixMode(GL2.GL\_PROJECTION);

gl.glLoadIdentity();

glu.gluOrtho2D(-100.0, 100.0, -100.0, 100.0);

}

@Override

public void reshape(GLAutoDrawable arg0, int arg1, int arg2, int arg3, int arg4) {

// method body

}

public void DDA(GL2 gl, float x1, float y1, float x2, float y2) {

gl.glPointSize(3.0f);

gl.glColor3d(1, 0, 0);

//write your own code

float dx = x2-x1;

float dy = y2-y1;

float m = dy/dx;

float x = x1;

float y = y1;

gl.glBegin(GL2.GL\_POINTS);

// gl.glVertex2d(x, y);

if(m==0) {

while(x<=x2) {

gl.glVertex2d(x, y);

x = x+1;

}

}

else if(m>-1 && m<1) {

while(x<=x2) {

gl.glVertex2d(x, y);

x = x+1;

y = y+m;

y = (float)(Math.round(y));

}

}

else if(m==(float)(1.0/0)) {

while(y<=y2) {

gl.glVertex2d(x, y);

y = y+1;

}

}

else {

while(y<=y2) {

gl.glVertex2d(x, y);

x = x+(1/m);

y= y+1;

x = (float)(Math.round(x));

}

}

gl.glEnd();

}

public static void main(String[] args) {

//getting the capabilities object of GL2 profile

final GLProfile profile = GLProfile.get(GLProfile.GL2);

GLCapabilities capabilities = new GLCapabilities(profile);

// The canvas

final GLCanvas glcanvas = new GLCanvas(capabilities);

MdAbdulKahharSiddikiShan\_18301221\_Assignment02 l = new MdAbdulKahharSiddikiShan\_18301221\_Assignment02();

glcanvas.addGLEventListener(l);

glcanvas.setSize(400, 400);

//creating frame

final JFrame frame = new JFrame ("SHAN: Last two digit of student ID ");

//adding canvas to frame

frame.getContentPane().add(glcanvas);

frame.setSize(frame.getContentPane().getPreferredSize());

frame.setVisible(true);

}//end of main

}//end of classimport javax.media.opengl.GL2;