import java.awt.\*;

import javax.swing.\*;

public class TrafficSignal {

public static void main(String[] args) throws InterruptedException {

JFrame frame = initializeFrame();

Light l1 = new Light();

frame.add(l1);

while (true) {

l1.incrementValue();

Thread.sleep(50);

l1.swapEm();

}

}

private static JFrame initializeFrame() {

JFrame frame = new JFrame();

frame.setTitle("Trafficligth");

frame.setSize(250, 400);

frame.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

frame.setVisible(true);

return frame;

}

static class Light extends JPanel {

private static final long serialVersionUID = 1L;

private int iValue = 0;

private int iDistance = 90;

private int topLightHeight = 10;

private Color iRed = Color.red;

private Color iYellow = Color.black;

private Color iGreen = Color.black;

public void paintComponent(Graphics g) {

defineLight(g);

}

public int getValue() {

return this.iValue;

}

public void setLighDistance(int distance) {

this.iDistance = distance;

}

public void incrementValue() {

if (this.iValue == 25) {

this.iValue = -1;

}

this.iValue = this.iValue + 1;

}

public void swapEm() {

if (this.iValue == 0) {

this.iYellow = Color.black;

this.iRed = Color.red;

}

if (this.iValue == 10) {

this.iRed = Color.black;

this.iYellow = Color.yellow;

}

if (this.iValue == 15) {

this.iRed = Color.black;

this.iYellow = Color.black;

this.iGreen = Color.green;

}

if (this.iValue == 20) {

this.iGreen = Color.black;

this.iYellow = Color.yellow;

}

repaint();

}

public void defineLight(Graphics g) {

g.setColor(this.iRed);

g.fillRoundRect(80, this.topLightHeight, 80, 80, 70, 70);

g.setColor(this.iYellow);

g.fillRoundRect(80, this.topLightHeight + this.iDistance, 80, 80, 70, 70);

g.setColor(this.iGreen);

g.fillRoundRect(80, this.topLightHeight + 2 \* this.iDistance, 80, 80, 70, 70);

}

}

}