import java.awt.
import java.awt.event.

/**
* A TrafficLight has three lenses: red, yellow and green.
* It can be set to signal Go, Caution, Stop or Walk.
*
* @version 1
*/

public class TrafficLight extends Panel
{

private Lens red = new Lens( Color.red );
private Lens yellow = new Lens( Color.yellow );
private Lens green = new Lens( Color.green );
private Button nextButton = new Button("Next");

/**
* Construct a traffic light.
*/

public TrafficLight()
{
    this.setLayout(new BorderLayout());

    // create a Panel for the Lenses
    Panel lensPanel = new Panel();
    lensPanel.setLayout( new GridLayout( 3, 1 ) );
    lensPanel.add( red );
    lensPanel.add( yellow );
    lensPanel.add( green );
    this.add( BorderLayout.NORTH, lensPanel );

    // configure the "Next" button
    Sequencer sequencer = new Sequencer( this );
    NextButtonListener payAttention =
        new NextButtonListener( sequencer );
    nextButton.addActionListener( payAttention );
    this.add( BorderLayout.CENTER, nextButton );
}

// Methods that change the light

/**
* Set the light to stop (red).
*/

public void setStop()
{
    red.turnOn();
yellow.turnOff();
green.turnOff();
}

/**
* Set the light to caution (yellow).
*/

public void setCaution()
{
    red.turnOff();
yellow.turnOn();
green.turnOff();
}

/**
* Set the light to go (green).
*/

public void setGo()
{
    red.turnOff();
yellow.turnOff();
green.turnOn();
}

/**
* Set the light to walk.
* (In Boston, red and yellow signal walk.)
*/

public void setWalk()
{
    red.turnOn();
yellow.turnOn();
green.turnOff();
}

/**
* The traffic light simulation starts at main.
* @param args ignored.
*/

public static void main( String[] args )
{
    Frame frame = new Frame();
    TrafficLight light = new TrafficLight();
    frame.add( light );
    frame.addWindowListener( new ShutDownLight() );
    frame.pack();
    frame.show();
}
// A ShutDownLight instance handles close events generated
// by the underlying window system with its windowClosing
// method.

// This is an inner class, declared inside the
// TrafficLight class since it's used only here.

private static class ShutDownLight extends WindowAdapter {
    // Close the window by shutting down the light.
    public void windowClosing (WindowEvent e) {
        System.exit(0);
    }
}