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import javax.swing.*;
import java.awt.*;
import java.awt.event.*;

class TrafficLight extends JPanel implements ActionListener {
    private JRadioButton r1;
    private JRadioButton r2;
    private JRadioButton r3;
    private Color red_c;
    private Color green_c;
    private Color yellow_c;

    public TrafficLight() {
        setBounds(0, 0, 500, 480);
        r1 = new JRadioButton("Red");
        r2 = new JRadioButton("Yellow");
        r3 = new JRadioButton("Green");
        red_c = getBackground();
        yellow_c = getBackground();
        green_c = getBackground();

        ButtonGroup gp = new ButtonGroup();
        gp.add(r1);
        gp.add(r2);
        gp.add(r3);

        add(r1);
        add(r2);
        add(r3);
        r1.addActionListener(this);
        r2.addActionListener(this);
        r3.addActionListener(this);
    }

    public void actionPerformed(ActionEvent e) {
        if (r1.isSelected()) {
            red_c = Color.red;
            yellow_c = getBackground();
            green_c = getBackground();
        } else if (r2.isSelected()) {
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        red_c = getBackground();
        yellow_c = Color.yellow;
        green_c = getBackground();
    } else if (r3.isSelected()) {
        red_c = getBackground();
        yellow_c = getBackground();
        green_c = Color.green;
    }
    repaint();
}

```

```

public void paintComponent(Graphics g) {
    super.paintComponent(g);
    g.drawOval(50, 50, 50, 50);
    g.drawOval(50, 110, 50, 50);
    g.drawOval(50, 170, 50, 50);
    g.setColor(red_c);
    g.fillOval(50, 50, 50, 50);
    g.setColor(yellow_c);
    g.fillOval(50, 110, 50, 50);
    g.setColor(green_c);
    g.fillOval(50, 170, 50, 50);
}
}

```

```

class Traffic {
    public static void main(String[] args) {
        JFrame f = new JFrame();
        f.setVisible(true);
        f.setSize(500, 480);
        f.setLayout(null);
        TrafficLight t = new TrafficLight();
        f.add(t);
        f.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    }
}

```

