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import javax.swing.*;
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
class Traffic extends JPanel implements
ActionListener{
    JRadioButton r1,r2,r3;
    Color red_c,yellow_c,green_c;
    Traffic()
    {
        setBounds(0,0,400,400);

        red_c = getBackground();
        yellow_c = getBackground();
        green_c = getBackground();

        r1 = new JRadioButton("Red");
        r2 = new JRadioButton("Yellow");
        r3 = new JRadioButton("Green");

        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 paintComponent(Graphics g){
        super.paintComponent(g);
        g.drawOval(200, 100, 50, 50);
        g.drawOval(200, 200, 50, 50);
        g.drawOval(200, 300, 50, 50);

        g.setColor(red_c);
        g.fillOval(200, 100, 50, 50);
        g.setColor(yellow_c);
        g.fillOval(200, 200, 50, 50);
        g.setColor(green_c);
        g.fillOval(200, 300, 50, 50);
    }

    public void actionPerformed(ActionEvent ae)
    {

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        red_c = Color.red;
        yellow_c = getBackground();
        green_c = getBackground();
        repaint();
    }
    else if(r2.isSelected())
    {
        red_c = getBackground();
        yellow_c = Color.yellow;
        green_c = getBackground();
        repaint();
    }
    else if(r3.isSelected())
    {
        red_c = getBackground();
        yellow_c =getBackground();
        green_c = Color.green;
        repaint();
    }
    }
}

class TrafficLight{
    static JFrame jf;
    public static void main(String args[]){
        Traffic t = new Traffic();
        jf = new JFrame("Traffic Light");
        jf.setSize(500,500);
        jf.setLayout(null);

        jf.setDefaultCloseOperation(JFrame.EXIT_ON
_CLOSE);
        jf.add(t);
        jf.setVisible(true);
    }
}

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import javax.swing.*;
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
class Calculator implements ActionListener{
    JFrame jf;
    JTextField jt;
    JButton
b1,b2,b3,b4,b5,b6,b7,b8,b9,bsub,bmul,bdiv,bc,b
0,b17,badd,beq,bdot;
    JLabel jl;
    float oprand1,oprand2;
    int oprt;
    Calculator(){
        jf = new JFrame("Calculator");
        jf.setLayout(null);
        jf.setSize(300,500);
        jl = new JLabel("Calculator");
        jl.setBounds(100,50,100,20);
        jf.add(jl);
        jt = new JTextField();
        jt.setBounds(50,90,200,30);
        jf.add(jt);
        bc = new JButton("C");
        bc.setBounds(50,130,50,50);
        bc.addActionListener(this);
        jf.add(bc);
        bdiv = new JButton("/");
        bdiv.setBounds(100,130,50,50);
        bdiv.addActionListener(this);
        jf.add(bdiv);
        bmul = new JButton("X");
        bmul.setBounds(150,130,50,50);
        bmul.addActionListener(this);
        jf.add(bmul);
        bsub = new JButton("-");
        bsub.setBounds(200,130,50,50);
        bsub.addActionListener(this);
        jf.add(bsub);
        b7 = new JButton("7");
        b7.setBounds(50,180,50,50);
        b7.addActionListener(this);
        jf.add(b7);
        b8 = new JButton("8");
        b8.setBounds(100,180,50,50);
        b8.addActionListener(this);
        jf.add(b8);
        b9 = new JButton("9");
        b9.setBounds(150,180,50,50);
        b9.addActionListener(this);
        jf.add(b9);
        badd = new JButton("+");

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        badd.setBounds(200,180,50,100);
        badd.addActionListener(this);
        jf.add(badd);
        b4 = new JButton("4");
        b4.setBounds(50,230,50,50);
        b4.addActionListener(this);
        jf.add(b4);
        b5 = new JButton("5");
        b5.setBounds(100,230,50,50);
        b5.addActionListener(this);
        jf.add(b5);
        b6 = new JButton("6");
        b6.setBounds(150,230,50,50);
        b6.addActionListener(this);
        jf.add(b6);
        b1 = new JButton("1");
        b1.setBounds(50,280,50,50);
        b1.addActionListener(this);
        jf.add(b1);
        b2 = new JButton("2");
        b2.setBounds(100,280,50,50);
        b2.addActionListener(this);
        jf.add(b2);
        b3 = new JButton("3");
        b3.setBounds(150,280,50,50);
        b3.addActionListener(this);
        jf.add(b3);
        beq = new JButton("=");
        beq.setBounds(200,280,50,100);
        beq.addActionListener(this);
        jf.add(beq);
        b0 = new JButton("0");
        b0.setBounds(50,330,100,50);
        b0.addActionListener(this);
        jf.add(b0);
        bdot = new JButton(".");
        bdot.setBounds(150,330,50,50);
        bdot.addActionListener(this);
        jf.add(bdot);
        jf.setVisible(true);

        jf.setDefaultCloseOperation(JFrame.EXIT_ON
_CLOSE);}
        public void actionPerformed(ActionEvent ae)
        {
            String temp;
            String source = ae.getActionCommand();
            if(source == "C")jt.setText("");
            else if(source == "."){
                temp = jt.getText();
                jt.setText(temp+".");
            }
        }

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else if(source == "+"){
    operand1 = Float.parseFloat(jt.getText());
    System.out.println(operand1);
    oprt = 0;
    jt.setText("");
}
else if(source == "-"){
    operand1 = Float.parseFloat(jt.getText());
    oprt = 1;
    jt.setText("");
}
else if(source == "X"){
    operand1 = Float.parseFloat(jt.getText());
    oprt = 2;
    jt.setText("");
}
else if(source == "/"){
    operand1 = Float.parseFloat(jt.getText());
    oprt = 3;
    jt.setText("");
}
else if (source=="="){
    operand2 = Float.parseFloat(jt.getText());

if(oprt==0)jt.setText(Float.toString((operand1+o
prand2)));
    else
if(oprt==1)jt.setText(Float.toString((operand1-
oprاند2)));
    else
if(oprt==2)jt.setText(Float.toString((operand1*o
prاند2)));
    else
if(oprt==3)jt.setText(Float.toString((operand1/op
rand2)));
    }
    else
if(0<=Integer.parseInt(source)&&9>=Integer.pa
rseInt(source)){
        temp=jt.getText();
        jt.setText(temp+source);
    }
}
}
class calculator
{
    public static void main(String args[])
    {
        Calculator calc = new Calculator();
    }
}

```





