```
1: import javax.swing.*;
 2: import java.awt.*;
 3: import java.awt.event.ActionEvent;
 4: import java.awt.event.ActionListener;
 6: // changed Debug -> Debug3
 7: // file name must match class identifier
 9: public class Debug3 extends JFrame implements ActionListener{
10:
11:
            private JButton next = new JButton("Next");
12:
            private JButton prev = new JButton("Previous");
13:
            private JPanel button_panel = new JPanel();
14:
            // changed from JLabel -> JPanel, wrong object
15:
            private JPanel button_panel2 = new JPanel();
16:
            final int FRAME_HEIGHT = 500, FRAME_WIDTH = 500;
17:
18:
            // you need a CardLayout to allow for the show() method to work
19:
            CardLayout card layout = new CardLayout();
20:
21:
            public Debug3(){
22:
                    // clearer window name
23:
                    super("Card Layout Example Program");
24:
                    setLayout(card_layout);
25:
                    // from values before the constructor
26:
                    setSize(FRAME_HEIGHT, FRAME_WIDTH);
27:
                    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
28:
29:
                    // action listeners need to attach to the current JFrame
30:
31:
                    next.addActionListener(this);
32:
                    prev.addActionListener(this);
33:
34:
                    button_panel.setLayout(new FlowLayout());
35:
                    // an iterative solution to making the code more efficient
36:
                    for(int i = 1; i < 4; ++i) {
37:
                            button_panel.add(new JButton(String.valueOf(i)));
38:
                    }
39:
40:
                    // add the button panel to the current JFrame
41:
                    // with correct name. They must match in the actionPerformed method
42:
43:
                    this.add(button_panel, "Pane 1");
44:
45:
                    button_panel2.setLayout(new GridLayout(2, 2, 5, 5));
46:
                    for (int i = 4; i < 7; ++i) {
47:
                            button_panel2.add(new JButton(String.valueOf(i)));
48:
```

```
// correct names for the buttons
49:
50:
                    button_panel.add(next);
51:
                    button_panel2.add(prev);
52:
                    this.add(button_panel2, "Pane 2");
53:
54:
            }
55:
56:
            @Override
57:
            public void actionPerformed(ActionEvent event) {
58:
                    // JButton -> Object
                    // Object inherits any UI element so please use that
59:
60:
                    Object source = event.getSource();
61:
                    // go forward
62:
                    if(source == next) { card_layout.show(getContentPane(), "Pane 2"); }
63:
                    // go backwards
                    else if (source == prev) { card_layout.show(getContentPane(), "Pane 1"); }
64:
65:
            }
66:
67:
            public static void main(String[] args) {
68:
                    Debug3 frame = new Debug3();
69:
                    // make sure to set it to true, we need to see the GUI
70:
                    frame.setVisible(true);
71:
72:
73: }
74:
```