

```
1  /**
2   * Default constructor. Handles the setup of all the GUI elements.
3   */
4  public ModifiedPanelDemo()
5  {
6      super("Panel Demonstration");
7      setSize(WIDTH, HEIGHT);
8      setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
9      setLayout(new BorderLayout());
10
11     // Set up the top row of buttons.
12     JPanel buttonPanel1 = new JPanel();
13     buttonPanel1.setBackground(Color.LIGHT_GRAY);
14     buttonPanel1.setLayout(new FlowLayout());
15
16     JButton pinkButton = new JButton("Pink");
17     pinkButton.setBackground(Color.PINK);
18     pinkButton.addActionListener(this);
19     buttonPanel1.add(pinkButton);
20
21     JButton greenButton = new JButton("Green");
22     greenButton.setBackground(Color.GREEN);
23     greenButton.addActionListener(this);
24     buttonPanel1.add(greenButton);
25
26     JButton yellowButton = new JButton("Yellow");
27     yellowButton.setBackground(Color.YELLOW);
28     yellowButton.addActionListener(this);
29     buttonPanel1.add(yellowButton);
30
31     add(buttonPanel1, BorderLayout.NORTH);
32
33     // Set up the main color panel.
34     JPanel biggerPanel = new JPanel();
35     biggerPanel.setLayout(new GridLayout(2, 3));
36
37     // Begin new row in main color panel.
38     redPanel = new JPanel();
39     redPanel.setBackground(Color.LIGHT_GRAY);
40     biggerPanel.add(redPanel);
41
42     whitePanel = new JPanel();
43     whitePanel.setBackground(Color.LIGHT_GRAY);
44     biggerPanel.add(whitePanel);
45
46     bluePanel = new JPanel();
47     bluePanel.setBackground(Color.LIGHT_GRAY);
48     biggerPanel.add(bluePanel);
49
50     // Begin new row in main color panel.
51     pinkPanel = new JPanel();
52     pinkPanel.setBackground(Color.LIGHT_GRAY);
53     biggerPanel.add(pinkPanel);
54
55     greenPanel = new JPanel();
56     greenPanel.setBackground(Color.LIGHT_GRAY);
57     biggerPanel.add(greenPanel);
58
59     yellowPanel = new JPanel();
60     yellowPanel.setBackground(Color.LIGHT_GRAY);
```

```
61     biggerPanel.add(yellowPanel);
62
63     add(biggerPanel, BorderLayout.CENTER);
64
65     // Set up the bottom row of buttons.
66     JPanel buttonPanel2 = new JPanel();
67     buttonPanel2.setBackground(Color.LIGHT_GRAY);
68     buttonPanel2.setLayout(new FlowLayout());
69
70     JButton redButton = new JButton("Red");
71     redButton.setBackground(Color.RED);
72     redButton.addActionListener(this);
73     buttonPanel2.add(redButton);
74
75     JButton whiteButton = new JButton("White");
76     whiteButton.setBackground(Color.WHITE);
77     whiteButton.addActionListener(this);
78     buttonPanel2.add(whiteButton);
79
80     JButton blueButton = new JButton("Blue");
81     blueButton.setBackground(Color.BLUE);
82     blueButton.addActionListener(this);
83     buttonPanel2.add(blueButton);
84
85     add(buttonPanel2, BorderLayout.SOUTH);
86 }
87
88 /**
89  * Handles events generated by the buttons.
90  *
91  * @param e Specifies the generated event.
92  */
93 public void actionPerformed(ActionEvent e)
94 {
95     String buttonString = e.getActionCommand();
96
97     if (buttonString.equals("Pink"))
98         pinkPanel.setBackground(Color.PINK);
99     else if (buttonString.equals("Green"))
100         greenPanel.setBackground(Color.GREEN);
101     else if (buttonString.equals("Yellow"))
102         yellowPanel.setBackground(Color.YELLOW);
103     else if (buttonString.equals("Red"))
104         redPanel.setBackground(Color.RED);
105     else if (buttonString.equals("White"))
106         whitePanel.setBackground(Color.WHITE);
107     else if (buttonString.equals("Blue"))
108         bluePanel.setBackground(Color.BLUE);
109     else
110         System.out.println("Unexpected error.");
111 }
112
```