

PanelDesign.java

```

1 package lab6;
2
3 import java.awt.BorderLayout;
4 import java.awt.Font;
5 import java.awt.event.ItemEvent;
6 import java.awt.event.ItemListener;
7
8 import javax.swing.ButtonGroup;
9
10 import javax.swing.JFrame;
11 import javax.swing.JLabel;
12 import javax.swing.JPanel;
13 import javax.swing.JRadioButton;
14
15 public class PanelDesign {
16     JFrame aFrame ;
17     JPanel p1;
18     JLabel l1;
19     JRadioButton rb1,rb2,rb3,rb4 ;
20     Font bold , italic , Plain , bOLDAndItalic ;
21     ButtonGroup group ;
22
23     public PanelDesign () {
24         //intialize the components
25         aFrame = new JFrame ("ex1") ;
26         p1= new JPanel() ;
27         l1 = new JLabel("Welcome to class IS 422") ;
28         rb1 = new JRadioButton("Plain", true ) ;
29         rb2 = new JRadioButton("Bold", false) ;
30         rb3 = new JRadioButton("Italic", false) ;
31         rb4 = new JRadioButton("Italic + Bold", false) ;
32
33         group = new ButtonGroup () ;
34
35         Plain = new Font("Serif", Font.PLAIN , 14) ;
36         bold = new Font("Serif", Font.BOLD , 14) ;
37         italic = new Font("Serif", Font.ITALIC , 14) ;
38         bOLDAndItalic = new Font("Serif", Font.ITALIC + Font.BOLD, 14) ;
39
40         //Adding Listener
41         rb1.addItemListener(new rbHandler (Plain));
42         rb2.addItemListener(new rbHandler (bold));
43         rb3.addItemListener(new rbHandler (italic));
44         rb4.addItemListener(new rbHandler (bOLDAndItalic));
45
46
47         //optimising
48         l1.setFont(Plain);
49
50         group.add(rb1);
51         group.add(rb2);
52         group.add(rb3);
53         group.add(rb4);
54
55         l1.setToolTipText("This is a label");
56
57         p1.add(rb1) ;
58         p1.add(rb2) ;
59         p1.add(rb3) ;

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60     p1.add(rb4) ;
61
62     aFrame.add(l1, BorderLayout.NORTH) ;
63     aFrame.add(p1, BorderLayout.SOUTH) ;
64
65     //
66     aFrame.pack();
67     aFrame.setVisible(true);
68     aFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
69 }
70
71 public static void main (String [] args) {
72     PanelDesign obj = new PanelDesign() ;
73 }
74
75 public class rbHandler implements ItemListener{
76
77     Font font ;
78
79     public rbHandler(Font f) {
80         // TODO Auto-generated constructor stub
81         font = f ;
82     }
83
84     @Override
85     public void itemStateChanged(ItemEvent e) {
86         // TODO Auto-generated method stub
87         l1.setFont(font);
88     }
89
90 }
91
92
93 }
94
```