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Lab 7

21-Oct-14

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Create By : Nathan Gaffney  
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LAB for Chapter 12  
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import javax.swing.\*;  
import java.awt.\*;  
import java.awt.event.\*;  
public class ColorFactory extends JFrame  
{  
 final int WINDOW\_WIDTH = 500;  
 final int WINDOW\_HEIGHT = 300;  
 private JLabel message;  
 //Content Pane  
 private Container contentPane;  
 //Panels  
 private JPanel topPanel;  
 private JPanel bottomPanel;  
 //Color Buttons  
 private JButton redButton;  
 private JButton yellowButton;  
 private JButton orangeButton;  
 private JRadioButton greenButton;  
 private JRadioButton blueButton;  
 private JRadioButton cyanButton;  
 private ButtonGroup radioButtonGroup;  
   
   
 public ColorFactory()  
 {  
 //Create a window with set size  
 setTitle("Color Factory");  
 setSize(WINDOW\_WIDTH,WINDOW\_HEIGHT);  
 setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);  
   
 //Content Pane  
 contentPane = new JPanel();  
 contentPane.setLayout(new BorderLayout());  
 setLayout(new BorderLayout());  
 add(contentPane,BorderLayout.CENTER);  
 //Top Panel  
 buildTopPanel();  
 add(topPanel, BorderLayout.NORTH);  
 //Bottom Panel  
 buildBottomPanel();  
 add(bottomPanel, BorderLayout.SOUTH);  
 //create a message and add to the window  
 message = new JLabel("Top buttons change the "  
 + "panel color and bottom radio "  
 + "buttons change the text color.");  
 contentPane.add(message,BorderLayout.CENTER);  
 }  
 private void buildTopPanel()  
 {  
 topPanel = new JPanel();//top panel  
 topPanel.setBackground(Color.white);  
 topPanel.setLayout(new FlowLayout());  
   
 //create three buttons : red, orange, yellow, setting background, actions  
 //comands, and adding listener  
 redButton = new JButton("Red");  
 redButton.addActionListener(new ButtonListener());  
 redButton.setBackground(Color.red);  
 orangeButton = new JButton("Orange");  
 orangeButton.addActionListener(new ButtonListener());  
 orangeButton.setBackground(Color.orange);  
 yellowButton = new JButton("Yellow");  
 yellowButton.addActionListener(new ButtonListener());  
 yellowButton.setBackground(Color.yellow);  
 //add buttons to panel  
 topPanel.add(redButton);  
 topPanel.add(orangeButton);  
 topPanel.add(yellowButton);  
  
 }  
 private void buildBottomPanel()  
 {  
 bottomPanel = new JPanel();  
 bottomPanel.setBackground(Color.white);  
 bottomPanel.setLayout(new FlowLayout());  
   
 //create three radio buttons : green, blue, cyan, setting background, actions  
 //comands, and adding listener  
 greenButton = new JRadioButton("Green");  
 greenButton.addActionListener(new RadioButtonListener());  
 greenButton.setForeground(Color.green);  
 blueButton = new JRadioButton("Blue");  
 blueButton.addActionListener(new RadioButtonListener());  
 blueButton.setForeground(Color.blue);  
 cyanButton = new JRadioButton("Cyan");  
 cyanButton.addActionListener(new RadioButtonListener());  
 cyanButton.setForeground(Color.cyan);  
 //add buttons to group  
 radioButtonGroup = new ButtonGroup();  
 radioButtonGroup.add(greenButton);  
 radioButtonGroup.add(blueButton);  
 radioButtonGroup.add(cyanButton);  
   
 //add buttons to panel  
 bottomPanel.add(greenButton);  
 bottomPanel.add(blueButton);  
 bottomPanel.add(cyanButton);  
 }  
 /\*\* Button listener changes the color of background  
 depending on which button is clicked\*/  
 private class ButtonListener implements ActionListener  
 {  
 public void actionPerformed (ActionEvent event)  
 {  
 String whichButton = event.getActionCommand();  
 if(whichButton.equals("Red"))  
 {  
 contentPane.setBackground(Color.red);  
 }  
 else if (whichButton.equals("Orange"))  
 {  
 contentPane.setBackground(Color.orange);  
 }  
 else if (whichButton.equals ("Yellow"))  
 {  
 contentPane.setBackground(Color.yellow);  
 }  
 }  
 }  
 /\*\*Changes color of the foreground(text)  
 depending on which radio button is clickedc\*/  
 private class RadioButtonListener implements ActionListener  
 {  
 public void actionPerformed (ActionEvent event)  
 {  
 if (event.getSource() == greenButton)  
 {  
 message.setForeground(Color.green);  
 }  
 else if ( event.getSource() == blueButton)  
 {  
 message.setForeground(Color.blue);  
 }  
 else if (event.getSource() == cyanButton)  
 {  
 message.setForeground(Color.cyan);  
 }  
 }  
 }  
 public static void main(String[] args)  
 {  
 ColorFactory labGUI = new ColorFactory();  
 labGUI.setVisible(true);  
 }  
}

