

REMEMBER TO CHANGE THE TEXT COLOR OF ANY CODE YOU HAVE WRITTEN.

//Provide any links of sites you used as references

(LINK FOR SLIDER: <https://www.youtube.com/watch?v=t002Fxuq7-g>)

//GUI Click Counter VERSION 1

```
package Library;
```

```
import javax.swing.*;  
import javax.swing.event.ChangeEvent;  
import javax.swing.event.ChangeListener;
```

```
import java.awt.*;  
import java.awt.event.*;
```

```
public class GUI implements ActionListener, ChangeListener {  
    private int clicks = 0;  
    private JLabel label1 = new JLabel("Number of clicks: 0    ");  
    private JFrame frame = new JFrame();  
    private JButton button1;  
    private JButton button2;  
    private JSlider slider;  
    private int change;  
  
    public GUI() {  
  
        // the clickable button  
        button1 = new JButton("Increase");  
        button2 = new JButton ("Decrease");  
        slider = new JSlider (JSlider.HORIZONTAL, 0, 20, 0);  
        slider.setMajorTickSpacing(1);  
        slider.setPaintTicks(true);  
  
        slider.addChangeListener(this);  
        button1.addActionListener(this);  
        button2.addActionListener(this);  
  
        // the panel with the button and text  
        JPanel panel = new JPanel();  
        panel.setBorder(BorderFactory.createEmptyBorder(30, 30, 10, 30));  
        panel.setLayout(new GridLayout(0, 1));
```

```

        panel.add(button1);
        panel.add(button2);
        panel.add(slidebar);
        panel.add(label1);

        // set up the frame and display it
        frame.add(panel, BorderLayout.CENTER);
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.setTitle("GUI");
        frame.pack();
        frame.setVisible(true);
    }

    // process the button clicks
    public void actionPerformed(ActionEvent e) {
        if (e.getSource() == button1) {
            clicks+=change;
        }
        else if (e.getSource() == button2) {
            clicks-=change;
        }

        label1.setText("Number of clicks: " + clicks);
    }

    // create one Frame
    public static void main(String[] args) {
        new GUI();
    }

    @Override
    public void stateChanged(ChangeEvent e) {
        // TODO Auto-generated method stub
        change = slider.getValue();
    }
}

```

//Provide any links of sites you used as references →

<https://docs.oracle.com/javase/tutorial/uiswing/components/colorchooser.html>

//GUI Click Counter Version 2

```
package Library;
```

```
import javax.swing.*;
import javax.swing.event.ChangeEvent;
import javax.swing.event.ChangeListener;
import java.awt.Color;
import java.awt.*;
import java.awt.event.*;
```

```
public class GUI implements ActionListener, ChangeListener {
    private int clicks = 0;
    private JLabel label1 = new JLabel("Number of clicks: 0      ");
    private JFrame frame = new JFrame();
    private JButton button1;
    private JButton button2;
    private JSlider slider;
    private int change;

    public GUI() {

        // the clickable button
        button1 = new JButton("Increase");
        button2 = new JButton ("Decrease");
        slider = new JSlider (JSlider.HORIZONTAL, 0, 20, 0);
        slider.setMajorTickSpacing(1);
        slider.setPaintTicks(true);

        slider.addChangeListener(this);
        button1.addActionListener(this);
        button2.addActionListener(this);

        // the panel with the button and text
        JPanel panel = new JPanel();
        panel.setBackground(Color.RED);
        panel.setBorder(BorderFactory.createEmptyBorder(30, 30, 10, 30));
    }
}
```

```

        panel.setLayout(new GridLayout(3, 3));
        panel.add(button1);
        panel.add(button2);
        panel.add(slidebar);
        panel.add(label1);

        // set up the frame and display it
        frame.add(panel, BorderLayout.CENTER);
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.setTitle("GUI");
        frame.pack();
        frame.setVisible(true);
    }

    // process the button clicks
    public void actionPerformed(ActionEvent e) {
        if (e.getSource() == button1) {
            clicks+=change;
        }
        else if (e.getSource() == button2) {
            clicks-=change;
        }

        label1.setText("Number of clicks: " + clicks);
    }

    // create one Frame
    public static void main(String[] args) {
        new GUI();
    }

    @Override
    public void stateChanged(ChangeEvent e) {
        // TODO Auto-generated method stub
        change = slider.getValue();
    }
}

```

