

Q1 Code:

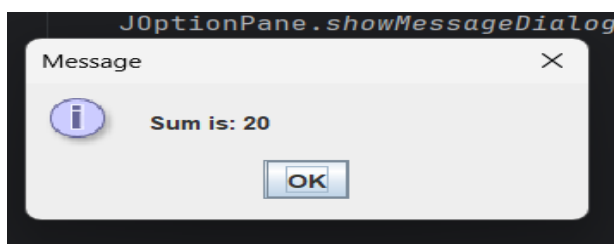
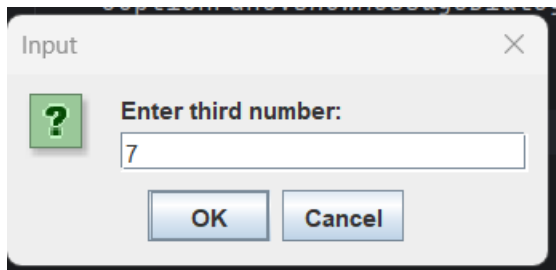
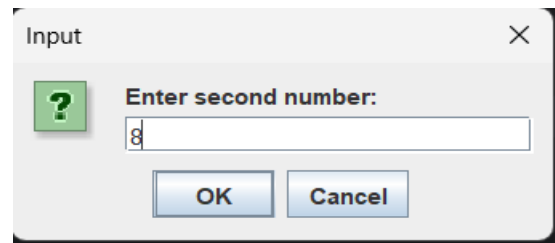
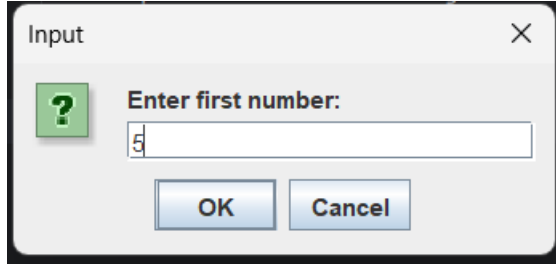
```
package Q1;

import javax.swing.*;

public class SumThreeNumbers {
    public static void main(String[] args) {
        int num1 = Integer.parseInt(JOptionPane.showInputDialog(null, "Enter first number:"));
        int num2 = Integer.parseInt(JOptionPane.showInputDialog(null, "Enter second number:"));
        int num3 = Integer.parseInt(JOptionPane.showInputDialog(null, "Enter third number:"));
        int sum = num1 + num2 + num3;

        JOptionPane.showMessageDialog(null, "Sum is: " + sum);
    }
}
```

Output:



Q2 Code Method 1:

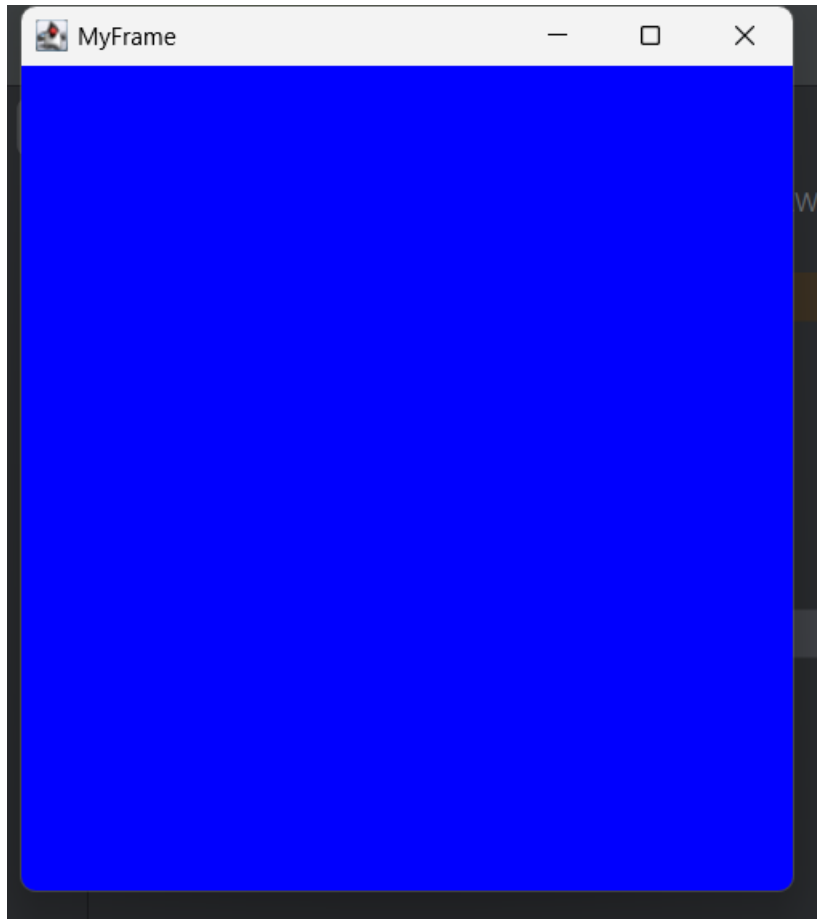
```
package Q2;

import javax.swing.*;
import java.awt.*;

public class MyFrame extends JFrame{
    public MyFrame() {
        setTitle("MyFrame");
        setSize(400, 450);
        setDefaultCloseOperation(EXIT_ON_CLOSE);
        getContentPane().setBackground(Color.BLUE);
    }

    public static void main(String[] args) {
        MyFrame frame = new MyFrame();
        frame.setVisible(true);
    }
}
```

Output



Q2 Code Method 2:

```
package Q2_2;

import javax.swing.*;
import java.awt.*;

public class MyFrame1 extends JFrame {
    public MyFrame1() {
        setTitle("MyFrame");
        setSize(400, 450);
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

        // Set blue background
        Container contentPane = getContentPane();
        contentPane.setBackground(Color.BLUE);
    }

    public static void main(String[] args) {
        MyFrame1 frame = new MyFrame1();
        frame.setVisible(true);
    }
}
```

Q3Code:

```
package Q3;
import javax.swing.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

public class ButtonFrame extends JFrame implements ActionListener {
    private final JButton button;

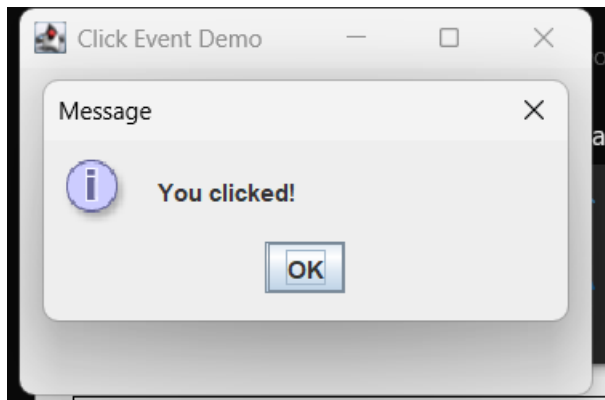
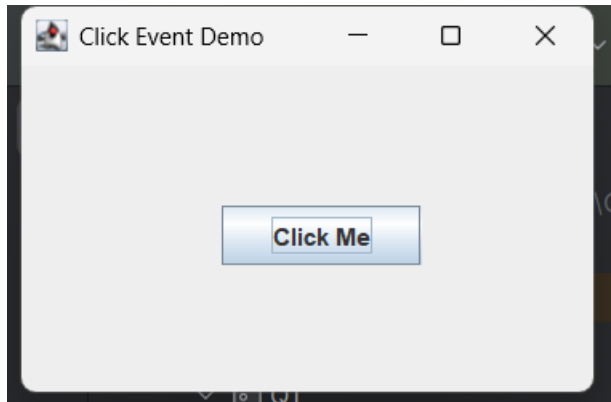
    public ButtonFrame() {
        setTitle("Click Event Demo");
        setSize(300, 200);
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        setLayout(null);

        button = new JButton("Click Me");
        button.setBounds(100, 70, 100, 30);
        button.addActionListener(this); // Register listener
        add(button);
    }

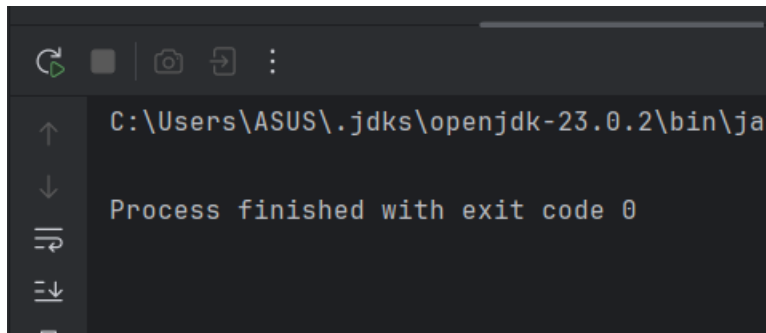
    @Override
    public void actionPerformed(ActionEvent e) {
        JOptionPane.showMessageDialog(this, "You clicked!");
    }

    public static void main(String[] args) {
        ButtonFrame frame = new ButtonFrame();
        frame.setVisible(true);
    }
}
```

Output:



After pressing closing tab of frame program gets terminated.



Q4 Code:

```
package Q4;
import javax.swing.*;
import java.awt.event.*;

public class TitleChangeFrame extends JFrame implements ActionListener {
    private JButton button;
    private JTextField textField;

    public TitleChangeFrame() {
        setTitle("Change Title");
        setSize(400, 200);
        setDefaultCloseOperation(EXIT_ON_CLOSE);
        setLayout(null);

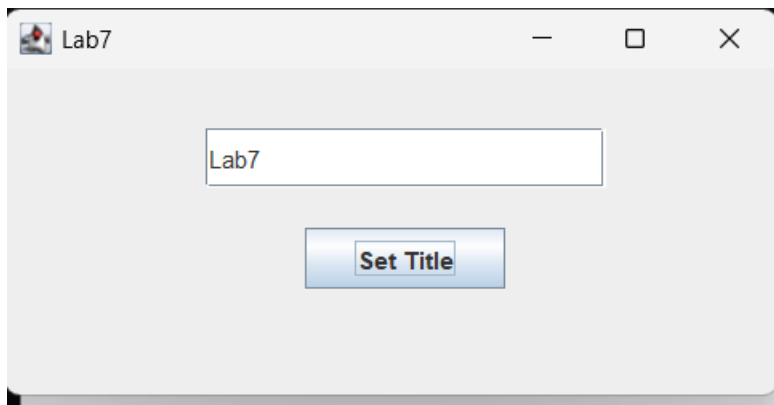
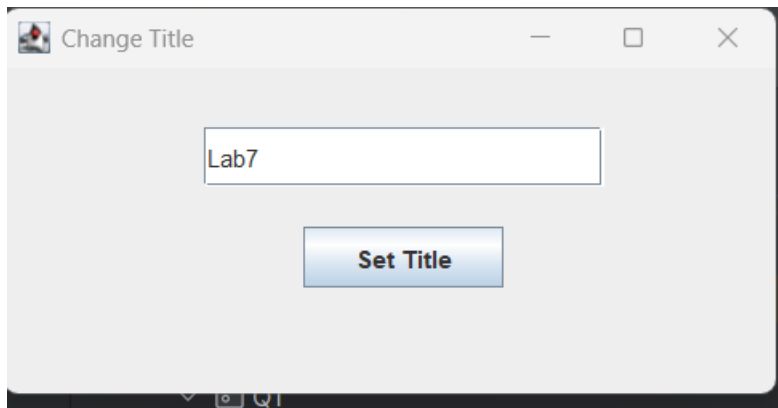
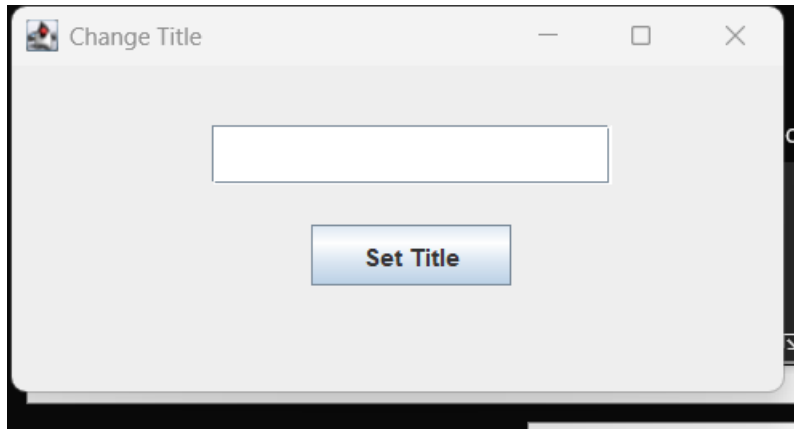
        textField = new JTextField();
        textField.setBounds(100, 30, 200, 30);
        add(textField);

        button = new JButton("Set Title");
        button.setBounds(150, 80, 100, 30);
        button.addActionListener(this);
        add(button);
    }

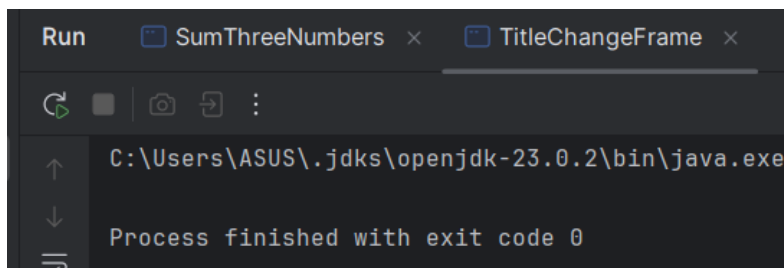
    public void actionPerformed(ActionEvent e) {
        setTitle(textField.getText());
    }

    public static void main(String[] args) {
        TitleChangeFrame frame = new TitleChangeFrame();
        frame.setVisible(true);
    }
}
```

Output:



After pressing closing tab of frame program gets terminated




```

package Q5;
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;

public class ToggleButtonFrame extends JFrame implements ActionListener {
    private JButton button;
    private boolean isOn = false;

    public ToggleButtonFrame() {
        setTitle("Toggle Frame");
        setSize(400, 300);
        setDefaultCloseOperation(EXIT_ON_CLOSE);
        setLayout(null);

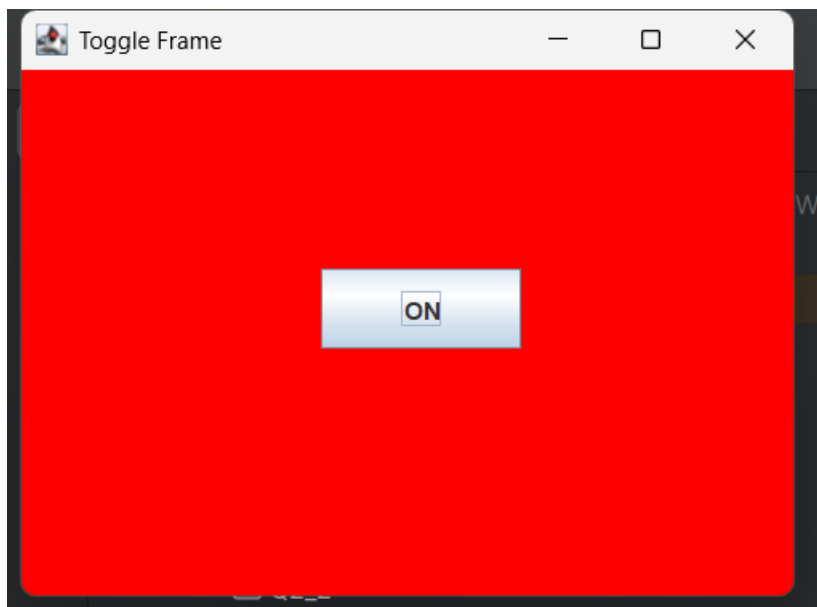
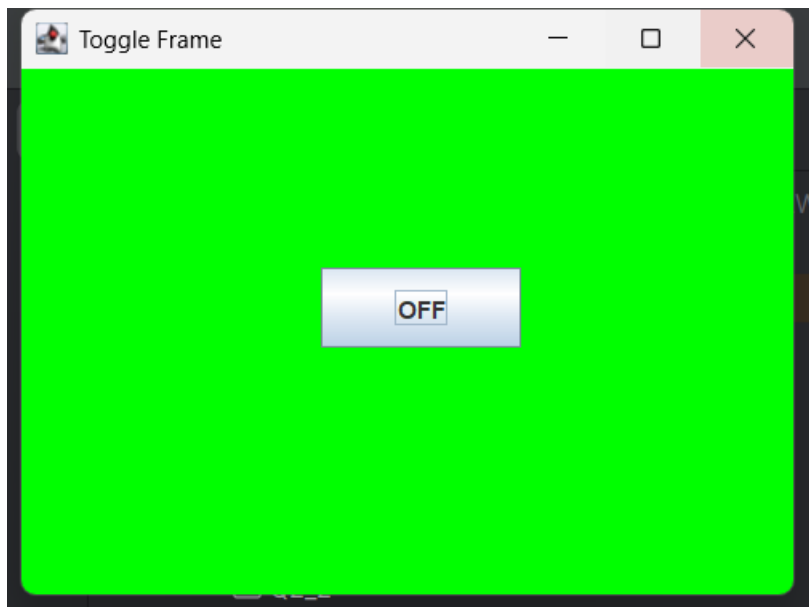
        button = new JButton("OFF");
        button.setBounds(150, 100, 100, 40);
        button.addActionListener(this);
        add(button);
        getContentPane().setBackground(Color.GREEN);
    }

    public void actionPerformed(ActionEvent e) {
        if (isOn) {
            button.setText("OFF");
            getContentPane().setBackground(Color.GREEN);
        } else {
            button.setText("ON");
            getContentPane().setBackground(Color.RED);
        }
        isOn = !isOn;
    }

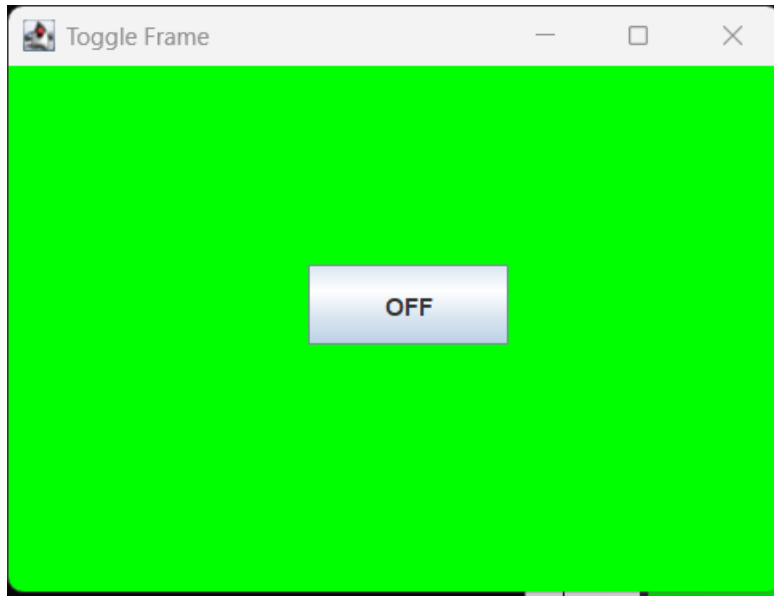
    public static void main(String[] args) {
        ToggleButtonFrame frame = new ToggleButtonFrame();
        frame.setVisible(true);
    }
}

```

Output:



When we click the ON button,



After clicking close tab of the Toggle Frame program gets terminated.

