

**LAB Solution**

Tuesday 8/12/2008

Read two integers typed by a user, computer the sum of the values and display the result.

1. Use class JOptionPane and associated methods such as showInputDialog and showMessageDialog.

```
import javax.swing.JOptionPane;

public class Addition {
    public static void main (String args[]){
        String firstNumber;
        String secondNumber;

        int number1;
        int number2;
        int sum;

        firstNumber = JOptionPane.showInputDialog("Enter first integer");
        secondNumber = JOptionPane.showInputDialog("Enter second
integer");

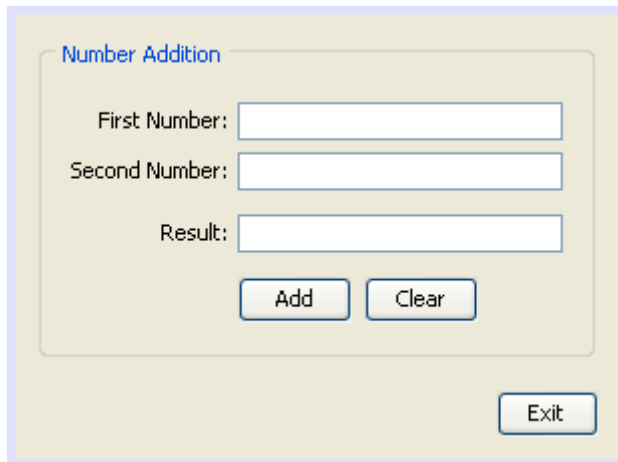
        number1 = Integer.parseInt(firstNumber);
        number2 = Integer.parseInt(secondNumber);

        sum = number1 + number2;

        JOptionPane.showMessageDialog(null, "The sum is " + sum,
"Results", JOptionPane.PLAIN_MESSAGE);

        System.exit(0);
    }
}
```

2. **Implement** the GUI below. (Don't implement the calculation function. Do not use a GUI generator.)



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

public class NumberAddition3 extends JFrame {
    NumberAddition3(){
        super("NumberAddition");

        Container c = getContentPane();
        c.setLayout(new GridLayout(2, 1));

        JPanel p1 = new JPanel();
        JPanel p2 = new JPanel();

        c.add(p1);    c.add(p2);

        TitledBorder title;
        title = BorderFactory.createTitledBorder("Number Addition");
        p1.setBorder(title);

        p1.setLayout(new GridLayout(4,2));
        p2.setLayout(new FlowLayout(FlowLayout.RIGHT));

        JLabel l1 = new JLabel ("First Number: ", JLabel.RIGHT);
        JLabel l2 = new JLabel ("Second Number: ", JLabel.RIGHT);
        JLabel l3 = new JLabel ("Result: ", JLabel.RIGHT);

        JTextField t1 = new JTextField(10);
```

```
        JTextField t2 = new JTextField(10);
        JTextField t3 = new JTextField(10);

        p1.add(l1);          p1.add(t1);
        p1.add(l2);          p1.add(t2);
        p1.add(l3);          p1.add(t3);

        JButton b1 = new JButton("ADD");
        JButton b2 = new JButton("CLEAR");

        p1.add(b1);          p1.add(b2);

        JButton b3 = new JButton("Exit");

        p2.add(b3);

        pack();

        setVisible(true);

        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    }
    public static void main(String s[]) {
        NumberAddition3 addition = new NumberAddition3();
    }
}
```