

Lab 11

classmate

Date _____

Page _____

9)

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



```
class swingDemo {
    swingDemo() {
        JFrame jfrm = new JFrame ("Divides App");
        jfrm.setSize(275, 150);
        jfrm.setLayout(new FlowLayout());
        jfrm.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
```

```
JLabel jlab = new JLabel("Enter the
divides and dividend:");
```

```
JTextField aJtf = new JTextField(8);
JTextField bJtf = new JTextField(8);
```

```
JButton button = new JButton ("Calculate");
```

~~```
JLabel err = new JLabel();
JLabel alab = new JLabel();
JLabel blab = new JLabel();
JLabel anstabc = new JLabel();
```~~

~~```
jfrm.add(err);
jfrm.add(jlab);
jfrm.add(aJtf);
jfrm.add(bJtf);
jfrm.add(button);
jfrm.add(alab);
```~~

jfrm.add(blab);
jfrm.add(anslab);

ActionListener l = new ActionListener() {
public void actionPerformed(ActionEvent evt) {

System.out.println("Action even
from a Text field");

}

ajtf.addActionListener(l);
bjtf.addActionListener(l);

button.addActionListener(new ActionListener()
public void actionPerformed(ActionEvent evt) {

try {

int a = Integer.parseInt(ajtf.
.getText());

int b = Integer.parseInt(bjtf.
.getText());

int ans = a / b;

alab.setText("mA = " + a);

blab.setText("mB = " + b);

anslab.setText("Ans = " + ans);

err.setText("");

} catch (NumberFormatException e) {

alab.setText("");

blab.setText("");

anslab.setText("");

err.setText("Enter Only Integers!");

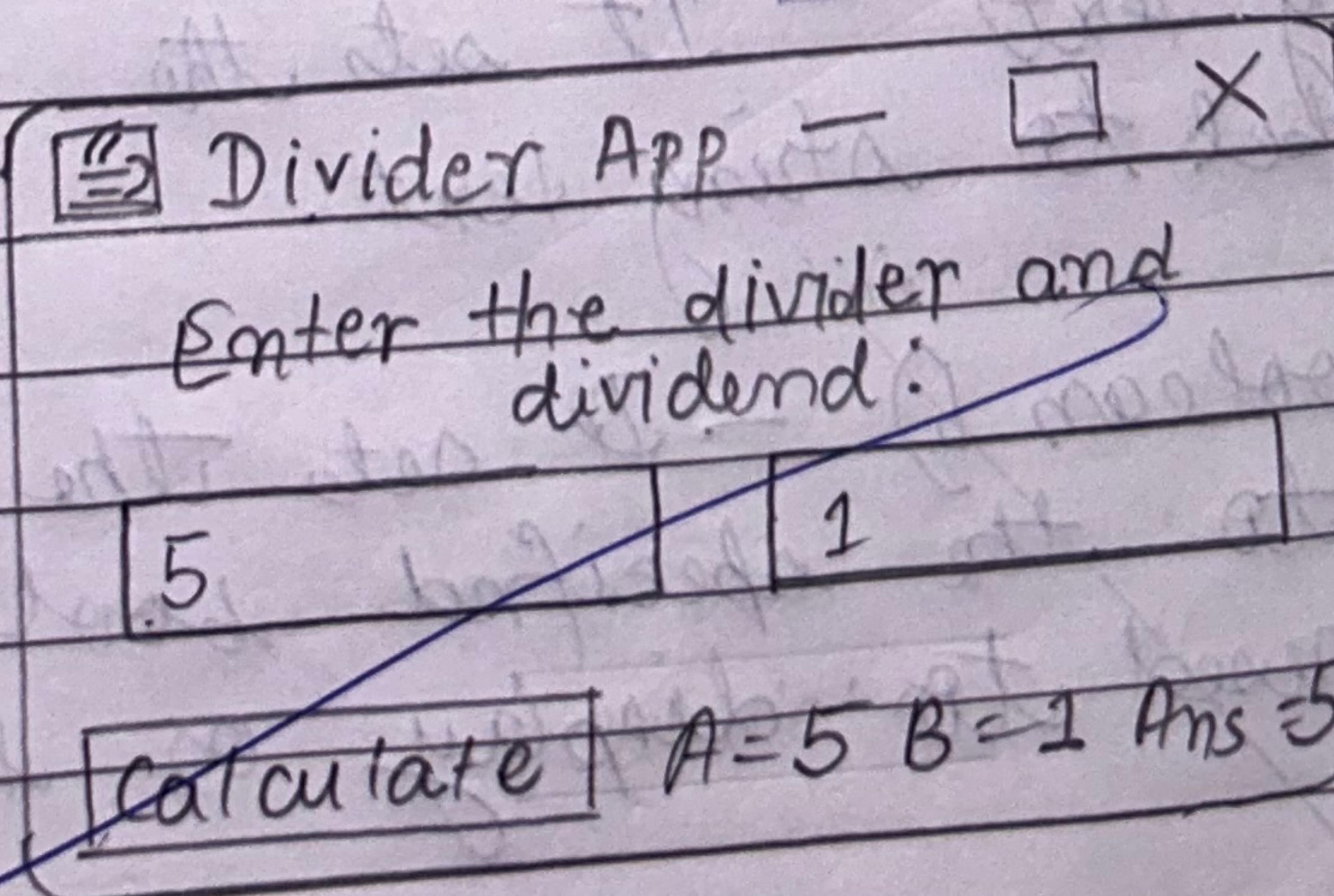
}

```
catch (ArithmaticException e) {  
    alab.setText(" ");  
    blab.setText(" ");  
    anslab.setText(" ");  
    err.setText("B should be non-zero!" );  
}  
}  
}  
}  
}  
}  
}  
}  
}  
}  
}
```

```
jfrm.setVisible(true);
```

```
public static void main (String args[]) {  
    SwingUtilities.invokeLater (new Runnable () {  
        public void run() {  
            new SwingDemo ();  
        }  
    });  
}
```

Output:



Here is a report on the methods used in the program:

- 1) `actionPerformed(ActionEvent evt)` - An `ActionListener` interface method implemented to handle action events triggered by text fields and buttons. It contains logic to respond to user input events.
- 2) `run()` - A `Runnable` interface method implemented to execute code within the `SwingUtilities.invokeLater()` method. It instantiates a new `SwingDemo` object, allowing the GUI to be created & displayed.
- 3) `addActionListener(ActionListener l)` - A method of `JTextField` & `JButton` classes. It registers an `ActionListener` to receive action events when the user interacts with the associated GUI component.
- 4) `setText(String text)` - It sets the text content of the label to string text.
- 5) `setVisible(boolean b)` - It sets the visibility of the frame to the specified boolean value b. It is used to display or hide the GUI frame.
- 6) `setLayout(LayoutManager manager)` - A method of the container class. It sets the layout

managers for the container. It determines how components are arranged with the container.

- 7) setDefaultCloseOperation (int operation) - A method of the JFrame class. It sets the default close operation of the frame. It determines what happens when user closes the window.

JFrame
no. 2 m