

### PROGRAM - 9

Write a program that creates a user interface to perform integer divisions. The user enters two numbers in the text fields, Num1 and Num2. The division of Num1 and Num2 is displayed in the Result field when Divide button is clicked. If Num1 or Num2 were not an integer, the program would throw a NumberFormatException.

```

import javax.swing.*; }
import java.awt.*; {java.awt.Container; }
import java.awt.event.*; {java.awt.Window; }

class SwingDemo {
    public static void main(String[] args) {
        SwingDemo();
    }

    JFrame jfrm = new JFrame("DIVIDER APP");
    JTextField aJtf = new JTextField(8);
    JTextField bJtf = new JTextField(8);
    JButton button = new JButton("Calculate");
    JLabel err = new JLabel();
    JLabel aLabs = new JLabel("Enter the divisor and dividend");
    JLabel bLabs = new JLabel("Enter the divisor and dividend");
    JLabel ansLabs = new JLabel("Answer");

    jfrm.add(aLabs);
    jfrm.add(bLabs);
    jfrm.add(button);
    jfrm.add(err);
    jfrm.add(aJtf);
    jfrm.add(bJtf);

    jfrm.setLayout(new GridLayout(5, 1));
    jfrm.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    jfrm.setSize(275, 250);
    jfrm.setVisible(true);
}
}

```

```

at jfrm.add(alab); // add a label to frame
and add at jfrm.add(blub); // add another label to frame
a similar jfrm.add(amslab); // add another label to frame
that is now part of the frame
ActionListener L = new ActionListener() {
    public void actionPerformed(ActionEvent evt) {
        System.out.println("Action event from a text field");
    }
}

```

```

}:
ajt.f. addActionListener(L); // add action listener to first text field
bjt.f. addActionListener(L); // add action listener to second text field

```

```

button.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent evt) {
        try {
            int a = Integer.parseInt(ajt.f.getText());
            int b = Integer.parseInt(bjt.f.getText());
            int ans = a/b;
            alab.setText("A = " + a);
            blab.setText("B = " + b);
            amslab.setText("Ans = " + ans);
        }
    }
})

```

```

catch (NumberFormatException e) {
    alab.setText("A"));
    blab.setText("B"));
    amslab.setText("Ans"));
    err.setText("Enter only integers!");
}

```

```

catch (ArithmaticException e) {
    alab.setText("");
    blab.setText("");
    amslab.setText("B should not be zero");
    err.setText("B should not be zero");
}

```

```

3
3
3);

```

```

} ifrm.setVisible(true);

```

```

public static void main (String args [] ) {

```

```

swingUtilities . initialize () new Runnable () {

```

```

public void run () {

```

```

new Swing Demo ();

```

```

}

```

```

} );

```

```

System.out.println ("AdarshShah 10M2215002 ");

```

```

}

```

Output →

Enter the divisor and dividend

12	6
----	---

Calculate

A = 12, B = 6, Ans = 6

12	0
----	---

B should be non zero;

functions:

Label : Object that can display either text or an integer.

Action listeners : The listeners , interface for running after events.

Action event : Non standard event which indicates that a component defined action occurred.

set text () -> Defines the single line of text.

~~set visible () ->~~ shows ea its previous dependency on the value of parameters.

inukelater = to update or perform any task  
on any electronic device  
environments.

(1) resistivity

23.09.20  
(1) can make more than just images  
(2) can make a presentation about people  
of a certain culture  
(3) can process

(4) professional understanding of many things

but not all (small business, marketing, sales)

abilities like planning, organization

(5) difficult to learn [student]  
but can be learned [teacher]  
by practice and time  
and can be checked by many people

or not difficult to learn [student]

and difficult to understand [student]  
but can be learned [student]

and difficult to understand [student]  
but can be learned [student]  
but it is not useful because there  
are no ways to do it well  
but it is not useful because there