

lab program - 9

Q) write a program that creates a user interface to perform integer divisions. The user enters two numbers in the text fields, num1 & num2. The division of num1 / num2 is displayed in the result field when the divide button is clicked. If num1 or num2 were not an integer, the program would throw a number format exception. If num2 were zero, the program would throw an Arithmetic Exception. Display the exception in a message dialog box.

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

class SwingDemo {
    SwingDemo() {
        JFrame jfrm = new JFrame("Divide App");
        jfrm.setSize(300, 250);
        jfrm.setLayout(new FlowLayout());
        jfrm.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

        JLabel nameLabel = new JLabel("Name Akshay S. USN: 1BM23C5022");

        JLabel jlab = new JLabel("Enter the divisor & 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();

        jfrm.add(nameLabel);
        jfrm.add(jlab);
        jfrm.add(ajtf);
        jfrm.add(bjtf);
        jfrm.add(button);
        jfrm.add(alab);
        jfrm.add(blab);
        jfrm.add(err);
    }
}
```

button.addActionListener(new ActionListener() {

{ public void actionPerformed(ActionEvent evt)

{ try {

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

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

int ans = a/b;

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

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

anslab.setText("Result: " + ans);

err.setText("");

}

catch (NumberFormatException e)

{

alab.setText("");

blab.setText("");

anslab.setText("");

err.setText("Error: Please enter valid integers");

}

catch (ArithmeticException e)

{

alab.setText("");

blab.setText("");

anslab.setText("");

err.setText("Error: B should be NON zero");

}

}

});

jfrm.setVisible(true);

}

public static void main(String args[])

{ SwingUtilities.invokeLater(new Runnable() {

{ public void run()

{ new SwingDemo();

}

});

}

Output:

Name: Akshay S USN: IBM23CS022 Enter #

Enter the divisor & dividend:

22

11

calculate

A=22, B=11, Result=2

Name: Akshay S USN: IBM23CS022

Enter the divisor & dividend:

ABC

5

calculate

Result Error: please enter valid integer

Name: Akshay S USN: IBM23CS022

Enter the divisor & dividend:

10

0

calculate

Error: B should be non zero

Rs
4/12/24