LAB-9

9) 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 NumberFormatException. If Num2 were zero, the program would throw an ArithmeticException. 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 ("Divider App");
   jfrm.setSize (300, 250);
   jfrm.setLayout (new FlowLayout ());
   jfrm.setDefaultCloseOperation (JFrame.EXIT_ON_CLOSE);

JLabel nameLabel = new JLabel ("Name: Aakusha G P,
                                USN: 1BM23CS005");
 JLabel jlab = new JLabel ("Enter the divisor & dividend:");
 JTextFeild ajtf = new JTextFeild (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);
```

```
jfm.add(blab);
jfm.add(ansLab);
jfm.add(err);
button.addActionListener(new ActionListener()
{ public void actionPerformed(ActionEvent evt)
{   try{
    int a = Integer.parseInt(atf.getText());
    int b = Integer.parseInt(btf.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(~~Math~~ ArithmaticException e)
{ alab.setText(" ");
  blab.setText(" ");
  ansLab.setText(" ");
  err.setText("Error : B should be NON zero!");
}}});
jfm.setVisible(true);
}
public static void main(String args[])
{ SwingUtilities.invokeLater(new Runnable()
{ public void run(){
  new SwingDemo(); }}); }
```

O/P:-

Enter the divisor & dividend: 22 11 [Calculate] Result: 2

Enter the divisor & dividend: ABC 5 [Calculate] Result:-
Error:
Please enter valid integers!

Enter the divisor & dividend: 10 0 [Calculate] Error!
B should not be 0.

LAB-10

Demonstrate inter process communication & deadlock.