10) Write a program that creates a user interface divisions. The user enters two numbers in text fields, Num1 & Num2. The division of Num1 & Num2 is displayed in Result field when the Divide button is clicked if Num1 & Num2 were not an integer, the program would throw an Arithmetic Exception Display 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(275, 150);
        jfrm.setLayout(new FlowLayout());
        jfrm.setDefaultCloseOperation(JFrame.Exit_on_
                                      close);
        JLabel jlab = new JLabel("Enter the divisden
                    & divident:");
        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 anslab = 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 ae){
  try{
     int a = Integer.parseInt(ajtf.getText());
     int b = Integer.parseInt(bjtf.getText());
     int ans = a/b;

     alab.setText("\nA="+a);
     blab.setText("\nB="+b);
     anslab.setText("\nAns="+ans);
  }
  catch(NumberFormatException e){
     alab.setTest("");
     blab.setTest("");
     anslab.setTest("");
     err.setTest("Enter Only Integers!");
  }
  catch(ArithmaticException e){
     alab.setTest("");
     blab.setTest("");
     anslab.setText("");
     err.setText("B Should be Non zero!");
  }
});
```

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

output

Enter the divider & divident:

45	5

[calculate] A=45 B=5 Ans=9

Be Should be Non zero!
Enter the divider & divident:

3	0

[calculate]

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Functions

1) SetSize() :- It is a method is used to set the width & height of a GUI components

2) JFrame() :- The javax.swing.JFrame class is a type of container which inherits the java.awt.Frame class. JFrame works like the main window where components like labels, textfields are added to create a GUI

3) setLayout() - method allows you to set the layout of container. The layout manager helps layout the components held by this container.

4) SetDefaultCloseOperation() - method is used to specify one of several options for close button.
JFrame.EXIT_ON_CLOSE - Exit the application

5) JLabel - The object of JLabel class is a component for placing Text in a container It is used to display a single line of read only text.

6) JTextField - The object of JTextField class is a text component that allows the editing of single line text. It inherits JTextComponent class.

7) add(frame) - adds newframe in existing frame

8) SetText() - This method substitutes new text for all or part of text in the Text field

This works only with the first line of multi-line text fields.

9) ActionListener - The Java ActionListener is notified whenever you click on the button or menu item. It is notified against ActionEvent. This ~~t~~ interface is found in java.awt.event package.

10) SetVisible() - is a method that has return type boolean

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