→ Program - 9

Qus 9) Write a program that creates a user interface to perform integer divisions. The user enters two no.s in the text fields, Num1 and Num2. The division of Num1 and 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 Arithmetic Exception / Display the exception in a message dialog box.

code →

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


Class Main {
    Main () {
        JFrame  jf  =  new  JFrame ("Divide Two Numbers");
        jf. setSize (300, 250);
        jf. setLayout ( new flow Layout (1);
        jf. setDefault closeOperation ( JFrame . EXIT ON CLOSE);


        JLabel  jlab =  new JLabel (" Enter the dividend (Num1
        and     the  divisor (Num2) ");
        JTextfield   num1 jtf  =  new  JTextfield (10);
        JTextfield   num2 jtf  =  new  JTextfield (10);


        JButton   jbtn =   new  JButton ( "Divide");
        JLabel    errorlabel  =   new  JLabel();
        JLabel    num1 label  =  new JLabel();
```

```java
JLabel   num2label  =  new  JLabel();
JLabel   anslabel   =  new  JLabel();

jf. add ( jlab);
jf. add( num1 jtf);
jf. add( num2 jtf);
jf. add( jbtn);
jf. add( num1labd);
jf. add( num2labl);
jf. add( anslabel);
jf. add. (errorlabel);

jbtn. add. ActionListener ( new  ActionListener() {
        public  void   actionPerformed (ActionEvent e) {
            try {
                int   num1 = Integer. ParseInt (num1jtf. getText());
                int   num2 = Integer. parseInt (num2jtf. getText());
                int   ans  =  num1/num2;
                num1label . setText ("Num 1:" + num1);
                num2label . setText (" Num2 :" + num2);
                anslabel . setText (" Ans :" + ans);
                errorlabel . setText ("");
            } catch (NumberFormat Exception err) {
                num1label . setText ("");
                num2label . setText ("");
                anslabel . setText ("");
                errorlabel . setText (" Enter  Integer  values  only ");
            } catch ( ArithmeticException error) {
                num1label. setText ("");
                num2label . setText ("");
                anslabel. setText ("");
                errorlabel . setText (" Num2  should  be  non-zero);
        } } });
    jf. setVisible (true);
}
```

```
public static void main (String [] argv) {
    Swing. Utilities. Invoke later (new Runnable () {
        public void Run () {
            new Main ();
        }
    });
}
}
```

→ Output

Enter the dividend (Nom1) and the divisor (divi...

12   2   Divide

Num1 : 12   Num2 : 2   Ans : 6

Jframe : creates a new, initially unvisible frame with specified title.

. JLabel : JLabel class is a component for placing text in a Container. It is used to display a line of text

JTextfield is a component that allows the editing of a single line of text. ✓ from java. awt. Textfield class. } can be imported

JButton : creates a Button

jf . add ↳ Appends the specified Component

. add Action Listener : for receiving action events.

. - Action Listener : listener interface for receiving action events can be implemented by a component using add Action Listener method.

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