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**1BM19CS214**

Lab Program 10: 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 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.

```
import java.awt.*;

import java.awt.event.*;

class DivisionInteger extends Frame implements ActionListener{

    TextField num1TextField;

    TextField num2TextField;

    Button calculate;

    int a,b;

    float result;

    String msg="Enter the numbers";

    public DivisionInteger(){


        setLayout(new FlowLayout());


        calculate=new Button("Calculate");

        num1TextField=new TextField(5);

        Label num1Label=new Label("Number 1",Label.RIGHT);

        num2TextField=new TextField(5);

        Label num2Label=new Label("Number 2",Label.RIGHT);
```

```java
        add(num1Label);

        add(num1TextField);

        add(num2Label);

        add(num2TextField);

        add(calculate);

        num1TextField.addActionListener(this);

        num2TextField.addActionListener(this);

        calculate.addActionListener(this);


        addWindowListener(new MyWindowAdapter());
    }
    public void actionPerformed(ActionEvent ae){
        try{
            result=divideNumbers();

            msg=("The result is "+result);

            repaint();

        }catch(NumberFormatException e){
            msg="Number is not Integer."+e;

            repaint();

        }catch(ArithmeticException e){
            msg="Divide By zero not Allowed."+e;

            repaint();

        }
    }
    public float divideNumbers(){
        a=Integer.parseInt(num1TextField.getText());

        b=Integer.parseInt(num2TextField.getText());

        if(b==0){
            throw new ArithmeticException();
```

```java
        }
        return (float)a/b;
    }
    public void paint(Graphics g){
        g.drawString(msg,50,100);
    }
    public static void main(String args[]){
        DivisionInteger div=new DivisionInteger();
        div.setSize(new Dimension(500,500));
        div.setTitle("Division Calculater");
        div.setVisible(true);
    }
}
class MyWindowAdapter extends WindowAdapter{
    public void windowClosing(WindowEvent event){
        System.exit(0);
    }
}
```
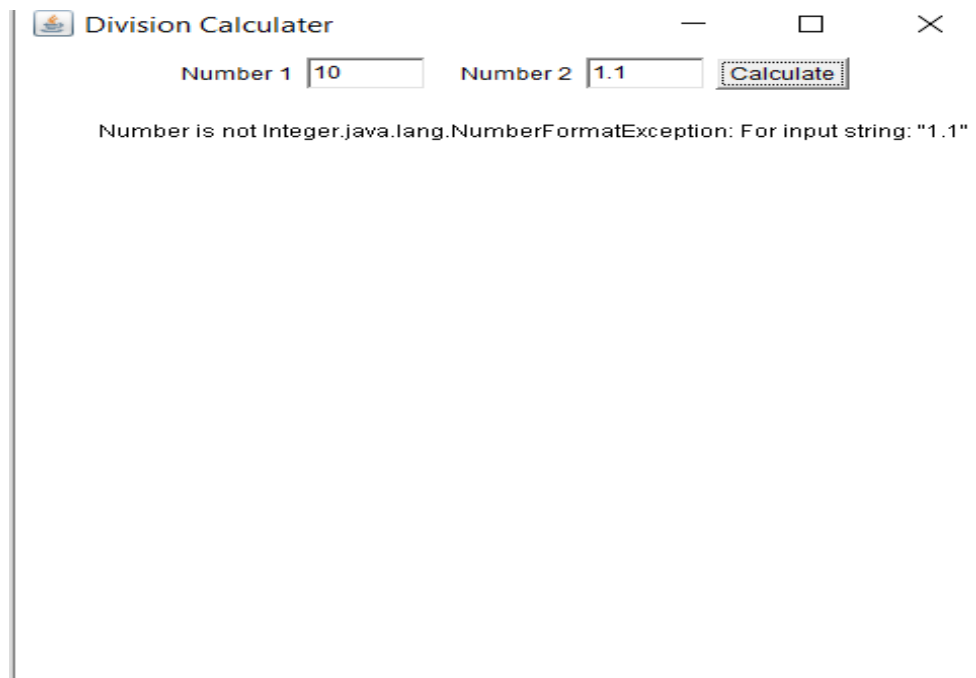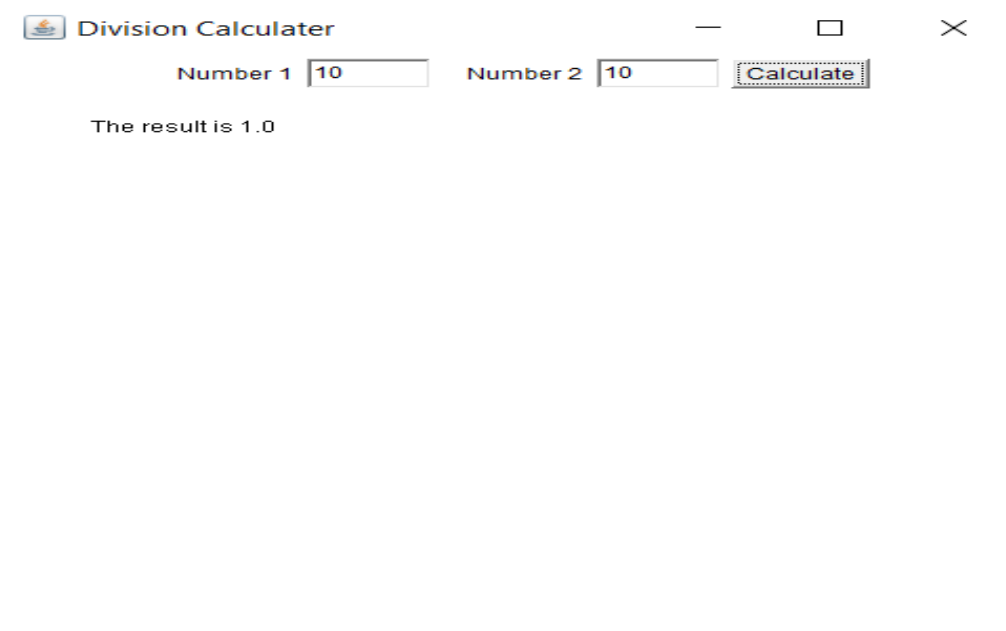
## Output



Division Calculater — □ ×
Number 1 [10]   Number 2 [10]   [Calculate]

The result is 1.0



Division Calculater — □ ×
Number 1 [10]   Number 2 [1.1]   [Calculate]

Number is not Integer.java.lang.NumberFormatException: For input string: "1.1"

Division Calculater  — ☐  ✕

Number 1 | 10 | Number 2 | 0 | Calculate

Divide By zero not Allowed.java.lang.ArithmeticException