Lab (10) - 20/2/2024

Q. Write a program that creates a user interface to perform integer division. 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 ArithmeticException. Display the exception in a message dialog box.

Source Code:

```
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
        dividend and divisor.");
        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);
```

```
jfram.add(jblab);
jfram.add(cblab);
jfram.add(bblab);
jfram.add(button);
jfram.add(alab);
jfram.add(blab);
jfram.add(anslab);
ActionListener l=new ActionListener() {
    public void actionPerformed
    (ActionEvent ent) {
        System.out.println("Action
        event from a text field");
    }
};
aztf.addActionListener(l);
bztf.addActionListener(l);
button.addActionListener(new ActionListener(){
    public void actionPerformed
    (ActionEvent ae) {
    try {
        int a=Integer.parseInt
        (aztf.getText());
        int b=Integer.parseInt
        (bztf.getText());
        int ans=a+b;
        alab.setText("\n\nA="+a);
        blab.setText("\n\nB="+b);
        anslab.setText("\n\n
        Ans="+ans);
    }
    catch(NumberFormatException e){
        alab.setText("");
        blab.setText("");
        anslab.setText("");
```

ex.setText("B should be non zero");

}

}

});

gui.setVisible(true);

}

public static void main(String args[]) {

SwingUtilities.invokeLater(new Runnable() {

public void run() {

new SwingDemo();

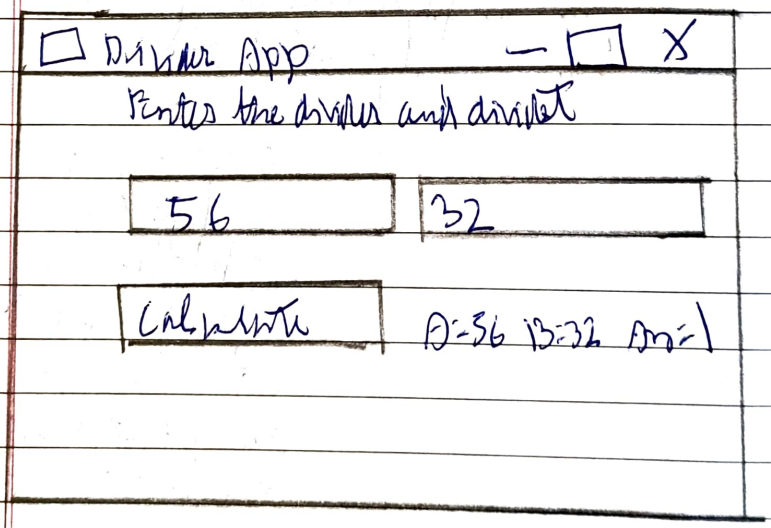
}

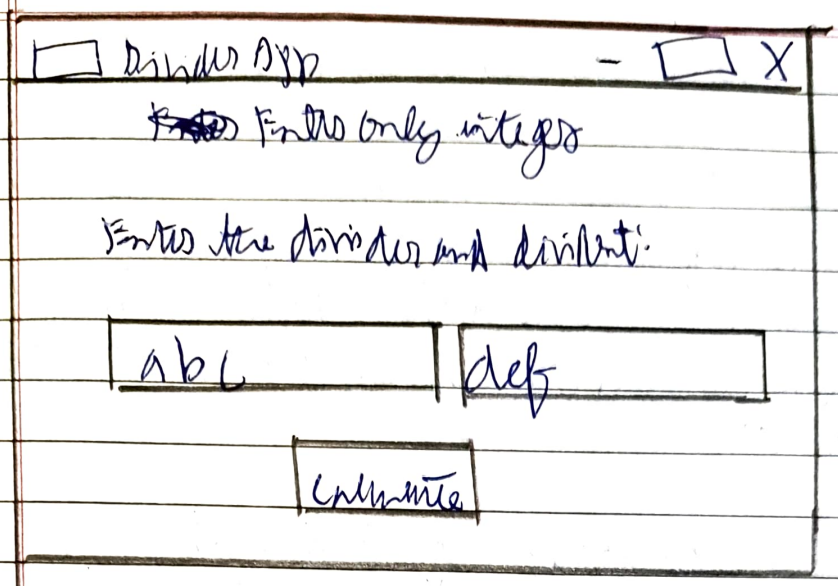
});

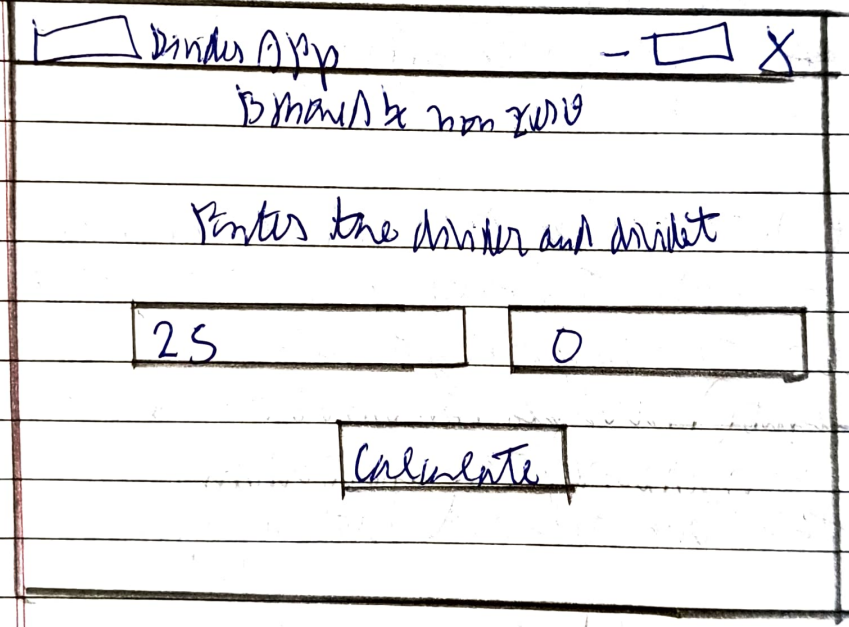
}

}

Output:







Ans
20/2/2024