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Extra Programs:

1. Create a GUI based program with the following specification: put two text field components and one button. Label the button as "paste". When some text is typed in the first text field and paste button is pressed, then the text must gets copied into the second textfield.

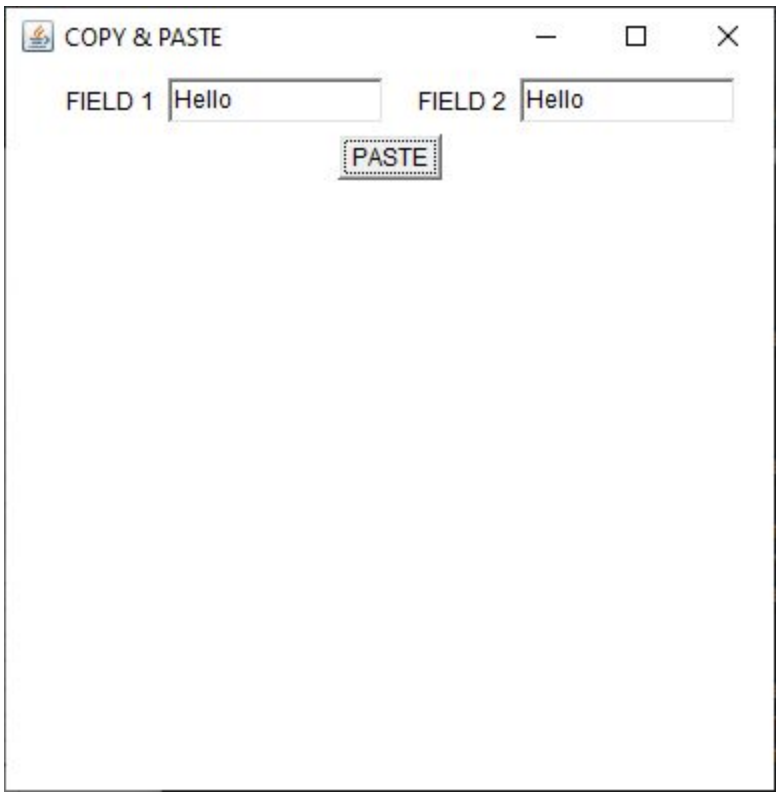
CODE:

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

class Paste extends Frame implements ActionListener{
   TextField f1, f2;
   Label lf1, lf2;
   Button b;

   Paste(){
      setLayout(new FlowLayout());
      Label lf1 = new Label("FIELD 1", Label.RIGHT);
      Label lf2 = new Label("FIELD 2", Label.RIGHT);
      f1 = new TextField(12);
      f2 = new TextField(12);
      b = new Button("PASTE");
      add(lf1);
      add(f1);
      add(lf2);
      add(f2);
      add(b);
      b.addActionListener(this);
      addWindowListener(new WindowAdapter1());

   }
   public void actionPerformed(ActionEvent ae){
       if(ae.getSource()==b){

              String text1= f1.getText();
              f2.setText(text1);

       }
   }

   public static void main(String args[]) {
      Paste cp = new Paste();
      cp.setSize(new Dimension(400, 400));
```

```
        cp.setTitle("COPY & PASTE");
        cp.setVisible(true);
    }

    class WindowAdapter1 extends WindowAdapter {
        public void windowClosing(WindowEvent we) {
            System.exit(0);
        }
    }
}
```

OUTPUT:

```
D:\Kusum\III SEMESTER\OOJ2020>javac week13ep1.java

D:\Kusum\III SEMESTER\OOJ2020>java Paste
```



2. Develop a Java program that displays 4(Four) text fields, two of which accepts integer inputs and the third an arithmetic operator. A button with label "Result" when clicked displays the result of the above operation in the fourth text field.

CODE:

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

class ep2 extends Frame implements ActionListener{
  TextField n1,n2,n3,n4,res1;
  Label l1,l2,l3,res2;
  Button b;
  ep2(){
     setLayout(new FlowLayout());
     Label l1=new Label("ENTER NUMBER 1",Label.RIGHT);
     Label l2=new Label("ENTER NUMBER 2",Label.RIGHT);
     Label l3=new Label("ENTER ARITHMETIC OPERATOR",Label.RIGHT);
     Label res2=new Label("RESULT",Label.RIGHT);
     n1=new TextField(12);
     n2=new TextField(12);
     n3=new TextField(12);
     res1=new TextField(30);
     b=new Button("RESULT");
     add(l1);
     add(n1);
```

```
        add(l2);
        add(n2);
        add(l3);
        add(n3);
        add(b);
        add(res2);
        add(res1);
        b.addActionListener(this);
  addWindowListener(new WindowAdapter1());
}
public void actionPerformed(ActionEvent ae)
{
   int ans=0;
   if(ae.getSource()==b)
   {
      try{
        int num1=Integer.parseInt(n1.getText());
        int num2=Integer.parseInt(n2.getText());
        String num3=n3.getText();

        switch(num3){
            case "+": ans=num1+num2;
            res1.setText(String.valueOf(ans));
            break;
            case "-": ans=num1-num2;
            res1.setText(String.valueOf(ans));
            break;
            case "*": ans=num1*num2;
            res1.setText(String.valueOf(ans));
            break;
            case "/": ans=num1/num2;
            res1.setText(String.valueOf(ans));
            break;
            case "%": ans=num1%num2;
            res1.setText(String.valueOf(ans));
            break;
            default:
            res1.setText("NO OPERATOR ENTERED");
            break;
     }
      }
   catch(ArithmeticException a){
      res1.setText("ERROR:ArithmeticException");
   }
```

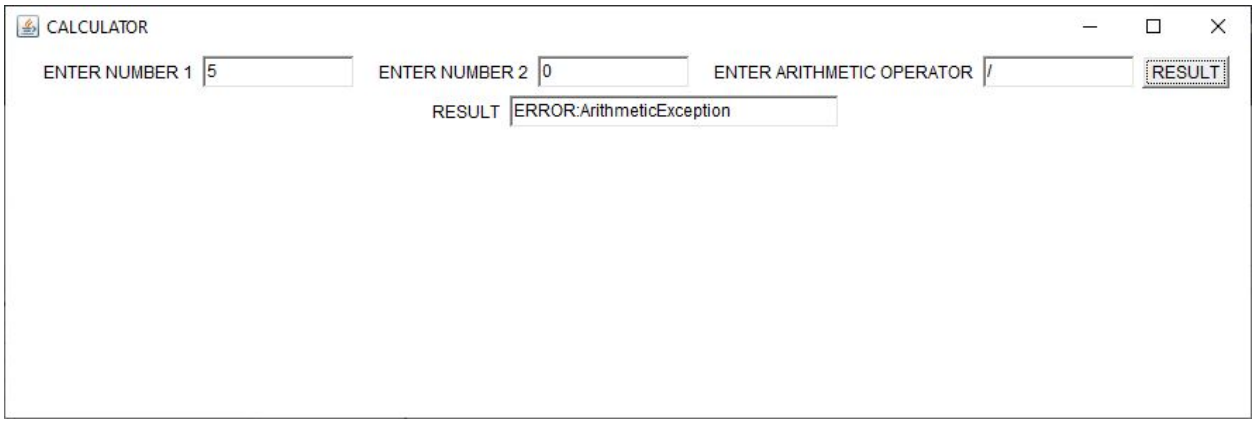
```
   catch(NumberFormatException ne ){
      res1.setText("ERROR:NumberFormatException");
   }
}
}
public static void main(String args[])
{
   ep2 c=new ep2();
   c.setSize(new Dimension(900,300));
   c.setTitle("CALCULATOR");
   c.setVisible(true);
}
class WindowAdapter1 extends WindowAdapter{
    public void windowClosing(WindowEvent we)
    {
       System.exit(0);
    }
}
}
```

OUTPUT:

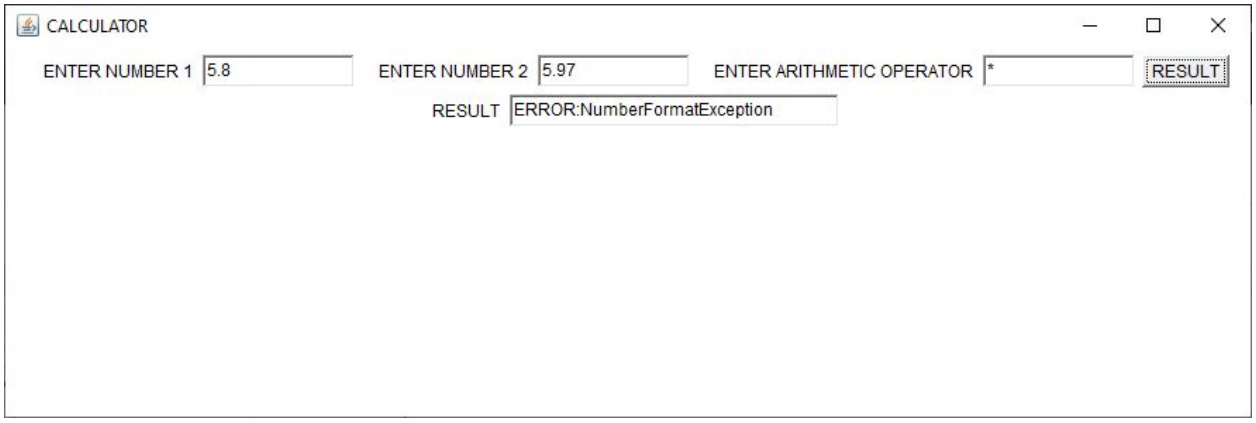
```
D:\Kusum\III SEMESTER\OOJ2020>javac week13ep2.java

D:\Kusum\III SEMESTER\OOJ2020>java ep2
```

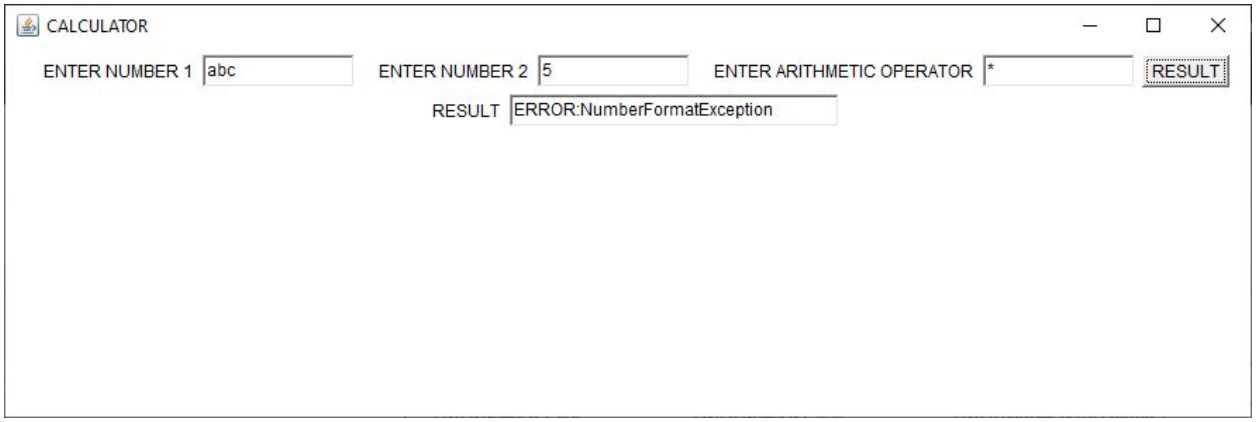
EXCEPTIONS:

1.ArithmeticException

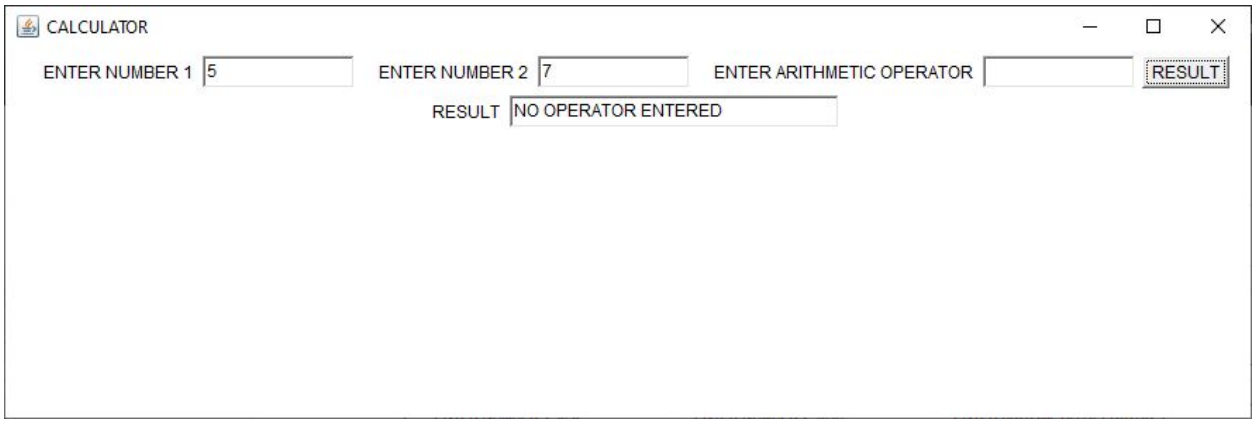


2.NumberFormatException



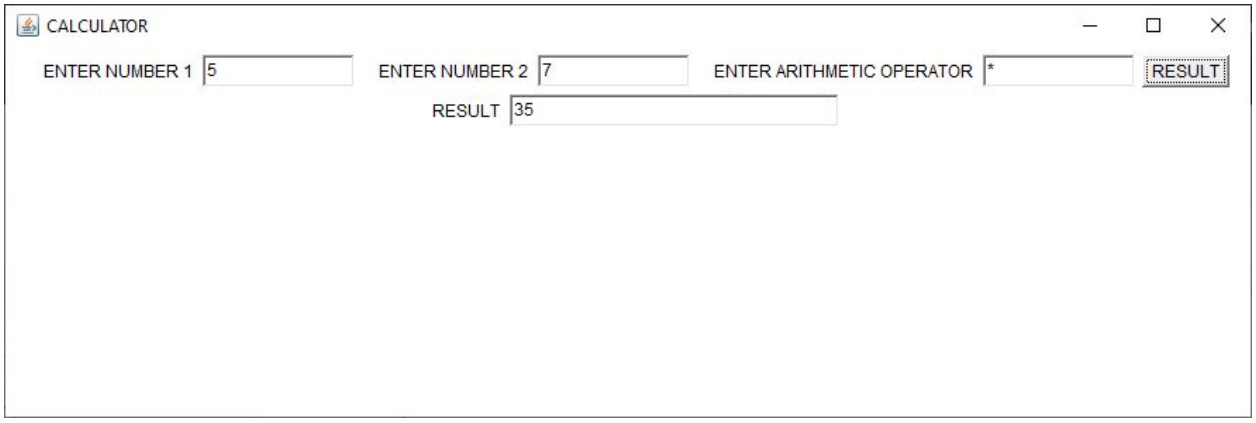


3.NO OPERATOR ENTERED

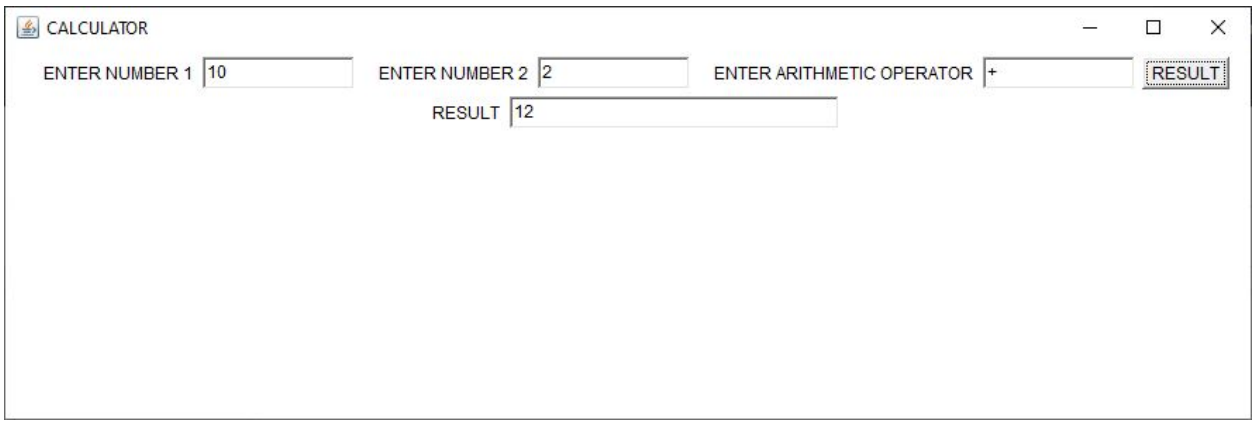


Arithmetic operations:

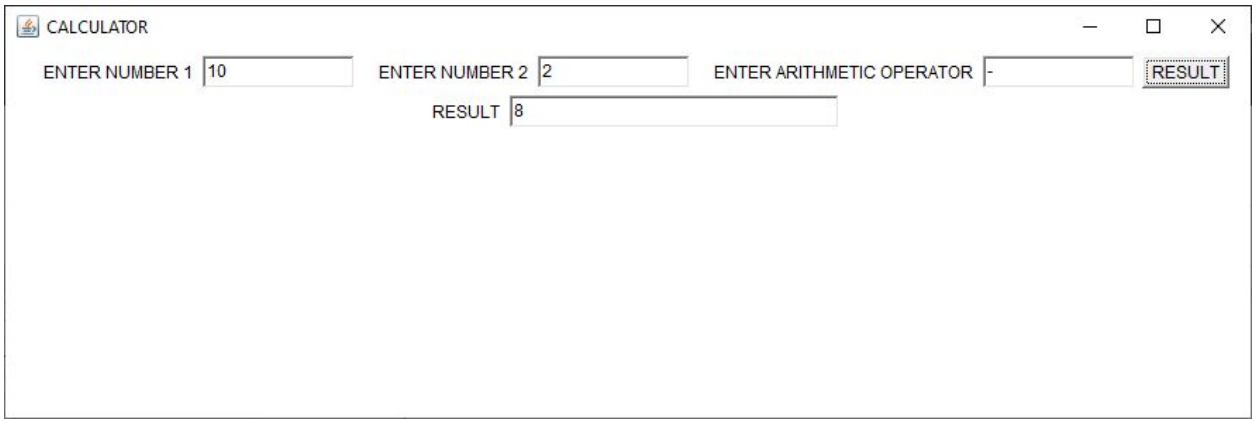
1.Multiplication



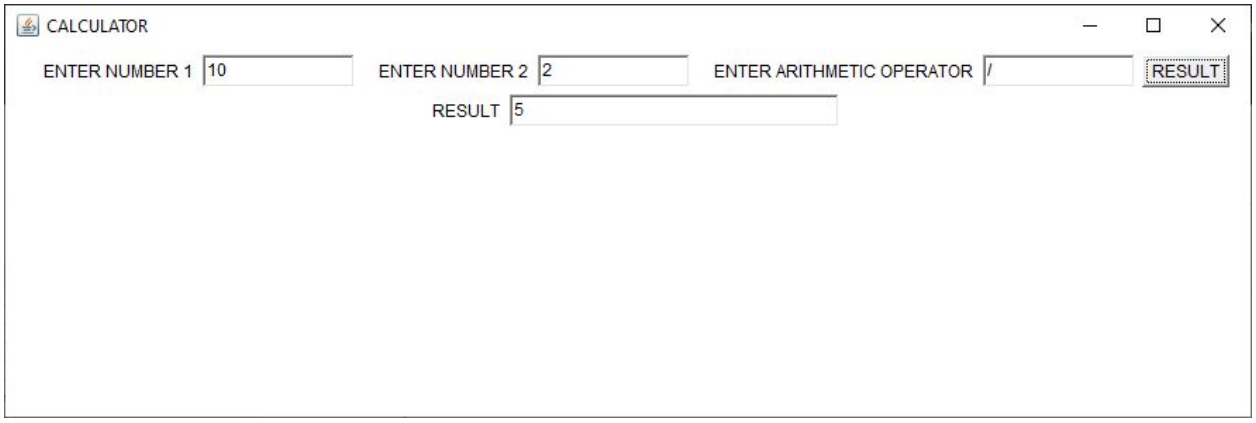
2.Addition



3.Subtraction



4.Division


CALCULATOR
ENTER NUMBER 1
10
ENTER NUMBER 2
2
ENTER ARITHMETIC OPERATOR
/
RESULT
RESULT
5