JAVA CALCULATOR PROJECT

**CODE:**

package app;

import javax.swing.\*;

import java.awt.\*;

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;

class calc implements ActionListener {

double input, result;

String cal;

JFrame frame;

JLabel label = new JLabel();

JTextField textView = new JTextField();

JButton clr = new JButton("CLR");

JButton del = new JButton("DEL");

JButton mul = new JButton("X");

JButton div = new JButton("/");

JButton sev = new JButton("7");

JButton eig = new JButton("8");

JButton nin = new JButton("9");

JButton sub = new JButton("-");

JButton fou = new JButton("4");

JButton fiv = new JButton("5");

JButton six = new JButton("6");

JButton add = new JButton("+");

JButton one = new JButton("1");

JButton two = new JButton("2");

JButton three = new JButton("3");

JButton equ = new JButton("=");

JButton zero = new JButton("0");

JButton dot = new JButton(".");

calc() {

CreateInterface();

InterfaceComponents();

AddInterfaceActionListener();

}

public void CreateInterface() {

frame = new JFrame();

frame.setTitle("Calc");

frame.getContentPane().setLayout(null);

frame.setLocationRelativeTo(null);

frame.setResizable(false);

frame.setSize(305, 400);

frame.setVisible(true);

frame.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

}

public void InterfaceComponents() {

label.setBounds(200,0,40,40);

frame.add(label);

textView.setBounds(10, 40, 270, 60 );

textView.setEditable(false);

textView.setHorizontalAlignment(SwingConstants.RIGHT);

frame.add(textView);

clr.setBounds(10,110,60,40);

frame.add(clr);

del.setBounds(80,110,60,40);

frame.add(del);

mul.setBounds(150,110,60,40);

frame.add(mul);

div.setBounds(220,110,60,40);

frame.add(div);

sev.setBounds(10,160,60,40);

frame.add(sev);

eig.setBounds(80,160,60,40);

frame.add(eig);

nin.setBounds(150,160,60,40);

frame.add(nin);

sub.setBounds(220,160,60,40);

frame.add(sub);

fou.setBounds(10,210,60,40);

frame.add(fou);

fiv.setBounds(80,210,60,40);

frame.add(fiv);

six.setBounds(150,210,60,40);

frame.add(six);

add.setBounds(220,210,60,40);

frame.add(add);

one.setBounds(10,260,60,40);

frame.add(one);

two.setBounds(80,260,60,40);

frame.add(two);

three.setBounds(150,260,60,40);

frame.add(three);

equ.setBounds(220,260,60,90);

frame.add(equ);

zero.setBounds(10, 310, 130, 40);

frame.add(zero);

dot.setBounds(150, 310, 60, 40);

frame.add(dot);

}

public void AddInterfaceActionListener()

{

clr.addActionListener(this);

del.addActionListener(this);

mul.addActionListener(this);

div.addActionListener(this);

sev.addActionListener(this);

eig.addActionListener(this);

nin.addActionListener(this);

sub.addActionListener(this);

fou.addActionListener(this);

fiv.addActionListener(this);

six.addActionListener(this);

add.addActionListener(this);

one.addActionListener(this);

two.addActionListener(this);

three.addActionListener(this);

equ.addActionListener(this);

zero.addActionListener(this);

dot.addActionListener(this);

}

@Override

public void actionPerformed(ActionEvent e)

{

Object event= e.getSource();

System.out.println(event);

if(event==one)

textView.setText(textView.getText()+"1");

else if(event==two)

textView.setText(textView.getText()+"2");

else if(event==three)

textView.setText(textView.getText()+"3");

else if(event==fou)

textView.setText(textView.getText()+"4");

else if(event==fiv)

textView.setText(textView.getText()+"5");

else if(event==six)

textView.setText(textView.getText()+"6");

else if(event==sev)

textView.setText(textView.getText()+"7");

else if(event==eig)

textView.setText(textView.getText()+"8");

else if(event==nin)

textView.setText(textView.getText()+"9");

else if(event==zero) {

if (textView.getText().equals("0"))

{

return;

}else {

textView.setText(textView.getText()+"0");}}

else if(event==dot) {

if (textView.getText().contains("."))

return;

else

textView.setText(textView.getText()+".");}

else if(event==clr) {

textView.setText("");

label.setText("");

}

else if(event==del)

{

int len=textView.getText().length();

int num=len-1;

if(len>0)

{

StringBuilder numString=new StringBuilder(textView.getText());

numString.deleteCharAt(num);

textView.setText(numString.toString());

}

if(textView.getText().endsWith(""))

label.setText("");

}

else if(event==mul) {

String presentNumber=textView.getText();

input=Double.parseDouble(textView.getText());

textView.setText("");

label.setText(presentNumber+"X");

cal="X";

}

else if(event==div) {

String presentNumber=textView.getText();

input=Double.parseDouble(textView.getText());

textView.setText("");

label.setText(presentNumber+"/");

cal="/";

}

else if(event==sub) {

String presentNumber=textView.getText();

input=Double.parseDouble(textView.getText());

textView.setText("");

label.setText(presentNumber+"-");

cal="-";

}else if(event==add) {

String presentNumber=textView.getText();

input=Double.parseDouble(textView.getText());

textView.setText("");

label.setText(presentNumber+"+");

cal="+";

}

else if (event==equ)

{

switch (cal)

{

case "X":

result=input\*(Double.parseDouble(textView.getText()));

if(Double.toString(result).endsWith(".0"))

textView.setText(Double.toString(result).replace(".0", ""));

else {

textView.setText(Double.toString(result));

label.setText("");}

break;

case "/":

result=input/(Double.parseDouble(textView.getText()));

if(Double.toString(result).endsWith(".0"))

textView.setText(Double.toString(result).replace(".0", ""));

else

textView.setText(Double.toString(result));

label.setText("");

break;

case "+":

result=input+(Double.parseDouble(textView.getText()));

if(Double.toString(result).endsWith(".0"))

textView.setText(Double.toString(result).replace(".0", ""));

else

textView.setText(Double.toString(result));

label.setText("");

break;

case "-":

result=input-(Double.parseDouble(textView.getText()));

if(Double.toString(result).endsWith(".0"))

textView.setText(Double.toString(result).replace(".0", ""));

else

textView.setText(Double.toString(result));

label.setText("");

break;

}

}

}

public static void main(String[] args) {

new calc();

}

}

**OUTPUT:**

