SWING IMPLEMENTATION

PROGRAM

import javax.swing.\*;

import java.awt.\*;

import java.awt.event.\*;

class Calc implements ActionListener

{

String op;

int n1,n2;

JTextField tf;

JButton b0,b1,b2,b3,b4,b5,b6,b7,b8,b9,ad,sub,mult,divd,res,clr;

Calc()

{

JFrame f=new JFrame("Calculator");

JPanel p=new JPanel();

tf=new JTextField(20);

b0=new JButton("0");

b1=new JButton("1");

b2=new JButton("2");

b3=new JButton("3");

b4=new JButton("4");

b5=new JButton("5");

b6=new JButton("6");

b7=new JButton("7");

b8=new JButton("8");

b9=new JButton("9");

ad=new JButton("+");

sub=new JButton("-");

mult=new JButton("X");

divd=new JButton("/");

res=new JButton("=");

clr=new JButton("C");

p.setLayout(null);

tf.setBounds(100,100,200,30);

p.add(tf);

b1.setBounds(100,140,50,30);

p.add(b1);

b2.setBounds(150,140,50,30);

p.add(b2);

b3.setBounds(200,140,50,30);

p.add(b3);

ad.setBounds(250,140,50,30);

p.add(ad);

b4.setBounds(100,170,50,30);

p.add(b4);

b5.setBounds(150,170,50,30);

p.add(b5);

b6.setBounds(200,170,50,30);

p.add(b6);

sub.setBounds(250,170,50,30);

p.add(sub);

b7.setBounds(100,200,50,30);

p.add(b7);

b8.setBounds(150,200,50,30);

p.add(b8);

b9.setBounds(200,200,50,30);

p.add(b9);

mult.setBounds(250,200,50,30);

p.add(mult);

b0.setBounds(100,230,50,30);

p.add(b0);

clr.setBounds(150,230,50,30);

p.add(clr);

res.setBounds(200,230,50,30);

p.add(res);

divd.setBounds(250,230,50,30);

p.add(divd);

f.setContentPane(p);

f.setSize(400,400);

f.setVisible(true);

b0.addActionListener(this);

b1.addActionListener(this);

b2.addActionListener(this);

b3.addActionListener(this);

b4.addActionListener(this);

b5.addActionListener(this);

b6.addActionListener(this);

b7.addActionListener(this);

b8.addActionListener(this);

b9.addActionListener(this);

ad.addActionListener(this);

mult.addActionListener(this);

sub.addActionListener(this);

divd.addActionListener(this);

clr.addActionListener(this);

res.addActionListener(this);

}

public void actionPerformed(ActionEvent e)

{

if(e.getSource()==b0)

{

tf.setText(tf.getText()+b0.getText());

}

else if(e.getSource()==b1)

{

tf.setText(tf.getText()+b1.getText());

}

else if(e.getSource()==b2)

{

tf.setText(tf.getText()+b2.getText());

}

else if(e.getSource()==b3)

{

tf.setText(tf.getText()+b3.getText());

}

else if(e.getSource()==b4)

{

tf.setText(tf.getText()+b4.getText());

}

else if(e.getSource()==b5)

{

tf.setText(tf.getText()+b5.getText());

}

else if(e.getSource()==b6)

{

tf.setText(tf.getText()+b6.getText());

}

else if(e.getSource()==b7)

{

tf.setText(tf.getText()+b7.getText());

}

else if(e.getSource()==b8)

{

tf.setText(tf.getText()+b8.getText());

}

else if(e.getSource()==b9)

{

tf.setText(tf.getText()+b9.getText());

}

else if(e.getSource()==ad)

{

n1=Integer.parseInt(tf.getText());

op="+";

tf.setText("");

}

else if(e.getSource()==sub)

{

n1=Integer.parseInt(tf.getText());

op="-";

tf.setText("");

}

else if(e.getSource()==mult)

{

n1=Integer.parseInt(tf.getText());

op="x";

tf.setText("");

}

else if(e.getSource()==divd)

{

n1=Integer.parseInt(tf.getText());

op="/";

tf.setText("");

}

else if(e.getSource()==res)

{

n2=Integer.parseInt(tf.getText());

float r=calc(n1,op,n2);

tf.setText(n1+" "+op+" "+n2+" = "+r);

}

else if(e.getSource()==clr)

{

tf.setText("");

}

}

float calc(int a,String optr,int b)

{

float result=0;

switch(optr)

{

case "+":

result=a+b;

break;

case "-":

result=a-b;

break;

case "x":

result=a\*b;

break;

case "/":

result=(float)a/b;

break;

}

return result;

}

}

public class Calculator

{

public static void main(String[] args)

{

Calc c=new Calc();

}

}

OUTPUT

