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**Project Assignment : Code the mini project discussed in the class and submit it as the last assignment.**

***PROJECT NAME:-***

**Implementing a simple calculator(called SwingCalculator).**

**CODE:-**

import java.awt.event.\*;

import java.awt.\*;

import javax.swing.\*;

public class Calculator extends JFrame implements ActionListener {

JButton b10,b11,b12,b13,b14,b15;

JButton b[]=new JButton[10];

int i,r,n1,n2;

JTextField res;

char op;

public Calculator()

{

super("Swing Calculator"); setLayout(new BorderLayout());

JPanel p=new JPanel();

p.setLayout(new GridLayout(4,4)); for(int i=0;i<=9;i++)

{

b[i]=new JButton(i+""); p.add(b[i]);

b[i].addActionListener(this); }

b10=new JButton("+");

p.add(b10);

b10.addActionListener(this);

b11=new JButton("-");

p.add(b11);

b11.addActionListener(this);

b12=new JButton("\*");

p.add(b12);

b12.addActionListener(this);

b13=new JButton("/");

p.add(b13);

b13.addActionListener(this);

b14=new JButton("=");

p.add(b14);

b14.addActionListener(this);

b15=new JButton("C");

p.add(b15);

b15.addActionListener(this);

res=new JTextField(10);

add(p,BorderLayout.CENTER);

add(res,BorderLayout.NORTH); setVisible(true);

setSize(200,200);

}

public void actionPerformed(ActionEvent ae) {

JButton pb=(JButton)ae.getSource(); if(pb==b15)

{

r=n1=n2=0;

res.setText("");

}

else

if(pb==b14)

{

n2=Integer.parseInt(res.getText()); eval();

res.setText(""+r);

}

else

{

boolean opf=false;

if(pb==b10)

{ op='+';

opf=true;

}

if(pb==b11)

{ op='-';opf=true;}

if(pb==b12)

{ op='\*';opf=true;}

if(pb==b13)

{ op='/';opf=true;}

if(opf==false)

{

for(i=0;i<10;i++)

{

if(pb==b[i])

{

String t=res.getText(); t+=i;

res.setText(t);

}

}

}

else

{

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

res.setText("");

}

}

}

int eval()

{

switch(op)

{

case '+': r=n1+n2; break; case '-': r=n1-n2; break; case '\*': r=n1\*n2; break; case '/': r=n1/n2; break;

}

return 0;

}

public static void main(String arg[]) {

new Calculator();

}

}

**OUTPUT:-**

