import java.awt.\*;

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;

import javax.swing.\*;

public class MyCalcGUI extends JFrame implements ActionListener{

JButton[] b=new JButton[15];

JPanel p=new JPanel();

GridBagLayout layout =new GridBagLayout();

TextField t=new TextField();

static String op1,op2,op;

public MyCalcGUI() {

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

b[i]=new JButton(String.valueOf(i));

b[10]=new JButton("\*");

b[11]=new JButton("/");

b[12]=new JButton("-");

b[13]=new JButton("=");

b[14]=new JButton("+");

t.setPreferredSize(new Dimension(320, 30));

t.setEditable(false);

p.setLayout(layout);

for(int i=0;i<15;i++)

b[i].addActionListener(this);

add(t,BorderLayout.NORTH);

add(p,BorderLayout.CENTER);

setVisible(true);

setSize(350,500);

setDefaultCloseOperation(EXIT\_ON\_CLOSE);

GridBagConstraints c=new GridBagConstraints();

c.fill = GridBagConstraints.BOTH;

c.insets=new Insets(2,2,2,2);

int x=0;

int y=0;

for(int i=1;i<10;i++) {

if(x>2) {

x=0;

y++;

}

c.gridx=x;

c.gridy=y;

p.add(b[i],c);

x++;

}

c.gridx=1;

c.gridy=3;

p.add(b[0],c);

c.gridx=0;

c.gridy=3;

p.add(b[10],c);

c.gridx=2;

c.gridy=3;

p.add(b[11],c);

c.gridx=3;

c.gridy=3;

p.add(b[12],c);

c.gridx=3;

c.gridy=0;

c.gridheight=2;

p.add(b[14],c);

c.gridx=3;

c.gridy=2;

c.gridheight=1;

p.add(b[13],c);

op1=op2=op="";

}

public static void main(String[] args) {

// TODO Auto-generated method stub

new MyCalcGUI();

}

@Override

public void actionPerformed(ActionEvent e) {

String ip=e.getActionCommand();

if(ip=="+" || ip=="-" || ip=="\*" || ip=="/") {

if(!op1.equals("")) {

op=ip;

}

t.setText(ip);

}

else if(ip.equals("=")) {

if(!op2.equals("")) {

double v1,v2,res=0.0;

v1=Double.parseDouble(op1);

v2=Double.parseDouble(op2);

switch(op) {

case "+":res=v1+v2;

break;

case "-":res=v1-v2;

break;

case "\*":res=v1\*v2;

break;

case "/":res=v1/v2;

break;

}

op1=op2=op="";

t.setText(String.valueOf(res));

}

}

else {

if(!op.equals("")) {

op2+=""+ip;

t.setText(op2);

}

else {

op1+=""+ip;

t.setText(op1);

}

}

}

}