**package** er2;

**import** java.awt.\*;

**import** java.awt.event.ActionEvent;

**import** java.awt.event.ActionListener;

**import** javax.swing.\*;

**public** **class** Caculator **extends** JFrame {

JPanel mainPanel = **new** JPanel(); //主面板

JPanel btnpPanel = **new** JPanel();//按钮的面板

JLabel show = **new** JLabel();

JFrame frame= **new** JFrame();

//用来显示数值的显示框

**boolean** start;

**boolean** isExist;

**double** result;

String command;

**public** **static** **void** main(String[] args) {

**new** Caculator();// 启动计算器}

}

**public** Caculator(){

init();

}

**private** **void** init() {

// **TODO** 自动生成的方法存根

**this**.setLocationRelativeTo(**null**);

**this**.setSize(450, 300);

**this**.setVisible(**true**);

**this**.setDefaultCloseOperation(*EXIT\_ON\_CLOSE*);

**this** . setTitle("计算器");

Container contentPane = **this**.getContentPane();

contentPane.add(btnpPanel,"Center");

contentPane.add(mainPanel);

start=**true**;

isExist=**false**;

command="=";

result=0.0;

mainPanel.setLayout(**new** BorderLayout());

btnpPanel. setLayout(**new** GridLayout(5,4));

MyListener01 m1 = **new** MyListener01();

Mylistener02 m2= **new** Mylistener02();

MyListener03 m3= **new** MyListener03();

**this**.addButton("9",m1);

**this**.addButton("8",m1);

**this**.addButton("7",m1);

**this**.addButton("删除",m3);

**this**.addButton("归零",m3);

**this**.addButton("6",m1);

**this**.addButton("5",m1) ;

**this**.addButton("4",m1);

**this**.addButton("%",m2) ;

**this**.addButton("\*",m2);

**this**.addButton("3",m1);

**this**.addButton("2",m1);

**this**.addButton("1",m1);

**this**.addButton("-",m2);

**this**.addButton("+",m2);

**this**.addButton(".",m1);

**this**.addButton("0",m1);

**this**.addButton( "1/x",m2);

**this**.addButton("/", m2);

**this**.addButton("=",m2);

btnpPanel.add(show, "North");

mainPanel.add(btnpPanel,"Center" );

}

**public** **void** addButton(String content , ActionListener listener ){

JButton button = **new** JButton(content);

button.addActionListener(listener);

btnpPanel. add(button);

btnpPanel.add("North", show);

mainPanel.add("Center", btnpPanel);

}

**class** MyListener03 **implements** ActionListener{

**public** **void** actionPerformed(ActionEvent e){

String content = e.getActionCommand();

**if**("删除".equals(content)){

**if**(show.getText().length()>1){

show.setText(show.getText().substring(0, show.getText().length()-1));

}

**else**{

show.setText("0");

}

}

**if**("归零".equals(content)){

show.setText("0");

}

}

}

**class** MyListener01 **implements** ActionListener{

@Override

**public** **void** actionPerformed(ActionEvent e) {

// **TODO** 自动生成的方法存根

String num=e.getActionCommand();

**if**(show.getText().equals("0")){

start=**true**;

}

**if**(start){

isExist=**false**;

show.setText("");

start=**false**;

}

**if**(".".equals(num)){

**if**(!isExist){

show.setText(show.getText()+num);

}**else**{

show.setText(show.getText());

}

}

**if**(!".".equals(num)){

show.setText(show.getText()+num);

}

}

}

**class** Mylistener02 **implements** ActionListener{

@Override

**public** **void** actionPerformed(ActionEvent e) {

// **TODO** 自动生成的方法存根

String input = e.getActionCommand();

**if**(start){

command=input;

}**else**{

**if**("+".equals(command)){

result+=Double.*parseDouble*(show.getText());

}**else** **if**("-".equals(command)){

result-=Double.*parseDouble*(show.getText());

}**else** **if**("\*".equals(command)){

result \*= Double.*parseDouble*(show.getText());

}**else** **if**("/".equals(command)){

result /=Double.*parseDouble*(show.getText());

}**else** **if**("%".equals(command)){

result %=Double.*parseDouble*(show.getText());

}**else** **if**("1/x".equals(command)){

result = 1/Double.*parseDouble*(show.getText());

}**else** **if**("=".equals(command)){

result = Double.*parseDouble*(show.getText());

}

show.setText(result+"");

command=input;

start=**true**;

}

}

}

}