import javax.swing.\*;

import java.awt.\*;

import java.awt.event.\*;

public class Calc extends JFrame {

private JTextField answerarea;

private JButton clear,zero,one,two,three,four,five,six,seven,eight,nine,equals,minus,plus,divide,multiply;

private String sfirstnumber,ssecondnumber,sanswer;

private double answer=0;

private JPanel contentpanel;

private boolean equalsClicked=false ;

private boolean opChosen=false;

char operation=('\_');

public Calc() {

super("Calculator");

answerarea=new JTextField(null,20);

answerarea.setEditable(false);

one=new JButton("1");

two=new JButton("2");

three=new JButton("3");

four=new JButton("4");

five=new JButton("5");

six=new JButton("6");

seven=new JButton("7");

eight=new JButton("8");

nine=new JButton("9");

zero=new JButton("0");

equals=new JButton("=");

minus=new JButton("-");

plus =new JButton("+");

divide=new JButton("/");

multiply=new JButton("\*");

clear=new JButton("C");

Dimension x= new Dimension(75,25);

one.setPreferredSize(x);

two.setPreferredSize(x);

three.setPreferredSize(x);

four.setPreferredSize(x);

five.setPreferredSize(x);

six.setPreferredSize(x);

seven.setPreferredSize(x);

eight.setPreferredSize(x);

nine.setPreferredSize(x);

zero.setPreferredSize(x);

equals.setPreferredSize(x);

minus.setPreferredSize(x);

divide.setPreferredSize(x);

multiply.setPreferredSize(x);

plus.setPreferredSize(x);

clear.setPreferredSize(x);

Numbers n=new Numbers();

Gui g= new Gui();

zero.addActionListener(n);one.addActionListener(n);two.addActionListener(n);

three.addActionListener(n);four.addActionListener(n);five.addActionListener(n);

six.addActionListener(n);seven.addActionListener(n);eight.addActionListener(n);

nine.addActionListener(n);clear.addActionListener(n);

multiply.addActionListener(g);equals.addActionListener(g);divide.addActionListener(g);

minus.addActionListener(g);plus.addActionListener(g);

contentpanel=new JPanel();

contentpanel.setBackground(Color.BLACK);

contentpanel.setLayout(new FlowLayout());

contentpanel.add(answerarea,BorderLayout.NORTH);

contentpanel.add(one);contentpanel.add(two);contentpanel.add(three);

contentpanel.add(four);contentpanel.add(five);contentpanel.add(six);

contentpanel.add(seven);contentpanel.add(eight);contentpanel.add(nine);

contentpanel.add(plus);contentpanel.add(zero);contentpanel.add(minus);

contentpanel.add(multiply);contentpanel.add(equals);contentpanel.add(divide);contentpanel.add(clear);

this.setContentPane(contentpanel);

}

private class Numbers implements ActionListener{

public void actionPerformed(ActionEvent event) {

JButton src=(JButton)event.getSource();

if(src.equals(one)){

if(opChosen==false){

if(sfirstnumber==null){

sfirstnumber="1";

}else{

sfirstnumber=sfirstnumber+"1";

}

}else{

if(ssecondnumber==null){

ssecondnumber="1";

}else{

ssecondnumber=ssecondnumber+"1";

}

}

}

if(src.equals(two)){

if(opChosen==false){

if(sfirstnumber==null){

sfirstnumber="2";

}else{

sfirstnumber=sfirstnumber+"2";

}

}else{

if(ssecondnumber==null){

ssecondnumber="2";

}else{

ssecondnumber=ssecondnumber+"2";

}

}

}

if(src.equals(three)){

if(opChosen==false){

if(sfirstnumber==null){

sfirstnumber="3";

}else{

sfirstnumber=sfirstnumber+"3";

}

}else{

if(ssecondnumber==null){

ssecondnumber="3";

}else{

ssecondnumber=ssecondnumber+"3";

}

}

}

if(src.equals(four)){

if(opChosen==false){

if(sfirstnumber==null){

sfirstnumber="4";

}else{

sfirstnumber=sfirstnumber+"4";

}

}else{

if(ssecondnumber==null){

ssecondnumber="4";

}else{

ssecondnumber=ssecondnumber+"4";

}

}

}

if(src.equals(five)){

if(opChosen==false){

if(sfirstnumber==null){

sfirstnumber="5";

}else{

sfirstnumber=sfirstnumber+"5";

}

}else{

if(ssecondnumber==null){

ssecondnumber="5";

}else{

ssecondnumber=ssecondnumber+"5";

}

}

}

if(src.equals(six)){

if(opChosen==false){

if(sfirstnumber==null){

sfirstnumber="6";

}else{

sfirstnumber=sfirstnumber+"6";

}

}else{

if(ssecondnumber==null){

ssecondnumber="6";

}else{

ssecondnumber=ssecondnumber+"6";

}

}

}

if(src.equals(seven)){

if(opChosen==false){

if(sfirstnumber==null){

sfirstnumber="7";

}else{

sfirstnumber=sfirstnumber+"7";

}

}else{

if(ssecondnumber==null){

ssecondnumber="7";

}else{

ssecondnumber=ssecondnumber+"7";

}

}

}

if(src.equals(eight)){

if(opChosen==false){

if(sfirstnumber==null){

sfirstnumber="8";

}else{

sfirstnumber=sfirstnumber+"8";

}

}else{

if(ssecondnumber==null){

ssecondnumber="8";

}else{

ssecondnumber=ssecondnumber+"8";

}

}

}

if(src.equals(nine)){

if(opChosen==false){

if(sfirstnumber==null){

sfirstnumber="9";

}else{

sfirstnumber=sfirstnumber+"9";

}

}else{

if(ssecondnumber==null){

ssecondnumber="9";

}else{

ssecondnumber=ssecondnumber+"9";

}

}

}

if(src.equals(zero)){

if(opChosen==false){

if(sfirstnumber==null){

sfirstnumber="0";

}else{

sfirstnumber=sfirstnumber+"0";

}

}else{

if(ssecondnumber==null){

ssecondnumber="0";

}else{

ssecondnumber=ssecondnumber+"0";

}

}

}

if(equalsClicked==false){

if(opChosen==false){

answerarea.setText(sfirstnumber);

}else{

answerarea.setText(ssecondnumber);

}

}

}

}

class Gui implements ActionListener{

public void actionPerformed(ActionEvent event) {

JButton src=(JButton)event.getSource();

if(src.equals(plus)){

if(sfirstnumber==null){

System.out.println("Choose number");

}

}else

if(sfirstnumber!=null&&ssecondnumber==null) {

opChosen=true;

operation='+';

}else

if(sfirstnumber!=null&&ssecondnumber!=null)

System.out.println("two operations only");

if(src.equals(minus)){

if(sfirstnumber==null){

System.out.println("Choose number");

}

}else

if(sfirstnumber!=null&&ssecondnumber==null) {

opChosen=true;

operation='-';

}else

if(sfirstnumber!=null&&ssecondnumber!=null)

System.out.println("two operations only");

if(src.equals(divide)){

if(sfirstnumber==null){

System.out.println("Choose number");

}

}else

if(sfirstnumber!=null&&ssecondnumber==null) {

opChosen=true;

operation='/';

}else

if(sfirstnumber!=null&&ssecondnumber!=null)

System.out.println("two operations only");

if(src.equals(multiply)){

if(sfirstnumber==null){

System.out.println("Choose number");

}

}else

if(sfirstnumber!=null&&ssecondnumber==null) {

opChosen=true;

operation='\*';

}else

if(sfirstnumber!=null&&ssecondnumber!=null)

System.out.println("two operations only");

if(src.equals(equals)){

if(sfirstnumber==null){

System.out.println("Choose number");

}else

if(sfirstnumber!=null&&ssecondnumber==null)

System.out.println("choose both numbers");

if(sfirstnumber!=null&& ssecondnumber!=null){

double d1=0.0, d2=0.0;

d1=Double.parseDouble(sfirstnumber);

d2=Double.parseDouble(ssecondnumber);

switch(operation){

case '+':

answer=d1+d2;

break;

case'-':

answer=d1-d2;

break;

case'\*':

answer=d1\*d2;

break;

case'/':

answer=d1/d2;

break;

default:

answer=0;

break;

}

sanswer=Double.toString(answer);

answerarea.setText(sanswer);

}

}

if(src.equals(clear)) {

sfirstnumber=null;

ssecondnumber=null;

equalsClicked=false;

sanswer=null;

answerarea.setText(null);

operation='\_';

}

}

}

}

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

**public** **class** Main {

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

Calc x=**new** Calc();

x.setSize(250,250);

x.setVisible(**true**);

x.setResizable(**false**);

}

}