**Programa Calculadora**

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**Código**

package pe.unmsm;

import java.util.\*;

public class Libreria {

private String cadena;

private Double resultado;

private boolean suma;

private boolean resta;

private boolean multiplicacion;

private boolean division;

public Libreria(){

cadena="";

suma=false;

resta=false;

multiplicacion=false;

division=false;

}

public void borrarT(String cadena){

this.cadena="";

}

public String concatenamiento(String cad){

this.cadena =cadena+cad;

return this.cadena;

}

public void suma(String cad){

this.resultado = Double.parseDouble(cad);

suma =true;

this.cadena ="";

}

public void resta(String cad){

this.resultado = Double.parseDouble(cad);

resta =true;

this.cadena="";

}

public void multiplicacion(String cad){

this.resultado = Double.parseDouble(cad);

multiplicacion =true;

this.cadena="";

}

public void division(String cad){

this.resultado = Double.parseDouble(cad);

division =true;

this.cadena="";

}

public double resultado(String cad){

if(suma==true){

resultado = resultado+ Double.parseDouble(cad);

}

else if(resta==true){

resultado = resultado - Double.parseDouble(cad);

}

else if(multiplicacion==true){

resultado = resultado \* Double.parseDouble(cad);

}

else if(division==true){

try{

resultado = resultado / Double.parseDouble(cad);

}catch(ArithmeticException e){

resultado=0.0;

System.out.println("incorrecto "+e.getMessage());

}

}

suma=false;resta=false;multiplicacion=false;division=false;

return resultado;

}

}

package pe.unmsm;

public class Calculadora extends javax.swing.JFrame {

Libreria obj=new Libreria();

public Calculadora() {

initComponents();

this.setLocationRelativeTo(null);//aparece la ventana en el centro

}

@SuppressWarnings("unchecked")

// <editor-fold defaultstate="collapsed" desc="Generated Code">

private void initComponents() {

Panel = new javax.swing.JPanel();

Btn2 = new javax.swing.JButton();

Btn1 = new javax.swing.JButton();

Btn3 = new javax.swing.JButton();

Btn4 = new javax.swing.JButton();

Btn5 = new javax.swing.JButton();

Btn6 = new javax.swing.JButton();

Btn7 = new javax.swing.JButton();

Btn8 = new javax.swing.JButton();

Btn9 = new javax.swing.JButton();

Btn0 = new javax.swing.JButton();

Btnpunto = new javax.swing.JButton();

Btnigual = new javax.swing.JButton();

Btn\_mas = new javax.swing.JButton();

Btn\_menos = new javax.swing.JButton();

Btn\_por = new javax.swing.JButton();

Btn\_division = new javax.swing.JButton();

BtnC = new javax.swing.JButton();

Btn10 = new javax.swing.JButton();

jLabel1 = new javax.swing.JLabel();

jTextField1 = new javax.swing.JTextField();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT\_ON\_CLOSE);

setTitle("Calculadora");

setName("calc"); // NOI18N

Btn2.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btn2.setText("2");

Btn2.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

Btn2MouseClicked(evt);

}

});

Btn1.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btn1.setText("1");

Btn1.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

Btn1MouseClicked(evt);

}

});

Btn3.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btn3.setText("3");

Btn3.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

Btn3MouseClicked(evt);

}

});

Btn4.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btn4.setText("4");

Btn4.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

Btn4MouseClicked(evt);

}

});

Btn5.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btn5.setText("5");

Btn5.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

Btn5MouseClicked(evt);

}

});

Btn6.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btn6.setText("6");

Btn6.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

Btn6MouseClicked(evt);

}

});

Btn7.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btn7.setText("7");

Btn7.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

Btn7MouseClicked(evt);

}

});

Btn8.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btn8.setText("8");

Btn8.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

Btn8MouseClicked(evt);

}

});

Btn9.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btn9.setText("9");

Btn9.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

Btn9MouseClicked(evt);

}

});

Btn0.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btn0.setText("0");

Btn0.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

Btn0MouseClicked(evt);

}

});

Btnpunto.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btnpunto.setText(".");

Btnpunto.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

BtnpuntoMouseClicked(evt);

}

});

Btnigual.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btnigual.setText("=");

Btnigual.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

BtnigualMouseClicked(evt);

}

});

Btn\_mas.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btn\_mas.setText("+");

Btn\_mas.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

Btn\_masMouseClicked(evt);

}

});

Btn\_menos.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btn\_menos.setText("-");

Btn\_menos.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

Btn\_menosMouseClicked(evt);

}

});

Btn\_por.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btn\_por.setText("\*");

Btn\_por.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

Btn\_porMouseClicked(evt);

}

});

Btn\_division.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btn\_division.setText("/");

Btn\_division.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

Btn\_divisionMouseClicked(evt);

}

});

BtnC.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

BtnC.setText("C");

BtnC.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

BtnCMouseClicked(evt);

}

});

Btn10.setFont(new java.awt.Font("Times New Roman", 1, 14)); // NOI18N

Btn10.setText("<-");

Btn10.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

Btn10MouseClicked(evt);

}

});

jLabel1.setText("Torres Martinez Iván");

javax.swing.GroupLayout PanelLayout = new javax.swing.GroupLayout(Panel);

Panel.setLayout(PanelLayout);

PanelLayout.setHorizontalGroup(

PanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(PanelLayout.createSequentialGroup()

.addContainerGap(javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE)

.addGroup(PanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(PanelLayout.createSequentialGroup()

.addGroup(PanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(BtnC, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn1, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn4, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn7, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn0, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addGroup(PanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(Btn10, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn2, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn5, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn8, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btnpunto, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(PanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(Btn3, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn6, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn9, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btnigual, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addGroup(PanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(Btn\_mas, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn\_menos, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn\_por, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn\_division, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)))

.addComponent(jLabel1)))

);

PanelLayout.setVerticalGroup(

PanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(PanelLayout.createSequentialGroup()

.addGroup(PanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(BtnC, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn10, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(PanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(Btn1, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn2, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn3, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn\_mas, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 13, Short.MAX\_VALUE)

.addGroup(PanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(Btn4, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn5, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn6, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn\_menos, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(PanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(Btn7, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn8, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn9, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn\_por, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(PanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(Btn0, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btnpunto, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btnigual, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Btn\_division, javax.swing.GroupLayout.PREFERRED\_SIZE, 48, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addComponent(jLabel1)

.addGap(4, 4, 4))

);

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());

getContentPane().setLayout(layout);

layout.setHorizontalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addContainerGap(javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE)

.addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED\_SIZE, 234, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addContainerGap())

.addGroup(layout.createSequentialGroup()

.addComponent(Panel, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGap(0, 0, Short.MAX\_VALUE))

);

layout.setVerticalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()

.addGap(5, 5, 5)

.addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED\_SIZE, 38, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addComponent(Panel, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addContainerGap())

);

pack();

}// </editor-fold>

private void Btn1MouseClicked(java.awt.event.MouseEvent evt) {

jTextField1.setText(obj.concatenamiento("1"));

}

private void Btn2MouseClicked(java.awt.event.MouseEvent evt) {

jTextField1.setText(obj.concatenamiento("2"));

}

private void Btn3MouseClicked(java.awt.event.MouseEvent evt) {

jTextField1.setText(obj.concatenamiento("3"));

}

private void Btn4MouseClicked(java.awt.event.MouseEvent evt) {

jTextField1.setText(obj.concatenamiento("4"));

}

private void Btn5MouseClicked(java.awt.event.MouseEvent evt) {

jTextField1.setText(obj.concatenamiento("5"));

}

private void Btn6MouseClicked(java.awt.event.MouseEvent evt) {

jTextField1.setText(obj.concatenamiento("6"));

}

private void Btn7MouseClicked(java.awt.event.MouseEvent evt) {

jTextField1.setText(obj.concatenamiento("7"));

}

private void Btn8MouseClicked(java.awt.event.MouseEvent evt) {

jTextField1.setText(obj.concatenamiento("8"));

}

private void Btn9MouseClicked(java.awt.event.MouseEvent evt) {

jTextField1.setText(obj.concatenamiento("9"));

}

private void Btn0MouseClicked(java.awt.event.MouseEvent evt) {

jTextField1.setText(obj.concatenamiento("0"));

}

private void Btn\_masMouseClicked(java.awt.event.MouseEvent evt) {

obj.suma(jTextField1.getText());

}

private void BtnigualMouseClicked(java.awt.event.MouseEvent evt) {

jTextField1.setText(""+obj.resultado(jTextField1.getText()));

}

private void BtnpuntoMouseClicked(java.awt.event.MouseEvent evt) {

jTextField1.setText(obj.concatenamiento("."));

}

private void Btn\_menosMouseClicked(java.awt.event.MouseEvent evt) {

obj.resta(jTextField1.getText());

}

private void Btn\_porMouseClicked(java.awt.event.MouseEvent evt) {

obj.multiplicacion(jTextField1.getText());

}

private void Btn\_divisionMouseClicked(java.awt.event.MouseEvent evt) {

obj.division(jTextField1.getText());

}

private void BtnCMouseClicked(java.awt.event.MouseEvent evt) {

obj.borrarT(jTextField1.getText());

jTextField1.setText("0");

}

private void Btn10MouseClicked(java.awt.event.MouseEvent evt) {

if(jTextField1.getText().length()!=0){

jTextField1.setText(jTextField1.getText().substring(0, jTextField1.getText().length()-1));

}

}

public static void main(String args[]) {

java.awt.EventQueue.invokeLater(new Runnable() {

public void run() {

new Calculadora().setVisible(true);

}

});

}

// Variables declaration - do not modify

private javax.swing.JButton Btn0;

private javax.swing.JButton Btn1;

private javax.swing.JButton Btn10;

private javax.swing.JButton Btn2;

private javax.swing.JButton Btn3;

private javax.swing.JButton Btn4;

private javax.swing.JButton Btn5;

private javax.swing.JButton Btn6;

private javax.swing.JButton Btn7;

private javax.swing.JButton Btn8;

private javax.swing.JButton Btn9;

private javax.swing.JButton BtnC;

private javax.swing.JButton Btn\_division;

private javax.swing.JButton Btn\_mas;

private javax.swing.JButton Btn\_menos;

private javax.swing.JButton Btn\_por;

private javax.swing.JButton Btnigual;

private javax.swing.JButton Btnpunto;

private javax.swing.JPanel Panel;

private javax.swing.JLabel jLabel1;

private javax.swing.JTextField jTextField1;

// End of variables declaration

}

Pantallazo



