**Ecuación de Segundo Grado (Método General)**

import java.awt.GridLayout;
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JTextField;

public class Ecuacion2do extends JFrame {
 private static final long serialVersionUID = 1L;
 Double A;
 Double B;
 Double C;
 JLabel lblA,lblB,lblC,lblx1,lblx2,lblvA,lblvB,lblvC,lblvDet;
 JTextField txtA,txtB,txtC;
 JButton btnAceptar, btnCancelar;

 public Ecuacion2do( ) {
 setTitle("Solucion");
 setSize(250,200);
 setDefaultCloseOperation(EXIT\_ON\_CLOSE);
 setLocationRelativeTo(null);
 dibujarIntefaz( ); }

 public void dibujarIntefaz( ) {
 getContentPane( ).setLayout(new GridLayout(7,2));

 lblA = new JLabel("Valor de A");
 getContentPane( ).add(lblA);

 txtA = new JTextField();
 getContentPane( ).add(txtA);

 lblB = new JLabel("Valor de B");
 getContentPane( ).add(lblB);

 txtB = new JTextField( );
 getContentPane( ).add(txtB);

 lblC = new JLabel("Valor de C");
 getContentPane( ).add(lblC);

 txtC = new JTextField();
 getContentPane( ).add(txtC);
 lblx1 = new JLabel("x1 = ");
 getContentPane( ).add(lblx1);
 lblx2 = new JLabel("x2 = ");
 getContentPane( ).add(lblx2);

 lblvA = new JLabel("vA");
 getContentPane( ).add(lblvA);

 lblvB = new JLabel("vB");
 getContentPane( ).add(lblvB);

 lblvC = new JLabel("vC");
 getContentPane( ).add(lblvC);

 lblvDet = new JLabel("vDet");
 getContentPane( ).add(lblvDet);

 btnAceptar = new JButton("Resolver");
 getContentPane( ).add(btnAceptar);

 btnCancelar = new JButton("Cancelar");
 getContentPane( ).add(btnCancelar);

 btnCancelar.addActionListener(new java.awt.event.ActionListener( ) {
 public void actionPerformed(java.awt.event.ActionEvent e) {
 System.exit(0); } });

 btnAceptar.addActionListener(new java.awt.event.ActionListener( ) {
 public void actionPerformed(java.awt.event.ActionEvent e) {
 String msj=" ";

 if(txtA.getText().isEmpty( ) ) {
 msj +="Falta el valor de A\n"; }

 if(txtB.getText().isEmpty( ) ) {
 msj +="Falta el valor de B\n"; }

 if(txtC.getText().isEmpty( ) ) {
 msj +="Falta el valor de C\n"; }

 A = Double.parseDouble(txtA.getText( ) );
 B = Double.parseDouble(txtB.getText( ) );
 C = Double.parseDouble(txtC.getText( ) );

 lblvA.setText("A = " + txtA.getText( ) );
 lblvB.setText("B = " +txtB.getText( ) );
 lblvC.setText("C = " +txtC.getText( ) );
 lblvDet.setText("Det = " + determinante( ) );
 if (msj.isEmpty( )) {

 A = Double.parseDouble(txtA.getText( ) );
 B = Double.parseDouble(txtB.getText( ) );
 C = Double.parseDouble(txtC.getText( ) );
 Double miSol[ ] = Solucion( );

 if (miSol[0] == 100.0) {
 lblx1.setText("Sin solucion");
 lblx2.setText("Sin solucion"); }

 else {
 lblx1.setText("X1 = " + miSol[0].toString( ) );
 lblx2.setText("X2 = " + miSol[1].toString( ) ); } }

 else {
 javax.swing.JOptionPane.showMessageDialog(null, msj); } } });
 }
 public Double determinante( ) {
 return (B \* B - 4 \* A \* C); }
 public Double[ ] Solucion()  {
 Double Sol[ ] = new Double[2];

 if (determinante( ) == 0) {
 Sol[0] = -B/2\*A;
 Sol[1] = Sol[0]; }

 if (determinante() > 0) {

 Sol[0] = (-B + Math.sqrt(determinante( ) ) );
 Sol[0] = Sol[0]/(2\*A);
 Sol[1] = (-B - Math.sqrt(determinante( ) ) );
 Sol[1] = Sol[1]/(2\*A); }

 if (determinante() < 0) {
 Sol[0] = 100.0;
 Sol[1] = Sol[0]; }
 return Sol; }

 public static void main(String args[ ]) {
 new Ecuacion2do( ).setVisible(true); } }