












Trabajo Grupal 3

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 <https://bit.ly/TrabajoGrupal3P00>

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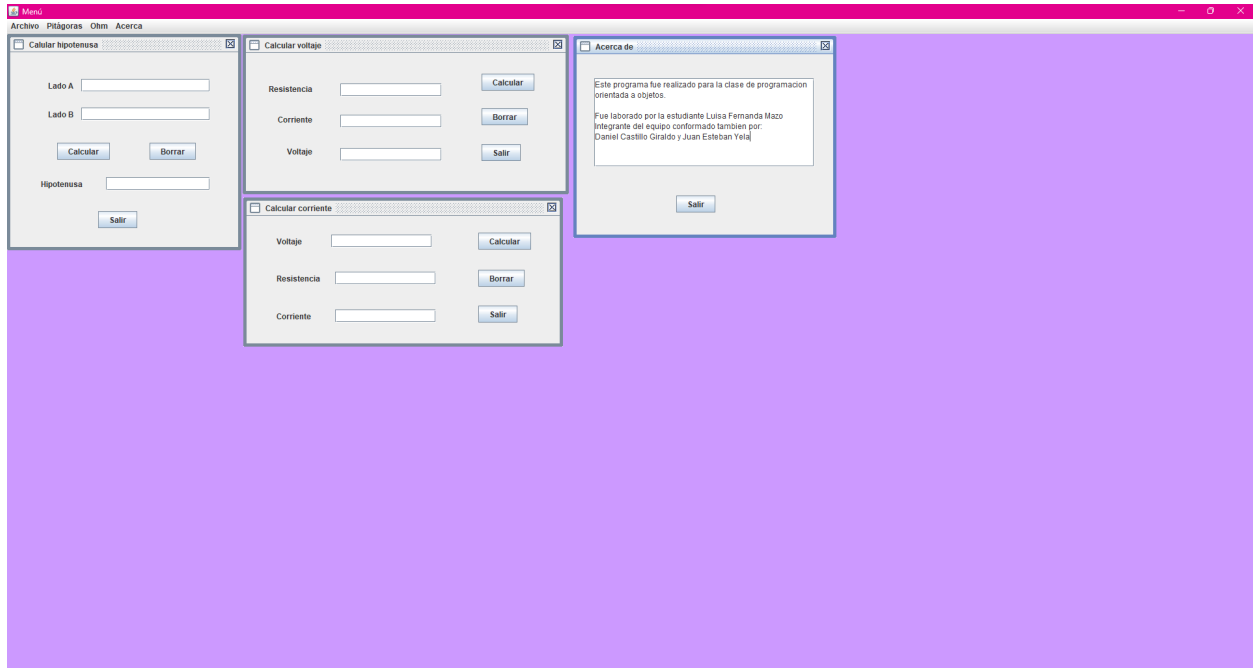
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Ejercicio 1

 https://github.com/danielcgiraldo/P00_Grupal/tree/main/Trabajo_3/Ejercicio1

Interfaz Gráfica



Código

Corriente

```
package menu_trabajo5;

public class Corriente {

    public static double calcularcorriente(double voltaje, double resistencia){

        double corriente = voltaje/resistencia;
        return corriente;

    }

}
```

FrmAcercade

```
package menu_trabajo5;

public class FrmAcercade extends javax.swing.JInternalFrame {

    public FrmAcercade() {
        initComponents();
    }

    @SuppressWarnings("unchecked")
    private void initComponents() {
```

```

jScrollPane1 = new javax.swing.JScrollPane();
jTextArea1 = new javax.swing.JTextArea();
jButton1 = new javax.swing.JButton();

setTitle(" Acerca de");

jTextArea1.setColumns(20);
jTextArea1.setRows(5);
jTextArea1.setText("Este programa fue realizado para la clase de programacion \norientada a objetos.\n\nFue laborado por la estudia
jScrollPane1.setViewportView(jTextArea1);

jButton1.setText("Salir");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});

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()
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addGap(27, 27, 27)
                    .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 338, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGroup(layout.createSequentialGroup()
                    .addGap(153, 153, 153)
                    .addComponent(jButton1)))
            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
);
layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addContainerGap()
            .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 136, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 44, Short.MAX_VALUE)
            .addComponent(jButton1)
            .addContainerGap(34, Short.MAX_VALUE))
);

pack();
} // </editor-fold>

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    this.dispose();
}

// Variables declaration - do not modify
private javax.swing.JButton jButton1;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JTextArea jTextArea1;
// End of variables declaration
}

```

FrmCorriente

```

package menu_trabajo5;

public class FrmCorriente extends javax.swing.JInternalFrame {

    public FrmCorriente() {
        initComponents();
    }

    @SuppressWarnings("unchecked")
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        jButton1 = new javax.swing.JButton();
        jButton2 = new javax.swing.JButton();
        jButton3 = new javax.swing.JButton();
    }
}

```

```

txtVoltaje = new javax.swing.JTextField();
txtResistencia = new javax.swing.JTextField();
txtCorriente = new javax.swing.JTextField();

setTitle(" Calcular corriente");

jLabel1.setText("Voltaje");

jLabel2.setText("Resistencia");

jLabel3.setText("Corriente");

jButton1.setText("Calcular");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});

jButton2.setText("Borrar");
jButton2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
    }
});

jButton3.setText("Salir");
jButton3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton3ActionPerformed(evt);
    }
});

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
        .addGap(46, 46, 46)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(23, 23, 23)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                    .addComponent(txtResistencia, javax.swing.GroupLayout.DEFAULT_SIZE, 155, Short.MAX_VALUE)
                    .addComponent(txtCorriente))
                .addGap(45, 45, 45)
                .addComponent(txtVoltaje, javax.swing.GroupLayout.PREFERRED_SIZE, 155, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 65, Short.MAX_VALUE)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jButton1)
                .addComponent(jButton2)
                .addComponent(jButton3))
            .addGap(44, 44, 44))
        .addContainerGap())
    .addGroup(layout.createSequentialGroup()
        .addGap(26, 26, 26)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel1)
            .addComponent(jButton1)
            .addComponent(txtVoltaje, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(31, 31, 31)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel2)
            .addComponent(jButton2)
            .addComponent(txtResistencia, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(29, 29, 29)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
            .addComponent(jLabel3)
            .addComponent(txtCorriente, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jButton3))
        .addGap(32, Short.MAX_VALUE))
    .addContainerGap());

```

```

        pack();
    } // </editor-fold>

    private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        this.dispose();
    }

    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        double voltaje, resistencia, corriente;
        voltaje=0;
        resistencia=0;
        corriente=0;
        txtCorriente.setText("");
        txtResistencia.setText("");
        txtVoltaje.setText("");
    }

    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        double voltaje, resistencia, corriente;
        voltaje = Double.parseDouble(txtVoltaje.getText());
        resistencia = Double.parseDouble(txtResistencia.getText());
        corriente = Corriente.calcularcorriente(voltaje, resistencia);
        txtCorriente.setText(String.valueOf(corriente));
    }

    // Variables declaration - do not modify
    private javax.swing.JButton jButton1;
    private javax.swing.JButton jButton2;
    private javax.swing.JButton jButton3;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JTextField txtCorriente;
    private javax.swing.JTextField txtResistencia;
    private javax.swing.JTextField txtVoltaje;
    // End of variables declaration
}

```

Frmpitagoras

```

package menu_trabajo5;

public class Frmpitagoras extends javax.swing.JInternalFrame {

    public Frmpitagoras() {
        initComponents();
    }

    @SuppressWarnings("unchecked")
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        txtLadoA = new javax.swing.JTextField();
        txtLadoB = new javax.swing.JTextField();
        jLabel4 = new javax.swing.JLabel();
        txtHipotenusa = new javax.swing.JTextField();
        btnCalcular = new javax.swing.JButton();
        btnBorrar = new javax.swing.JButton();
        btnSalir = new javax.swing.JButton();

        setTitle(" Calcular hipotenusa");

        jLabel1.setText("Lado A");

        jLabel2.setText("Lado B");

        jLabel4.setText("Hipotenusa");

        btnCalcular.setText("Calcular");
        btnCalcular.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                btnCalcularActionPerformed(evt);
            }
        });
    }
}

```



```

        // TODO add your handling code here:
        double hipotenusa, ladoA, ladoB;
        hipotenusa=0;
        ladoA=0;
        ladoB=0;
        txtHipotenusa.setText("");
        txtLadoA.setText("");
        txtLadoB.setText("");
    }

    private void btnCalcularActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        double hipotenusa, ladoA, ladoB;
        ladoA = Double.parseDouble(txtLadoA.getText());
        ladoB = Double.parseDouble(txtLadoB.getText());
        hipotenusa = Pitagoras.calcularhipotenusa(ladoA, ladoB);
        txtHipotenusa.setText(String.valueOf(hipotenusa));
    }

    // Variables declaration - do not modify
    private javax.swing.JButton btnBorrar;
    private javax.swing.JButton btnCalcular;
    private javax.swing.JButton btnSalir;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel4;
    private javax.swing.JTextField txtHipotenusa;
    private javax.swing.JTextField txtLadoA;
    private javax.swing.JTextField txtLadoB;
    // End of variables declaration
}

```

FrmPrincipal

```

package menu_trabajo5;

public class FrmPrincipal extends javax.swing.JFrame {

    public FrmPrincipal() {
        initComponents();
    }

    @SuppressWarnings("unchecked")
    private void initComponents() {

        dp = new javax.swing.JDesktopPane();
        jMenuBar1 = new javax.swing.JMenuBar();
        jMenu1 = new javax.swing.JMenu();
        jMenuItem1 = new javax.swing.JMenuItem();
        jMenu2 = new javax.swing.JMenu();
        jMenuItem2 = new javax.swing.JMenuItem();
        jMenu3 = new javax.swing.JMenu();
        jMenuItem3 = new javax.swing.JMenuItem();
        jMenuItem4 = new javax.swing.JMenuItem();
        jMenu4 = new javax.swing.JMenu();
        jMenuItem5 = new javax.swing.JMenuItem();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        setTitle(" Menú");

        dp.setBackground(new java.awt.Color(204, 153, 255));

        javax.swing.GroupLayout dpLayout = new javax.swing.GroupLayout(dp);
        dp.setLayout(dpLayout);
        dpLayout.setHorizontalGroup(
            dpLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGap(0, 416, Short.MAX_VALUE)
        );
        dpLayout.setVerticalGroup(
            dpLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGap(0, 291, Short.MAX_VALUE)
        );

        jMenu1.setText("Archivo");

        jMenuItem1.setText("Salir");
    }
}

```

```

jMenuItem1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem1ActionPerformed(evt);
    }
});
jMenu1.add(jMenuItem1);

jMenuBar1.add(jMenu1);

jMenu2.setText("Pitágoras");

jMenuItem2.setText("Calculadora hipotenusa");
jMenuItem2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem2ActionPerformed(evt);
    }
});
jMenu2.add(jMenuItem2);

jMenuBar1.add(jMenu2);

jMenu3.setText("Ohm");

jMenuItem3.setText("Calcular voltaje");
jMenuItem3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem3ActionPerformed(evt);
    }
});
jMenu3.add(jMenuItem3);

jMenuItem4.setText("Calcular corriente");
jMenuItem4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem4ActionPerformed(evt);
    }
});
jMenu3.add(jMenuItem4);

jMenuBar1.add(jMenu3);

jMenu4.setText("Acerca");

jMenuItem5.setText("Acerca de ");
jMenuItem5.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem5ActionPerformed(evt);
    }
});
jMenu4.add(jMenuItem5);

jMenuBar1.add(jMenu4);

setJMenuBar(jMenuBar1);

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(dp, javax.swing.GroupLayout.Alignment.TRAILING)
);
layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(dp, javax.swing.GroupLayout.Alignment.TRAILING)
);

pack();
} // </editor-fold>

private void jMenuItem1ActionPerformed(java.awt.event.ActionEvent evt) {

    this.dispose();
}

private void jMenuItem2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    FrmPitagoras pitagoras = new FrmPitagoras();
    dp.add(pitagoras);
    pitagoras.setClosable(true);
    pitagoras.setVisible(true);
}

```



```

    }

    private void jMenuItem3ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        FrmVoltaje voltaje = new FrmVoltaje();
        dp.add(voltaje);
        voltaje.setClosable(true);
        voltaje.setVisible(true);
    }

    private void jMenuItem4ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        FrmCorriente corriente = new FrmCorriente();
        dp.add(corriente);
        corriente.setClosable(true);
        corriente.setVisible(true);
    }

    private void jMenuItem5ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        FrmAcercade Acercade = new FrmAcercade();
        dp.add(Acercade);
        Acercade.setClosable(true);
        Acercade.setVisible(true);
    }

    /**
     * @param args the command line arguments
     */
    public static void main(String args[]) {
        /* Set the Nimbus look and feel */
        //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
        /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
         * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
         */
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(FrmPrincipal.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(FrmPrincipal.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(FrmPrincipal.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(FrmPrincipal.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        }
        //</editor-fold>

        /* Create and display the form */
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new FrmPrincipal().setVisible(true);
            }
        });
    }

    // Variables declaration - do not modify
    private javax.swing.JDesktopPane dp;
    private javax.swing.JMenu jMenuItem1;
    private javax.swing.JMenu jMenuItem2;
    private javax.swing.JMenu jMenuItem3;
    private javax.swing.JMenu jMenuItem4;
    private javax.swing.JMenuBar jMenuItemBar1;
    private javax.swing.JMenuItem jMenuItem1;
    private javax.swing.JMenuItem jMenuItem2;
    private javax.swing.JMenuItem jMenuItem3;
    private javax.swing.JMenuItem jMenuItem4;
    private javax.swing.JMenuItem jMenuItem5;
    // End of variables declaration
}

```

FrmVoltaje

```

package menu_trabajo5;

public class FrmVoltaje extends javax.swing.JInternalFrame {

    public FrmVoltaje() {
        initComponents();
    }

    @SuppressWarnings("unchecked")
    private void initComponents() {

        jTextField4 = new javax.swing.JTextField();
        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        txtResistencia = new javax.swing.JTextField();
        txtCorriente = new javax.swing.JTextField();
        jLabel3 = new javax.swing.JLabel();
        txtVoltaje = new javax.swing.JTextField();
        jButton1 = new javax.swing.JButton();
        jButton2 = new javax.swing.JButton();
        jButton3 = new javax.swing.JButton();

        jTextField4.setText("jTextField4");

        setTitle(" Calcular voltaje");

        jLabel1.setText("Resistencia");

        jLabel2.setText("Corriente");

        jLabel3.setText("Voltaje");

        jButton1.setText("Calcular");
        jButton1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton1ActionPerformed(evt);
            }
        });

        jButton2.setText("Borrar");
        jButton2.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton2ActionPerformed(evt);
            }
        });

        jButton3.setText("Salir");
        jButton3.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton3ActionPerformed(evt);
            }
        });

        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addGap(35, 35, 35)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                        .addComponent(jLabel1)
                        .addComponent(jLabel2)
                        .addComponent(jLabel3))
                    .addGap(43, 43, 43)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                        .addComponent(txtVoltaje, javax.swing.GroupLayout.DEFAULT_SIZE, 156, Short.MAX_VALUE)
                        .addComponent(txtCorriente, javax.swing.GroupLayout.Alignment.TRAILING)
                        .addComponent(txtResistencia))
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 61, Short.MAX_VALUE)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                        .addComponent(jButton1)
                        .addComponent(jButton2)
                        .addComponent(jButton3))
                    .addGap(48, 48, 48))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addGap(35, 35, 35)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                        .addComponent(txtResistencia)
                        .addComponent(txtCorriente)
                        .addComponent(txtVoltaje))
                    .addGap(43, 43, 43)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                        .addComponent(jButton1)
                        .addComponent(jButton2)
                        .addComponent(jButton3))
                    .addGap(48, 48, 48))
        );
    }
}

```

```

        .addGap(32, 32, 32)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
            .addGroup(layout.createSequentialGroup()
                .addComponent(jButton1)
                .addGap(27, 27, 27)
                .addComponent(jButton2)
                .addGap(29, 29, 29)
                .addComponent(jButton3))
            .addGroup(layout.createSequentialGroup()
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel1)
                    .addGap(31, 31, 31)
                    .addComponent(jLabel2))
                .addGroup(layout.createSequentialGroup()
                    .addComponent(txtResistencia, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGap(28, 28, 28)
                    .addComponent(txtCorriente, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGap(28, 28, 28)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                        .addComponent(jLabel3)
                        .addGroup(layout.createSequentialGroup()
                            .addGap(3, 3, 3)
                            .addComponent(txtVoltaje, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))))))
            .addContainerGap(46, Short.MAX_VALUE))
    );

    pack();
} // </editor-fold>

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    this.dispose();
}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    double voltaje, resistencia, corriente;
    voltaje=0;
    resistencia=0;
    corriente=0;
    txtCorriente.setText("");
    txtResistencia.setText("");
    txtVoltaje.setText("");
}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    double voltaje, resistencia, corriente;
    resistencia = Double.parseDouble(txtResistencia.getText());
    corriente = Double.parseDouble(txtCorriente.getText());
    voltaje = Voltaje.calcularvoltaje(resistencia, corriente);
    txtVoltaje.setText(String.valueOf(voltaje));
}

// Variables declaration - do not modify
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JButton jButton3;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JTextField jTextField4;
private javax.swing.JTextField txtCorriente;
private javax.swing.JTextField txtResistencia;
private javax.swing.JTextField txtVoltaje;
// End of variables declaration
}

```

Menu_Trabajo5

```

package menu_trabajo5;

import javax.swing.JFrame;

```

```

public class Menu_Trabajo5 {

    public static void main(String[] args) {
        FrmPrincipal Principal = new FrmPrincipal();
        Principal.setExtendedState(JFrame.MAXIMIZED_BOTH);
        Principal.setVisible(true);

    }

}

```

Pitagoras

```

package menu_trabajo5;

public class Pitagoras {

    public static double calularhipotenusa(double a, double b){

        double hipotenusa = Math.sqrt(Math.pow(a, 2)+ Math.pow(b,2));
        return hipotenusa;

    }

}

```

Voltaje

```

package menu_trabajo5;

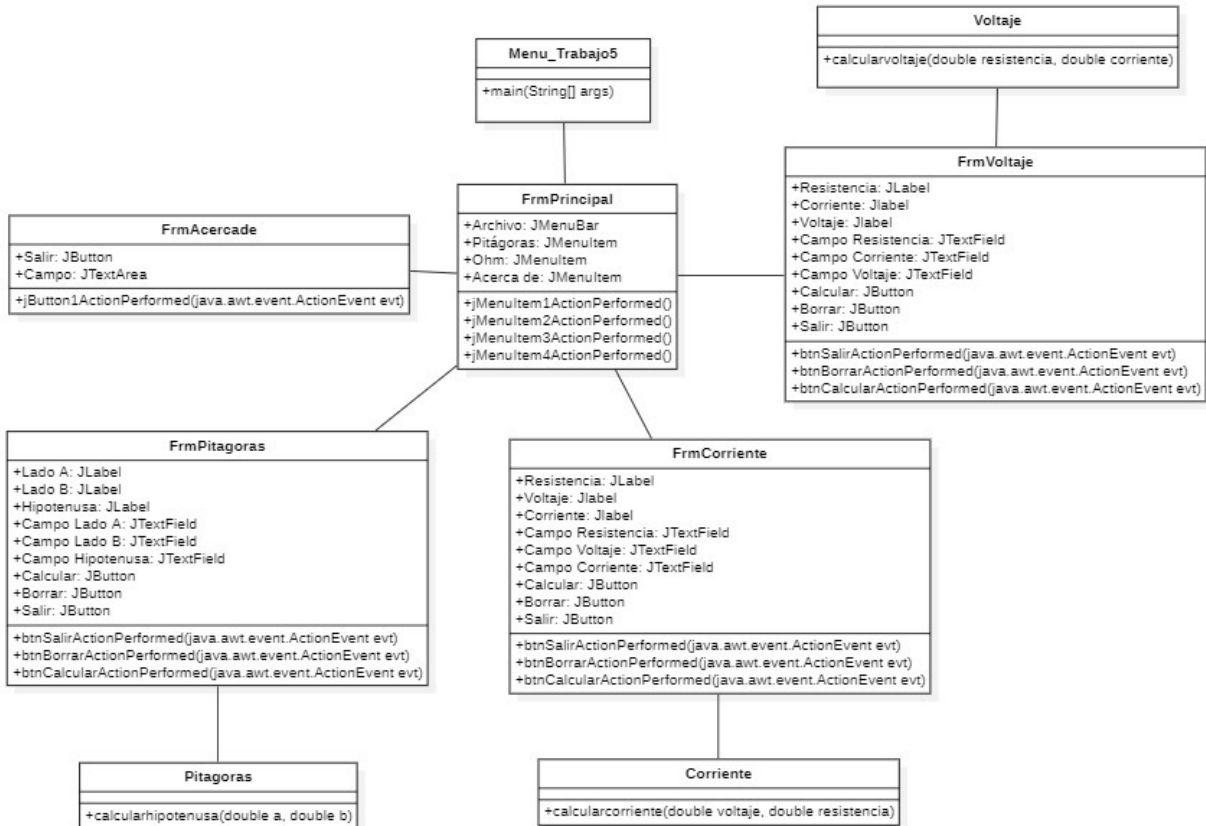
public class Voltaje {

    public static double calcularvoltaje(double resistencia, double corriente){
        double voltaje = resistencia*corriente;
        return voltaje;
    }

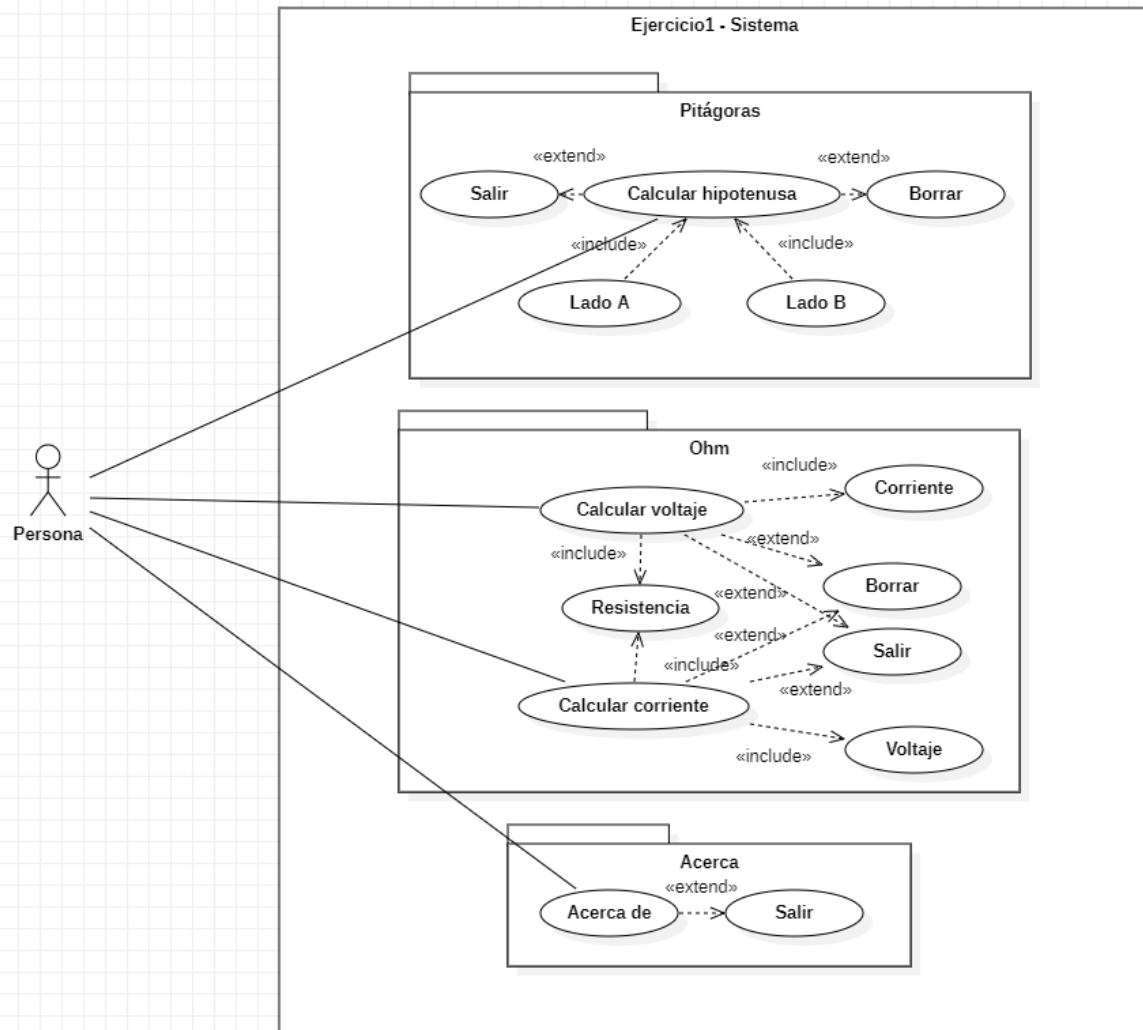
}

```


Diagrama de Clases



Casos de Uso



Ejercicio 2

 https://github.com/danielcgiraldo/P00_Grupal/tree/main/Trabajo_3/Ejercicio2

Interfaz Gráfica

Nota 1	<input type="text"/>
Nota 2	<input type="text"/>
Nota 3	<input type="text"/>
Nota 4	<input type="text"/>
Nota 5	<input type="text"/>
Calcular	Limpiar
Promedio	<input type="text"/>
Desviación	<input type="text"/>
Mayor	<input type="text"/>
Menor	<input type="text"/>

Código

Notas

```
package com.mycompany.notas;

public class Notas {

    public static void main(String[] args) {
        VentanaPrincipal interfaz = new VentanaPrincipal();
        interfaz.setVisible(true);
    }
    double[] listaNotas;
    public Notas() {
        listaNotas = new double[5];
    }

    double calcularPromedio() {

        double suma = 0;

        for(int i=1; i < listaNotas.length; i++) {
            suma = suma + listaNotas[i];
        }

        return (suma / listaNotas.length);
    }

    double calcularDesviación() {
        double promedio = calcularPromedio();
        double suma = 0;
        for(int i=0; i < listaNotas.length; i++) {

            suma += Math.pow(listaNotas[i] - promedio, 2 );
        }
        return Math.sqrt (suma/listaNotas.length );
    }

    double numeroMenor() {
        double menor = listaNotas[0];
        for(int i=0; i < listaNotas.length; i++) {
            if (listaNotas[i] < menor) {

                menor = listaNotas[i];
            }
        }
    }
}
```

```

    }
}
return menor;
}

double numeroMayor() {
    double mayor = listaNotas[0];
    for(int i=0; i < listaNotas.length; i++) {
        if (listaNotas[i] > mayor) {

            mayor = listaNotas[i];
        }
    }
    return mayor;
}
}
}

```

VentanaPrincipal

```

package com.mycompany.notas;

public class VentanaPrincipal extends javax.swing.JFrame {

    public VentanaPrincipal() {
        initComponents();
        setTitle("Notas");
        setLocationRelativeTo(null);
    }

    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        jLabel4 = new javax.swing.JLabel();
        jLabel5 = new javax.swing.JLabel();
        jLabel6 = new javax.swing.JLabel();
        jLabel7 = new javax.swing.JLabel();
        jLabel8 = new javax.swing.JLabel();
        jLabel9 = new javax.swing.JLabel();
        nota1TF = new javax.swing.JTextField();
        nota2TF = new javax.swing.JTextField();
        nota3TF = new javax.swing.JTextField();
        nota4TF = new javax.swing.JTextField();
        nota5TF = new javax.swing.JTextField();
        promedioTF = new javax.swing.JTextField();
        desviacionTF = new javax.swing.JTextField();
        mayorTF = new javax.swing.JTextField();
        menorTF = new javax.swing.JTextField();
        Calcular = new javax.swing.JButton();
        Limpiar = new javax.swing.JButton();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

        jLabel1.setText("Nota 1");

        jLabel2.setText("Nota 2");

        jLabel3.setText("Nota 3");

        jLabel4.setText("Nota 4");

        jLabel5.setText("Nota 5");

        jLabel6.setText("Promedio");

        jLabel7.setText("Desviación");

        jLabel8.setText("Mayor");

        jLabel9.setText("Menor");
    }
}

```



```

        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel3)
            .addComponent(nota3TF, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        ).addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel4)
            .addComponent(nota4TF, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        ).addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel5)
            .addComponent(nota5TF, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        ).addGap(18, 18, 18)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(Calcular)
            .addComponent(Limpiar))
        .addGap(18, 18, 18)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel6)
            .addComponent(promedioTF, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        ).addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel7)
            .addComponent(desviacionTF, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        ).addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel8)
            .addComponent(mayorTF, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        ).addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel9)
            .addComponent(menorTF, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        ).addContainerGap(18, Short.MAX_VALUE))
    );

    pack();
} // </editor-fold>

private void nota1TFActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

private void CalcularActionPerformed(java.awt.event.ActionEvent evt) {
    Notas notas = new Notas();
    notas.listaNotas[0] = Double.parseDouble(nota1TF.getText());
    notas.listaNotas[1] = Double.parseDouble(nota2TF.getText());
    notas.listaNotas[2] = Double.parseDouble(nota3TF.getText());
    notas.listaNotas[3] = Double.parseDouble(nota4TF.getText());
    notas.listaNotas[4] = Double.parseDouble(nota5TF.getText());

    promedioTF.setText(String.valueOf(String.format("%.2f", notas.calcularPromedio())));
    desviacionTF.setText(String.valueOf(String.format("%.2f", notas.calcularDesviación())));
    mayorTF.setText(String.valueOf(notas.numeroMayor()));
    menorTF.setText(String.valueOf(notas.numeroMenor()));
}

private void LimpiarActionPerformed(java.awt.event.ActionEvent evt) {
    nota1TF.setText("");
    nota2TF.setText("");
    nota3TF.setText("");
    nota4TF.setText("");
    nota5TF.setText("");
    promedioTF.setText("");
    desviacionTF.setText("");
    mayorTF.setText("");
    menorTF.setText("");
}

/**
 * @param args the command line arguments
 */
public static void main(String args[]) {
    /* Set the Nimbus look and feel */
    //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
    /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
     * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
     */
    try {
        for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {

```

```

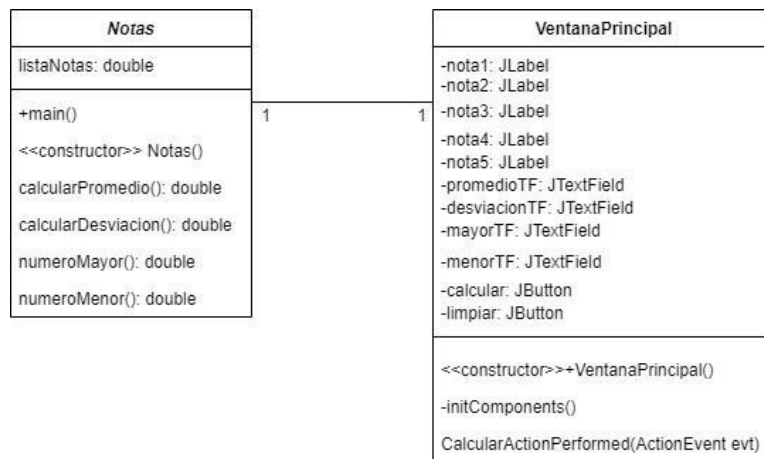
        if ("Nimbus".equals(info.getName())) {
            javax.swing.UIManager.setLookAndFeel(info.getClassName());
            break;
        }
    }
} catch (ClassNotFoundException ex) {
    java.util.logging.Logger.getLogger(VentanaPrincipal.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
} catch (InstantiationException ex) {
    java.util.logging.Logger.getLogger(VentanaPrincipal.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
} catch (IllegalAccessException ex) {
    java.util.logging.Logger.getLogger(VentanaPrincipal.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
} catch (javax.swing.UnsupportedLookAndFeelException ex) {
    java.util.logging.Logger.getLogger(VentanaPrincipal.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
}
//</editor-fold>

/* Create and display the form */
java.awt.EventQueue.invokeLater(new Runnable() {
    public void run() {
        new VentanaPrincipal().setVisible(true);
    }
});
}

// Variables declaration - do not modify
private javax.swing.JButton Calcular;
private javax.swing.JButton Limpiar;
private javax.swing.JTextField desviacionTF;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel4;
private javax.swing.JLabel jLabel5;
private javax.swing.JLabel jLabel6;
private javax.swing.JLabel jLabel7;
private javax.swing.JLabel jLabel8;
private javax.swing.JLabel jLabel9;
private javax.swing.JTextField mayorTF;
private javax.swing.JTextField menorTF;
private javax.swing.JTextField nota1TF;
private javax.swing.JTextField nota2TF;
private javax.swing.JTextField nota3TF;
private javax.swing.JTextField nota4TF;
private javax.swing.JTextField nota5TF;
private javax.swing.JTextField promedioTF;
// End of variables declaration
}


```

Diagrama de Clases

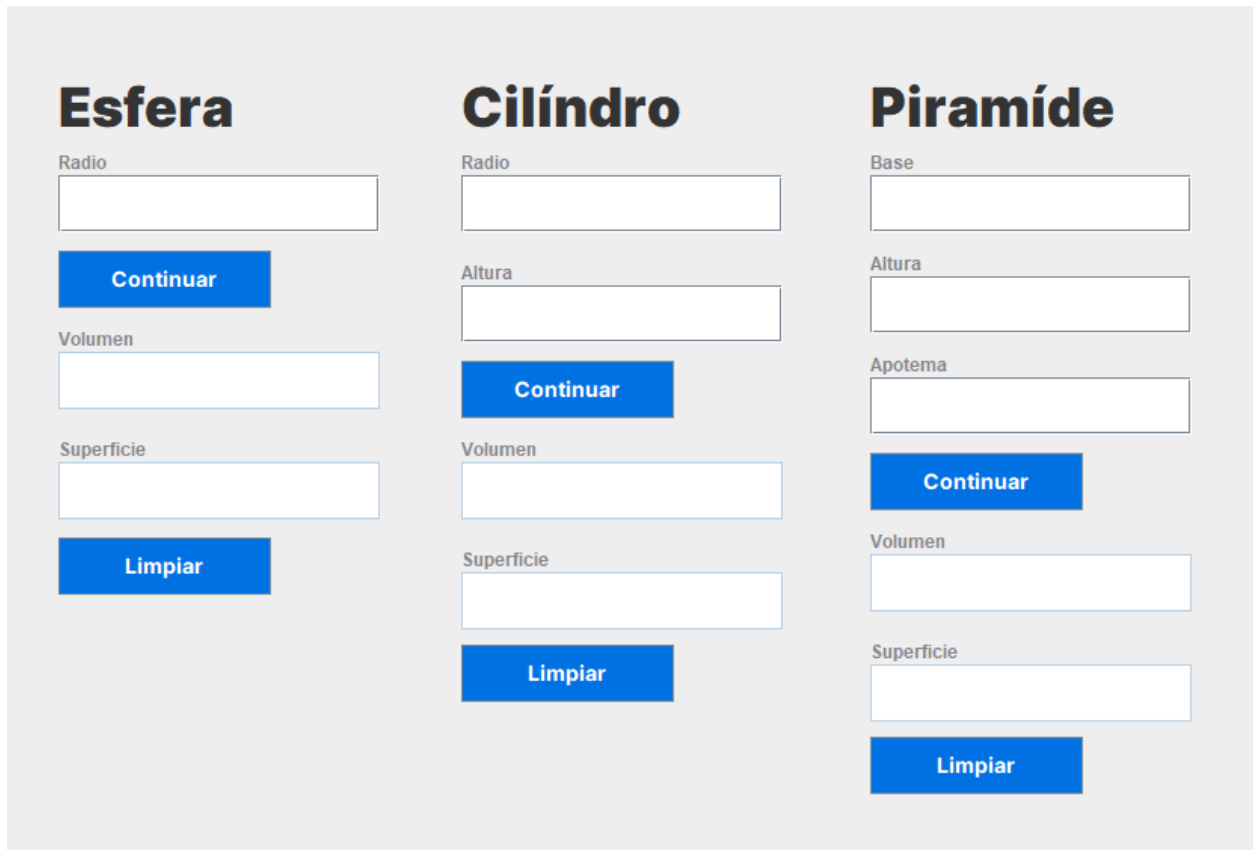


Casos de Uso

Ejercicio 3

 https://github.com/danielcgiraldo/P00_Grupal/tree/main/Trabajo_3/Ejercicio3

Interfaz Gráfica



The screenshot shows a Java Swing GUI with three panels for calculating geometric properties:

- Esfera (Sphere):** Input for 'Radio' (Radius), a 'Continuar' button, and output fields for 'Volumen' and 'Superficie'. A 'Limpiar' button is at the bottom.
- Cilíndro (Cylinder):** Inputs for 'Radio' and 'Altura' (Height), a 'Continuar' button, and output fields for 'Volumen' and 'Superficie'. A 'Limpiar' button is at the bottom.
- Pirámide (Pyramid):** Inputs for 'Base' and 'Apotema' (Apothem), a 'Continuar' button, and output fields for 'Volumen' and 'Superficie'. A 'Limpiar' button is at the bottom.

Código

UI

```
package poo.Ejercicio3;

import figuras.Cilindro;
import figuras.Esfera;
import figuras.Piramide;

public class UI extends javax.swing.JFrame {

    public UI() {
        initComponents();
    }

    @SuppressWarnings("unchecked")
    private void initComponents() {

        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        jLabel5 = new javax.swing.JLabel();
        esferaRadio = new javax.swing.JTextField();
        jLabel6 = new javax.swing.JLabel();
        jLabel7 = new javax.swing.JLabel();
    }
}
```

```

cilindroRadio = new javax.swing.JTextField();
jLabel9 = new javax.swing.JLabel();
piramideBase = new javax.swing.JTextField();
jLabel10 = new javax.swing.JLabel();
cilindroAltura = new javax.swing.JTextField();
jLabel11 = new javax.swing.JLabel();
piramideAltura = new javax.swing.JTextField();
cilindroBtn = new javax.swing.JButton();
esferaBtn = new javax.swing.JButton();
piramideBtn = new javax.swing.JButton();
jLabel12 = new javax.swing.JLabel();
esferaSuperficie = new javax.swing.JTextField();
jLabel13 = new javax.swing.JLabel();
esferaVolumen = new javax.swing.JTextField();
jLabel14 = new javax.swing.JLabel();
cilindroSuperficie = new javax.swing.JTextField();
jLabel15 = new javax.swing.JLabel();
cilindroVolumen = new javax.swing.JTextField();
esferaBtn1 = new javax.swing.JButton();
cilindroBtn1 = new javax.swing.JButton();
piramideApotema = new javax.swing.JTextField();
jLabel22 = new javax.swing.JLabel();
piramideBtn2 = new javax.swing.JButton();
jLabel23 = new javax.swing.JLabel();
piramideSuperficie = new javax.swing.JTextField();
jLabel24 = new javax.swing.JLabel();
piramideVolumen = new javax.swing.JTextField();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
setResizable(false);

jLabel2.setFont(new java.awt.Font("Inter Black", 0, 36)); // NOI18N
jLabel2.setText("Esfera");

jLabel3.setFont(new java.awt.Font("Inter Black", 0, 36)); // NOI18N
jLabel3.setText("Cilindro");

jLabel5.setFont(new java.awt.Font("Inter Black", 0, 36)); // NOI18N
jLabel5.setText("Piramide");

esferaRadio.setForeground(new java.awt.Color(134, 134, 139));

jLabel6.setForeground(new java.awt.Color(134, 134, 139));
jLabel6.setText("Radio");

jLabel7.setForeground(new java.awt.Color(134, 134, 139));
jLabel7.setText("Radio");

cilindroRadio.setForeground(new java.awt.Color(134, 134, 139));

jLabel9.setForeground(new java.awt.Color(134, 134, 139));
jLabel9.setText("Base");

piramideBase.setForeground(new java.awt.Color(134, 134, 139));

jLabel10.setForeground(new java.awt.Color(134, 134, 139));
jLabel10.setText("Altura");

cilindroAltura.setForeground(new java.awt.Color(134, 134, 139));

jLabel11.setForeground(new java.awt.Color(134, 134, 139));
jLabel11.setText("Altura");

piramideAltura.setForeground(new java.awt.Color(134, 134, 139));

cilindroBtn.setBackground(new java.awt.Color(0, 113, 227));
cilindroBtn.setFont(new java.awt.Font("Inter", 1, 14)); // NOI18N
cilindroBtn.setForeground(new java.awt.Color(255, 255, 255));
cilindroBtn.setText("Continuar");
cilindroBtn.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        cilindroBtnActionPerformed(evt);
    }
});

esferaBtn.setBackground(new java.awt.Color(0, 113, 227));
esferaBtn.setFont(new java.awt.Font("Inter", 1, 14)); // NOI18N
esferaBtn.setForeground(new java.awt.Color(255, 255, 255));
esferaBtn.setText("Continuar");
esferaBtn.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {

```

```

        esferaBtnActionPerformed(evt);
    }
});

piramideBtn.setBackground(new java.awt.Color(0, 113, 227));
piramideBtn.setFont(new java.awt.Font("Inter", 1, 14)); // NOI18N
piramideBtn.setForeground(new java.awt.Color(255, 255, 255));
piramideBtn.setText("Continuar");
piramideBtn.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        piramideBtnActionPerformed(evt);
    }
});

jLabel12.setForeground(new java.awt.Color(134, 134, 139));
jLabel12.setText("Superficie");

esferaSuperficie.setForeground(new java.awt.Color(134, 134, 139));
esferaSuperficie.setEnabled(false);

jLabel13.setForeground(new java.awt.Color(134, 134, 139));
jLabel13.setText("Volumen");

esferaVolumen.setForeground(new java.awt.Color(134, 134, 139));
esferaVolumen.setEnabled(false);

jLabel14.setForeground(new java.awt.Color(134, 134, 139));
jLabel14.setText("Superficie");

cilindroSuperficie.setForeground(new java.awt.Color(134, 134, 139));
cilindroSuperficie.setEnabled(false);

jLabel15.setForeground(new java.awt.Color(134, 134, 139));
jLabel15.setText("Volumen");

cilindroVolumen.setForeground(new java.awt.Color(134, 134, 139));
cilindroVolumen.setEnabled(false);

esferaBtn1.setBackground(new java.awt.Color(0, 113, 227));
esferaBtn1.setFont(new java.awt.Font("Inter", 1, 14)); // NOI18N
esferaBtn1.setForeground(new java.awt.Color(255, 255, 255));
esferaBtn1.setText("Limpiar");
esferaBtn1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        esferaBtn1ActionPerformed(evt);
    }
});

cilindroBtn1.setBackground(new java.awt.Color(0, 113, 227));
cilindroBtn1.setFont(new java.awt.Font("Inter", 1, 14)); // NOI18N
cilindroBtn1.setForeground(new java.awt.Color(255, 255, 255));
cilindroBtn1.setText("Limpiar");
cilindroBtn1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        cilindroBtn1ActionPerformed(evt);
    }
});

piramideApotema.setForeground(new java.awt.Color(134, 134, 139));

jLabel22.setForeground(new java.awt.Color(134, 134, 139));
jLabel22.setText("Apotema");

piramideBtn2.setBackground(new java.awt.Color(0, 113, 227));
piramideBtn2.setFont(new java.awt.Font("Inter", 1, 14)); // NOI18N
piramideBtn2.setForeground(new java.awt.Color(255, 255, 255));
piramideBtn2.setText("Limpiar");
piramideBtn2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        piramideBtn2ActionPerformed(evt);
    }
});

jLabel23.setForeground(new java.awt.Color(134, 134, 139));
jLabel23.setText("Superficie");

piramideSuperficie.setForeground(new java.awt.Color(134, 134, 139));
piramideSuperficie.setEnabled(false);

jLabel24.setForeground(new java.awt.Color(134, 134, 139));
jLabel24.setText("Volumen");

```



```

        .addGroup(layout.createSequentialGroup()
            .addComponent(jLabel2)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addComponent(jLabel6)
            .addGap(1, 1, 1)
            .addComponent(esferaRadio, javax.swing.GroupLayout.PREFERRED_SIZE, 38, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
            .addComponent(esferaBtn, javax.swing.GroupLayout.PREFERRED_SIZE, 38, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(12, 12, 12)
            .addComponent(jLabel13)
            .addGap(1, 1, 1)
            .addComponent(esferaVolumen, javax.swing.GroupLayout.PREFERRED_SIZE, 38, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(18, 18, 18)
            .addComponent(jLabel12)
            .addGap(1, 1, 1)
            .addComponent(esferaSuperficie, javax.swing.GroupLayout.PREFERRED_SIZE, 38, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
            .addComponent(esferaBtn1, javax.swing.GroupLayout.PREFERRED_SIZE, 38, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGroup(layout.createSequentialGroup()
            .addComponent(jLabel3)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addComponent(jLabel7)
            .addGap(1, 1, 1)
            .addComponent(cilindroRadio, javax.swing.GroupLayout.PREFERRED_SIZE, 38, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(18, 18, 18)
            .addComponent(jLabel10)
            .addGap(1, 1, 1)
            .addComponent(cilindroAltura, javax.swing.GroupLayout.PREFERRED_SIZE, 38, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
            .addComponent(cilindroBtn, javax.swing.GroupLayout.PREFERRED_SIZE, 38, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
            .addComponent(jLabel15)
            .addGap(1, 1, 1)
            .addComponent(cilindroVolumen, javax.swing.GroupLayout.PREFERRED_SIZE, 38, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(18, 18, 18)
            .addComponent(jLabel14)
            .addGap(1, 1, 1)
            .addComponent(cilindroSuperficie, javax.swing.GroupLayout.PREFERRED_SIZE, 38, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(10, 10, 10)
            .addComponent(cilindroBtn1, javax.swing.GroupLayout.PREFERRED_SIZE, 38, javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addContainerGap(48, Short.MAX_VALUE))
    );

    pack();
}

private void esferaBtnActionPerformed(java.awt.event.ActionEvent evt) {
    Esfera miesfera = new Esfera();
    miesfera.radio = Double.parseDouble(esferaRadio.getText());
    esferaVolumen.setText(String.valueOf(miesfera.volumen()));
    esferaSuperficie.setText(String.valueOf(miesfera.superficie()));
}

private void esferaBtn1ActionPerformed(java.awt.event.ActionEvent evt) {
    esferaVolumen.setText("");
    esferaSuperficie.setText("");
    esferaRadio.setText("");
}

private void cilindroBtnActionPerformed(java.awt.event.ActionEvent evt) {
    Cilindro micilindro = new Cilindro();
    micilindro.altura = Double.parseDouble(cilindroAltura.getText());
    micilindro.radio = Double.parseDouble(cilindroRadio.getText());
    cilindroVolumen.setText(String.valueOf(micilindro.volumen()));
    cilindroSuperficie.setText(String.valueOf(micilindro.superficie()));
}

private void cilindroBtn1ActionPerformed(java.awt.event.ActionEvent evt) {
    cilindroSuperficie.setText("");
    cilindroVolumen.setText("");
    cilindroAltura.setText("");
    cilindroRadio.setText("");
}

private void piramideBtnActionPerformed(java.awt.event.ActionEvent evt) {
    Piramide mipiramide = new Piramide();
    mipiramide.altura = Double.parseDouble(piramideAltura.getText());
    mipiramide.base = Double.parseDouble(piramideBase.getText());
    mipiramide.apotema = Double.parseDouble(piramideApotema.getText());
}

```



```

        piramideVolumen.setText(String.valueOf(mipiramide.volumen()));
        piramideSuperficie.setText(String.valueOf(mipiramide.superficie()));
    }

    private void piramideBtn2ActionPerformed(java.awt.event.ActionEvent evt) {
        piramideAltura.setText("");
        piramideBase.setText("");
        piramideApotema.setText("");
        piramideVolumen.setText("");
        piramideSuperficie.setText("");
    }

    public static void main(String args[]) {
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(UI.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(UI.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(UI.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(UI.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        }
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new UI().setVisible(true);
            }
        });
    }

    private javax.swing.JTextField cilindroAltura;
    private javax.swing.JButton cilindroBtn;
    private javax.swing.JButton cilindroBtn1;
    private javax.swing.JTextField cilindroRadio;
    private javax.swing.JTextField cilindroSuperficie;
    private javax.swing.JTextField cilindroVolumen;
    private javax.swing.JButton esferaBtn;
    private javax.swing.JButton esferaBtn1;
    private javax.swing.JTextField esferaRadio;
    private javax.swing.JTextField esferaSuperficie;
    private javax.swing.JTextField esferaVolumen;
    private javax.swing.JLabel jLabel10;
    private javax.swing.JLabel jLabel11;
    private javax.swing.JLabel jLabel12;
    private javax.swing.JLabel jLabel13;
    private javax.swing.JLabel jLabel14;
    private javax.swing.JLabel jLabel15;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel22;
    private javax.swing.JLabel jLabel23;
    private javax.swing.JLabel jLabel24;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JLabel jLabel5;
    private javax.swing.JLabel jLabel6;
    private javax.swing.JLabel jLabel7;
    private javax.swing.JLabel jLabel9;
    private javax.swing.JTextField piramideAltura;
    private javax.swing.JTextField piramideApotema;
    private javax.swing.JTextField piramideBase;
    private javax.swing.JButton piramideBtn;
    private javax.swing.JButton piramideBtn2;
    private javax.swing.JTextField piramideSuperficie;
    private javax.swing.JTextField piramideVolumen;
}

```

Ejercicio3

```

package poo.Ejercicio3;

public class Ejercicio3 {

```

```

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

```

Figuras

```

package figuras;

public class Figuras {
    public double volumen;
    public double superficie;
}

```

Piramide

```

package figuras;

public class Piramide extends Figuras {
    public double base, altura, apotema;
    public double volumen(){
        return (Math.pow(base, 2.0) * altura) / 3.0;
    }

    public double superficie(){
        return Math.pow(base, 2.0) + 2.0 * base * apotema;
    }
}

```

Esfera

```

package figuras;

public class Esfera extends Figuras {
    public double radio;
    public double volumen(){
        return (4.0 / 3.0) * Math.PI * Math.pow(radio, 3.0);
    }

    public double superficie(){
        return 4.0 * Math.PI * Math.pow(radio, 2.0);
    }
}

```

Cilindro

```

package figuras;

public class Cilindro extends Figuras {
    public double radio, altura;

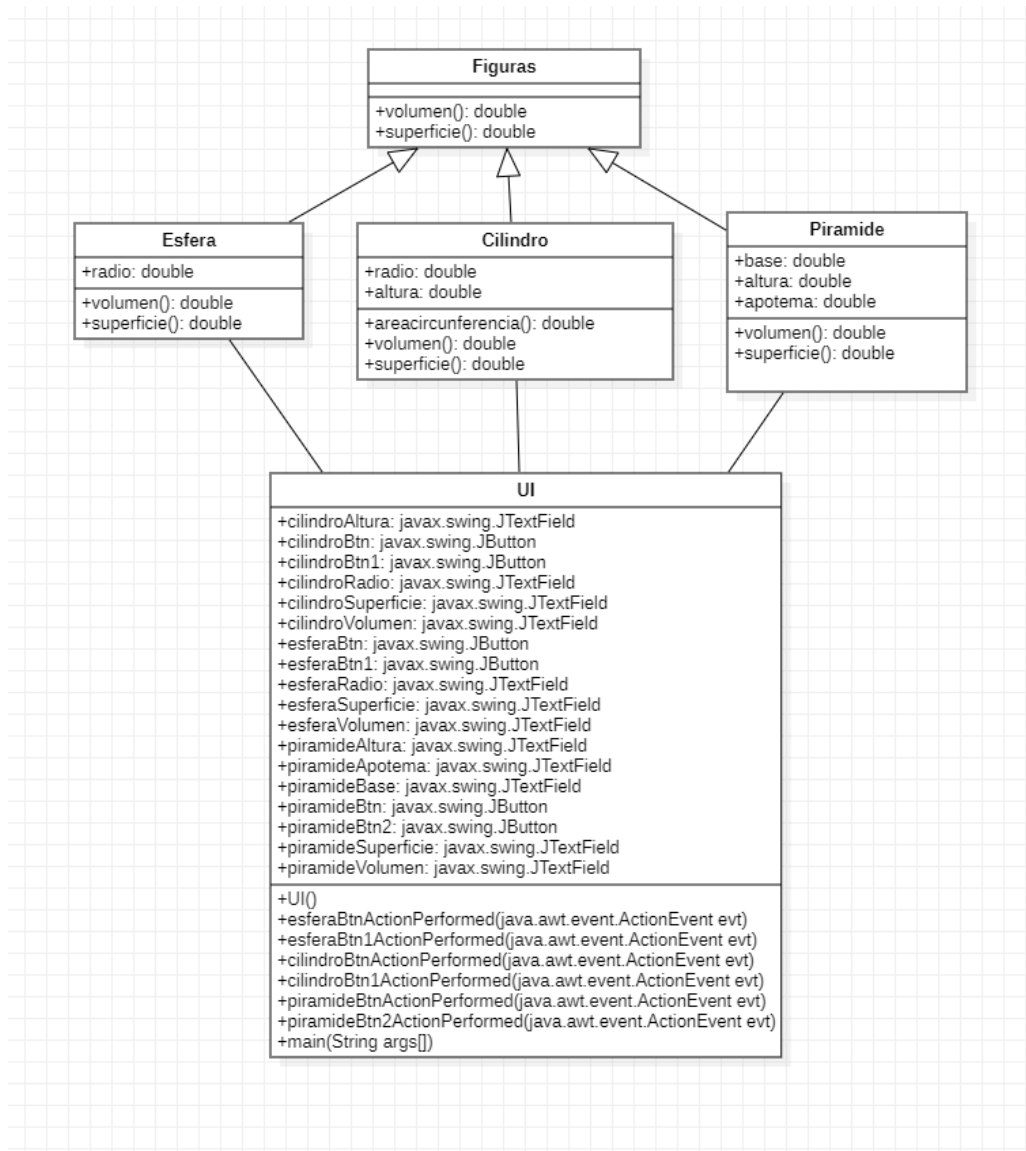
    private double areacircunferencia() {
        return Math.PI * Math.pow(radio, 2.0);
    }

    public double volumen(){
        return areacircunferencia() * altura;
    }

    public double superficie(){
        return 2.0 * Math.PI * radio * altura + 2.0 * areacircunferencia();
    }
}

```

Diagrama de Clases



Casos de Uso

