














Trabajo Final

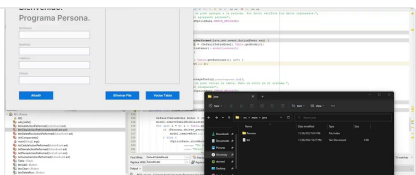
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 <https://bit.ly/TrabajoFinalP00>

Video Demostración

Video.mp4

 <https://drive.google.com/file/d/12I4wxQWCNnC4FS4RFSL8uqS5sS9rwsIs/view?usp=sharing>



Interfaz Gráfica

Bienvenido. Programa Persona.

Nombre(s):

Apellidos:

Teléfono:

Cédula:

Añadir

Cédula	Nombre	Apellidos	Teléfono
--------	--------	-----------	----------

Eliminar Fila **Vaciar Tabla**

Código

Main

```

package Persona;

public class Main {

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

}

```

Persona

```

package Persona;

import java.io.*;
import java.util.*;

public class Persona {

    String name, surname, phone, id;

    public static List<String> fill() {
        try {
            FileReader fr = new FileReader("./src/main/java/bd.txt");
            BufferedReader br = new BufferedReader(fr);
            List<String> lineas = new ArrayList<String>();
            String linea;
            //recorre cada linea del archivo
            while ((linea = br.readLine()) != null) {
                if (linea.contains("|")) {
                    lineas.add(linea.trim());
                }
            }
            br.close();
            return lineas;
        } catch (Exception e) {
            List<String> lineas = new ArrayList<String>();
            return lineas;
        }
    }

    public boolean add_person() {
        try {
            //leer el archivo
            FileReader fr = new FileReader("./src/main/java/bd.txt");
            BufferedReader br = new BufferedReader(fr);

            String linea;
            //recorre cada linea del archivo
            while ((linea = br.readLine()) != null) {
                if (linea.contains("|")) {
                    String[] data = linea.split("\\|");
                    if ((data[0].trim()).equals(id)) {
                        return false;
                    }
                }
            }
            br.close();
        } catch (Exception ex) {
            return false;
        }
        try {
            FileWriter fw = new FileWriter("./src/main/java/bd.txt", true);
            BufferedWriter bw = new BufferedWriter(fw);
            bw.write("\n" + id + "|" + name + "|" + surname + "|" + phone);
            bw.close();
            return true;
        } catch (Exception e) {
            return false;
        }
    }

    public static boolean delete_person(String id) {
        try {

```

```

//leer el archivo
FileReader fr = new FileReader("./src/main/java/bd.txt");
BufferedReader br = new BufferedReader(fr);
List<String> lineas = new ArrayList<String>();
String linea;
boolean flag = false;
//recorre cada linea del archivo
while ((linea = br.readLine()) != null) {
    if (linea.contains("|")) {
        // almacenar cada linea del archivo a menos que sea la que hay que eliminar
        String[] data = linea.split("\\|");
        if ((data[0].trim()).equals(id)) {
            flag = true;
        } else {
            lineas.add(linea.trim());
        }
    }
}
br.close();
if (flag) {
    //si se encontro la linea por eliminar se continua vaciando el archivo
    if (!vaciar()) {
        return false;
    }

    //se llena el archivo con la lista que se lleno anteriormente (recordar que ya no tiene al eliminado)
    FileWriter fw = new FileWriter("./src/main/java/bd.txt", true);
    BufferedWriter bw = new BufferedWriter(fw);
    for (int i = 0; i < lineas.size(); i++) {
        bw.write("\n" + lineas.get(i));
    }
    bw.close();
    return true;
} else {
    return false;
}
} catch (Exception ex) {
    return false;
}
}

public static boolean vaciar() {
    try {
        FileWriter fw = new FileWriter("./src/main/java/bd.txt");
        BufferedWriter bw = new BufferedWriter(fw);
        bw.write("");
        bw.close();
        return true;
    } catch (IOException e) {
        return false;
    }
}
}
}

```

UI

```

package Persona;

import java.util.List;
import javax.swing.JOptionPane;
import javax.swing.event.TableModelEvent;
import javax.swing.event.TableModelListener;
import javax.swing.table.DefaultTableModel;
import javax.swing.table.TableModel;

public class UI extends javax.swing.JFrame {

    /**
     * Creates new form UI
     */
    public UI() {
        initComponents();
        List<String> lineas = Persona.fill();
        DefaultTableModel model = (DefaultTableModel) Table.getModel();
        String[] data;
        for (int i = 0; i < lineas.size(); i++) {

```

```

        try {
            data = lineas.get(i).split("\\|");
            model.addRow(new Object[]{data[0], data[1], data[2], data[3]});
        } catch (Exception e) {
        }
    }
    add_table();
}

private TableModelListener modelListener = new TableModelListener() {
    public void tableChanged(TableModelEvent e) {
        TableModel model = (TableModel) e.getSource();
        int row = e.getFirstRow();
        Persona.delete_person(model.getValueAt(row, 0).toString());
        Persona persona = new Persona();
        persona.name = model.getValueAt(row, 1).toString();
        persona.surname = model.getValueAt(row, 2).toString();
        persona.phone = model.getValueAt(row, 3).toString();
        persona.id = model.getValueAt(row, 0).toString();
        persona.add_person();
    }
};

private void add_table() {
    Table.getModel().addTableModelListener(modelListener);
}

/**
 * This method is called from within the constructor to initialize the form.
 * WARNING: Do NOT modify this code. The content of this method is always
 * regenerated by the Form Editor.
 */
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-BEGIN: initComponents
private void initComponents() {

    jLabel2 = new javax.swing.JLabel();
    lblDescription = new javax.swing.JLabel();
    txtName = new javax.swing.JTextField();
    lblA = new javax.swing.JLabel();
    txtSurname = new javax.swing.JTextField();
    lblA1 = new javax.swing.JLabel();
    txtPhone = new javax.swing.JTextField();
    lblA2 = new javax.swing.JLabel();
    txtCedula = new javax.swing.JTextField();
    lblA3 = new javax.swing.JLabel();
    jScrollPane1 = new javax.swing.JScrollPane();
    Table = new javax.swing.JTable();
    btnAdd = new javax.swing.JButton();
    btnClean = new javax.swing.JButton();
    btnDeleteRow = new javax.swing.JButton();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

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

    lblDescription.setFont(new java.awt.Font("Inter SemiBold", 0, 36)); // NOI18N
    lblDescription.setForeground(new java.awt.Color(134, 134, 139));
    lblDescription.setText("Programa Persona.");

    txtName.setBackground(new java.awt.Color(251, 251, 253));
    txtName.setCaretColor(new java.awt.Color(210, 210, 215));
    txtName.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            txtNameActionPerformed(evt);
        }
    });

    lblA.setFont(new java.awt.Font("Inter", 0, 12)); // NOI18N
    lblA.setForeground(new java.awt.Color(134, 134, 139));
    lblA.setText("Nombre(s):");

    txtSurname.setBackground(new java.awt.Color(251, 251, 253));
    txtSurname.setCaretColor(new java.awt.Color(210, 210, 215));
    txtSurname.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            txtSurnameActionPerformed(evt);
        }
    });
}

```

```

lblA1.setFont(new java.awt.Font("Inter", 0, 12)); // NOI18N
lblA1.setForeground(new java.awt.Color(134, 134, 139));
lblA1.setText("Apellidos:");

txtPhone.setBackground(new java.awt.Color(251, 251, 253));
txtPhone.setCaretColor(new java.awt.Color(210, 210, 215));
txtPhone.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        txtPhoneActionPerformed(evt);
    }
});

lblA2.setFont(new java.awt.Font("Inter", 0, 12)); // NOI18N
lblA2.setForeground(new java.awt.Color(134, 134, 139));
lblA2.setText("Teléfono:");

txtCedula.setBackground(new java.awt.Color(251, 251, 253));
txtCedula.setCaretColor(new java.awt.Color(210, 210, 215));
txtCedula.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        txtCedulaActionPerformed(evt);
    }
});

lblA3.setFont(new java.awt.Font("Inter", 0, 12)); // NOI18N
lblA3.setForeground(new java.awt.Color(134, 134, 139));
lblA3.setText("Cédula:");

Table.setModel(new javax.swing.table.DefaultTableModel(
    new Object [][] {

    },
    new String [] {
        "Cédula", "Nombre", "Apellidos", "Teléfono"
    }
) {
    Class[] types = new Class [] {
        java.lang.String.class, java.lang.String.class, java.lang.String.class, java.lang.String.class
    };

    public Class getColumnClass(int columnIndex) {
        return types [columnIndex];
    }
});
Table.setEditingRow(0);
jScrollPane1.setViewportViewView(Table);

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

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

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

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

```

```

        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()
            .addGap(62, 62, 62)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                    .addComponent(lblA2, javax.swing.GroupLayout.PREFERRED_SIZE, 106, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(lblA1, javax.swing.GroupLayout.PREFERRED_SIZE, 106, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(lblDescription, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX)
                    .addComponent(jLabel2)
                    .addComponent(lblA, javax.swing.GroupLayout.PREFERRED_SIZE, 106, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(txtName)
                    .addComponent(txtSurname)
                    .addComponent(lblA3, javax.swing.GroupLayout.PREFERRED_SIZE, 106, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(txtPhone)
                    .addComponent(txtCedula))
                .addComponent(btnAdd, javax.swing.GroupLayout.PREFERRED_SIZE, 160, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 72, Short.MAX_VALUE)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                .addComponent(jScrollPane1, javax.swing.GroupLayout.Alignment.TRAILING, javax.swing.GroupLayout.PREFERRED_SIZE, 346, ja
                .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()
                    .addComponent(btnDeleteRow, javax.swing.GroupLayout.PREFERRED_SIZE, 158, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MA
                    .addComponent(btnClean, javax.swing.GroupLayout.PREFERRED_SIZE, 158, javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addGap(64, 64, 64))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(56, 56, 56)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel2)
                    .addGroup(layout.createSequentialGroup()
                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()
                                .addComponent(lblDescription)
                                .addGap(18, 18, 18)
                                .addComponent(lblA)
                                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                                .addComponent(txtName, javax.swing.GroupLayout.PREFERRED_SIZE, 37, javax.swing.GroupLayout.PREFERRED_SIZE)
                                .addGap(18, 18, 18)
                                .addComponent(lblA1)
                                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                                .addComponent(txtSurname, javax.swing.GroupLayout.PREFERRED_SIZE, 37, javax.swing.GroupLayout.PREFERRED_SIZE)
                                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                                .addComponent(lblA2)
                                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                                .addComponent(txtPhone, javax.swing.GroupLayout.PREFERRED_SIZE, 37, javax.swing.GroupLayout.PREFERRED_SIZE)
                                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                                .addComponent(lblA3)
                                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                                .addComponent(txtCedula, javax.swing.GroupLayout.PREFERRED_SIZE, 37, javax.swing.GroupLayout.PREFERRED_SIZE)
                                .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 380, javax.swing.GroupLayout.PREFERRED_SIZE)
                                .addGap(33, 33, 33)
                                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                                    .addComponent(btnAdd, javax.swing.GroupLayout.PREFERRED_SIZE, 39, javax.swing.GroupLayout.PREFERRED_SIZE)
                                    .addComponent(btnClean, javax.swing.GroupLayout.PREFERRED_SIZE, 39, javax.swing.GroupLayout.PREFERRED_SIZE)
                                    .addComponent(btnDeleteRow, javax.swing.GroupLayout.PREFERRED_SIZE, 39, javax.swing.GroupLayout.PREFERRED_SIZE))
                                .addContainerGap(48, Short.MAX_VALUE))
                            .addContainerGap(48, Short.MAX_VALUE))
                    .addGap(33, 33, 33)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                        .addComponent(btnAdd, javax.swing.GroupLayout.PREFERRED_SIZE, 39, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(btnClean, javax.swing.GroupLayout.PREFERRED_SIZE, 39, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(btnDeleteRow, javax.swing.GroupLayout.PREFERRED_SIZE, 39, javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addContainerGap(48, Short.MAX_VALUE))
            );
        pack();
    } // </editor-fold> // GEN-END: initComponents

    private void txtNameActionPerformed(java.awt.event.ActionEvent evt) { // GEN-FIRST:event_txtNameActionPerformed
        // TODO add your handling code here:
    } // GEN-LAST:event_txtNameActionPerformed

    private void txtSurnameActionPerformed(java.awt.event.ActionEvent evt) { // GEN-FIRST:event_txtSurnameActionPerformed
        // TODO add your handling code here:
    } // GEN-LAST:event_txtSurnameActionPerformed

    private void txtPhoneActionPerformed(java.awt.event.ActionEvent evt) { // GEN-FIRST:event_txtPhoneActionPerformed
        // TODO add your handling code here:
    } // GEN-LAST:event_txtPhoneActionPerformed

    private void btnAddActionPerformed(java.awt.event.ActionEvent evt) { // GEN-FIRST:event_btnAddActionPerformed
        // ===== Create Persona ===== //
        Persona persona = new Persona();
        persona.name = txtName.getText();
        persona.surname = txtSurname.getText();
        persona.phone = txtPhone.getText();

```

```

        persona.id = txtCedula.getText();
        // ===== Data Base ===== //

        boolean flag = persona.add_person();

        if (flag) {
            DefaultTableModel model = (DefaultTableModel) Table.getModel();
            model.addRow(new Object[]{persona.id, persona.name, persona.surname, persona.phone});
            txtName.setText("");
            txtSurname.setText("");
            txtPhone.setText("");
            txtCedula.setText("");
        } else {
            JOptionPane.showMessageDialog(null,
                "No se pudo agregar a la persona. Por favor verifica los datos ingresados.",
                "Error agregando persona",
                JOptionPane.ERROR_MESSAGE);
        }
    }

    //GEN-LAST:event_btnAddActionPerformed

    private void btnCleanActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST:event_btnCleanActionPerformed
        DefaultTableModel model = (DefaultTableModel) Table.getModel();
        model.removeTableModelListener(modelListener);
        if (Persona.vaciar()) {

            for (int i = 0; i < Table.getRowCount(); i++) {
                model.removeRow(i);
                i -= 1;
            }
        } else {
            JOptionPane.showMessageDialog(null,
                "No se pudo vaciar la tabla. Hubo un error en el sistema.",
                "Error inesperado",
                JOptionPane.ERROR_MESSAGE);
        }
        add_table();
    } //GEN-LAST:event_btnCleanActionPerformed

    private void btnDeleteRowActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST:event_btnDeleteRowActionPerformed

        DefaultTableModel model = (DefaultTableModel) Table.getModel();
        model.removeTableModelListener(modelListener);
        for (int i = 0; i < Table.getSelectedRows().length; i++) {
            if (Persona.delete_person(model.getValueAt(Table.getSelectedRow(), 0).toString())) {
                model.removeRow(Table.getSelectedRow());
            } else {
                JOptionPane.showMessageDialog(null,
                    "No se pudo eliminar una(s) persona(s).",
                    "Error inesperado",
                    JOptionPane.ERROR_MESSAGE);
            }
        }
        add_table();
    } //GEN-LAST:event_btnDeleteRowActionPerformed

    private void txtCedulaActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST:event_txtCedulaActionPerformed
        // TODO add your handling code here:
    } //GEN-LAST:event_txtCedulaActionPerformed

    /**
     * @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(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);
    }
}
//</editor-fold>

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

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JTable Table;
private javax.swing.JButton btnAdd;
private javax.swing.JButton btnClean;
private javax.swing.JButton btnDeleteRow;
private javax.swing.JLabel jLabel2;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JLabel lblA;
private javax.swing.JLabel lblA1;
private javax.swing.JLabel lblA2;
private javax.swing.JLabel lblA3;
private javax.swing.JLabel lblDescription;
private javax.swing.JTextField txtCedula;
private javax.swing.JTextField txtName;
private javax.swing.JTextField txtPhone;
private javax.swing.JTextField txtSurname;
// End of variables declaration//GEN-END:variables
}

```