

JAVADOC - Proyecto Persona

Conexion.java

Ruta:

proyectoPersona/proyectoPersona/proyectoPersona/src/main/java/proyectoPersona/conexion/Conexion.java

Código completo documentado a continuación:

```
package proyectoPersona.conexion;

import com.google.auth.oauth2.GoogleCredentials;

import com.google.firebase.FirebaseApp;

import com.google.firebase.FirebaseOptions;

import com.google.firebase.cloud.FirestoreClient;

import com.google.cloud.firestore.Firestore;

import java.io.FileInputStream;

import java.io.IOException;

public class Conexion {

    private static Firestore db;

    public static Firestore getConexion() {

        if (db == null) {

            try {
```

```

        FileInputStream serviceAccount = new
FileInputStream("firebase/serviceAccountKey.json");

        FirebaseOptions options = FirebaseOptions.builder()

                .setCredentials(GoogleCredentials.fromStream(serviceAccount))

                .build();

        FirebaseApp.initializeApp(options);

        db = FirestoreClient.getFirestore();

        System.out.println("✅ Conectado correctamente a Firestore");

    } catch (IOException e) {

        System.out.println("Error al conectar con Firebase: " + e.getMessage());

    }

}

return db;

}

}

```

PersonaCRUD.java

Ruta:

proyectoPersona/proyectoPersona/proyectoPersona/src/main/java/proyectoPersona/crud/Persona
CRUD.java

Código completo documentado a continuación:

```
package proyectoPersona.crud;
```

```
import com.google.api.core.ApiFuture;
```

```
import com.google.cloud.firestore.*;
```

```
import java.util.ArrayList;
```

```
import java.util.List;
```

```
import proyectoPersona.conexion.Conexion;
```

```
import proyectoPersona.modelo.Persona;
```

```
import java.util.concurrent.ExecutionException;
```

```
public class PersonaCRUD {
```

```
    private final Firestore db;
```

Aquí creo la conexión con Firestore y apunto a la colección "personas"

```
    public PersonaCRUD() {
```

```
        db = Conexion.getConnection();
```

```
    }
```

Aquí agregué el método para crear una persona en Firestore

```
    public void crearPersona(Persona persona) {
```

```
try {
```

Aquí verifico si el id está vacío y genero uno nuevo si es necesario

```
if (persona.getId() == null || persona.getId().isEmpty()) {  
    persona.setId(db.collection("personas").document().getId());  
}
```

Aquí guardo el objeto persona en Firestore

```
    ApiFuture<WriteResult> result =  
db.collection("personas").document(persona.getId()).set(persona);  
  
    System.out.println("Persona registrada con éxito: " + persona.getNombre() +  
        " en " + result.get().getUpdateTime());  
  
} catch (InterruptedException | ExecutionException e) {  
    System.out.println("Error al crear persona: " + e.getMessage());  
}  
}
```

Aquí agregué el método para consultar todas las Personas que estan dentro de la base de datos

```
public List<Persona> consultarPersonas() {  
    List<Persona> lista = new ArrayList<>();  
  
    try {  
        ApiFuture<QuerySnapshot> future = db.collection("personas").get();  
  
        List<QueryDocumentSnapshot> documentos = future.get().getDocuments();  
  
        for (QueryDocumentSnapshot doc : documentos) {  
            Persona p = doc.toObject(Persona.class);
```

```

        lista.add(p);
    }

    } catch (InterruptedException | ExecutionException e) {

        System.out.println("Error al obtener personas: " + e.getMessage());

    }

    return lista;
}

```

Aquí agregué el método para actualizar los datos de una persona existente

```

public void actualizarPersona(Persona persona) {

    try {

        ApiFuture<WriteResult> result =
        db.collection("personas").document(persona.getId()).set(persona);

        System.out.println("Persona actualizada: " + persona.getNombre() +

            " en " + result.get().getUpdateTime());

    } catch (InterruptedException | ExecutionException e) {

        System.out.println("Error al actualizar persona: " + e.getMessage());

    }

}

```

Aquí agregué el método para eliminar una persona por su ID

```
public void eliminarPersona(String id) {  
  
    try {  
  
        ApiFuture<WriteResult> result = db.collection("personas").document(id).delete();  
  
        System.out.println("Persona eliminada con ID: " + id +  
  
            " en " + result.get().getUpdateTime());  
  
    } catch (InterruptedException | ExecutionException e) {  
  
        System.out.println("Error al eliminar persona: " + e.getMessage());  
  
    }  
  
}
```

Aquí agregué el método para obtener una persona por su ID

```
public Persona obtenerPersona(String id) {  
  
    try {  
  
        DocumentReference docRef = db.collection("personas").document(id);  
  
        ApiFuture<DocumentSnapshot> future = docRef.get();  
  
        DocumentSnapshot document = future.get();  
  
  
        if (document.exists()) {  
  
            return document.toObject(Persona.class);  
  
        } else {
```

```

        System.out.println("No encontré ninguna persona con el ID: " + id);

        return null;

    }

    } catch (InterruptedException | ExecutionException e) {

        System.out.println("Error al obtener persona: " + e.getMessage());

        return null;

    }

}

}

```

App.java

Ruta:

proyectoPersona/proyectoPersona/proyectoPersona/src/main/java/proyectoPersona/main/App.java

Código completo documentado a continuación:

```

package proyectoPersona.main;

import proyectoPersona.crud.PersonaCRUD;

import proyectoPersona.modelo.Persona;

import proyectoPersona.ui.Principal;

public class App {

    public static void main(String[] args) {

```

```
Principal menu = new Principal();
```

Se visualiza el formulario principal

```
menu.setVisible(true);
```

```
menu.setLocationRelativeTo(null);
```

```
menu.setTitle("MENÚ PRINCIPAL");
```

Aquí creo un objeto de la clase **PersonaCRUD** para acceder a los métodos de Firebase

```
PersonaCRUD crud = new PersonaCRUD();
```

Aquí creo una nueva persona y la registro en Firebase

```
Persona p1 = new Persona("487", "Kimberly", "Sumala", 19);
```

```
crud.crearPersona(p1);
```

```
//prueba main*/
```

```
}
```

```
}
```

Persona.java

Ruta:

proyectoPersona/proyectoPersona/proyectoPersona/src/main/java/proyectoPersona/modelo/Persona.java

Código completo documentado a continuación:

```
package proyectoPersona.modelo;
```

```
public class Persona {
```

```
    private String id;
```



```
private String nombre;  
  
private String apellido;  
  
private int edad;
```

Aquí agregué un constructor vacío para que Firebase pueda crear objetos automáticamente

```
public Persona() {  
  
}
```

Aquí agregué un constructor para inicializar los atributos de la persona

```
public Persona(String id, String nombre, String apellido, int edad) {  
  
    this.id = id;  
  
    this.nombre = nombre;  
  
    this.apellido = apellido;  
  
    this.edad = edad;  
  
}
```

Aquí agregué los getters y setters para acceder y modificar los atributos

```
public String getId() {  
  
    return id;  
  
}  
  
public void setId(String id) {  
  
    this.id = id;
```

```
}

public String getNombre() {

    return nombre;

}

public void setNombre(String nombre) {

    this.nombre = nombre;

}

public String getApellido() {

    return apellido;

}

public void setApellido(String apellido) {

    this.apellido = apellido;

}

public int getEdad() {

    return edad;

}

public void setEdad(int edad) {

    this.edad = edad;

}

}
```

PersonaService.java

Ruta:

```

proyectoPersona/proyectoPersona/proyectoPersona/src/main/java/proyectoPersona/servicio/PersonaService.java

```

Código completo documentado a continuación:

/ *

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* Click <nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java> to edit this template

*/

```
package proyectoPersona.servicio;
```

/***

*

* @author Tony_Trrigue

*/

```
public class PersonaService {
```

$$\}$$

ActualizarPersona.java

Ruta:

```
proyectoPersona/proyectoPersona/proyectoPersona/src/main/java/proyectoPersona/ui/ActualizarP
ersona.java
```

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```

license
* Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to edit this template
*/

package proyectoPersona.ui;
import javax.swing.JOptionPane;
import proyectoPersona.crud.PersonaCRUD;
import proyectoPersona.modelo.Persona;

/**
 *
 * @author Sumal
 */
public class ActualizarPersona extends javax.swing.JFrame {

    private static final java.util.logging.Logger logger =
java.util.logging.Logger.getLogger(ActualizarPersona.class.getName());
    PersonaCRUD operaciones = new PersonaCRUD();
    /**
     * Creates new form ActualizarPersona
     */
    public ActualizarPersona(String id, String nombre,String apellido, int edad) {
        initComponents();
        //Se colocan los datos del registro que se selecciono en los text box
        txtId.setText(id);
        txtNombre.setText(nombre);
        txtApellido.setText(apellido);
        txtEdad.setText(String.valueOf(edad));
        //El id no se debe modificar
        txtId.setEditable(false);

    }

    /**
     * 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() {

        jPanel1 = new javax.swing.JPanel();
        jLabel1 = new javax.swing.JLabel();

```

```

jLabel2 = new javax.swing.JLabel();
jLabel3 = new javax.swing.JLabel();
txtId = new javax.swing.JTextField();
jLabel4 = new javax.swing.JLabel();
txtEdad = new javax.swing.JTextField();
jLabel5 = new javax.swing.JLabel();
txtNombre = new javax.swing.JTextField();
jLabel6 = new javax.swing.JLabel();
txtApellido = new javax.swing.JTextField();
btnActualizar = new javax.swing.JButton();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

jPanel1.setBackground(new java.awt.Color(204, 255, 204));

jLabel1.setFont(new java.awt.Font("Berlin Sans FB Demi", 0, 24)); // NOI18N
jLabel1.setText("ACTUALIZAR PERSONA");

jLabel2.setText("Ingresa los datos de persona");

jLabel3.setText("Nombre:");

jLabel4.setText("Edad:");

jLabel5.setText("ID:");

jLabel6.setText("Apellido:");

btnActualizar.setText("Actualizar");
btnActualizar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnActualizarActionPerformed(evt);
    }
});

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
jPanel1.setLayout(jPanel1Layout);
jPanel1Layout.setHorizontalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .add(jPanel1Layout.createSequentialGroup()
                    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                        .add(jLabel1)
                        .add(jLabel2)
                        .add(jLabel3)
                        .add(jLabel4)
                        .add(jLabel5)
                        .add(jLabel6)
                        .add(btnActualizar)
                    )
                )
            )
        )
);

```

```

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 166,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addGroup(jPanel1Layout.createSequentialGroup())
    .addComponent(jLabel5, javax.swing.GroupLayout.PREFERRED_SIZE, 60,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addGap(18, 18, 18)
    .addComponent(txtId, javax.swing.GroupLayout.PREFERRED_SIZE, 347,
javax.swing.GroupLayout.PREFERRED_SIZE))
    .addGroup(jPanel1Layout.createSequentialGroup())
    .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 60,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addGap(18, 18, 18)
    .addComponent(txtNombre, javax.swing.GroupLayout.PREFERRED_SIZE,
347, javax.swing.GroupLayout.PREFERRED_SIZE))
    .addGroup(jPanel1Layout.createSequentialGroup())
    .addComponent(jLabel6, javax.swing.GroupLayout.PREFERRED_SIZE, 60,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addGap(18, 18, 18)
    .addComponent(txtApellido, javax.swing.GroupLayout.PREFERRED_SIZE,
347, javax.swing.GroupLayout.PREFERRED_SIZE))
    .addGroup(jPanel1Layout.createSequentialGroup())
    .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE, 60,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addGap(18, 18, 18)
    .addComponent(txtEdad, javax.swing.GroupLayout.PREFERRED_SIZE,
347, javax.swing.GroupLayout.PREFERRED_SIZE))))
    .addGroup(jPanel1Layout.createSequentialGroup())
    .addContainerGap()
    .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 269,
javax.swing.GroupLayout.PREFERRED_SIZE))
    .addContainerGap(43, Short.MAX_VALUE))
    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup())
    .addGap(0, 0, Short.MAX_VALUE)
    .addComponent(btnActualizar, javax.swing.GroupLayout.PREFERRED_SIZE, 104,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addGap(47, 47, 47))
);
jPanel1Layout.setVerticalGroup(
jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(jPanel1Layout.createSequentialGroup())
.addContainerGap()

```

```

        .addComponent(jLabel1)
        .addGap(18, 18, 18)
        .addComponent(jLabel2)
        .addGap(18, 18, 18)

        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
        )
            .addComponent(txtId, javax.swing.GroupLayout.PREFERRED_SIZE,
            javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jLabel5))
        .addGap(18, 18, 18)

        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
        )
            .addComponent(jLabel3)
            .addComponent(txtNombre, javax.swing.GroupLayout.PREFERRED_SIZE,
            javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(21, 21, 21)

        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
        )
            .addComponent(jLabel6)
            .addComponent(txtApellido, javax.swing.GroupLayout.PREFERRED_SIZE,
            javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(18, 18, 18)

        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
        )
            .addComponent(jLabel4)
            .addComponent(txtEdad, javax.swing.GroupLayout.PREFERRED_SIZE,
            javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 48,
        Short.MAX_VALUE)
        .addComponent(btnActualizar)
        .addGap(38, 38, 38)
    );

    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGroup(layout.createParallelGroup()
                .addComponent(jPanel1, 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)
        .addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    );

    pack();
} // </editor-fold> // GEN-END: initComponents

private void btnActualizarActionPerformed(java.awt.event.ActionEvent evt) { // GEN-
FIRST:event_btnActualizarActionPerformed
    try {
        //Se extraen los valores del formulario
        String id = txtId.getText();
        String nombre = txtNombre.getText();
        String apellido = txtApellido.getText();
        int edad = Integer.parseInt(txtEdad.getText());
        //se agregan los datos al objeto persona
        Persona p = new Persona(id, nombre, apellido, edad);
        //Metodo para actualizar los datos
        operaciones.actualizarPersona(p);
        JOptionPane.showMessageDialog(this, "Persona Actualizada");
        //Se cierra la ventana
        dispose();
    } catch (Exception e) {
        JOptionPane.showMessageDialog(this, "Error al Actualizar"+e.getMessage(), "ERROR",
JOptionPane.ERROR_MESSAGE);
    }

} // GEN-LAST:event_btnActualizarActionPerformed

// Variables declaration - do not modify // GEN-BEGIN:variables
private javax.swing.JButton btnActualizar;
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.JPanel jPanel1;
private javax.swing.JTextField txtApellido;

```



```

private javax.swing.JTextField txtEdad;
private javax.swing.JTextField txtId;
private javax.swing.JTextField txtNombre;
// End of variables declaration//GEN-END:variables
}

```

IngresarPersona.java

Ruta:

proyectoPersona/proyectoPersona/proyectoPersona/src/main/java/proyectoPersona/ui/IngresarPersona.java

Código completo documentado a continuación:

```

/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this
 * license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to edit this template
 */
package proyectoPersona.ui;
import static java.lang.Integer.parseInt;
import javax.swing.JOptionPane;
import proyectoPersona.crud.PersonaCRUD;
import proyectoPersona.modelo.Persona;

/**
 *
 * @author Kimberly Sumala
 */
public class IngresarPersona extends javax.swing.JFrame {

    private static final java.util.logging.Logger logger =
java.util.logging.Logger.getLogger(IngresarPersona.class.getName());
    PersonaCRUD operaciones = new PersonaCRUD();
    Persona persona = null;

    /**
     * Creates new form IngresarPersona
     */
    public IngresarPersona() {
        initComponents();
    }

    /**

```

```

* 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() {

    jPanel1 = new javax.swing.JPanel();
    jLabel1 = new javax.swing.JLabel();
    jLabel2 = new javax.swing.JLabel();
    jLabel3 = new javax.swing.JLabel();
    txtId = new javax.swing.JTextField();
    jLabel4 = new javax.swing.JLabel();
    txtEdad = new javax.swing.JTextField();
    jLabel5 = new javax.swing.JLabel();
    txtNombre = new javax.swing.JTextField();
    jLabel6 = new javax.swing.JLabel();
    txtApellido = new javax.swing.JTextField();
    btnLimpiar = new javax.swing.JButton();
    btnAgregar = new javax.swing.JButton();

    setDefaultCloseOperation(javax.swing.WindowConstants.DISPOSE_ON_CLOSE);

    jPanel1.setBackground(new java.awt.Color(204, 255, 204));

    jLabel1.setFont(new java.awt.Font("Berlin Sans FB Demi", 0, 24)); // NOI18N
    jLabel1.setText("AGREGAR PERSONA");

    jLabel2.setText("Ingresa los datos de persona");

    jLabel3.setText("Nombre:");

    jLabel4.setText("Edad:");

    jLabel5.setText("ID:");

    jLabel6.setText("Apellido:");

    btnLimpiar.setText("Limpiar");
    btnLimpiar.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            btnLimpiarActionPerformed(evt);

```

```

    }
});

btnAgregar.setText("Agregar");
btnAgregar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnAgregarActionPerformed(evt);
    }
});

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
jPanel1.setLayout(jPanel1Layout);
jPanel1Layout.setHorizontalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .add(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .add(jPanel1Layout.createSequentialGroup()
                    .add(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                        .add(jPanel1Layout.createSequentialGroup()
                            .addGroup(jPanel1Layout.createSequentialGroup()
                                .addGroup(jPanel1Layout.createSequentialGroup()
                                    .addContainerGap()
                                    .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 234,
                                        javax.swing.GroupLayout.PREFERRED_SIZE))
                                .addGroup(jPanel1Layout.createSequentialGroup()
                                    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                                        .addGap(43, 43, 43)
                                        .addGroup(jPanel1Layout.createSequentialGroup()
                                            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                                                .add(jPanel1Layout.createSequentialGroup()
                                                    .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 166,
                                                        javax.swing.GroupLayout.PREFERRED_SIZE)
                                                    .addGroup(jPanel1Layout.createSequentialGroup()
                                                        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                                                            .addComponent(jLabel5, javax.swing.GroupLayout.PREFERRED_SIZE, 60,
                                                                javax.swing.GroupLayout.PREFERRED_SIZE)
                                                            .addGap(18, 18, 18)
                                                            .addComponent(txtId, javax.swing.GroupLayout.PREFERRED_SIZE, 347,
                                                                javax.swing.GroupLayout.PREFERRED_SIZE))
                                                        .addGroup(jPanel1Layout.createSequentialGroup()
                                                            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                                                                .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 60,
                                                                    javax.swing.GroupLayout.PREFERRED_SIZE)
                                                                .addGap(18, 18, 18)
                                                                .addComponent(txtNombre, javax.swing.GroupLayout.PREFERRED_SIZE,
                                                                    347, javax.swing.GroupLayout.PREFERRED_SIZE))
                                                            .addGroup(jPanel1Layout.createSequentialGroup()
                                                                .addComponent(jLabel6, javax.swing.GroupLayout.PREFERRED_SIZE, 60,
                                                                    javax.swing.GroupLayout.PREFERRED_SIZE)
                                                                .addGap(18, 18, 18)
                                                                .addComponent(txtApellido, javax.swing.GroupLayout.PREFERRED_SIZE,

```

```

347, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE, 60,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(18, 18, 18)
            .addComponent(txtEdad, javax.swing.GroupLayout.PREFERRED_SIZE,
347, javax.swing.GroupLayout.PREFERRED_SIZE))))))
        .addContainerGap(43, Short.MAX_VALUE))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup()
        .addGap(0, 0, Short.MAX_VALUE)
        .addComponent(btnLimpiar, javax.swing.GroupLayout.PREFERRED_SIZE, 88,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(btnAgregar, javax.swing.GroupLayout.PREFERRED_SIZE, 88,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(47, 47, 47))
    );
    jPanel1Layout.setVerticalGroup(
        jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addContainerGap()
            .addComponent(jLabel1)
            .addGap(18, 18, 18)
            .addComponent(jLabel2)
            .addGap(18, 18, 18)

        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
        )
            .addComponent(txtId, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jLabel5))
            .addGap(18, 18, 18)

        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
        )
            .addComponent(jLabel3)
            .addComponent(txtNombre, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(21, 21, 21)

        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
        )
            .addComponent(jLabel6)

```

```

        .addComponent(txtApellido, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(18, 18, 18)

    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
    )
        .addComponent(jLabel4)
        .addComponent(txtEdad, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 115,
Short.MAX_VALUE)

    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
    )
        .addComponent(btnLimpiar)
        .addComponent(btnAgregar))
        .addGap(38, 38, 38))
    );

    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addComponent(jPanel1, 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(layout.createSequentialGroup()
                .addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            );

    pack();
} // </editor-fold> //GEN-END: initComponents

private void btnLimpiarActionPerformed(java.awt.event.ActionEvent evt) { //GEN-
FIRST:event_btnLimpiarActionPerformed
    txtId.setText("");
    txtNombre.setText("");
    txtApellido.setText("");
    txtEdad.setText("");
} //GEN-LAST:event_btnLimpiarActionPerformed

```

```

        private void btnAgregarActionPerformed(java.awt.event.ActionEvent evt) {GEN-
FIRST:event_btnAgregarActionPerformed
            try{
                //Se extraen los datos de nuestro formulario
                String id = txtId.getText();
                String nombre = txtNombre.getText();
                String apellido = txtApellido.getText();
                int edad = parseInt(txtEdad.getText());
                //Se crea un objeto Persona
                persona = new Persona(id,nombre,apellido,edad);
                //Se agrega una persona a la base de datos
                operaciones.crearPersona(persona);
                JOptionPane.showMessageDialog(null, "Persona Agregada", "Correcto",
JOptionPane.INFORMATION_MESSAGE);

            } catch(Exception e){
                JOptionPane.showMessageDialog(null,"Error al Agregar
Persona"+e.getMessage(),"Error",JOptionPane.INFORMATION_MESSAGE);
            }

```

```

    }//GEN-LAST:event_btnAgregarActionPerformed

```

```

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JButton btnAgregar;
private javax.swing.JButton btnLimpiar;
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.JPanel jPanel1;
private javax.swing.JTextField txtApellido;
private javax.swing.JTextField txtEdad;
private javax.swing.JTextField txtId;
private javax.swing.JTextField txtNombre;
// End of variables declaration//GEN-END:variables

```

$$\}$$

MenuPrincipal.java

Ruta:

```

proyectoPersona/proyectoPersona/proyectoPersona/src/main/java/proyectoPersona/ui/MenuPrinci
pal.java

```

Código completo documentado a continuación:

/ *

* Click <nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt> to change this license

* Click [nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java](#) to edit this template

 $\ast/$

```
package proyectoPersona.ui;
```

/**

*

* @author Tony_Trrigue

*/

```
public class MenuPrincipal {
```

$$\}$$

MostrarPersona.java

Ruta:

```
proyectoPersona/proyectoPersona/proyectoPersona/src/main/java/proyectoPersona/ui/MostrarPer  
sona.java
```

Código completo documentado a continuación:

```

/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this
 license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to edit this template
 */
package proyectoPersona.ui;
import java.util.List;
import javax.swing.JOptionPane;
import javax.swing.table.DefaultTableModel;
import proyectoPersona.crud.PersonaCRUD;
import proyectoPersona.modelo.Persona;
import proyectoPersona.ui.ActualizarPersona;

/**
 *
 * @author Kimberly Sumala
 */
public class MostrarPersona extends javax.swing.JFrame {

    private static final java.util.logging.Logger logger =
java.util.logging.Logger.getLogger(MostrarPersona.class.getName());
    PersonaCRUD operaciones = new PersonaCRUD();
    /**
     * Creates new form MostrarPersona
     */
    public MostrarPersona() {
        initComponents();
        cargarTabla();
        txtBuscarId.addKeyListener(new java.awt.event.KeyAdapter() {
            @Override
            public void keyReleased(java.awt.event.KeyEvent evt) {
                if (txtBuscarId.getText().trim().isEmpty()) {
                    cargarTabla(); // vuelve a mostrar todo
                }
            }
        });
    }

    /**
     * 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() {

    jLabel1 = new javax.swing.JLabel();
    jPanel1 = new javax.swing.JPanel();
    jLabel2 = new javax.swing.JLabel();
    jScrollPane1 = new javax.swing.JScrollPane();
    tPersona = new javax.swing.JTable();
    btnActualizar = new javax.swing.JButton();
    btnEliminar = new javax.swing.JButton();
    jLabel3 = new javax.swing.JLabel();
    jLabel4 = new javax.swing.JLabel();
    txtBuscarId = new javax.swing.JTextField();
    btnBuscar = new javax.swing.JButton();

    jLabel1.setFont(new java.awt.Font("Berlin Sans FB Demi", 0, 24)); // NOI18N
    jLabel1.setText("AGREGAR PERSONA");

    setDefaultCloseOperation(javax.swing.WindowConstants.DISPOSE_ON_CLOSE);

    jPanel1.setBackground(new java.awt.Color(204, 255, 204));

    jLabel2.setFont(new java.awt.Font("Berlin Sans FB Demi", 0, 24)); // NOI18N
    jLabel2.setText("MOSTRAR PERSONA");

    tPersona.setModel(new javax.swing.table.DefaultTableModel(
        new Object [][] {
            {},
            {},
            {},
            {}
        },
        new String [] {

        }
    ));
    jScrollPane1.setViewportView(tPersona);

    btnActualizar.setText("Actualizar");
    btnActualizar.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            btnActualizarActionPerformed(evt);
        }
    }

```

```
btnEliminar.setText("Eliminar");
btnEliminar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnEliminarActionPerformed(evt);
    }
});
```

```
jLabel3.setText("Selecciona un registro para:");
```

```
jLabel4.setText("Buscar por Id:");
```

```
txtBuscarId.addKeyListener(new java.awt.event.KeyAdapter() {
    public void keyReleased(java.awt.event.KeyEvent evt) {
        txtBuscarIdKeyReleased(evt);
    }
});
```

```
btnBuscar.setText("Buscar");
btnBuscar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnBuscarActionPerformed(evt);
    }
});
```

```

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
jPanel1.setLayout(jPanel1Layout);
jPanel1Layout.setHorizontalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addGap(0, 26, Short.MAX_VALUE)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addComponent(jLabel4)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addComponent(txtBuscarId, javax.swing.GroupLayout.PREFERRED_SIZE, 204,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addComponent(btnBuscar)
                .addGap(10, 10, 10))
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

```

```

        .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 182,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE,
590, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGroup(jPanel1Layout.createSequentialGroup())
        .addComponent(btnActualizar)
        .addGap(18, 18, 18)
        .addComponent(btnEliminar))))
    .addContainerGap(18, Short.MAX_VALUE))
    .addGroup(jPanel1Layout.createSequentialGroup())
    .addGap(16, 16, 16)
    .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 234,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
    );
    jPanel1Layout.setVerticalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(jPanel1Layout.createSequentialGroup())
    .addGap(13, 13, 13)
    .addComponent(jLabel2)
    .addGap(18, 18, 18)

    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
    )
        .addComponent(jLabel4)
        .addComponent(txtBuscarId, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(btnBuscar))
        .addGap(18, 18, 18)
        .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 221,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(29, 29, 29)
        .addComponent(jLabel3)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
    )
        .addComponent(btnActualizar)
        .addComponent(btnEliminar))
        .addContainerGap(27, Short.MAX_VALUE))
    );

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

```

```

        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
                        javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                    .addComponent(jPanel2, javax.swing.GroupLayout.PREFERRED_SIZE,
                        javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                )
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
                        javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                    .addComponent(jPanel2, javax.swing.GroupLayout.PREFERRED_SIZE,
                        javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                )
        );

        pack();
    } // </editor-fold> // GEN-END: initComponents

```

```

    private void btnActualizarActionPerformed(java.awt.event.ActionEvent evt) { // GEN-FIRST:event_btnActualizarActionPerformed
        int fila = tPersona.getSelectedRow();
        if(fila == -1){
            JOptionPane.showMessageDialog(this, "Seleccione un registro", "AVISO",
                JOptionPane.WARNING_MESSAGE);
        }
        //Se Extraen los valores de la fila o registro que se selecciona
        String id = tPersona.getValueAt(fila, 0).toString();
        String nombre = tPersona.getValueAt(fila, 1).toString();
        String apellido = tPersona.getValueAt(fila, 2).toString();
        int edad = Integer.parseInt(tPersona.getValueAt(fila, 3).toString());
        //Se abre el formulario actualizar con los datos de la fila
        ActualizarPersona actualizar = new ActualizarPersona(id,nombre,apellido,edad);
        actualizar.setVisible(true);
        actualizar.setTitle("ACTUALIZAR PERSONA");
        actualizar.setLocationRelativeTo(null);
        //Cuando la ventana se cierra se recarga la tabla
        actualizar.addWindowListener(new java.awt.event.WindowAdapter() {
            @Override
            public void windowClosed(java.awt.event.WindowEvent e) {
                cargarTabla(); // Refrescar la tabla al cerrar
            }
        });
    } // GEN-LAST:event_btnActualizarActionPerformed

```

```

    private void btnEliminarActionPerformed(java.awt.event.ActionEvent evt) { // GEN-

```

```

FIRST:event_btnEliminarActionPerformed
    try{
        int fila = tPersona.getSelectedRow();
        if(fila!=-1){
            JOptionPane.showMessageDialog(this,"Seleccione un
Registro","Advertencia",JOptionPane.WARNING_MESSAGE);
        }
        //Se obtiene el id del registro seleccionado
        String id = tPersona.getValueAt(fila, 0).toString();

        int confirmar = JOptionPane.showConfirmDialog(this,"¿Desea Eliminar el
registro?","Confirmar eliminacion",JOptionPane.YES_NO_OPTION);
        if(confirmar == JOptionPane.YES_OPTION){
            operaciones.eliminarPersona(id);
            cargarTabla();
        }
    } catch(Exception e){
        JOptionPane.showMessageDialog(this,"ERROR al eliminar
Persona"+e.getMessage(),"ERROR",JOptionPane.ERROR_MESSAGE);
    }
} //GEN-LAST:event_btnEliminarActionPerformed

private void btnBuscarActionPerformed(java.awt.event.ActionEvent evt) { //GEN-
FIRST:event_btnBuscarActionPerformed
    try{
        String id = txtBuscarId.getText().trim();
        //El text box no este vacio
        if(id.isEmpty()){
            JOptionPane.showMessageDialog(this,"Ingrese un Id para buscar");
        }
        // se obtienen los datos de la base de datos
        Persona p = operaciones.obtenerPersona(id);
        // si no se encuentra el id
        if(p == null){
            JOptionPane.showMessageDialog(this,"No existe la Persona");
        }
        //Tabla muestre solo el resultado con el id
        String[] columnas = {"ID","Nombre","Apellido","Edad"};
        DefaultTableModel modelo = new DefaultTableModel(null, columnas);

        Object[] fila = {p.getId(),p.getNombre(),p.getApellido(),p.getEdad()};
        modelo.addRow(fila);

        tPersona.setModel(modelo);
    }
}

```

```

    } catch (Exception e) {
        JOptionPane.showMessageDialog(this, "Error al
        buscar", "ERROR", JOptionPane.ERROR_MESSAGE);
    }
} //GEN-LAST:event_btnBuscarActionPerformed

```

```

private void txtBuscarIdKeyReleased(java.awt.event.KeyEvent evt) { //GEN-
FIRST:event_txtBuscarIdKeyReleased
    // TODO add your handling code here:
} //GEN-LAST:event_txtBuscarIdKeyReleased

```

```

public void cargarTabla() {
    //Se crean las columnas de la tabla
    String[] columnas = {"ID", "Nombre", "Apellido", "Edad"};
    DefaultTableModel modelo = new DefaultTableModel(null, columnas) {
        @Override
        public boolean isCellEditable(int row, int column) {
            return false; // No permitir editar celdas
        }
    };
    tPersona.setModel(modelo);
    //Se obtienen las personas de BD
    List<Persona> lista = operaciones.consultarPersonas();
    //Se llenan las filas de la tabla
    for (Persona p : lista) {
        Object[] fila = {p.getId(), p.getNombre(), p.getApellido(), p.getEdad()};
        modelo.addRow(fila);
    }
}

```

```

// Variables declaration - do not modify //GEN-BEGIN:variables

```

```

private javax.swing.JButton btnActualizar;
private javax.swing.JButton btnBuscar;
private javax.swing.JButton btnEliminar;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel4;
private javax.swing.JPanel jPanel1;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JTable tPersona;

```

```

        private javax.swing.JTextField txtBuscarId;
        // End of variables declaration//GEN-END:variables
    }

```

Principal.java

Ruta:

proyectoPersona/proyectoPersona/proyectoPersona/src/main/java/proyectoPersona/ui/Principal.java

Código completo documentado a continuación:

```

/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this
 * license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to edit this template
 */
package proyectoPersona.ui;

/**
 *
 * @author Kimberly Sumala
 */
public class Principal extends javax.swing.JFrame {

    private static final java.util.logging.Logger logger =
        java.util.logging.Logger.getLogger(Principal.class.getName());

    /**
     * Creates new form Principal
     */
    public Principal() {
        initComponents();
    }

    /**
     * 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() {

```

```

jPanel1 = new javax.swing.JPanel();
jLabel1 = new javax.swing.JLabel();
jLabel2 = new javax.swing.JLabel();
jMenuBar1 = new javax.swing.JMenuBar();
jMenu1 = new javax.swing.JMenu();
jMenuItem1 = new javax.swing.JMenuItem();
MnConsultarPersonas = new javax.swing.JMenuItem();
jMenu2 = new javax.swing.JMenu();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

jPanel1.setBackground(new java.awt.Color(204, 255, 204));

jLabel1.setFont(new java.awt.Font("Berlin Sans FB Demi", 1, 48)); // NOI18N
jLabel1.setText("Proyecto Final");

jLabel2.setFont(new java.awt.Font("Berlin Sans FB Demi", 1, 48)); // NOI18N
jLabel2.setText("Menú Principal");

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
jPanel1.setLayout(jPanel1Layout);
jPanel1Layout.setHorizontalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .add(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .add(jPanel1Layout.createSequentialGroup()
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(85, 85, 85)
                    )
                )
            )
        )
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                .add(jPanel1Layout.createSequentialGroup()
                    .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 346,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 346,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addContainerGap(104, Short.MAX_VALUE))
            )
        );
jPanel1Layout.setVerticalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .add(jPanel1Layout.createSequentialGroup()
                    .addGap(67, 67, 67)
                    .addComponent(jLabel1)
                    .addGap(18, 18, 18)
                    .addComponent(jLabel2)
                    .addContainerGap(83, Short.MAX_VALUE))
            )
        );

jMenu1.setText("Persona");

```



```

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

MnConsultarPersonas.setText("Consultar");
MnConsultarPersonas.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        MnConsultarPersonasActionPerformed(evt);
    }
});
jMenu1.add(MnConsultarPersonas);

jMenuBar1.add(jMenu1);
jMenuBar1.add(jMenu2);

setJMenuBar(jMenuBar1);

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
);
layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
);

pack();
} // </editor-fold> // GEN-END: initComponents

private void jMenuItem1ActionPerformed(java.awt.event.ActionEvent evt) { // GEN-
FIRST:event_jMenuItem1ActionPerformed
    IngresarPersona agregar = new IngresarPersona();
    agregar.setLocationRelativeTo(null);
    agregar.setTitle("AGREGAR PERSONA");
    agregar.setVisible(true);

```

```

} //GEN-LAST:event_jMenuItem1ActionPerformed

private void MnConsultarPersonasActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST:event_MnConsultarPersonasActionPerformed
    MostrarPersona mostrar = new MostrarPersona();
    mostrar.setLocationRelativeTo(null);
    mostrar.setVisible(true);
    mostrar.setTitle("MOSTRAR PERSONA");
} //GEN-LAST:event_MnConsultarPersonasActionPerformed


// Variables declaration - do not modify //GEN-BEGIN:variables
private javax.swing.JMenuItem MnConsultarPersonas;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JMenu jMenu1;
private javax.swing.JMenu jMenu2;
private javax.swing.JMenuBar jMenuBar1;
private javax.swing.JMenuItem jMenuItem1;
private javax.swing.JPanel jPanel1;
// End of variables declaration //GEN-END:variables
}

```