



UNIVERSIDAD SABES

PLANTEL CELAYA

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Actividad 6: “Identificación de versiones”

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Sabes_equipo

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package sabes_equipo;

import java.util.Calendar;

/**
 *
 * @author ivanhg
 */
public class Sabes_equipo {

    /**
     * @param args the command line arguments
     */
    public static void main(String[] args) {
        app mostrar = new app();
        mostrar.setSize(960, 640);
        mostrar.show();
        mostrar.setLocationRelativeTo(null);
    }

}
```



herramienta

```
package sabes_equipo;

import java.awt.HeadlessException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import javax.swing.JOptionPane;

/**
 *
 * @author ivanhg
 */
public class herramienta {

    private static Connection con;
    private static Statement st;
    private static ResultSet rs;
    private static PreparedStatement ps;

    private static final String DRIVER = "com.mysql.jdbc.Driver";
    private static final String URL = "jdbc:mysql://localhost:3306/Equipo_sabes";
    private static final String USERNAME = "root";
    private static final String PASSWORD = "";

    public herramienta() {
        con = null;
        try{
            Class.forName (DRIVER);
            con = DriverManager.getConnection(URL, USERNAME, PASSWORD);
            //Para avanzar con el boton
            st = con.createStatement(ResultSet.TYPE_SCROLL_SENSITIVE,
            ResultSet.CONCUR_READ_ONLY);
            //Aqui termina
            if (con != null){
                //JOptionPane.showMessageDialog(null, "Conexión establecida...");
            }

        } catch (HeadlessException | ClassNotFoundException | SQLException e){
            JOptionPane.showMessageDialog(null, "¡Error de conexión!");
        }
    }
}
```



```
//Para conectar a BD en otras clases
public Connection conectar(){
    return con;
}

//Para desconectar de BD
public void desconectar(){
    con = null;
    if (con == null){
        JOptionPane.showMessageDialog(null, "Conexión terminada...");
    }
}

public ResultSet consulta(String sql) throws SQLException
{
    try{
        rs = st.executeQuery(sql);

    }catch (SQLException e){
        throw e;
    }

    return rs;
}
}
```



tb_profesor

```
package sabes_equipo;

import java.awt.event.KeyEvent;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.sql.SQLException;
import java.util.ArrayList;
import javax.swing.JOptionPane;
import javax.swing.table.DefaultTableModel;

/**
 *
 * @author ivanhg
 */
public class tb_profesor extends javax.swing.JFrame {

    DefaultTableModel modelo = new DefaultTableModel();
    ResultSet consulta;

    public tb_profesor() {
        initComponents();

        this.setLocationRelativeTo(null);
        txtid.setVisible(false);
        desactivarNav();
        desactivarCajas();
        btnguardar.setEnabled(false);
        btnmodificar.setEnabled(false);
        btneliminar.setEnabled(false);
        btnlimpiar.setEnabled(false);

        try {

            tblprofesor.setModel(modelo);

            PreparedStatement ps = null;
            ResultSet rs = null;
            herramienta conexion = new herramienta();
            Connection reg = conexion.conectar();

            String sql = "SELECT rfc, nombre, telefono, correo FROM profesor";
            System.out.println(sql);
```



```
ps = reg.prepareStatement(sql);
rs = ps.executeQuery();

ResultSetMetaData rsMd = rs.getMetaData();
int cantidadColumnas = rsMd.getColumnCount();

modelo.addColumn("RFC");
modelo.addColumn("Nombre");
modelo.addColumn("Telefono");
modelo.addColumn("Correo");

int[] wide = {100, 200, 50, 150};

for (int x = 0; x < cantidadColumnas; x++) {
    tblprofesor.getColumnModel().getColumn(x).setPreferredWidth(wide[x]);
}

while (rs.next()) {
    Object[] filas = new Object[cantidadColumnas];
    for (int i = 0; i < cantidadColumnas; i++) {
        filas[i] = rs.getObject(i + 1);
    }

    modelo.addRow(filas);
}

} catch (SQLException e) {
    System.err.println(e.toString());
}

}

int pos = 0;

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

    jScrollPane1 = new javax.swing.JScrollPane();
    tblprofesor = new javax.swing.JTable();
    btnbuscar = new javax.swing.JButton();
    txtbusqueda_rfc = new javax.swing.JTextField();
    lblrfc = new javax.swing.JLabel();
    btnguardar = new javax.swing.JButton();
    btneliminar = new javax.swing.JButton();
    btnmodificar = new javax.swing.JButton();
```



```
lblnombre = new javax.swing.JLabel();
lbltelefono = new javax.swing.JLabel();
lblcorreo = new javax.swing.JLabel();
txtnombre = new javax.swing.JTextField();
txttelefono = new javax.swing.JTextField();
txtcorreo = new javax.swing.JTextField();
lblbusqueda_rfc = new javax.swing.JLabel();
txtrfc = new javax.swing.JTextField();
txtid = new javax.swing.JTextField();
btnlimpiar = new javax.swing.JButton();
btnnext = new javax.swing.JButton();
btnprev = new javax.swing.JButton();
btn1st = new javax.swing.JButton();
btnend = new javax.swing.JButton();
btninfo = new javax.swing.JButton();
btnsalir = new javax.swing.JButton();
btnnuevo = new javax.swing.JButton();
lbllogo = new javax.swing.JLabel();
lblautor = new javax.swing.JLabel();
lblversion = new javax.swing.JLabel();
jbtnbackp = new javax.swing.JButton();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

tblprofesor.setModel(new javax.swing.table.DefaultTableModel(
    new Object [][] {
        {null, null, null, null},
        {null, null, null, null},
        {null, null, null, null},
        {null, null, null, null}
    },
    new String [] {
        "RFC", "Nombre", "Telefono", "Correo"
    }
) {
    Class[] types = new Class [] {
        java.lang.String.class, java.lang.String.class, java.lang.String.class,
        java.lang.String.class
    };
    boolean[] canEdit = new boolean [] {
        false, false, false, false
    };

    public Class getColumnClass(int columnIndex) {
        return types [columnIndex];
    }

    public boolean isCellEditable(int rowIndex, int columnIndex) {
```




```
        return canEdit [columnIndex];
    }
});
tblprofesor.addMouseListener(new java.awt.event.MouseAdapter() {
    public void mouseClicked(java.awt.event.MouseEvent evt) {
        tblprofesorMouseClicked(evt);
    }
});
tblprofesor.addKeyListener(new java.awt.event.KeyAdapter() {
    public void keyReleased(java.awt.event.KeyEvent evt) {
        tblprofesorKeyReleased(evt);
    }
});
jScrollPane1.setViewportView(tblprofesor);

btnbuscar.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/filtro_3.png"))); // NOI18N
btnbuscar.setText("Filtrar");
btnbuscar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnbuscarActionPerformed(evt);
    }
});

lblrfc.setText("RFC");

btnguardar.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/guardar.png"))); // NOI18N
btnguardar.setText("Guardar");
btnguardar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnguardarActionPerformed(evt);
    }
});

btneliminar.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/eliminar.png"))); // NOI18N
btneliminar.setText("Eliminar");
btneliminar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btneliminarActionPerformed(evt);
    }
});

btnmodificar.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/editar.png"))); // NOI18N
btnmodificar.setText("Modificar");
btnmodificar.addActionListener(new java.awt.event.ActionListener() {
```



```
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            btnmodificarActionPerformed(evt);
        }
    });

    lblnombre.setText("Nombre");

    lbltelefono.setText("Telefono");

    lblcorreo.setText("Correo");

    lblbusqueda_rfc.setText("RFC");

    txtid.setEnabled(false);

    btnlimpiar.setIcon(new
    javax.swing.ImageIcon(getClass().getResource("/img/limpiar.png"))); // NOI18N
    btnlimpiar.setText("Limpiar");
    btnlimpiar.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            btnlimpiarActionPerformed(evt);
        }
    });

    btnnext.setIcon(new
    javax.swing.ImageIcon(getClass().getResource("/img/next.png"))); // NOI18N
    btnnext.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            btnnextActionPerformed(evt);
        }
    });

    btnprev.setIcon(new
    javax.swing.ImageIcon(getClass().getResource("/img/prev.png"))); // NOI18N
    btnprev.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            btnprevActionPerformed(evt);
        }
    });

    btn1st.setIcon(new
    javax.swing.ImageIcon(getClass().getResource("/img/inicio.png"))); // NOI18N
    btn1st.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            btn1stActionPerformed(evt);
        }
    });
});
```



```
btnend.setIcon(new javax.swing.ImageIcon(getClass().getResource("/img/fin.png")));
// NOI18N
btnend.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnendActionPerformed(evt);
    }
});

btninfo.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/info_3.png"))); // NOI18N
btninfo.setText("info");
btninfo.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btninfoActionPerformed(evt);
    }
});

btnsalir.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/salir_3.png"))); // NOI18N
btnsalir.setText("Salir");
btnsalir.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnsalirActionPerformed(evt);
    }
});

btnnuevo.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/nuevo.png"))); // NOI18N
btnnuevo.setText("Nuevo");
btnnuevo.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnnuevoActionPerformed(evt);
    }
});

lbllogo.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/sabes_1.png"))); // NOI18N

lblautor.setFont(new java.awt.Font("Lucida Grande", 0, 24)); // NOI18N
lblautor.setText("SABES");

lblversion.setText("Control de profesores");

jbtnbackp.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/back_32.png"))); // NOI18N
jbtnbackp.setText("Atras");
jbtnbackp.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
```



```
jbtnbackActionPerformed(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()
            .addComponent(lbllogo)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addComponent(lblversion)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                    .addComponent(lblautor, javax.swing.GroupLayout.PREFERRED_SIZE,
167, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGroup(layout.createSequentialGroup()
                    .addComponent(jScrollPane1,
javax.swing.GroupLayout.PREFERRED_SIZE, 540,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGroup(layout.createSequentialGroup()
                    .addComponent(lblbusqueda_rfc)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                    .addComponent(txtbusqueda_rfc,
javax.swing.GroupLayout.PREFERRED_SIZE, 417,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGroup(layout.createSequentialGroup()
                    .addComponent(btnbuscar)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                    .addComponent(btnnuevo))
            )
        )
    );
```



```
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
    .addComponent(btnguardar)

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
    .addComponent(jbtnbackp, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    .addComponent(btnmodificar,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
    .addComponent(btneliminar)
    .addComponent(btnlimpiar)))
    .addGroup(layout.createSequentialGroup())

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addComponent(lbltelefono)
    .addComponent(lblnombre)
    .addComponent(lblrfc))
    .addGap(26, 26, 26)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING,
false)
    .addGroup(layout.createSequentialGroup()
        .addComponent(txtd, javax.swing.GroupLayout.PREFERRED_SIZE,
102, javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    .addComponent(btninfo)

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addComponent(txtrfc, javax.swing.GroupLayout.PREFERRED_SIZE,
334, javax.swing.GroupLayout.PREFERRED_SIZE)
    .addComponent(txtnombre,
javax.swing.GroupLayout.PREFERRED_SIZE, 334,
javax.swing.GroupLayout.PREFERRED_SIZE)
```



```
.addComponent(txtcorreo,
javax.swing.GroupLayout.PREFERRED_SIZE, 334,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addComponent(txttelefono,
javax.swing.GroupLayout.PREFERRED_SIZE, 334,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addGroup(layout.createSequentialGroup())
.addComponent(btn1st)
.addGap(18, 18, 18)
.addComponent(btnprev)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
.addComponent(btnnext)
.addGap(18, 18, 18)
.addComponent(btnend))))))
.addGap(0, 19, Short.MAX_VALUE))
);
layout.setVerticalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(layout.createSequentialGroup())

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(layout.createSequentialGroup())
.addGap(16, 16, 16)
.addComponent(lbllogo))
.addGroup(layout.createSequentialGroup())
.addGap(27, 27, 27)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
.addComponent(lblautor)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
.addComponent(txtid, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addComponent(btnsalir)
.addComponent(btninfo)))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
.addComponent(lblversion)))
.addGap(26, 26, 26)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
.addComponent(btnbuscar)
.addComponent(lblbusqueda_rfc)
.addComponent(txtbusqueda_rfc,
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.LEADING)  
        .addGroup(layout.createSequentialGroup()  
  
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
                .addComponent(lblrfc)  
                .addComponent(txtrfc, javax.swing.GroupLayout.PREFERRED_SIZE,  
26, javax.swing.GroupLayout.PREFERRED_SIZE))  
            .addGap(18, 18, 18)  
  
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)  
                .addComponent(lblnombre)  
                .addComponent(txtnombre,  
javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE))  
            .addGap(22, 22, 22)  
  
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)  
                .addComponent(lbltelefono)  
                .addComponent(txttelefono,  
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(lblcorreo)  
                .addComponent(txtcorreo,  
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.LEADING)  
                .addComponent(btnprev)  
                .addComponent(btn1st)  
                .addComponent(btnend)  
                .addComponent(btnnext))  
  
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 81,  
Short.MAX_VALUE)  
  
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)  
                .addComponent(btnnuevo)
```



```
.addComponent(btnguardar)
.addComponent(btnmodificar)
.addComponent(btneliminar)))
.addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE,
0, Short.MAX_VALUE))

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
.addComponent(btnlimpiar)
.addComponent(jbtnbackp))
.addGap(19, 19, 19)
);

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

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

String rfc = txtbusqueda_rfc.getText();
String where = "";
if (!"".equals(rfc)) {
    where = " WHERE rfc = '" + rfc + "'";
}

try {
    DefaultTableModel modelo = new DefaultTableModel();
    tblprofesor.setModel(modelo);
    PreparedStatement ps = null;
    ResultSet rs = null;
    herramienta conexion = new herramienta();
    Connection reg = conexion.conectar();

    String sql = "SELECT rfc, nombre, telefono, correo FROM profesor" + where;
    System.out.println(sql);
    ps = reg.prepareStatement(sql);
    rs = ps.executeQuery();

    ResultSetMetaData rsMd = rs.getMetaData();
    int cantidadColumnas = rsMd.getColumnCount();

    modelo.addColumn("RFC");
    modelo.addColumn("Nombre");
    modelo.addColumn("Telefono");
    modelo.addColumn("Correo");

    int[] wide = {100, 200, 50, 150};
```




```
for (int x = 0; x < cantidadColumnas; x++) {
    tblprofesor.getColumnModel().getColumn(x).setPreferredWidth(wide[x]);
}

while (rs.next()) {
    Object[] filas = new Object[cantidadColumnas];
    for (int i = 0; i < cantidadColumnas; i++) {
        filas[i] = rs.getObject(i + 1);
    }
    modelo.addRow(filas);
}

} catch (Exception e) {
    System.out.println(e);
    JOptionPane.showMessageDialog(null, "Error");
}

limpiar();
}

private void btnguardarActionPerformed(java.awt.event.ActionEvent evt) {
    PreparedStatement ps = null;

    if (txtrfc.getText().isEmpty() || txtnombre.getText().isEmpty() ||
        txttelefono.getText().isEmpty() || txtcorreo.getText().isEmpty()) {
        JOptionPane.showMessageDialog(null, "Favor de llenar todos los campos...");
    } else {
        try {
            herramienta conexion = new herramienta();
            com.mysql.jdbc.Connection reg = (com.mysql.jdbc.Connection)
conexion.conectar();
            ps = reg.prepareStatement("INSERT INTO profesor (rfc, nombre, telefono,
correo) VALUES (?, ?, ?, ?)");
            ps.setString(1, txtrfc.getText());
            ps.setString(2, txtnombre.getText());
            ps.setString(3, txttelefono.getText());
            ps.setString(4, txtcorreo.getText());

            ps.execute();

            JOptionPane.showMessageDialog(null, "Profesor Guardado");
            Object[] fila = new Object[4];
            fila[0] = txtrfc.getText();
            fila[1] = txtnombre.getText();
```



```
        fila[2] = txttelefono.getText();
        fila[3] = txtcorreo.getText();
        modelo.addRow(fila);
        limpiar();

    } catch (SQLException e) {

        System.out.println(e);
    }

    btnguardar.setEnabled(false);
    btnlimpiar.setEnabled(false);
    actualizarbd();
    desactivarCajas();
}

}

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

    int Fila = tblprofesor.getSelectedRow();

    PreparedStatement ps = null;

    if (txtrfc.getText().isEmpty() || txtnombre.getText().isEmpty() ||
        txttelefono.getText().isEmpty() || txtcorreo.getText().isEmpty()) {
        JOptionPane.showMessageDialog(null, "Favor de llenar todos los campos...");
    } else {

        try {
            herramienta conexion = new herramienta();
            com.mysql.jdbc.Connection reg = (com.mysql.jdbc.Connection)
conexion.conectar();
            ps = reg.prepareStatement("UPDATE profesor SET rfc=?, nombre=?,
telefono=?, correo=? WHERE id_prof=?");

            ps.setString(1, txtrfc.getText());
            ps.setString(2, txtnombre.getText());
            ps.setString(3, txttelefono.getText());
            ps.setString(4, txtcorreo.getText());
            ps.setString(5, txtid.getText());

            ps.execute();

            JOptionPane.showMessageDialog(null, "Profesor Modificado");
            tblprofesor.setValueAt(txtrfc.getText(), Fila, 0);
            tblprofesor.setValueAt(txtnombre.getText(), Fila, 1);
            tblprofesor.setValueAt(txttelefono.getText(), Fila, 2);
```



```
tblprofesor.setValueAt(txtcorreo.getText(), Fila, 3);

limpiar();

} catch (SQLException e) {
    System.out.println(e);
    JOptionPane.showMessageDialog(null, "Error al Modificar Profesor");
    desactivarCajas();
}
btnmodificar.setEnabled(false);
btneliminar.setEnabled(false);
btnlimpiar.setEnabled(false);

}

}

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

    PreparedStatement ps = null;
    try {

        herramienta conexion = new herramienta();
        com.mysql.jdbc.Connection reg = (com.mysql.jdbc.Connection)
conexion.conectar();

        int Fila = tblprofesor.getSelectedRow();
        String rfc = tblprofesor.getValueAt(Fila, 0).toString();

        ps = reg.prepareStatement("DELETE FROM profesor WHERE id_prof=?");
        //Para eliminar desde columna
        //ps.setString(1, rfc);
        ps.setString(1, txtid.getText());
        ps.execute();

        modelo.removeRow(Fila);
        JOptionPane.showMessageDialog(null, "Profesor Eliminado");
        limpiar();

    } catch (SQLException e) {
        System.out.println(e.toString());
        JOptionPane.showMessageDialog(null, "Error al Eliminar Profesor");
    }

    btnmodificar.setEnabled(false);
    btneliminar.setEnabled(false);
    btnlimpiar.setEnabled(false);
    actualizarbd();
}
```



```
desactivarCajas();
}

private void tblprofesorMouseClicked(java.awt.event.MouseEvent evt) {
    PreparedStatement ps = null;
    ResultSet rs = null;
    try {
        herramienta conexion = new herramienta();
        com.mysql.jdbc.Connection reg = (com.mysql.jdbc.Connection)
conexion.conectar();

        int Fila = tblprofesor.getSelectedRow();
        String rfc = tblprofesor.getValueAt(Fila, 0).toString();

        ps = reg.prepareStatement("SELECT id_prof, rfc, nombre, telefono, correo FROM
profesor WHERE rfc=?");
        ps.setString(1, rfc);
        rs = ps.executeQuery();

        while (rs.next()) {
            txtid.setText(rs.getString("id_prof"));
            txtrfc.setText(rs.getString("RFC"));
            txtnombre.setText(rs.getString("nombre"));
            txttelefono.setText(rs.getString("telefono"));
            txtcorreo.setText(rs.getString("correo"));
        }
    } catch (SQLException e) {
        System.out.println(e.toString());
    }

    desactivarNav();
    activarCajas();
    btnguardar.setEnabled(false);
    btnmodificar.setEnabled(true);
    btneliminar.setEnabled(true);
    btnlimpiar.setEnabled(true);
}

public void muestra(ResultSet consulta) throws SQLException {
    txtid.setText(consulta.getString(1));
    txtrfc.setText(consulta.getString(2));
    txtnombre.setText(consulta.getString(3));
    txttelefono.setText(consulta.getString(4));
    txtcorreo.setText(consulta.getString(5));
}

private void btnlimpiarActionPerformed(java.awt.event.ActionEvent evt) {
```



```
limpiar();
btnguardar.setEnabled(false);
btnmodificar.setEnabled(false);
btneliminar.setEnabled(false);
desactivarNav();
desactivarCajas();
btnlimpiar.setEnabled(false);
}

private void btnnextActionPerformed(java.awt.event.ActionEvent evt) {
    try {
        consulta.next();
        muestra(consulta);
    } catch (Exception e) {
        System.out.println(e);
    }
    desactivarCajas();
    btnguardar.setEnabled(false);
}

private void tblprofesorKeyReleased(java.awt.event.KeyEvent evt) {

    if (evt.getKeyCode() == KeyEvent.VK_DOWN || (evt.getKeyCode() ==
    KeyEvent.VK_UP)) {

        PreparedStatement ps = null;
        ResultSet rs = null;
        try {
            herramienta conexion = new herramienta();
            com.mysql.jdbc.Connection reg = (com.mysql.jdbc.Connection)
conexion.conectar();

            int Fila = tblprofesor.getSelectedRow();
            String rfc = tblprofesor.getValueAt(Fila, 0).toString();

            ps = reg.prepareStatement("SELECT id_prof, rfc, nombre, telefono, correo
FROM profesor WHERE rfc=?");
            ps.setString(1, rfc);
            rs = ps.executeQuery();

            while (rs.next()) {

                txtid.setText(rs.getString("id_prof"));
                txtrfc.setText(rs.getString("RFC"));
                txtnombre.setText(rs.getString("nombre"));
                txttelefono.setText(rs.getString("telefono"));
```



```
        txtcorreo.setText(rs.getString("correo"));
    }
} catch (SQLException e) {
    System.out.println(e.toString());
}

desactivarNav();
activarCajas();
btnguardar.setEnabled(false);
btnmodificar.setEnabled(true);
btneliminar.setEnabled(true);
btnlimpiar.setEnabled(true);

}

}

private void btn1stActionPerformed(java.awt.event.ActionEvent evt) {
    try {

        herramienta conn = new herramienta();
        String cons = "SELECT * FROM profesor";
        consulta = conn.consulta(cons);
        consulta.first();

        muestra(consulta);

    } catch (Exception e) {
        System.out.println(e);
    }

    activarNav();
    desactivarCajas();
    btnguardar.setEnabled(false);
    btnmodificar.setEnabled(false);
    btneliminar.setEnabled(false);
}

private void btnsalirActionPerformed(java.awt.event.ActionEvent evt) {
    dispose();
}

private void btninfoActionPerformed(java.awt.event.ActionEvent evt) {
    JOptionPane.showMessageDialog(null, "¿Qué hay de nuevo?\n"
        + "Opción de filtrar por RFC.");
}

private void btnnuevoActionPerformed(java.awt.event.ActionEvent evt) {
```



```
limpiar();
btnguardar.setEnabled(true);
activarCajas();
btnmodificar.setEnabled(false);
btneliminar.setEnabled(false);
btnlimpiar.setEnabled(true);
}

private void btnprevActionPerformed(java.awt.event.ActionEvent evt) {
    try {
        consulta.previous();
        muestra(consulta);
    } catch (Exception e) {
        System.out.println(e);
    }
    desactivarCajas();
    btnguardar.setEnabled(false);
}

private void btnendActionPerformed(java.awt.event.ActionEvent evt) {
    try {
        consulta.last();
        muestra(consulta);
    } catch (Exception e) {
        System.out.println(e);
    }
    desactivarCajas();
    btnguardar.setEnabled(false);
}

private void jbtnbackpActionPerformed(java.awt.event.ActionEvent evt) {
    Administrador mostraradministrador = new Administrador ();
    mostraradministrador.setSize(960, 640);
    mostraradministrador.setVisible(true);
    mostraradministrador.setLocationRelativeTo(null);
    dispose();
}

private void limpiar() {
    txtid.setText("");
    txtrfc.setText("");
    txtnombre.setText("");
    txttelefono.setText("");
    txtcorreo.setText("");
}
```



```
private void desactivarNav() {
    btnnext.setEnabled(false);
    btnprev.setEnabled(false);
    btnend.setEnabled(false);
}

private void activarNav() {
    btnnext.setEnabled(true);
    btnprev.setEnabled(true);
    btnend.setEnabled(true);
}

private void activarCajas() {
    txtrfc.setEnabled(true);
    txtnombre.setEnabled(true);
    txttelefono.setEnabled(true);
    txtcorreo.setEnabled(true);
}

private void desactivarCajas() {
    txtrfc.setEnabled(false);
    txtnombre.setEnabled(false);
    txttelefono.setEnabled(false);
    txtcorreo.setEnabled(false);
}

private void actualizarbd() {
    try {
        DefaultTableModel modelo = new DefaultTableModel();
        tblprofesor.setModel(modelo);
        PreparedStatement ps = null;
        ResultSet rs = null;
        herramienta conexion = new herramienta();
        Connection reg = conexion.conectar();

        String sql = "SELECT rfc, nombre, telefono, correo FROM profesor";
        System.out.println(sql);
        ps = reg.prepareStatement(sql);
        rs = ps.executeQuery();

        ResultSetMetaData rsMd = rs.getMetaData();
        int cantidadColumnas = rsMd.getColumnCount();

        modelo.addColumn("RFC");
        modelo.addColumn("Nombre");
        modelo.addColumn("Telefono");
        modelo.addColumn("Correo");
    }
}
```




```
int[] wide = {100, 200, 50, 150};

for (int x = 0; x < cantidadColumnas; x++) {
    tblprofesor.getColumnModel().getColumn(x).setPreferredWidth(wide[x]);
}

while (rs.next()) {
    Object[] filas = new Object[cantidadColumnas];
    for (int i = 0; i < cantidadColumnas; i++) {
        filas[i] = rs.getObject(i + 1);
    }
    modelo.addRow(filas);
}

} catch (Exception e) {
    System.out.println(e);
    JOptionPane.showMessageDialog(null, "Error");
}

}

/**
 * @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 ("Windows".equals(info.getName())) {
                javax.swing.UIManager.setLookAndFeel(info.getClassName());
                break;
            }
        }
    } catch (ClassNotFoundException ex) {

        java.util.logging.Logger.getLogger(tb_profesor.class.getName()).log(java.util.logging.Level
        .SEVERE, null, ex);
    } catch (InstantiationException ex) {
```



```
java.util.logging.Logger.getLogger(tb_profesor.class.getName()).log(java.util.logging.Level
.SEVERE, null, ex);
    } catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(tb_profesor.class.getName()).log(java.util.logging.Level
.SEVERE, null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(tb_profesor.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 tb_profesor().setVisible(true);
    }
});
}

// Variables declaration - do not modify
private javax.swing.JButton btn1st;
private javax.swing.JButton btnbuscar;
private javax.swing.JButton btneliminar;
private javax.swing.JButton btnend;
private javax.swing.JButton btnguardar;
private javax.swing.JButton btninfo;
private javax.swing.JButton btnlimpiar;
private javax.swing.JButton btnmodificar;
private javax.swing.JButton btnnext;
private javax.swing.JButton btnnuevo;
private javax.swing.JButton btnprev;
private javax.swing.JButton btnsalir;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JButton jbtnbackp;
private javax.swing.JLabel lblautor;
private javax.swing.JLabel lblbusqueda_rfc;
private javax.swing.JLabel lblcorreo;
private javax.swing.JLabel lbllogo;
private javax.swing.JLabel lblnombre;
private javax.swing.JLabel lblrfc;
private javax.swing.JLabel lbltelefono;
private javax.swing.JLabel lblversion;
private javax.swing.JTable tblprofesor;
private javax.swing.JTextField txtbusqueda_rfc;
private javax.swing.JTextField txtcorreo;
```



Alberto Iván Hernández García

Matricula: U182053R0001

Actividad 6: "Identificación de versiones"

```
private javax.swing.JTextField txtid;  
private javax.swing.JTextField txtnombre;  
private javax.swing.JTextField txtRFC;  
private javax.swing.JTextField txttelefono;  
// End of variables declaration  
}
```



tb_equipo

```
package sabes_equipo;

import java.awt.event.KeyEvent;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.sql.SQLException;
import javax.swing.JOptionPane;
import javax.swing.table.DefaultTableModel;

/**
 *
 * @author ivanhg
 */
public class tb_equipo extends javax.swing.JFrame {

    DefaultTableModel modelo = new DefaultTableModel();
    ResultSet consulta;

    public tb_equipo() {
        initComponents();

        this.setLocationRelativeTo(null);
        txtid.setVisible(false);
        desactivarNav();
        desactivarCajas();
        btnguardar.setEnabled(false);
        btnmodificar.setEnabled(false);
        btneliminar.setEnabled(false);
        btnlimpiar.setEnabled(false);

        try {

            tblequipo.setModel(modelo);

            PreparedStatement ps = null;
            ResultSet rs = null;
            herramienta conexion = new herramienta();
            Connection reg = conexion.conectar();

            String sql = "SELECT serie, tipo, marca, modelo, color FROM equipo";
            System.out.println(sql);
            ps = reg.prepareStatement(sql);
```



```
rs = ps.executeQuery();

ResultSetMetaData rsMd = rs.getMetaData();
int cantidadColumnas = rsMd.getColumnCount();

modelo.addColumn("Serie");
modelo.addColumn("Tipo");
modelo.addColumn("Marca");
modelo.addColumn("Modelo");
modelo.addColumn("Color");

int[] wide = {150, 100, 100, 150, 100};

for (int x = 0; x < cantidadColumnas; x++) {
    tblequipo.getColumnModel().getColumn(x).setPreferredWidth(wide[x]);
}

while (rs.next()) {
    Object[] filas = new Object[cantidadColumnas];
    for (int i = 0; i < cantidadColumnas; i++) {
        filas[i] = rs.getObject(i + 1);
    }

    modelo.addRow(filas);
}

} catch (SQLException e) {
    System.err.println(e.toString());
}

}

private void limpiar() {
    txtid.setText("");
    txtserie.setText("");
    cboxtipo.setSelectedIndex(0);
    txtmarca.setText("");
    txtmodelo.setText("");
    txtcolor.setText("");
}

private void desactivarNav() {
    btnnext.setEnabled(false);
    btnprev.setEnabled(false);
}
```



```
        btnend.setEnabled(false);
    }

    private void activarNav() {
        btnnext.setEnabled(true);
        btnprev.setEnabled(true);
        btnend.setEnabled(true);
    }

    private void activarCajas() {
        txtserie.setEnabled(true);
        cboxtipo.setEnabled(true);
        txtmarca.setEnabled(true);
        txtmodelo.setEnabled(true);
        txtcolor.setEnabled(true);
    }

    private void desactivarCajas() {
        txtserie.setEnabled(false);
        cboxtipo.setEnabled(false);
        txtmarca.setEnabled(false);
        txtmodelo.setEnabled(false);
        txtcolor.setEnabled(false);
    }

    public void muestra(ResultSet consulta) throws SQLException {
        txtid.setText(consulta.getString(1));
        txtserie.setText(consulta.getString(2));
        cboxtipo.setSelectedItem(consulta.getString(3));
        txtmarca.setText(consulta.getString(4));
        txtmodelo.setText(consulta.getString(5));
        txtcolor.setText(consulta.getString(6));
    }

    private void actualizarbd() {
        try {
            DefaultTableModel modelo = new DefaultTableModel();
            tblequipo.setModel(modelo);
            PreparedStatement ps = null;
            ResultSet rs = null;
            herramienta conexion = new herramienta();
            Connection reg = conexion.conectar();

            String sql = "SELECT serie, tipo, marca, modelo, color FROM equipo";
            System.out.println(sql);
            ps = reg.prepareStatement(sql);
            rs = ps.executeQuery();
        }
    }
}
```



```
ResultSetMetaData rsMd = rs.getMetaData();
int cantidadColumnas = rsMd.getColumnCount();

modelo.addColumn("Serie");
modelo.addColumn("Tipo");
modelo.addColumn("Marca");
modelo.addColumn("Modelo");
modelo.addColumn("Color");

int[] wide = {150, 100, 100, 150, 100};

for (int x = 0; x < cantidadColumnas; x++) {
    tblequipo.getColumnModel().getColumn(x).setPreferredWidth(wide[x]);
}

while (rs.next()) {
    Object[] filas = new Object[cantidadColumnas];
    for (int i = 0; i < cantidadColumnas; i++) {
        filas[i] = rs.getObject(i + 1);
    }

    modelo.addRow(filas);
}

} catch (SQLException e) {
    System.err.println(e.toString());
}
}

}

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

    jScrollPane1 = new javax.swing.JScrollPane();
    tblequipo = new javax.swing.JTable();
    lbllogo = new javax.swing.JLabel();
    lblautor = new javax.swing.JLabel();
    lblversion = new javax.swing.JLabel();
    lblbusqueda_serie = new javax.swing.JLabel();
    btnbuscar = new javax.swing.JButton();
    txtbusqueda_serie = new javax.swing.JTextField();
    lblserie = new javax.swing.JLabel();
    lbltipo = new javax.swing.JLabel();
    lblmarca = new javax.swing.JLabel();
    lblmodelo = new javax.swing.JLabel();
}
```



```
lblcolor = new javax.swing.JLabel();
txtmarca = new javax.swing.JTextField();
txtmodelo = new javax.swing.JTextField();
txtserie = new javax.swing.JTextField();
txtcolor = new javax.swing.JTextField();
btn1st = new javax.swing.JButton();
btnnext = new javax.swing.JButton();
btnprev = new javax.swing.JButton();
btnend = new javax.swing.JButton();
btnnuevo = new javax.swing.JButton();
btnguardar = new javax.swing.JButton();
btnmodificar = new javax.swing.JButton();
btneliminar = new javax.swing.JButton();
btlimpiar = new javax.swing.JButton();
btnsalir = new javax.swing.JButton();
btninfo = new javax.swing.JButton();
txtid = new javax.swing.JTextField();
cboxtipo = new javax.swing.JComboBox<>();
jbtnbacke = new javax.swing.JButton();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

tblequipo.setModel(new javax.swing.table.DefaultTableModel(
    new Object [][] {
        {null, null, null, null, null},
        {null, null, null, null, null},
        {null, null, null, null, null},
        {null, null, null, null, null}
    },
    new String [] {
        "Serie", "Tipo", "Marca", "Modelo", "Color"
    }
) {
    boolean[] canEdit = new boolean [] {
        false, false, false, false, false
    };

    public boolean isCellEditable(int rowIndex, int columnIndex) {
        return canEdit [columnIndex];
    }
});
tblequipo.addMouseListener(new java.awt.event.MouseAdapter() {
    public void mouseClicked(java.awt.event.MouseEvent evt) {
        tblequipoMouseClicked(evt);
    }
});
tblequipo.addKeyListener(new java.awt.event.KeyAdapter() {
    public void keyReleased(java.awt.event.KeyEvent evt) {
```




```
        tblequipoKeyReleased(evt);
    }
});
jScrollPane1.setViewportViewView(tblequipo);

lbllogo.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/sabes_1.png"))); // NOI18N

lblautor.setFont(new java.awt.Font("Lucida Grande", 0, 24)); // NOI18N
lblautor.setText("SABES");

lblversion.setText("Control de equipo");

lblbusqueda_serie.setText("Tipo");

btnbuscar.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/filtro_3.png"))); // NOI18N
btnbuscar.setText("Filtrar");
btnbuscar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnbuscarActionPerformed(evt);
    }
});

lblserie.setText("Serie");

lbltipo.setText("Tipo");

lblmarca.setText("Marca");

lblmodelo.setText("Modelo");

lblcolor.setText("Color");

btn1st.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/inicio.png"))); // NOI18N
btn1st.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn1stActionPerformed(evt);
    }
});

btnnext.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/next.png"))); // NOI18N
btnnext.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnnextActionPerformed(evt);
    }
});
```

```
});

btnprev.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/prev.png"))); // NOI18N
btnprev.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnprevActionPerformed(evt);
    }
});

btnend.setIcon(new javax.swing.ImageIcon(getClass().getResource("/img/fin.png")));
// NOI18N
btnend.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnendActionPerformed(evt);
    }
});

btnnuevo.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/nuevo.png"))); // NOI18N
btnnuevo.setText("Nuevo");
btnnuevo.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnnuevoActionPerformed(evt);
    }
});

btnguardar.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/guardar.png"))); // NOI18N
btnguardar.setText("Guardar");
btnguardar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnguardarActionPerformed(evt);
    }
});

btnmodificar.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/editar.png"))); // NOI18N
btnmodificar.setText("Modificar");
btnmodificar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnmodificarActionPerformed(evt);
    }
});

btneliminar.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/eliminar.png"))); // NOI18N
btneliminar.setText("Eliminar");
```



```
btneliminar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btneliminarActionPerformed(evt);
    }
});

btnlimpiar.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/limpiar.png"))); // NOI18N
btnlimpiar.setText("Limpiar");
btnlimpiar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnlimpiarActionPerformed(evt);
    }
});

btnsalir.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/salir_3.png"))); // NOI18N
btnsalir.setText("Salir");
btnsalir.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnsalirActionPerformed(evt);
    }
});

btninfo.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/info_3.png"))); // NOI18N
btninfo.setText("info");
btninfo.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btninfoActionPerformed(evt);
    }
});

txtid.setDragEnabled(false);
txtid.setEnabled(false);

cbxotipo.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] {
"Selecciona", "Laptop", "Proyector", "P. Acetato", "Regulador", "Extension" }));

jbtnbacke.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/back_32.png"))); // NOI18N
jbtnbacke.setText("Atras");
jbtnbacke.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jbtnbackeActionPerformed(evt);
    }
});
```




```
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    .addComponent(btninfo)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
    .addComponent(btnsalir))
.addGroup(layout.createSequentialGroup())

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

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addComponent(lblmodelo)
    .addComponent(lblcolor))
    .addGap(33, 33, 33)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addComponent(txtmodelo,
javax.swing.GroupLayout.PREFERRED_SIZE, 334,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addComponent(txtmarca,
javax.swing.GroupLayout.PREFERRED_SIZE, 334,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addGroup(layout.createSequentialGroup()
        .addComponent(btn1st)
        .addGap(18, 18, 18)
        .addComponent(btnprev)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
    .addComponent(btnnext)
    .addGap(18, 18, 18)
    .addComponent(btnend))
    .addComponent(txtcolor,
javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 334,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addComponent(cboxtipo,
javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 334,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addComponent(txtserie,
javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 334,
javax.swing.GroupLayout.PREFERRED_SIZE)))
```



```
.addGroup(layout.createSequentialGroup())
    .addComponent(btnnuevo)

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

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
    .addComponent(jbtnbacke,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)

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

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

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
    .addComponent(btneliminar))))))
    .addGroup(layout.createSequentialGroup()
        .addGap(2, 2, 2)
        .addComponent(lblmarca)))
    .addGap(0, 0, Short.MAX_VALUE))))))
    .addContainerGap(21, Short.MAX_VALUE))
);
layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
        .addGap(31, 31, 31)
        .addComponent(lblautor)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
    .addComponent(lblversion))
    .addGroup(layout.createSequentialGroup()
        .addGap(19, 19, 19)

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



```
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(btnsalir)
    .addComponent(btninfo)
    .addComponent(txtid, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))
    .addComponent(lbllogo))))
    .addGap(79, 79, 79)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(txtserie, javax.swing.GroupLayout.PREFERRED_SIZE, 26,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addComponent(lblserie))
    .addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(lbltipo)
    .addComponent(cboxtipo, javax.swing.GroupLayout.PREFERRED_SIZE, 26,
javax.swing.GroupLayout.PREFERRED_SIZE))
    .addGap(13, 13, 13)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(txtmarca, javax.swing.GroupLayout.PREFERRED_SIZE, 26,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addComponent(lblmarca))
    .addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(txtmodelo, javax.swing.GroupLayout.PREFERRED_SIZE,
26, javax.swing.GroupLayout.PREFERRED_SIZE)
    .addComponent(lblmodelo))
    .addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(txtcolor, javax.swing.GroupLayout.PREFERRED_SIZE, 26,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addComponent(lblcolor))
    .addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addComponent(btnend, javax.swing.GroupLayout.Alignment.TRAILING))

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(btn1st)
    .addComponent(btnprev)
    .addComponent(btnnext)))
```



```
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
67, Short.MAX_VALUE)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(btnnuevo)
    .addComponent(btnguardar)
    .addComponent(btnmodificar)
    .addComponent(btneliminar))

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(btnlimpiar)
    .addComponent(jbtnbacke))
    .addGap(18, 18, 18))
    .addGroup(layout.createSequentialGroup())
    .addGap(124, 124, 124)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(btnbuscar)
    .addComponent(txtbusqueda_serie,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addComponent(lblbusqueda_serie))
    .addGap(18, 18, 18)
    .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE,
369, javax.swing.GroupLayout.PREFERRED_SIZE)
    .addGap(61, 61, 61))
);

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

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

    String tipo = txtbusqueda_serie.getText();
    String where = "";
    if (!"".equals(tipo)) {
        where = " WHERE tipo = " + tipo + "";
    }

    try {
        DefaultTableModel modelo = new DefaultTableModel();
        tblequipo.setModel(modelo);
        PreparedStatement ps = null;
        ResultSet rs = null;
```




```
herramienta conexion = new herramienta();
Connection reg = conexion.conectar();

String sql = "SELECT serie, tipo, marca, modelo, color FROM equipo" + where;
System.out.println(sql);
ps = reg.prepareStatement(sql);
rs = ps.executeQuery();

ResultSetMetaData rsMd = rs.getMetaData();
int cantidadColumnas = rsMd.getColumnCount();

modelo.addColumn("Serie");
modelo.addColumn("Tipo");
modelo.addColumn("Marca");
modelo.addColumn("Modelo");
modelo.addColumn("Color");

int[] wide = {150, 100, 100, 150, 100};

for (int x = 0; x < cantidadColumnas; x++) {
    tblequipo.getColumnModel().getColumn(x).setPreferredWidth(wide[x]);
}

while (rs.next()) {
    Object[] filas = new Object[cantidadColumnas];
    for (int i = 0; i < cantidadColumnas; i++) {
        filas[i] = rs.getObject(i + 1);
    }
    modelo.addRow(filas);
}

} catch (Exception e) {
    System.out.println(e);
    JOptionPane.showMessageDialog(null, "Error");
}

limpiar();
}

private void btnnuevoActionPerformed(java.awt.event.ActionEvent evt) {
    limpiar();
    btnguardar.setEnabled(true);
    activarCajas();
    btnmodificar.setEnabled(false);
    btneliminar.setEnabled(false);
    btnlimpiar.setEnabled(true);
}
```



```
}
String combo;
private void btnguardarActionPerformed(java.awt.event.ActionEvent evt) {
    PreparedStatement ps = null;
    combo = cboxtipo.getSelectedItem().toString();

    if (txtserie.getText().isEmpty() || "Selecciona".equalsIgnoreCase(combo) ||
        txtmarca.getText().isEmpty() || txtmodelo.getText().isEmpty() ||
        txtcolor.getText().isEmpty()) {
        JOptionPane.showMessageDialog(null, "Favor de llenar todos los campos...");
    } else {

        try {
            herramienta conexion = new herramienta();
            com.mysql.jdbc.Connection reg = (com.mysql.jdbc.Connection)
conexion.conectar();
            ps = reg.prepareStatement("INSERT INTO equipo (serie, tipo, marca, modelo,
color) VALUES (?, ?, ?, ?, ?)");
            ps.setString(1, txtserie.getText());
            ps.setString(2, cboxtipo.getSelectedItem().toString());
            ps.setString(3, txtmarca.getText());
            ps.setString(4, txtmodelo.getText());
            ps.setString(5, txtcolor.getText());

            ps.execute();

            JOptionPane.showMessageDialog(null, "Equipo Guardado");
            Object[] fila = new Object[5];
            fila[0] = txtserie.getText();
            fila[1] = cboxtipo.getSelectedItem().toString();
            fila[2] = txtmarca.getText();
            fila[3] = txtmodelo.getText();
            fila[4] = txtcolor.getText();

            modelo.addRow(fila);
            limpiar();

        } catch (SQLException e) {

            System.out.println(e);
        }

        btnguardar.setEnabled(false);
        btnlimpiar.setEnabled(false);
        actualizarbd();
        desactivarCajas();
    }
}
```



```
private void btnmodificarActionPerformed(java.awt.event.ActionEvent evt) {
    int Fila = tblequipo.getSelectedRow();

    PreparedStatement ps = null;

    if (txtserie.getText().isEmpty() || "Selecciona".equalsIgnoreCase(combo) ||
        txtmarca.getText().isEmpty() || txtmodelo.getText().isEmpty() ||
        txtcolor.getText().isEmpty()) {
        JOptionPane.showMessageDialog(null, "Favor de llenar todos los campos...");
    } else {

        try {
            herramienta conexion = new herramienta();
            com.mysql.jdbc.Connection reg = (com.mysql.jdbc.Connection)
conexion.conectar();
            ps = reg.prepareStatement("UPDATE equipo SET serie=?, tipo=?, marca=?,
modelo=?, color=? WHERE id_equipo=?");

            ps.setString(1, txtserie.getText());
            ps.setString(2, cboxtipo.getSelectedItem().toString());
            ps.setString(3, txtmarca.getText());
            ps.setString(4, txtmodelo.getText());
            ps.setString(5, txtcolor.getText());
            ps.setString(6, txtid.getText());

            ps.execute();

            JOptionPane.showMessageDialog(null, "Equipo Modificado");
            tblequipo.setValueAt(txtserie.getText(), Fila, 0);
            tblequipo.setValueAt(cboxtipo.getSelectedItem().toString(), Fila, 1);
            tblequipo.setValueAt(txtmarca.getText(), Fila, 2);
            tblequipo.setValueAt(txtmodelo.getText(), Fila, 3);
            tblequipo.setValueAt(txtcolor.getText(), Fila, 4);

            limpiar();

        } catch (SQLException e) {
            System.out.println(e);
            JOptionPane.showMessageDialog(null, "Error al Modificar Equipo");
        }
        btnmodificar.setEnabled(false);
        btneliminar.setEnabled(false);
        btnlimpiar.setEnabled(false);
        desactivarCajas();
    }
}
```



```
private void btneliminarActionPerformed(java.awt.event.ActionEvent evt) {
    PreparedStatement ps = null;
    try {

        herramienta conexion = new herramienta();
        com.mysql.jdbc.Connection reg = (com.mysql.jdbc.Connection)
conexion.conectar();

        int Fila = tblequipo.getSelectedRow();
        String rfc = tblequipo.getValueAt(Fila, 0).toString();

        ps = reg.prepareStatement("DELETE FROM equipo WHERE id_equipo=?");
        //Para eliminar desde columna
        //ps.setString(1, rfc);
        ps.setString(1, txtid.getText());
        ps.execute();

        modelo.removeRow(Fila);
        JOptionPane.showMessageDialog(null, "Equipo Eliminado");
        limpiar();

    } catch (SQLException e) {
        System.out.println(e.toString());
        JOptionPane.showMessageDialog(null, "Error al Eliminar Equipo");
    }
    btnmodificar.setEnabled(false);
    btneliminar.setEnabled(false);
    btnlimpiar.setEnabled(false);
    actualizarbd();
    desactivarCajas();
}

private void btnlimpiarActionPerformed(java.awt.event.ActionEvent evt) {
    limpiar();
    btnguardar.setEnabled(false);
    btnmodificar.setEnabled(false);
    btneliminar.setEnabled(false);
    desactivarNav();
    desactivarCajas();
    btnlimpiar.setEnabled(false);
}

private void btninfoActionPerformed(java.awt.event.ActionEvent evt) {
    JOptionPane.showMessageDialog(null, "¿Qué hay de nuevo?\n"
        + "Opción de filtrar por tipo de equipo.");
}
```



```
private void btnsalirActionPerformed(java.awt.event.ActionEvent evt) {  
    dispose();  
}  
  
private void btn1stActionPerformed(java.awt.event.ActionEvent evt) {  
    try {  
  
        herramienta conn = new herramienta();  
        String cons = "SELECT * FROM equipo";  
        consulta = conn.consulta(cons);  
        consulta.first();  
  
        muestra(consulta);  
  
    } catch (Exception e) {  
        System.out.println(e);  
    }  
  
    activarNav();  
    desactivarCajas();  
    btnguardar.setEnabled(false);  
    btnmodificar.setEnabled(false);  
    btneliminar.setEnabled(false);  
}  
  
private void btnprevActionPerformed(java.awt.event.ActionEvent evt) {  
    try {  
        consulta.previous();  
        muestra(consulta);  
    } catch (Exception e) {  
        System.out.println(e);  
    }  
  
    desactivarCajas();  
    btnguardar.setEnabled(false);  
}  
  
private void btnnextActionPerformed(java.awt.event.ActionEvent evt) {  
    try {  
        consulta.next();  
        muestra(consulta);  
    } catch (Exception e) {  
        System.out.println(e);  
    }  
  
    desactivarCajas();  
    btnguardar.setEnabled(false);  
}
```

```
private void btnendActionPerformed(java.awt.event.ActionEvent evt) {
    try {
        consulta.last();
        muestra(consulta);
    } catch (Exception e) {
        System.out.println(e);
    }
    desactivarCajas();
    btnguardar.setEnabled(false);
}

private void tblequipoMouseClicked(java.awt.event.MouseEvent evt) {
    PreparedStatement ps = null;
    ResultSet rs = null;
    try {
        herramienta conexion = new herramienta();
        com.mysql.jdbc.Connection reg = (com.mysql.jdbc.Connection)
conexion.conectar();

        int Fila = tblequipo.getSelectedRow();
        String serie = tblequipo.getValueAt(Fila, 0).toString();

        ps = reg.prepareStatement("SELECT id_equipo, serie, tipo, marca, modelo, color
FROM equipo WHERE serie=?");
        ps.setString(1, serie);
        rs = ps.executeQuery();

        while (rs.next()) {
            txtid.setText(rs.getString("id_equipo"));
            txtserie.setText(rs.getString("serie"));
            cboxtipo.setSelectedItem(rs.getString("tipo"));
            txtmarca.setText(rs.getString("marca"));
            txtmodelo.setText(rs.getString("modelo"));
            txtcolor.setText(rs.getString("color"));
        }
    } catch (SQLException e) {
        System.out.println(e.toString());
    }
}

desactivarNav();
activarCajas();
btnguardar.setEnabled(false);
btnmodificar.setEnabled(true);
btneliminar.setEnabled(true);
btnlimpiar.setEnabled(true);
```



```
}

private void tblequipoKeyReleased(java.awt.event.KeyEvent evt) {

    if (evt.getKeyCode() == KeyEvent.VK_DOWN || (evt.getKeyCode() ==
    KeyEvent.VK_UP)) {

        PreparedStatement ps = null;
        ResultSet rs = null;
        try {
            herramienta conexion = new herramienta();
            com.mysql.jdbc.Connection reg = (com.mysql.jdbc.Connection)
conexion.conectar();

            int Fila = tblequipo.getSelectedRow();
            String serie = tblequipo.getValueAt(Fila, 0).toString();

            ps = reg.prepareStatement("SELECT id_equipo, serie, tipo, marca, modelo,
color FROM equipo WHERE serie=?");
            ps.setString(1, serie);
            rs = ps.executeQuery();

            while (rs.next()) {

                txtid.setText(rs.getString("id_equipo"));
                txtserie.setText(rs.getString("serie"));
                cboxtipo.setSelectedItem(rs.getString("tipo"));
                txtmarca.setText(rs.getString("marca"));
                txtmodelo.setText(rs.getString("modelo"));
                txtcolor.setText(rs.getString("color"));
            }
        } catch (SQLException e) {
            System.out.println(e.toString());
        }

        desactivarNav();
        activarCajas();
        btnguardar.setEnabled(false);
        btnmodificar.setEnabled(true);
        btneliminar.setEnabled(true);
        btnlimpiar.setEnabled(true);

    }
}

private void jbtnbackeActionPerformed(java.awt.event.ActionEvent evt) {
    Administrador mostraradministrador = new Administrador ();
    mostraradministrador.setSize(960, 640);
}
```



```
        mostraradministrador.setVisible(true);
        mostraradministrador.setLocationRelativeTo(null);
        dispose();
    }

    /**
     * @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 ("Windows".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {

            java.util.logging.Logger.getLogger(tb_equipo.class.getName()).log(java.util.logging.Level.
                SEVERE, null, ex);
        } catch (InstantiationException ex) {

            java.util.logging.Logger.getLogger(tb_equipo.class.getName()).log(java.util.logging.Level.
                SEVERE, null, ex);
        } catch (IllegalAccessException ex) {

            java.util.logging.Logger.getLogger(tb_equipo.class.getName()).log(java.util.logging.Level.
                SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {

            java.util.logging.Logger.getLogger(tb_equipo.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 tb_equipo().setVisible(true);
            }
        })
    }
}
```




```
    });  
}  
  
// Variables declaration - do not modify  
private javax.swing.JButton btn1st;  
private javax.swing.JButton btnbuscar;  
private javax.swing.JButton btneliminar;  
private javax.swing.JButton btnend;  
private javax.swing.JButton btnguardar;  
private javax.swing.JButton btninfo;  
private javax.swing.JButton btnlimpiar;  
private javax.swing.JButton btnmodificar;  
private javax.swing.JButton btnnext;  
private javax.swing.JButton btnnuevo;  
private javax.swing.JButton btnprev;  
private javax.swing.JButton btnsalir;  
private javax.swing.JComboBox<String> cboxtipo;  
private javax.swing.JScrollPane jScrollPane1;  
private javax.swing.JButton jbtnbacke;  
private javax.swing.JLabel lblautor;  
private javax.swing.JLabel lblbusqueda_serie;  
private javax.swing.JLabel lblcolor;  
private javax.swing.JLabel lbllogo;  
private javax.swing.JLabel lblmarca;  
private javax.swing.JLabel lblmodelo;  
private javax.swing.JLabel lblserie;  
private javax.swing.JLabel lbltipo;  
private javax.swing.JLabel lblversion;  
private javax.swing.JTable tblequipo;  
private javax.swing.JTextField txtbusqueda_serie;  
private javax.swing.JTextField txtcolor;  
private javax.swing.JTextField txtid;  
private javax.swing.JTextField txtmarca;  
private javax.swing.JTextField txtmodelo;  
private javax.swing.JTextField txtserie;  
// End of variables declaration  
}
```



tb_prestamo

```
package sabes_equipo;

import java.awt.event.KeyEvent;
import java.sql.Connection;
import java.sql.Date;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.Calendar;
import javax.swing.JOptionPane;
import javax.swing.table.DefaultTableModel;

/**
 *
 * @author ivanhg
 */
public class tb_prestamo extends javax.swing.JFrame {

    DefaultTableModel modelo = new DefaultTableModel();
    ResultSet consulta;

    public tb_prestamo() {
        initComponents();
        this.setLocationRelativeTo(null);
        tb_profesor();
        tb_equipo();
        comparaProf();
        comparaSerie();
        txtid.setVisible(false);
        txtidprof.setVisible(false);
        txtidequipo.setVisible(false);
        txtfecha.setVisible(false);

        /*desactivarNav();*/
        desactivarCajas();
        btnguardar.setEnabled(false);
        btnmodificar.setEnabled(false);
        btneliminar.setEnabled(false);
        btnlimpiar.setEnabled(false);

        try {
```



```
tblprestamo.setModel(modelo);

PreparedStatement ps = null;
ResultSet rs = null;
herramienta conexion = new herramienta();
Connection reg = conexion.conectar();

String sql = "SELECT nombre, serie, fecha_uso, hora_uso, hora_regreso, id_renta
FROM prestamo, profesor, equipo WHERE prestamo.prof_id = profesor.id_prof &&
prestamo.equipo_id = equipo.id_equipo";
System.out.println(sql);
ps = reg.prepareStatement(sql);
rs = ps.executeQuery();

ResultSetMetaData rsMd = rs.getMetaData();
int cantidadColumnas = rsMd.getColumnCount();

modelo.addColumn("Profesor");
modelo.addColumn("Serie");
modelo.addColumn("Fecha_uso");
modelo.addColumn("Hora de uso");
modelo.addColumn("Hora de regreso");
modelo.addColumn("id_renta");

int[] wide = {220, 125, 125, 125, 125, 0};

for (int x = 0; x < cantidadColumnas; x++) {
    tblprestamo.getColumnModel().getColumn(x).setPreferredWidth(wide[x]);
}

while (rs.next()) {
    Object[] filas = new Object[cantidadColumnas];
    for (int i = 0; i < cantidadColumnas; i++) {
        filas[i] = rs.getObject(i + 1);
    }

    modelo.addRow(filas);
}

} catch (SQLException e) {
    System.err.println(e.toString());
}

}
```



```
private void limpiar() {
    txtid.setText("");
    cboxprofesor.setSelectedIndex(0);
    cboxserie.setSelectedIndex(0);
    txtfecha.setText("");
    txthorausos.setText("");
    txthoraregreso.setText("");
    txtidprof.setText("");
    txtidequipo.setText("");
    datefecha.setDate(null);
}
/*
private void desactivarNav() {
    btnnext.setEnabled(false);
    btnprev.setEnabled(false);
    btnend.setEnabled(false);
}

private void activarNav() {
    btnnext.setEnabled(true);
    btnprev.setEnabled(true);
    btnend.setEnabled(true);
}
*/

private void activarCajas() {
    cboxprofesor.setEnabled(true);
    cboxserie.setEnabled(true);
    txtfecha.setEnabled(true);
    txthorausos.setEnabled(true);
    txthoraregreso.setEnabled(true);
    datefecha.setEnabled(true);
}

private void desactivarCajas() {
    cboxprofesor.setEnabled(false);
    cboxserie.setEnabled(false);
    txtfecha.setEnabled(false);
    txthorausos.setEnabled(false);
    txthoraregreso.setEnabled(false);
    datefecha.setEnabled(false);
}

/*public void muestra(ResultSet consulta) throws SQLException {
    txtid.setText(consulta.getString(1));
    cboxprofesor.setSelectedItem(consulta.getString(2));
    cboxserie.setSelectedItem(consulta.getString(3));
}
```



```
txtfecha.setText(consulta.getString(4));
txthorauso.setText(consulta.getString(5));
txthoraregreso.setText(consulta.getString(6));
}*/

private void actualizarbd() {
    try {
        DefaultTableModel modelo = new DefaultTableModel();
        tblprestamo.setModel(modelo);
        PreparedStatement ps = null;
        ResultSet rs = null;
        herramienta conexion = new herramienta();
        Connection reg = conexion.conectar();

        String sql = "SELECT nombre, serie, fecha_uso, hora_uso, hora_regreso, id_renta
FROM prestamo, profesor, equipo WHERE prestamo.prof_id = profesor.id_prof &&
prestamo.equipo_id = equipo.id_equipo";
        System.out.println(sql);
        ps = reg.prepareStatement(sql);
        rs = ps.executeQuery();

        ResultSetMetaData rsMd = rs.getMetaData();
        int cantidadColumnas = rsMd.getColumnCount();

        modelo.addColumn("Profesor");
        modelo.addColumn("Serie");
        modelo.addColumn("Fecha_uso");
        modelo.addColumn("Hora de uso");
        modelo.addColumn("Hora de regreso");
        modelo.addColumn("id_renta");

        int[] wide = {220, 125, 125, 125, 125, 0};

        for (int x = 0; x < cantidadColumnas; x++) {
            tblprestamo.getColumnModel().getColumn(x).setPreferredWidth(wide[x]);
        }

        while (rs.next()) {
            Object[] filas = new Object[cantidadColumnas];
            for (int i = 0; i < cantidadColumnas; i++) {
                filas[i] = rs.getObject(i + 1);
            }

            modelo.addRow(filas);
        }
    } catch (SQLException e) {
```



```
        System.err.println(e.toString());
    }
}

void tb_profesor() {
    try {
        PreparedStatement ps = null;
        ResultSet rs = null;
        herramienta conexion = new herramienta();
        Connection reg = conexion.conectar();

        String sql = "Select * from profesor";
        Statement st = reg.createStatement();
        rs = st.executeQuery(sql);
        while (rs.next()) {
            cboxprofesor.addItem(rs.getString("nombre"));
        }

    } catch (SQLException e) {
        System.err.println(e.toString());
    }
}

void tb_equipo() {
    try {
        PreparedStatement ps = null;
        ResultSet rs = null;
        herramienta conexion = new herramienta();
        Connection reg = conexion.conectar();

        String sql = "Select * from equipo";
        Statement st = reg.createStatement();
        rs = st.executeQuery(sql);
        while (rs.next()) {
            cboxserie.addItem(rs.getString("serie"));
        }

    } catch (SQLException e) {
        System.err.println(e.toString());
    }
}

private void comparaProf(){
    try {

        PreparedStatement ps = null;
```



```
ResultSet rs = null;
herramienta conexion = new herramienta();
Connection reg = conexion.conectar();

ps = reg.prepareStatement("SELECT id_prof FROM profesor WHERE nombre =
?");
ps.setString(1, cboxprofesor.getSelectedItem().toString());

rs=ps.executeQuery();

if (rs.next()) {

    txtidprof.setText(rs.getString("id_prof"));

} else {
    /*JOptionPane.showMessageDialog(null, "No existe el profesor");*/
}

} catch (SQLException e) {
    System.err.println(e.toString());
}

}

private void comparaSerie(){

    try {

        PreparedStatement ps = null;
        ResultSet rs = null;
        herramienta conexion = new herramienta();
        Connection reg = conexion.conectar();

        ps = reg.prepareStatement("SELECT id_equipo FROM equipo WHERE serie =
?");
        ps.setString(1, cboxserie.getSelectedItem().toString());

        rs=ps.executeQuery();

        if (rs.next()) {

            txtidequipo.setText(rs.getString("id_equipo"));

        } else {
            /*JOptionPane.showMessageDialog(null, "No existe el profesor");*/
        }

    } catch (SQLException e) {
```



```
System.err.println(e.toString());

}

}

/**
 * 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">
private void initComponents() {

    jScrollPane1 = new javax.swing.JScrollPane();
    tblprestamo = new javax.swing.JTable();
    cboxprofesor = new javax.swing.JComboBox<>();
    cboxserie = new javax.swing.JComboBox<>();
    txtfecha = new javax.swing.JTextField();
    txthorauso = new javax.swing.JTextField();
    txthoraregreso = new javax.swing.JTextField();
    lblprofesor = new javax.swing.JLabel();
    lblserie = new javax.swing.JLabel();
    lblfecha = new javax.swing.JLabel();
    lblhorauso = new javax.swing.JLabel();
    lblhoraregreso = new javax.swing.JLabel();
    btnmodificar = new javax.swing.JButton();
    btnguardar = new javax.swing.JButton();
    btninfo = new javax.swing.JButton();
    btneliminar = new javax.swing.JButton();
    btnnuevo = new javax.swing.JButton();
    btnlimpiar = new javax.swing.JButton();
    btnsalir = new javax.swing.JButton();
    btnbuscar = new javax.swing.JButton();
    lblbusqueda_fecha = new javax.swing.JLabel();
    txtbusqueda_serie = new javax.swing.JTextField();
    txtid = new javax.swing.JTextField();
    txtidprof = new javax.swing.JTextField();
    txtidequipo = new javax.swing.JTextField();
    btnfecha = new javax.swing.JButton();
    btnhoras = new javax.swing.JButton();
    lbllogo = new javax.swing.JLabel();
    lblautor = new javax.swing.JLabel();
    lblversion = new javax.swing.JLabel();
    datefecha = new com.toedter.calendar.JDateChooser();
```




```
jbtnbackpr = new javax.swing.JButton();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

tblprestamo.setModel(new javax.swing.table.DefaultTableModel(
    new Object [][] {
        {null, null, null, null, null, null},
        {null, null, null, null, null, null},
        {null, null, null, null, null, null},
        {null, null, null, null, null, null},
        {null, null, null, null, null, null}
    },
    new String [] {
        "Profesor", "Serie", "Fecha", "Hora de uso", "Hora de regreso", "renta_id"
    }
) {
    boolean[] canEdit = new boolean [] {
        false, false, false, false, false, true
    };

    public boolean isCellEditable(int rowIndex, int columnIndex) {
        return canEdit [columnIndex];
    }
});
tblprestamo.addMouseListener(new java.awt.event.MouseAdapter() {
    public void mouseClicked(java.awt.event.MouseEvent evt) {
        tblprestamoMouseClicked(evt);
    }
});
tblprestamo.addKeyListener(new java.awt.event.KeyAdapter() {
    public void keyReleased(java.awt.event.KeyEvent evt) {
        tblprestamoKeyReleased(evt);
    }
});
jScrollPane1.setViewportView(tblprestamo);

cboxprofesor.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] {
"Selecciona..." }));
cboxprofesor.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        cboxprofesorActionPerformed(evt);
    }
});

cboxserie.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] {
"Selecciona..." }));
cboxserie.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
```



```
        cboxserieActionPerformed(evt);
    }
});

txtfecha.setEnabled(false);

lblprofesor.setText("Profesor");

lblserie.setText("Serie");

lblfecha.setText("Fecha");

lblhorauso.setText("Hora de uso");

lblhoraregreso.setText("Hora de regreso");

btnmodificar.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/editar.png"))); // NOI18N
btnmodificar.setText("Modificar");
btnmodificar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnmodificarActionPerformed(evt);
    }
});

btnguardar.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/guardar.png"))); // NOI18N
btnguardar.setText("Guardar");
btnguardar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnguardarActionPerformed(evt);
    }
});

btninfo.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/info_3.png"))); // NOI18N
btninfo.setText("info");
btninfo.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btninfoActionPerformed(evt);
    }
});

btneliminar.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/eliminar.png"))); // NOI18N
btneliminar.setText("Eliminar");
btneliminar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
```



```
        btneliminarActionPerformed(evt);
    }
});

    btnnuevo.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/nuevo.png"))); // NOI18N
    btnnuevo.setText("Nuevo");
    btnnuevo.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            btnnuevoActionPerformed(evt);
        }
    });

    btnlimpiar.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/limpiar.png"))); // NOI18N
    btnlimpiar.setText("Limpiar");
    btnlimpiar.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            btnlimpiarActionPerformed(evt);
        }
    });

    btnsalir.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/salir_3.png"))); // NOI18N
    btnsalir.setText("Salir");
    btnsalir.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            btnsalirActionPerformed(evt);
        }
    });

    btnbuscar.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/filtro_3.png"))); // NOI18N
    btnbuscar.setText("Filtrar");
    btnbuscar.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            btnbuscarActionPerformed(evt);
        }
    });

    lblbusqueda_fecha.setText("Serie");

    txtid.setEnabled(false);

    txtidprof.setEnabled(false);

    txtidequipo.setEnabled(false);
```




```
.addGap(18, 18, 18)
.addComponent(btnbuscar))
.addGroup(layout.createSequentialGroup()
.addGap(10, 10, 10)
.addComponent(lbllogo)

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addComponent(lblversion)
.addComponent(lblautor, javax.swing.GroupLayout.PREFERRED_SIZE,
167, javax.swing.GroupLayout.PREFERRED_SIZE)))
.addGap(28, 28, 28)

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
.addComponent(lblprofesor,
javax.swing.GroupLayout.PREFERRED_SIZE, 114,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addGroup(javax.swing.GroupLayout.Alignment.LEADING,
layout.createSequentialGroup()
.addComponent(lblfecha)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
.addComponent(btnfecha))
.addGroup(javax.swing.GroupLayout.Alignment.LEADING,
layout.createSequentialGroup()
.addComponent(lblhorauso)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
.addComponent(btnhoras))
.addComponent(lblhoraregreso,
javax.swing.GroupLayout.Alignment.LEADING)
.addComponent(lblserie, javax.swing.GroupLayout.Alignment.LEADING,
javax.swing.GroupLayout.PREFERRED_SIZE, 100,
javax.swing.GroupLayout.PREFERRED_SIZE))

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
.addGroup(layout.createSequentialGroup()
.addComponent(txtid, javax.swing.GroupLayout.PREFERRED_SIZE,
56, javax.swing.GroupLayout.PREFERRED_SIZE))
```



```
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    .addComponent(btninfo)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
    .addComponent(btnsalir))
    .addComponent(txthorauso, javax.swing.GroupLayout.DEFAULT_SIZE,
293, Short.MAX_VALUE)
    .addComponent(txthoraregreso)
    .addComponent(cboxprofesor, 0,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    .addComponent(cboxserie, 0,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    .addComponent(datefecha, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)))
    .addGroup(layout.createSequentialGroup())
    .addComponent(btnnuevo)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
    .addComponent(btnguardar)
    .addGap(12, 12, 12)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
    .addComponent(jbtnbackpr,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)
    .addGap(18, 18, 18)
    .addComponent(btnlimpiar))
    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
    .addComponent(btnmodificar)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
    .addComponent(btneliminar))))
    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
    .addComponent(txtidprof, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, 35, Short.MAX_VALUE)
    .addComponent(txtidequipo, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, 35, Short.MAX_VALUE)
    .addComponent(txtfecha))
```



```
.addContainerGap()  
);  
layout.setVerticalGroup(  
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
        .addGroup(layout.createSequentialGroup()  
  
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
                .addGroup(layout.createSequentialGroup()  
                    .addGap(38, 38, 38)  
  
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)  
                    .addComponent(txtid, javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
                    .addComponent(btninfo)  
                    .addComponent(btnsalir)))  
                .addGroup(layout.createSequentialGroup()  
                    .addGap(21, 21, 21)  
  
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
                .addGroup(layout.createSequentialGroup()  
                    .addGap(12, 12, 12)  
                    .addComponent(lblautor)  
  
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)  
                .addComponent(lblversion))  
                .addComponent(lbllogo))))  
            .addGap(35, 35, 35)  
  
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)  
            .addComponent(lblbusqueda_fecha)  
            .addComponent(btnbuscar)  
            .addComponent(txtbusqueda_serie,  
javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE))  
            .addGap(22, 22, 22)  
  
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
            .addGroup(layout.createSequentialGroup()  
                .addComponent(jScrollPane1,  
javax.swing.GroupLayout.PREFERRED_SIZE, 325,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
                .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,  
Short.MAX_VALUE))  
            .addGroup(layout.createSequentialGroup()  
  
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
```



```
.addComponent(cboxprofesor,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addComponent(lblprofesor)
.addComponent(txtidprof,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addGap(22, 22, 22)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
.addComponent(cboxserie,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addComponent(lblserie)
.addComponent(txtidequipo,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))

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

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
.addComponent(btnfecha))
.addGroup(layout.createSequentialGroup())
.addGap(23, 23, 23)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addComponent(txtfecha,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addComponent(lblfecha)))
.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup())

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
.addComponent(datefecha,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)))

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(layout.createSequentialGroup())
.addGap(29, 29, 29)
```




```
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(txthoraregreso,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addComponent(lblhoraregreso))
.addGroup(layout.createSequentialGroup())

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(lblhorauso)
    .addComponent(txthorauso,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))
    .addGap(49, 49, 49)))
    .addGroup(layout.createSequentialGroup())
        .addGap(18, 18, 18)
        .addComponent(btnhoras)))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 50,
Short.MAX_VALUE)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(btnmodificar)
    .addComponent(btneliminar)
    .addComponent(btnnuevo)
    .addComponent(btnguardar))

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(btnlimpiar)
    .addComponent(jbtnbackpr))
    .addGap(55, 55, 55)))
);

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

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

String serie = txtbusqueda_serie.getText();
String where = "";
if (!"".equals(serie)) {
    where = " && serie = '" + serie + "'";
```



```
}

try {
    DefaultTableModel modelo = new DefaultTableModel();
    tblprestamo.setModel(modelo);
    PreparedStatement ps = null;
    ResultSet rs = null;
    herramienta conexion = new herramienta();
    Connection reg = conexion.conectar();

    String sql = "SELECT nombre, serie, fecha_uso, hora_uso, hora_regreso, id_renta
FROM prestamo, profesor, equipo WHERE prestamo.prof_id = profesor.id_prof &&
prestamo.equipo_id = equipo.id_equipo" + where;
    System.out.println(sql);
    ps = reg.prepareStatement(sql);
    rs = ps.executeQuery();

    ResultSetMetaData rsMd = rs.getMetaData();
    int cantidadColumnas = rsMd.getColumnCount();

    modelo.addColumn("Profesor");
    modelo.addColumn("Serie");
    modelo.addColumn("Fecha_uso");
    modelo.addColumn("Hora de uso");
    modelo.addColumn("Hora de regreso");
    modelo.addColumn("id_renta");

    int[] wide = {220, 125, 125, 125, 125, 0};

    for (int x = 0; x < cantidadColumnas; x++) {
        tblprestamo.getColumnModel().getColumn(x).setPreferredWidth(wide[x]);
    }

    while (rs.next()) {
        Object[] filas = new Object[cantidadColumnas];
        for (int i = 0; i < cantidadColumnas; i++) {
            filas[i] = rs.getObject(i + 1);
        }
        modelo.addRow(filas);
    }

} catch (Exception e) {
    System.out.println(e);
    JOptionPane.showMessageDialog(null, "Error");
}
```



```
limpiar();
}

private void btnnuevoActionPerformed(java.awt.event.ActionEvent evt) {
    limpiar();
    btnguardar.setEnabled(true);
    activarCajas();
    btnmodificar.setEnabled(false);
    btneliminar.setEnabled(false);
    btnlimpiar.setEnabled(true);
}

String comboprof;
String comboserie;
private void btnguardarActionPerformed(java.awt.event.ActionEvent evt) {
    PreparedStatement ps = null;
    comboprof = cboxprofesor.getSelectedItem().toString();
    comboserie = cboxserie.getSelectedItem().toString();

    if ("Selecciona...".equalsIgnoreCase(comboprof) ||
        "Selecciona...".equalsIgnoreCase(comboserie) || datefecha.getDate()==null ||
        txthorauso.getText().isEmpty() || txthoraregreso.getText().isEmpty()) {
        JOptionPane.showMessageDialog(null, "Favor de llenar todos los campos...");
    } else {

        try {
            herramienta conexion = new herramienta();
            com.mysql.jdbc.Connection reg = (com.mysql.jdbc.Connection)
conexion.conectar();
            ps = reg.prepareStatement("INSERT INTO prestamo (prof_id, equipo_id,
fecha_uso, hora_uso, hora_regreso) VALUES (?, ?, ?, ?, ?)");

            /*
            Marcaria error en un determinado tiempo al eliminar profesores, funcionaria si
nunca se eliminaran.

            ps.setInt(1, cboxprofesor.getSelectedIndex());
            ps.setInt(2, cboxserie.getSelectedIndex());
            */

            String dia = Integer.toString
(datefecha.getCalendar().get(Calendar.DAY_OF_MONTH));
            String mes = Integer.toString
(datefecha.getCalendar().get(Calendar.MONTH)+1);
            String año = Integer.toString (datefecha.getCalendar().get(Calendar.YEAR));
            String fecha;
```



```
fecha = año + "-" + mes + "-" + dia;
txtfecha.setText(fecha);

ps.setString(1, txtidprof.getText());
ps.setString(2, txtidequipo.getText());
ps.setString(3, txtfecha.getText());
ps.setString(4, txthorauso.getText());
ps.setString(5, txthoraregreso.getText());
ps.execute();

JOptionPane.showMessageDialog(null, "Préstamo Guardado");
Object[] fila = new Object[5];
fila[1] = cboxprofesor.getSelectedItem().toString();
fila[1] = cboxserie.getSelectedItem().toString();
fila[2] = txtfecha.getText();
fila[3] = txthorauso.getText();
fila[4] = txthoraregreso.getText();

modelo.addRow(fila);
limpiar();

} catch (SQLException e) {

    System.out.println(e);
}

btnguardar.setEnabled(false);
btnlimpiar.setEnabled(false);
actualizarbd();
desactivarCajas();
}
}

private void btnmodificarActionPerformed(java.awt.event.ActionEvent evt) {
    int Fila = tblprestamo.getSelectedRow();

    PreparedStatement ps = null;

    if (datefecha.getDate() == null || txthorauso.getText().isEmpty() ||
        txthoraregreso.getText().isEmpty()) {
        JOptionPane.showMessageDialog(null, "Favor de llenar todos los campos...");
    } else {

        try {
            herramienta conexion = new herramienta();
            com.mysql.jdbc.Connection reg = (com.mysql.jdbc.Connection)
            conexion.conectar();
```



```
ps = reg.prepareStatement("UPDATE prestamo SET prof_id=?, equipo_id=?,  
fecha_uso=?, hora_uso=?, hora_regreso=? WHERE id_renta=?");
```

```
String dia = Integer.toString  
(datefecha.getCalendar().get(Calendar.DAY_OF_MONTH));  
String mes = Integer.toString  
(datefecha.getCalendar().get(Calendar.MONTH)+1);  
String año = Integer.toString (datefecha.getCalendar().get(Calendar.YEAR));  
String fecha;  
fecha = año + "-" + mes + "-" + dia;  
txtfecha.setText(fecha);
```

```
ps.setString(1, txtidprof.getText());  
ps.setString(2, txtidequipo.getText());  
ps.setString(3, txtfecha.getText());  
/*ps.setDate(3, Date.valueOf(txtfecha.getText()));*/  
ps.setString(4, txthorauso.getText());  
ps.setString(5, txthoraregreso.getText());  
ps.setString(6, txtid.getText());
```

```
ps.execute();
```

```
JOptionPane.showMessageDialog(null, "Préstamo Modificado");  
tblprestamo.setValueAt(cboxprofesor.getSelectedItem().toString(), Fila, 0);  
tblprestamo.setValueAt(cboxserie.getSelectedItem().toString(), Fila, 1);  
tblprestamo.setValueAt(txtfecha.getText(), Fila, 2);  
tblprestamo.setValueAt(txthorauso.getText(), Fila, 3);  
tblprestamo.setValueAt(txthoraregreso.getText(), Fila, 4);
```

```
limpiar();
```

```
} catch (SQLException e) {  
    System.out.println(e);  
    JOptionPane.showMessageDialog(null, "Error al Modificar Préstamo");  
}  
btnmodificar.setEnabled(false);  
btneliminar.setEnabled(false);  
btnlimpiar.setEnabled(false);  
desactivarCajas();  
}  
}
```

```
private void btneliminarActionPerformed(java.awt.event.ActionEvent evt) {  
    PreparedStatement ps = null;  
    try {
```



```
herramienta.conexion = new herramienta();
com.mysql.jdbc.Connection reg = (com.mysql.jdbc.Connection)
conexion.conectar();

int Fila = tblprestamo.getSelectedRow();
String rfc = tblprestamo.getValueAt(Fila, 0).toString();

ps = reg.prepareStatement("DELETE FROM prestamo WHERE id_renta=?");
//Para eliminar desde columna
//ps.setString(1, rfc);
ps.setString(1, txtid.getText());
ps.execute();

modelo.removeRow(Fila);
JOptionPane.showMessageDialog(null, "Préstamo Eliminado");
limpiar();

} catch (SQLException e) {
    System.out.println(e.toString());
    JOptionPane.showMessageDialog(null, "Error al Eliminar Préstamo");
}

}
btnmodificar.setEnabled(false);
btneliminar.setEnabled(false);
btnlimpiar.setEnabled(false);
actualizarbd();
desactivarCajas();
}

private void btnlimpiarActionPerformed(java.awt.event.ActionEvent evt) {
    limpiar();
    btnguardar.setEnabled(false);
    btnmodificar.setEnabled(false);
    btneliminar.setEnabled(false);
    /*desactivarNav();*/
    desactivarCajas();
    btnlimpiar.setEnabled(false);
}

private void btninfoActionPerformed(java.awt.event.ActionEvent evt) {
    JOptionPane.showMessageDialog(null, "¿Qué hay de nuevo?\n"
        + "Opción de seleccionar la fecha desde el calendario integrado.");
}

private void btnsalirActionPerformed(java.awt.event.ActionEvent evt) {
    dispose();
}
```



```
private void cboxprofesorActionPerformed(java.awt.event.ActionEvent evt) {
    try {

        PreparedStatement ps = null;
        ResultSet rs = null;
        herramienta conexion = new herramienta();
        Connection reg = conexion.conectar();

        ps = reg.prepareStatement("SELECT id_prof FROM profesor WHERE nombre =
?");
        ps.setString(1, cboxprofesor.getSelectedItem().toString());

        rs=ps.executeQuery();

        if (rs.next()) {

            txtidprof.setText(rs.getString("id_prof"));

        } else {
            /*JOptionPane.showMessageDialog(null, "No existe el profesor");*/
        }

    } catch (SQLException e) {
        System.err.println(e.toString());
    }
}

private void cboxserieActionPerformed(java.awt.event.ActionEvent evt) {
    try {

        PreparedStatement ps = null;
        ResultSet rs = null;
        herramienta conexion = new herramienta();
        Connection reg = conexion.conectar();

        ps = reg.prepareStatement("SELECT id_equipo FROM equipo WHERE serie =
?");
        ps.setString(1, cboxserie.getSelectedItem().toString());

        rs=ps.executeQuery();

        if (rs.next()) {

            txtidequipo.setText(rs.getString("id_equipo"));

        } else {
            /*JOptionPane.showMessageDialog(null, "No existe el profesor");*/
        }

    }
}
```



```
    }

    } catch (SQLException e) {
        System.err.println(e.toString());
    }
}

private void tblprestamoMouseClicked(java.awt.event.MouseEvent evt) {
    PreparedStatement ps = null;
    ResultSet rs = null;
    try {
        herramienta conexion = new herramienta();
        com.mysql.jdbc.Connection reg = (com.mysql.jdbc.Connection)
conexion.conectar();

        int Fila = tblprestamo.getSelectedRow();
        String id_renta = tblprestamo.getValueAt(Fila, 5).toString();

        ps = reg.prepareStatement("SELECT id_renta, nombre, serie, fecha_uso,
hora_uso, hora_regreso FROM prestamo, profesor, equipo WHERE prestamo.prof_id =
profesor.id_prof && prestamo.equipo_id = equipo.id_equipo && id_renta=?");
        ps.setString(1, id_renta);
        rs = ps.executeQuery();

        while (rs.next()) {
            txtid.setText(rs.getString("id_renta"));
            cboxprofesor.setSelectedItem(rs.getString("nombre"));
            cboxserie.setSelectedItem(rs.getString("serie"));
            datefecha.setDate(new Date(rs.getDate("fecha_uso").getTime()));
            txthorauso.setText(rs.getString("hora_uso"));
            txthoraregreso.setText(rs.getString("hora_regreso"));
        }
    } catch (SQLException e) {
        System.out.println(e.toString());
    }
}

/*desactivarNav();*/
activarCajas();
btnguardar.setEnabled(false);
btnmodificar.setEnabled(true);
btneliminar.setEnabled(true);
btnlimpiar.setEnabled(true);
}

private void tblprestamoKeyReleased(java.awt.event.KeyEvent evt) {
```




```
if (evt.getKeyCode() == KeyEvent.VK_DOWN || (evt.getKeyCode() ==
KeyEvent.VK_UP)) {

    PreparedStatement ps = null;
    ResultSet rs = null;
    try {
        herramienta conexion = new herramienta();
        com.mysql.jdbc.Connection reg = (com.mysql.jdbc.Connection)
conexion.conectar();

        int Fila = tblprestamo.getSelectedRow();
        String id_renta = tblprestamo.getValueAt(Fila, 5).toString();

        ps = reg.prepareStatement("SELECT id_renta, nombre, serie, fecha_uso,
hora_uso, hora_regreso FROM prestamo, profesor, equipo WHERE prestamo.prof_id =
profesor.id_prof && prestamo.equipo_id = equipo.id_equipo && id_renta=?");
        ps.setString(1, id_renta);
        rs = ps.executeQuery();

        while (rs.next()) {

            txtid.setText(rs.getString("id_renta"));
            cboxprofesor.setSelectedItem(rs.getString("nombre"));
            cboxserie.setSelectedItem(rs.getString("serie"));
            datefecha.setDate(new Date(rs.getDate("fecha_uso").getTime()));
            txthorauso.setText(rs.getString("hora_uso"));
            txthoraregreso.setText(rs.getString("hora_regreso"));
        }
    } catch (SQLException e) {
        System.out.println(e.toString());
    }

    /*desactivarNav();*/
    activarCajas();
    btnguardar.setEnabled(false);
    btnmodificar.setEnabled(true);
    btneliminar.setEnabled(true);
    btnlimpiar.setEnabled(true);

}

private void btnfechaActionPerformed(java.awt.event.ActionEvent evt) {
    JOptionPane.showMessageDialog(null, "La fecha debe ir en formato
'DD/MM/AAAA'");
}

private void btnhorasActionPerformed(java.awt.event.ActionEvent evt) {
```



```
JOptionPane.showMessageDialog(null, "Las horas deben ir en formato 'HH:MM:SS'");
}

private void jbtnbackprActionPerformed(java.awt.event.ActionEvent evt) {
    app mostrar = new app();
    mostrar.setSize(960, 640);
    mostrar.show();
    mostrar.setLocationRelativeTo(null);
    dispose();
}

/**
 * @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 ("Windows".equals(info.getName())) {
                javax.swing.UIManager.setLookAndFeel(info.getClassName());
                break;
            }
        }
    } catch (ClassNotFoundException ex) {

        java.util.logging.Logger.getLogger(tb_prestamo.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (InstantiationException ex) {

        java.util.logging.Logger.getLogger(tb_prestamo.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (IllegalAccessException ex) {

        java.util.logging.Logger.getLogger(tb_prestamo.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {

        java.util.logging.Logger.getLogger(tb_prestamo.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 tb_prestamo().setVisible(true);
    }
});
}

// Variables declaration - do not modify
private javax.swing.JButton btnbuscar;
private javax.swing.JButton btneliminar;
private javax.swing.JButton btnfecha;
private javax.swing.JButton btnguardar;
private javax.swing.JButton btnhoras;
private javax.swing.JButton btninfo;
private javax.swing.JButton btnlimpiar;
private javax.swing.JButton btnmodificar;
private javax.swing.JButton btnnuevo;
private javax.swing.JButton btnsalir;
private javax.swing.JComboBox<String> cboxprofesor;
private javax.swing.JComboBox<String> cboxserie;
private com.toedter.calendar.JDateChooser datefecha;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JButton jbtnbackpr;
private javax.swing.JLabel lblautor;
private javax.swing.JLabel lblbusqueda_fecha;
private javax.swing.JLabel lblfecha;
private javax.swing.JLabel lblhoraregreso;
private javax.swing.JLabel lblhorauso;
private javax.swing.JLabel lbllogo;
private javax.swing.JLabel lblprofesor;
private javax.swing.JLabel lblserie;
private javax.swing.JLabel lblversion;
private javax.swing.JTable tblprestamo;
private javax.swing.JTextField txtbusqueda_serie;
private javax.swing.JTextField txtfecha;
private javax.swing.JTextField txthoraregreso;
private javax.swing.JTextField txthorauso;
private javax.swing.JTextField txtid;
private javax.swing.JTextField txtidequipo;
private javax.swing.JTextField txtidprof;
// End of variables declaration
}
```



Administrador

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package sabes_equipo;

import javax.swing.JOptionPane;

/**
 *
 * @author ivanhg
 */
public class Administrador extends javax.swing.JFrame {

    /**
     * Creates new form Administrador
     */
    public Administrador() {
        initComponents();
        this.setLocationRelativeTo(null);
    }

    /**
     * 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">
    private void initComponents() {

        jbtnequipo_A = new javax.swing.JButton();
        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jtxtusuario = new javax.swing.JTextField();
        jtxtpassword = new javax.swing.JTextField();
        jbtninfo_A = new javax.swing.JButton();
        jbtnsalir_A = new javax.swing.JButton();
        jbtnback_A = new javax.swing.JButton();
        jbtnprofesor_A = new javax.swing.JButton();
        jlblicon = new javax.swing.JLabel();
        jlbwall_A = new javax.swing.JLabel();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
```



```
getContentPane().setLayout(null);

jbtnequipo_A.setFont(new java.awt.Font("Lucida Grande", 0, 16)); // NOI18N
jbtnequipo_A.setText("Equipo");
jbtnequipo_A.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jbtnequipo_AActionPerformed(evt);
    }
});
getContentPane().add(jbtnequipo_A);
jbtnequipo_A.setBounds(370, 390, 98, 40);

jLabel1.setFont(new java.awt.Font("Lucida Grande", 0, 16)); // NOI18N
jLabel1.setForeground(new java.awt.Color(255, 255, 255));
jLabel1.setText("Usuario");
getContentPane().add(jLabel1);
jLabel1.setBounds(290, 280, 60, 20);

jLabel2.setFont(new java.awt.Font("Lucida Grande", 0, 16)); // NOI18N
jLabel2.setForeground(new java.awt.Color(255, 255, 255));
jLabel2.setText("Contraseña");
getContentPane().add(jLabel2);
jLabel2.setBounds(260, 320, 89, 20);

jtxtusuario.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jtxtusuarioActionPerformed(evt);
    }
});
getContentPane().add(jtxtusuario);
jtxtusuario.setBounds(370, 280, 220, 26);
getContentPane().add(jtxtpassword);
jtxtpassword.setBounds(370, 320, 220, 26);

jbtninfo_A.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/info.png"))); // NOI18N
jbtninfo_A.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jbtninfo_AActionPerformed(evt);
    }
});
getContentPane().add(jbtninfo_A);
jbtninfo_A.setBounds(840, 10, 48, 44);

jbtnsalir_A.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/salir.png"))); // NOI18N
jbtnsalir_A.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
```



```
        jbtnsalir_AActionPerformed(evt);
    }
});
getContentPane().add(jbtnsalir_A);
jbtnsalir_A.setBounds(900, 10, 48, 44);

jbtnback_A.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/back_32.png"))); // NOI18N
jbtnback_A.setText("Atras");
jbtnback_A.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jbtnback_AActionPerformed(evt);
    }
});
getContentPane().add(jbtnback_A);
jbtnback_A.setBounds(10, 10, 90, 44);

jbtnprofesor_A.setFont(new java.awt.Font("Lucida Grande", 0, 16)); // NOI18N
jbtnprofesor_A.setText("Profesor");
jbtnprofesor_A.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jbtnprofesor_AActionPerformed(evt);
    }
});
getContentPane().add(jbtnprofesor_A);
jbtnprofesor_A.setBounds(490, 390, 96, 40);

jlblicon.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/icon_150.png"))); // NOI18N
getContentPane().add(jlblicon);
jlblicon.setBounds(400, 90, 150, 160);

jlblwall_A.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/wall.jpg"))); // NOI18N
jlblwall_A.setText("jLabel3");
getContentPane().add(jlblwall_A);
jlblwall_A.setBounds(0, 0, 960, 640);

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

private void jbtnback_AActionPerformed(java.awt.event.ActionEvent evt) {
    app mostrar = new app();
    mostrar.setSize(960, 640);
    mostrar.show();
    mostrar.setLocationRelativeTo(null);
    dispose();
}
```



```
private void jbtnequipo_AActionPerformed(java.awt.event.ActionEvent evt) {
    if(jtxtusuario.getText().length()==0){
        JOptionPane.showMessageDialog(null, "Favor de ingresar tu usuario...");
    }
    else{

    }

    if(jtxtpassword.getText().length()==0){
        JOptionPane.showMessageDialog(null, "Favor de ingresar tu contraseña...");
    }
    else{

    }

    String user="Ivan";//USER predeterminado
    String pass="1234";//PASS predeterminado

    //Validacion de NIP
    String passok;
    String userok;

    passok = jtxtpassword.getText();
    userok = jtxtusuario.getText();

    if(passok==null){

    }else{
        if((!passok.equals("")) && (!userok.equals(""))){
            if((passok.equals(pass)) && (userok.equals(user))){

                tb_equipo mostrarequipo = new tb_equipo ();
                mostrarequipo.setSize(1024, 622);
                mostrarequipo.setVisible(true);
                dispose();
                //Fin Validacion NIP

            }
            //NIP incorrecto
        }else{
            JOptionPane.showMessageDialog(null, "El usuario y/o contraseña son
incorrectos...");
        }
        //Fin NIP incorrecto
    }
}
}
```



```
private void jbtnprofesor_AActionPerformed(java.awt.event.ActionEvent evt) {
if(jtxtusuario.getText().length()==0){
    JOptionPane.showMessageDialog(null, "Favor de ingresar tu usuario...");
}
else{

}

if(jtxtpassword.getText().length()==0){
    JOptionPane.showMessageDialog(null, "Favor de ingresar tu contraseña...");
}
else{

}

String user="Ivan";//USER predeterminado
String pass="1234";//PASS predeterminado

//Validacion de NIP
String passok;
String userok;

passok = jtxtpassword.getText();
userok = jtxtusuario.getText();

if(passok==null){

}else{
    if((!passok.equals("")) && (!userok.equals(""))){
        if((passok.equals(pass)) && (userok.equals(user))){

            tb_profesor mostrarprofesor = new tb_profesor ();
            mostrarprofesor.setSize(1024, 600);
            mostrarprofesor.setVisible(true);
            dispose();
            //Fin Validacion NIP

        }
        //NIP incorrecto
    }else{
        JOptionPane.showMessageDialog(null, "El usuario y/o contraseña son
incorrectos...");
    }
    //Fin NIP incorrecto
}
}
```




```
}

private void jbtninfo_AActionPerformed(java.awt.event.ActionEvent evt) {
    JOptionPane.showMessageDialog(null, "Usuario: Ivan \nPassword: 1234 ");
}

private void jbtnsalir_AActionPerformed(java.awt.event.ActionEvent evt) {
    dispose();
}

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

/**
 * @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(Administrador.class.getName()).log(java.util.logging.Le
        vel.SEVERE, null, ex);
    } catch (InstantiationException ex) {

        java.util.logging.Logger.getLogger(Administrador.class.getName()).log(java.util.logging.Le
        vel.SEVERE, null, ex);
    } catch (IllegalAccessException ex) {

        java.util.logging.Logger.getLogger(Administrador.class.getName()).log(java.util.logging.Le
        vel.SEVERE, null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {
```



```
java.util.logging.Logger.getLogger(Administrador.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 Administrador().setVisible(true);
        }
    });
}

// Variables declaration - do not modify
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JButton jbtnback_A;
private javax.swing.JButton jbtnequipo_A;
private javax.swing.JButton jbtninfo_A;
private javax.swing.JButton jbtnprofesor_A;
private javax.swing.JButton jbtnsalir_A;
private javax.swing.JLabel lblbicon;
private javax.swing.JLabel lblwall_A;
private javax.swing.JTextField jtxtpassword;
private javax.swing.JTextField jtxtusuario;
// End of variables declaration
}
```



app

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
```

```
package sabes_equipo;
```

```
import java.awt.Color;
import java.io.IOException;
import java.net.URISyntaxException;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.swing.JButton;
```

```
/**
```

```
*
```

```
* @author ivanhg
```

```
*/
```

```
public class app extends javax.swing.JFrame {
```

```
    /**
```

```
    * Creates new form app
```

```
    */
```

```
    public app() {
        initComponents();
        this.setLocationRelativeTo(null);
    }
```

```
    /**
```

```
    * 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">
```

```
    private void initComponents() {
```

```
        jSeparator2 = new javax.swing.JSeparator();
        btnprofesorx = new javax.swing.JButton();
        btnadministradorx = new javax.swing.JButton();
        jbtnsoporte = new javax.swing.JButton();
        lblProfesores = new javax.swing.JLabel();
        lblAdministrador = new javax.swing.JLabel();
        lblSoporte = new javax.swing.JLabel();
        lblProf_desc = new javax.swing.JLabel();
```



```
jlblAdm_desc = new javax.swing.JLabel();
jlblSop_desc = new javax.swing.JLabel();
jlblf1 = new javax.swing.JLabel();
jlblf2 = new javax.swing.JLabel();
jlblf3 = new javax.swing.JLabel();
jbtncerrarapp = new javax.swing.JButton();
jlbltitle = new javax.swing.JLabel();
jlbllogo = new javax.swing.JLabel();
jLabel1 = new javax.swing.JLabel();
jlblProf_parr = new javax.swing.JLabel();
jlblAdm_parr = new javax.swing.JLabel();
jlblSop_parr = new javax.swing.JLabel();
wall = new javax.swing.JLabel();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
getContentPane().setLayout(null);

btnprofesorx.setBackground(new java.awt.Color(0, 0, 0));
btnprofesorx.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/profesorx.png"))); // NOI18N
btnprofesorx.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnprofesorxActionPerformed(evt);
    }
});
getContentPane().add(btnprofesorx);
btnprofesorx.setBounds(10, 120, 140, 140);

btnadministradorx.setBackground(new java.awt.Color(0, 0, 0));
btnadministradorx.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/administrador.png"))); // NOI18N
btnadministradorx.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnadministradorxActionPerformed(evt);
    }
});
getContentPane().add(btnadministradorx);
btnadministradorx.setBounds(10, 290, 140, 140);

jbtsoporte.setBackground(new java.awt.Color(0, 0, 0));
jbtsoporte.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/img/support.png"))); // NOI18N
jbtsoporte.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jbtsoporteActionPerformed(evt);
    }
});
getContentPane().add(jbtsoporte);
```



```
jbtnsoporte.setBounds(10, 460, 140, 140);

jlblProfesores.setFont(new java.awt.Font("Lucida Grande", 0, 22)); // NOI18N
jlblProfesores.setForeground(new java.awt.Color(255, 255, 255));
jlblProfesores.setText("Profesores");
getContentPane().add(jlblProfesores);
jlblProfesores.setBounds(170, 130, 170, 27);

jlblAdministrador.setFont(new java.awt.Font("Lucida Grande", 0, 22)); // NOI18N
jlblAdministrador.setForeground(new java.awt.Color(255, 255, 255));
jlblAdministrador.setText("Administrador");
getContentPane().add(jlblAdministrador);
jlblAdministrador.setBounds(170, 300, 160, 27);

jlblSoporte.setFont(new java.awt.Font("Lucida Grande", 0, 22)); // NOI18N
jlblSoporte.setForeground(new java.awt.Color(255, 255, 255));
jlblSoporte.setText("Soporte");
getContentPane().add(jlblSoporte);
jlblSoporte.setBounds(170, 470, 90, 27);

jlblProf_desc.setFont(new java.awt.Font("Lucida Grande", 0, 16)); // NOI18N
jlblProf_desc.setForeground(new java.awt.Color(204, 204, 204));
jlblProf_desc.setText("Préstamo de equipo");
getContentPane().add(jlblProf_desc);
jlblProf_desc.setBounds(170, 160, 160, 20);

jlblAdm_desc.setFont(new java.awt.Font("Lucida Grande", 0, 16)); // NOI18N
jlblAdm_desc.setForeground(new java.awt.Color(204, 204, 204));
jlblAdm_desc.setText("Equipo & Profesores");
getContentPane().add(jlblAdm_desc);
jlblAdm_desc.setBounds(170, 330, 158, 20);

jlblSop_desc.setFont(new java.awt.Font("Lucida Grande", 0, 16)); // NOI18N
jlblSop_desc.setForeground(new java.awt.Color(204, 204, 204));
jlblSop_desc.setText("Web");
getContentPane().add(jlblSop_desc);
jlblSop_desc.setBounds(170, 500, 80, 20);

jlblf1.setIcon(new javax.swing.ImageIcon(getClass().getResource("/img/f_32.png")));
// NOI18N
getContentPane().add(jlblf1);
jlblf1.setBounds(880, 130, 32, 50);

jlblf2.setIcon(new javax.swing.ImageIcon(getClass().getResource("/img/f_32.png")));
// NOI18N
getContentPane().add(jlblf2);
jlblf2.setBounds(880, 300, 40, 50);
```



```
jlblf3.setIcon(new javax.swing.ImageIcon(getClass().getResource("/img/f_32.png")));  
// NOI18N  
getContentPane().add(jlblf3);  
jlblf3.setBounds(880, 470, 40, 50);  
  
jbtncerrarapp.setBackground(new java.awt.Color(255, 0, 51));  
jbtncerrarapp.setForeground(new java.awt.Color(255, 0, 0));  
jbtncerrarapp.setIcon(new  
javax.swing.ImageIcon(getClass().getResource("/img/salir.png"))); // NOI18N  
jbtncerrarapp.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jbtncerrarappActionPerformed(evt);  
    }  
});  
getContentPane().add(jbtncerrarapp);  
jbtncerrarapp.setBounds(900, 10, 40, 40);  
  
jlbltitle.setFont(new java.awt.Font("Lucida Grande", 0, 20)); // NOI18N  
jlbltitle.setForeground(new java.awt.Color(255, 255, 255));  
jlbltitle.setText("SABES");  
getContentPane().add(jlbltitle);  
jlbltitle.setBounds(470, 20, 60, 25);  
  
jlbllogo.setIcon(new  
javax.swing.ImageIcon(getClass().getResource("/img/sabes_36.png"))); // NOI18N  
jlbllogo.setText("jLabel4");  
getContentPane().add(jlbllogo);  
jlbllogo.setBounds(420, 10, 40, 40);  
  
jLabel1.setForeground(new java.awt.Color(51, 51, 51));  
jLabel1.setIcon(new  
javax.swing.ImageIcon(getClass().getResource("/img/gray1.jpg"))); // NOI18N  
jLabel1.setText("jLabel1");  
getContentPane().add(jLabel1);  
jLabel1.setBounds(0, 0, 960, 60);  
  
jlblProf_parr.setForeground(new java.awt.Color(102, 102, 102));  
jlblProf_parr.setText("Solo profesores registrados");  
getContentPane().add(jlblProf_parr);  
jlblProf_parr.setBounds(170, 180, 180, 16);  
  
jlblAdm_parr.setForeground(new java.awt.Color(102, 102, 102));  
jlblAdm_parr.setText("Altas y bajas");  
getContentPane().add(jlblAdm_parr);  
jlblAdm_parr.setBounds(170, 350, 90, 16);  
  
jlblSop_parr.setForeground(new java.awt.Color(102, 102, 102));  
jlblSop_parr.setText("Manual");
```



```
getContentPane().add(jlblSop_parr);
jlblSop_parr.setBounds(170, 520, 50, 16);

wall.setIcon(new javax.swing.ImageIcon(getClass().getResource("/img/wall.jpg"))); //
NOI18N
wall.setText("jLabel1");
getContentPane().add(wall);
wall.setBounds(0, 0, 960, 660);

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

private void btnprofesorActionPerformed(java.awt.event.ActionEvent evt) {
    btnprofesor.setBackground(Color.black);
    tb_prestamo.mostrarprestamo = new tb_prestamo ();
    mostrarprestamo.setSize(1043, 630);
    mostrarprestamo.setVisible(true);
    mostrarprestamo.dispose();
}

private void btnadministradorActionPerformed(java.awt.event.ActionEvent evt) {
    btnadministrador.setBackground(Color.black);
    Administrador mostraradministrador = new Administrador ();
    mostraradministrador.setSize(960, 640);
    mostraradministrador.setVisible(true);
    mostraradministrador.setLocationRelativeTo(null);
    mostraradministrador.dispose();
}

public void goToURL(String URL) throws IOException{
    if (java.awt.Desktop.isDesktopSupported()) {
        java.awt.Desktop desktop = java.awt.Desktop.getDesktop();

        if (desktop.isSupported(java.awt.Desktop.Action.BROWSE)) {
            try {
                java.net.URI uri = new java.net.URI(URL);
                desktop.browse(uri);
            } catch (URISyntaxException | IOException ex) {
                Logger.getLogger(app.class.getName()).log(Level.SEVERE, null, ex);
            }
        }
    }
}

private void jbbtnsoporteActionPerformed(java.awt.event.ActionEvent evt) {
```



```
jbtnsoporte.setBackground(Color.black);
    try {
        goToURL("http://app.linktu.xyz/");
    } catch (IOException ex) {
        Logger.getLogger(app.class.getName()).log(Level.SEVERE, null, ex);
    }
}

private void jbtncerrarappActionPerformed(java.awt.event.ActionEvent evt) {
    dispose();
}

/**
 * @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(app.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (InstantiationException ex) {

        java.util.logging.Logger.getLogger(app.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (IllegalAccessException ex) {

        java.util.logging.Logger.getLogger(app.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {

        java.util.logging.Logger.getLogger(app.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 app().setVisible(true);
    }
});
}

// Variables declaration - do not modify
private javax.swing.JButton btnadministradorx;
private javax.swing.JButton btnprofesorx;
private javax.swing.JLabel jLabel1;
private javax.swing.JSeparator jSeparator2;
private javax.swing.JButton jbtncerrarapp;
private javax.swing.JButton jbtnsoporte;
private javax.swing.JLabel jlblAdm_desc;
private javax.swing.JLabel jlblAdm_parr;
private javax.swing.JLabel jlblAdministrador;
private javax.swing.JLabel jlblProf_desc;
private javax.swing.JLabel jlblProf_parr;
private javax.swing.JLabel jlblProfesores;
private javax.swing.JLabel jlblSop_desc;
private javax.swing.JLabel jlblSop_parr;
private javax.swing.JLabel jlblSoporte;
private javax.swing.JLabel jlblf1;
private javax.swing.JLabel jlblf2;
private javax.swing.JLabel jlblf3;
private javax.swing.JLabel jlbllogo;
private javax.swing.JLabel jlbltitle;
private javax.swing.JLabel wall;
// End of variables declaration
}
```