



الجامعة الإسلامية العالمية
International Islamic University, Islamabad

PROJECT

SE-241 Advanced Computer Programming

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EMPLOYEE REGISTRATION SYSTEM

INTRODUCTION:

The Employee Management System is a Java-based application created to simplify the process of managing employee data within an organization. This project provides a user-friendly interface specifically designed for adding new employee records and removing outdated or irrelevant entries from the system.

PURPOSE:

The core purpose of this Employee Management System is to offer a seamless and efficient way to handle employee information. By allowing administrators or authorized personnel to easily input new employee details and remove outdated records, the system aims to maintain an accurate and accessible repository of employee data.

With its user-friendly interface and specific functionalities for adding and deleting employee records, this system strives to enhance organizational efficiency, simplify data management, and ensure the database remains relevant and current.

This system provides an intuitive and comprehensive platform to effortlessly add and delete employee records, ensuring an up-to-date and organized database.

HOME PAGE CLASS

```
package newprojet;

import java.awt.EventQueue;
import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import javax.swing.JLabel;
import java.awt.Font;
import javax.swing.SwingConstants;
import java.awt.Color;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;
import javax.swing.ImageIcon;

public class HomePageGUI extends JFrame {

    private static final long serialVersionUID = 1L;
    private JPanel contentPane;

    /**
     * Launch the application.
     */
    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
```

```

        HomePageGUI frame = new HomePageGUI();
        frame.setVisible(true);
    } catch (Exception e) {
        e.printStackTrace();
    }
}

});
}

/**
 * Create the frame.
 */
public HomePageGUI() {
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setBounds(100, 100, 990, 606);
    contentPane = new JPanel();
    contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

    setContentPane(contentPane);
    contentPane.setLayout(null);

    JLabel lblNewLabel_3_2 = new JLabel("and imaginative spirit as we cultivate an
environment ");
    lblNewLabel_3_2.setFont(new Font("Tahoma", Font.PLAIN, 12));
    lblNewLabel_3_2.setForeground(Color.WHITE);
    lblNewLabel_3_2.setBounds(10, 281, 358, 25);
    contentPane.add(lblNewLabel_3_2);

    JLabel lblNewLabel_3_4 = new JLabel("You'll need to Log in to Register Employees.");

```

```
lblNewLabel_3_4.setFont(new Font("Tahoma", Font.BOLD, 14));
lblNewLabel_3_4.setForeground(new Color(199, 21, 133));
lblNewLabel_3_4.setBounds(10, 352, 358, 25);
contentPane.add(lblNewLabel_3_4);
```

```
JLabel lblNewLabel_3_3 = new JLabel("where your passion meets purpose.");
lblNewLabel_3_3.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblNewLabel_3_3.setForeground(Color.WHITE);
lblNewLabel_3_3.setBounds(10, 300, 358, 25);
contentPane.add(lblNewLabel_3_3);
```

```
JLabel lblNewLabel_3_1 = new JLabel("creativity blossoms. Embrace your unique  
perspective and");
```

```
lblNewLabel_3_1.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblNewLabel_3_1.setForeground(Color.WHITE);
lblNewLabel_3_1.setBounds(10, 265, 295, 25);
contentPane.add(lblNewLabel_3_1);
```

```
JLabel lblNewLabel_3 = new JLabel("Welcome to our INFP-inspired workspace, where  
\r\n");
```

```
lblNewLabel_3.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblNewLabel_3.setForeground(new Color(255, 255, 255));
lblNewLabel_3.setBounds(10, 246, 336, 25);
contentPane.add(lblNewLabel_3);
```

```
JLabel lblNewLabel = new JLabel("SYSTEM");
lblNewLabel.setForeground(new Color(255, 255, 255));
lblNewLabel.setVerticalAlignment(SwingConstants.TOP);
lblNewLabel.setFont(new Font("Arial Black", Font.BOLD, 32));
```

```
lblNewLabel.setBounds(10, 195, 386, 77);
```

```
contentPane.add(lblNewLabel);
```

```
JLabel lblEmployee = new JLabel("EMPLOYEE");
```

```
lblEmployee.setForeground(new Color(255, 255, 255));
```

```
lblEmployee.setVerticalAlignment(SwingConstants.BOTTOM);
```

```
lblEmployee.setFont(new Font("Arial Black", Font.BOLD, 32));
```

```
lblEmployee.setBounds(10, 86, 571, 77);
```

```
contentPane.add(lblEmployee);
```

```
JButton btnNewButton = new JButton("Login Now");
```

```
btnNewButton.setFont(new Font("Tahoma", Font.BOLD, 12));
```

```
// Inside your home page class
```

```
// Inside your LoginPageDesign class
```

```
btnNewButton.addActionListener(new ActionListener() {
```

```
    public void actionPerformed(ActionEvent e) {
```

```
        JFrame frame = new JFrame("JustTrying Page");
```

```
        frame.setSize(987, 611);
```

```
        frame.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
```

```
JustTrying panel    LoginPageGUI justTryingPanel = new LoginPageGUI(); // Create an instance of your
```

```
frame              frame.getContentPane().add(justTryingPanel); // Add the JustTrying panel to the
```

```
                //frame.setVisible(true);
```

```
            }
```

```
        });
```

```
btnNewButton.setBackground(new Color(65, 105, 225));
```

```
btnNewButton.setForeground(Color.BLACK);
```

```
btnNewButton.setBounds(91, 410, 126, 21);
```

```
contentPane.add(btnNewButton);
```

```
JLabel lblNewLabel_2 = new JLabel("Welcome to Our Semester Project");
```

```
lblNewLabel_2.setFont(new Font("Tahoma", Font.BOLD, 13));
```

```
lblNewLabel_2.setForeground(new Color(255, 255, 255));
```

```
lblNewLabel_2.setBounds(10, 73, 284, 27);
```

```
contentPane.add(lblNewLabel_2);
```

```
JLabel lblInformation = new JLabel("REGISTRATION");
```

```
lblInformation.setVerticalAlignment(SwingConstants.BOTTOM);
```

```
lblInformation.setForeground(Color.WHITE);
```

```
lblInformation.setFont(new Font("Arial Black", Font.BOLD, 32));
```

```
lblInformation.setBounds(10, 124, 571, 77);
```

```
contentPane.add(lblInformation);
```

```
JLabel lblNewLabel_1 = new JLabel("New label");
```

```
lblNewLabel_1.setIcon(new ImageIcon("C:\\Users\\HP\\Desktop\\homepage.png"));
```

```
lblNewLabel_1.setBounds(0, -6, 976, 569);
```

```
contentPane.add(lblNewLabel_1);
```

```
}
```

```
}
```

LOGIN PAGE

```
package newprojet;

import java.awt.EventQueue;
import javax.swing.*;
import java.awt.*;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

public class LoginPageGUI extends JPanel{

    //private JFrame currentFrame;
    private JFrame frame;
    private JTextField textField;
    private JPasswordField passwordField;

    /**
     * Launch the application.
     */
    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    LoginPageGUI window = new LoginPageGUI();
                    window.frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        })
    }
}
```



```

        });

    }

    /**
     * Create the application.
     */
    public LoginPageGUI() {
        //      currentFrame = this.frame;

        initialize();
    }

    /**
     * Initialize the contents of the frame.
     */
    private void initialize() {
        frame = new JFrame();
        frame.setSize(987, 611);
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.getContentPane().setLayout(null);

        JLabel lblNewLabel_3 = new JLabel("LOGIN");
        lblNewLabel_3.setForeground(new Color(255, 255, 255));
        lblNewLabel_3.setVerticalAlignment(SwingConstants.BOTTOM);
        lblNewLabel_3.setIcon(null);
        lblNewLabel_3.setHorizontalAlignment(SwingConstants.LEFT);
        lblNewLabel_3.setFont(new Font("Arial", Font.BOLD, 30));
        lblNewLabel_3.setBounds(439, 109, 165, 73);
        frame.getContentPane().add(lblNewLabel_3);

        JLabel lblNewLabel_1 = new JLabel("Username");
        lblNewLabel_1.setForeground(new Color(255, 255, 255));

```

```
lblNewLabel_1.setFont(new Font("Segoe UI", Font.PLAIN, 14));  
lblNewLabel_1.setBounds(391, 216, 125, 13);  
frame.getContentPane().add(lblNewLabel_1);
```

```
JLabel lblNewLabel_1_1 = new JLabel("Password");  
lblNewLabel_1_1.setForeground(new Color(255, 255, 255));  
lblNewLabel_1_1.setFont(new Font("Segoe UI", Font.PLAIN, 13));  
lblNewLabel_1_1.setBounds(391, 283, 125, 13);  
frame.getContentPane().add(lblNewLabel_1_1);
```

```
textField = new JTextField();
```

```
textField.setBounds(391, 239, 211, 34);  
frame.getContentPane().add(textField);  
textField.setColumns(10);
```

```
passwordField = new JPasswordField();
```

```
passwordField.setBounds(392, 306, 211, 34);  
frame.getContentPane().add(passwordField);
```

```
JButton btnNewButton = new JButton("Login");
```

```
// Inside the ActionListener for the Login button in the LoginPageGUI class
```

```
btnNewButton.addActionListener(new ActionListener() {  
    public void actionPerformed(ActionEvent e) {  
        String username = textField.getText().trim(); // Get the entered username  
        char[] passwordChars = passwordField.getPassword(); // Get the entered password as
```

characters

```

// Validate if both username and password fields are not empty
if (!username.isEmpty() && passwordChars.length > 0) {

    String password = new String(passwordChars); // Convert password characters to a
string

    // Replace the following block with your actual validation logic (e.g., check against a
database)

    String correctUsername = "manager"; // Replace with your actual username
    String correctPassword = "admin123"; // Replace with your actual password

    // Check if the entered username and password match the predefined credentials
    if (username.equals(correctUsername) && password.equals(correctPassword)) {
        // If credentials are correct, show a message and proceed to the next page
        JOptionPane.showMessageDialog(null, "Login successful!");
        // Proceed to the EmployeeListPageGUI or any other page here
        updateclass up = new updateclass();
        up.setVisible(true);

        JFrame currentFrame = (JFrame)
SwingUtilities.getWindowAncestor(LoginPageGUI.this);

        currentFrame.dispose(); // Dispose of the current login page (LoginPageGUI)
    } else {
        // If credentials are incorrect, show an error message
        JOptionPane.showMessageDialog(null, "Invalid username or password. Try
again.");
    }
} else {
    // If either username or password is empty, show an error message
    JOptionPane.showMessageDialog(null, "Please enter both username and
password.");
}

```

```

        }
    }
});

btnNewButton.setForeground(new Color(255, 255, 255));

btnNewButton.setBackground(new Color(0, 0, 104));

btnNewButton.setBounds(418, 379, 153, 21);

frame.getContentPane().add(btnNewButton);


// Inside the initialize() method of LoginPageGUI

JButton btnNewButton_1 = new JButton("<<Back");

btnNewButton_1.addActionListener(new ActionListener() {

    public void actionPerformed(ActionEvent e) {

        HomePageGUI homePage = new HomePageGUI(); // Create an instance of
HomePageGUI

        homePage.setVisible(true); // Set the HomePageGUI visible


        // Dispose of the current login page (LoginPageGUI)

        JFrame currentFrame = (JFrame)
SwingUtilities.getWindowAncestor(LoginPageGUI.this);

        currentFrame.dispose();

    }

});


btnNewButton_1.setForeground(Color.WHITE);

btnNewButton_1.setBackground(new Color(0, 0, 100));

btnNewButton_1.setBounds(418, 410, 153, 21);

frame.getContentPane().add(btnNewButton_1);


JLabel lblNewLabel = new JLabel("New label");

```

```
        lblNewLabel.setIcon(new ImageIcon("C:\\Users\\HP\\Desktop\\LOG.png"));

        lblNewLabel.setBounds(0, 0, 990, 620);

        frame.getContentPane().add(lblNewLabel);

        frame.setVisible(true);
    }
}
```

MENU PAGE

```
package newprojet;

import java.awt.EventQueue;

import java.awt.Font;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.SwingUtilities;

import javax.swing.border.EmptyBorder;

import javax.swing.JLabel;

import javax.swing.JButton;

import java.awt.event.ActionListener;

import java.awt.event.ActionEvent;

import javax.swing.ImageIcon;

import java.awt.Color;

public class updateclass extends JFrame {

    private static final long serialVersionUID = 1L;

    private JPanel contentPane;

    /**
```

```

* Launch the application.
*/
public static void main(String[] args) {
    EventQueue.invokeLater(new Runnable() {
        public void run() {
            try {
                updateclass frame = new updateclass();
                frame.setVisible(true);
            } catch (Exception e) {
                e.printStackTrace();
            }
        }
    });
}

/**
* Create the frame.
*/
public updateclass() {
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setBounds(100, 100, 990, 610);
    contentPane = new JPanel();
    contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

    setContentPane(contentPane);
    contentPane.setLayout(null);

    JLabel lblNewLabel = new JLabel("OPERATIONS TO PERFORM");
    lblNewLabel.setForeground(new Color(255, 255, 255));
    lblNewLabel.setBounds(96, 57, 587, 53);

```

```

lblNewLabel.setFont(new Font("Tahoma", Font.BOLD, 30));
contentPane.add(lblNewLabel);

JLabel lblNewLabel_1 = new JLabel("Please click the Buttons to perform different
operations");
lblNewLabel_1.setForeground(new Color(255, 255, 255));
lblNewLabel_1.setBounds(96, 141, 432, 13);
lblNewLabel_1.setFont(new Font("Tahoma", Font.PLAIN, 13));
contentPane.add(lblNewLabel_1);

JButton btnNewButton = new JButton("Add New Employee to the Database\r\n\r\n");
btnNewButton.setBounds(324, 218, 306, 21);
btnNewButton.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {

        OperationsPageGUI op = new OperationsPageGUI(); // Create an instance of
HomePageGUI
        op.setVisible(true); // Set the HomePageGUI visible

        // Dispose of the current login page (LoginPageGUI)
        JFrame currentFrame = (JFrame)
SwingUtilities.getWindowAncestor(updateclass.this);
        currentFrame.dispose();
    }
});
contentPane.add(btnNewButton);

JButton btnNewButton_1 = new JButton("Delete an Employee from the Database\r\n");
btnNewButton_1.setBounds(324, 298, 306, 21);
contentPane.add(btnNewButton_1);

```

```

        btnNewButton_1.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {

                deletepage dp = new deletepage(); // Create an
instance of HomePageGUI

                dp.setVisible(true); // Set the HomePageGUI visible

                // Dispose of the current login page (LoginPageGUI)
                JFrame currentFrame = (JFrame)
SwingUtilities.getWindowAncestor(updateclass.this);

                currentFrame.dispose();

            }

        });

        JButton btnNewButton_4 = new JButton("Back to Home Page");
        btnNewButton_4.setBounds(324, 445, 148, 21);
        btnNewButton_4.addActionListener(new ActionListener()
        {
            public void actionPerformed(ActionEvent e)
            {
                HomePageGUI hp = new HomePageGUI(); // Create an
instance of HomePageGUI

                hp.setVisible(true); // Set the HomePageGUI visible

                // Dispose of the current login page (LoginPageGUI)
                JFrame currentFrame = (JFrame)
SwingUtilities.getWindowAncestor(updateclass.this);

                currentFrame.dispose();

            }
        }
    }

```



```

        });

        contentPane.add(btnNewButton_4);

        JButton btnNewButton_5 = new JButton("Exit System\r\n");
        btnNewButton_5.setBounds(500, 445, 130, 21);
        btnNewButton_5.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                System.exit(0);
            }
        });
        contentPane.add(btnNewButton_5);

        JLabel lblNewLabel_2 = new JLabel("New label");
        lblNewLabel_2.setFont(new Font("Tahoma", Font.PLAIN, 13));
        lblNewLabel_2.setIcon(new ImageIcon("C:\\Users\\HP\\Desktop\\final bg.png"));
        lblNewLabel_2.setBounds(0, 0, 987, 583);
        contentPane.add(lblNewLabel_2);
    }
}

```

ADD EMPLOYEE CLASS

```

package newprojet;

import java.awt.EventQueue;

import javax.swing.*;

import javax.swing.border.EmptyBorder;

import java.awt.*;

import java.awt.Color;

import java.awt.event.ActionListener;

```

```
import java.awt.event.ActionEvent;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.SQLException;


public class OperationsPageGUI extends JFrame {


    private static final long serialVersionUID = 1L;

    private JPanel contentPane;

    private JTextField tfLNAME;

    private JTextField tfEID;

    private JTextField tfFNAME;

    private JTextField tfDOB;

    private JTextField tfDID;

    private JTextField tfADD;

    private JTextField tfMail;

    private JTextField tfNO;

    private JTextField tfNtn;

    private JTextField tfSAL;

    private JTextField tfQUA;

    private JTextField tfUSER;

    private JTextField tfPASS;


    private JRadioButton rdbtnNewRadioButton;

    private JRadioButton rdbtnNewRadioButton_1;

    /**
     * Launch the application.
     */
}
```

```

public static void main(String[] args) {
    EventQueue.invokeLater(new Runnable() {
        public void run() {
            try {
                OperationsPageGUI frame = new OperationsPageGUI();
                frame.setVisible(true);

            } catch (Exception e) {
                e.printStackTrace();
            }
        }
    });
}

/**
 * Create the frame.
 */
public OperationsPageGUI() {
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setBounds(100, 100, 990, 610);
    contentPane = new JPanel();
    contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

    setContentPane(contentPane);
    contentPane.setLayout(null);

    JLabel lblNewLabel_2 = new JLabel("REGISTER EMPLOYEE");
    lblNewLabel_2.setFont(new Font("Tahoma", Font.BOLD, 30));
    lblNewLabel_2.setForeground(new Color(255, 255, 255));
    lblNewLabel_2.setBounds(96, 57, 377, 53);

```

```
contentPane.add(lblNewLabel_2);
```

```
JLabel lblNewLabel_1_1 = new JLabel("Last Name:");
```

```
lblNewLabel_1_1.setForeground(Color.WHITE);
```

```
lblNewLabel_1_1.setFont(new Font("Tahoma", Font.PLAIN, 12));
```

```
lblNewLabel_1_1.setBounds(97, 198, 71, 25);
```

```
contentPane.add(lblNewLabel_1_1);
```

```
JLabel lblNewLabel_1_4 = new JLabel("E-mail");
```

```
lblNewLabel_1_4.setForeground(Color.WHITE);
```

```
lblNewLabel_1_4.setFont(new Font("Tahoma", Font.PLAIN, 12));
```

```
lblNewLabel_1_4.setBounds(97, 378, 49, 25);
```

```
contentPane.add(lblNewLabel_1_4);
```

```
tfMail = new JTextField();
```

```
tfMail.setColumns(10);
```

```
tfMail.setBounds(196, 379, 304, 19);
```

```
contentPane.add(tfMail);
```

```
JRadioButton rdbtnNewRadioButton_1 = new JRadioButton("Male");
```

```
rdbtnNewRadioButton_1.setBounds(309, 343, 76, 21);
```

```
contentPane.add(rdbtnNewRadioButton_1);
```

```
JRadioButton rdbtnNewRadioButton = new JRadioButton("Female");
```

```
rdbtnNewRadioButton.setBounds(196, 343, 97, 21);
```

```
contentPane.add(rdbtnNewRadioButton);
```

```
ButtonGroup bg = new ButtonGroup();
```

```
bg.add(rdbtnNewRadioButton_1);
```

```
bg.add(rdbtnNewRadioButton);
```

```
contentPane.add(rdbtnNewRadioButton_1);
contentPane.add(rdbtnNewRadioButton);

JLabel lblNewLabel_1_13 = new JLabel("Password");
lblNewLabel_1_13.setForeground(Color.WHITE);
lblNewLabel_1_13.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblNewLabel_1_13.setBounds(604, 303, 62, 25);
contentPane.add(lblNewLabel_1_13);


tfSAL = new JTextField();
tfSAL.setColumns(10);
tfSAL.setBounds(709, 202, 191, 19);
contentPane.add(tfSAL);


tfNO = new JTextField();
tfNO.setColumns(10);
tfNO.setBounds(196, 417, 304, 19);
contentPane.add(tfNO);


JLabel lblNewLabel_1_8 = new JLabel("Nationality");
lblNewLabel_1_8.setForeground(Color.WHITE);
lblNewLabel_1_8.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblNewLabel_1_8.setBounds(604, 163, 71, 25);
contentPane.add(lblNewLabel_1_8);


JLabel lblNewLabel_1_2 = new JLabel("Date of Birth");
lblNewLabel_1_2.setForeground(Color.WHITE);
lblNewLabel_1_2.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblNewLabel_1_2.setBounds(97, 233, 84, 25);
contentPane.add(lblNewLabel_1_2);
```

```
tfFNAME = new JTextField();  
tfFNAME.setColumns(10);  
tfFNAME.setBounds(196, 167, 304, 19);  
contentPane.add(tfFNAME);
```

```
JLabel lblNewLabel_1_9 = new JLabel("Salary");  
lblNewLabel_1_9.setForeground(Color.WHITE);  
lblNewLabel_1_9.setFont(new Font("Tahoma", Font.PLAIN, 12));  
lblNewLabel_1_9.setBounds(604, 198, 71, 25);  
contentPane.add(lblNewLabel_1_9);
```

```
JLabel lblNewLabel_1 = new JLabel("First Name:");  
lblNewLabel_1.setForeground(Color.WHITE);  
lblNewLabel_1.setFont(new Font("Tahoma", Font.PLAIN, 12));  
lblNewLabel_1.setBounds(97, 163, 71, 25);  
contentPane.add(lblNewLabel_1);
```

```
tfEID = new JTextField();  
tfEID.setColumns(10);  
tfEID.setBounds(196, 124, 304, 19);  
//tfEID.addFocusListener(new IntegerValidationListener());  
contentPane.add(tfEID);
```

```
tfDOB = new JTextField();  
tfDOB.setColumns(10);  
tfDOB.setBounds(196, 237, 304, 19);  
contentPane.add(tfDOB);
```

```
tfPASS = new JTextField();
```

```
tfPASS.setColumns(10);  
tfPASS.setBounds(709, 307, 191, 19);  
contentPane.add(tfPASS);
```

```
tfDID = new JTextField();  
tfDID.setColumns(10);  
tfDID.setBounds(196, 272, 304, 19);  
contentPane.add(tfDID);
```

```
JLabel lblNewLabel_1_5 = new JLabel("Contact No.:");  
lblNewLabel_1_5.setForeground(Color.WHITE);  
lblNewLabel_1_5.setFont(new Font("Tahoma", Font.PLAIN, 12));  
lblNewLabel_1_5.setBounds(97, 413, 84, 25);  
contentPane.add(lblNewLabel_1_5);
```

```
JLabel lblNewLabel_1_7 = new JLabel("Department ID:");  
lblNewLabel_1_7.setForeground(Color.WHITE);  
lblNewLabel_1_7.setFont(new Font("Tahoma", Font.PLAIN, 12));  
lblNewLabel_1_7.setBounds(97, 268, 97, 25);  
contentPane.add(lblNewLabel_1_7);
```

```
JLabel lblNewLabel_1_12 = new JLabel("Username");  
lblNewLabel_1_12.setForeground(Color.WHITE);  
lblNewLabel_1_12.setFont(new Font("Tahoma", Font.PLAIN, 12));  
lblNewLabel_1_12.setBounds(604, 268, 71, 25);  
contentPane.add(lblNewLabel_1_12);
```

```
JLabel lblNewLabel_1_3 = new JLabel("Gender");  
lblNewLabel_1_3.setForeground(Color.WHITE);
```

```
lblNewLabel_1_3.setFont(new Font("Tahoma", Font.PLAIN, 12));  
lblNewLabel_1_3.setBounds(97, 343, 49, 25);  
contentPane.add(lblNewLabel_1_3);
```

```
JLabel lblNewLabel_1_10 = new JLabel("Qualification");  
lblNewLabel_1_10.setForeground(Color.WHITE);  
lblNewLabel_1_10.setFont(new Font("Tahoma", Font.PLAIN, 12));  
lblNewLabel_1_10.setBounds(604, 233, 71, 25);  
contentPane.add(lblNewLabel_1_10);
```

```
tfNtn = new JTextField();  
tfNtn.setColumns(10);  
tfNtn.setBounds(709, 167, 191, 19);  
contentPane.add(tfNtn);
```

```
tfADD = new JTextField();  
tfADD.setColumns(10);  
tfADD.setBounds(196, 307, 304, 19);  
contentPane.add(tfADD);
```

```
JLabel lblNewLabel_1_6 = new JLabel("Address:");  
lblNewLabel_1_6.setForeground(Color.WHITE);  
lblNewLabel_1_6.setFont(new Font("Tahoma", Font.PLAIN, 12));  
lblNewLabel_1_6.setBounds(97, 303, 62, 25);  
contentPane.add(lblNewLabel_1_6);
```

```
tfUSER = new JTextField();  
tfUSER.setColumns(10);  
tfUSER.setBounds(709, 272, 191, 19);
```



```
contentPane.add(tfUSER);
```

```
tfLNAME = new JTextField();
```

```
tfLNAME.setColumns(10);
```

```
tfLNAME.setBounds(196, 204, 304, 19);
```

```
contentPane.add(tfLNAME);
```

```
JLabel lblNewLabel_1_11 = new JLabel("Employee ID:");
```

```
lblNewLabel_1_11.setForeground(Color.WHITE);
```

```
lblNewLabel_1_11.setFont(new Font("Tahoma", Font.PLAIN, 12));
```

```
lblNewLabel_1_11.setBounds(97, 120, 84, 25);
```

```
contentPane.add(lblNewLabel_1_11);
```

```
tfQUA = new JTextField();
```

```
tfQUA.setColumns(10);
```

```
tfQUA.setBounds(709, 237, 191, 19);
```

```
contentPane.add(tfQUA);
```

```
JButton btnSave = new JButton("Save >");
```

```
btnSave.setForeground(new Color(0, 0, 0));
```

```
btnSave.setBounds(366, 496, 85, 21);
```

```
contentPane.add(btnSave);
```

```
btnSave.addActionListener(new ActionListener() {
```

```
    public void actionPerformed(ActionEvent e) {
```

```
        // Check for empty fields
```

```

        if (tfEID.getText().isEmpty() || tfFNAME.getText().isEmpty() ||
tfLNAME.getText().isEmpty()

                || tfDOB.getText().isEmpty() || tfDID.getText().isEmpty() ||
tfADD.getText().isEmpty()

                || tfMail.getText().isEmpty() || tfNO.getText().isEmpty() ||
tfNtn.getText().isEmpty()

                || tfSAL.getText().isEmpty() || tfQUA.getText().isEmpty() ||
tfUSER.getText().isEmpty()

                || tfPASS.getText().isEmpty()) {
            JOptionPane.showMessageDialog(contentPane, "Please fill in all required fields.",
                "Incomplete Information", JOptionPane.ERROR_MESSAGE);
            return;

            // Validate Employee ID as an integer
        }

        try {

            int employeeID = Integer.parseInt(tfEID.getText());

            // Continue with your existing logic
        } catch (NumberFormatException ex) {

            JOptionPane.showMessageDialog(contentPane, "Employee ID must be a valid integer.",
                "Invalid Input", JOptionPane.ERROR_MESSAGE);
            return;
        }

        String email = tfMail.getText().trim();

        if (!email.isEmpty() && !isValidEmail(email)) {

            JOptionPane.showMessageDialog(contentPane, "Invalid email format! Please enter a
valid email address.",

                "Invalid Input", JOptionPane.ERROR_MESSAGE);
            return;
        }

```

// If the email is valid and IDs are valid integers (or empty), proceed with saving the data or other operations

// Your logic for saving the employee data goes here

```
try(Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/sys","root","BSF21#F@LL23"))
{
    String insertFromTF = "INSERT INTO ETable (id,first_name, last_name,
date_of_birth, gender, email, contact_no, address, department_id, nationality, salary, qualification,
username, password) VALUES (?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?)";

    try(PreparedStatement ps=con.prepareStatement(insertFromTF))
    {
        ps.setString(1,tfEID.getText());
        ps.setString(2,tfFNAME.getText());
        ps.setString(3,tfLNAME.getText());
        ps.setString(4,tfDOB.getText());

        if (rdbtnNewRadioButton_1.isSelected()) {
            ps.setString(5, "Male");
        } else if (rdbtnNewRadioButton.isSelected()) {
            ps.setString(5, "Female");
        } else {
            ps.setString(5, ""); // Default value if no radio button is selected
        }
        ps.setString(6,tfMail.getText());
        ps.setString(7,tfNO.getText());
        ps.setString(8,tfADD.getText());
        ps.setString(9,tfDID.getText());
        ps.setString(10,tfNtn.getText());
        ps.setString(11,tfSAL.getText());
    }
}
```

```

        ps.setString(12,tfQUA.getText());
        ps.setString(13,tfUSER.getText());
        ps.setString(14,tfPASS.getText());
        ps.executeUpdate();
        JOptionPane.showMessageDialog(null, "Data succesfully saved ");
    }
    catch(SQLException ex)
    {
        ex.printStackTrace();
    }
} catch (SQLException e1) {

        // TODO Auto-generated catch block
        e1.printStackTrace();

    }

}

});

JButton btnClearFrom = new JButton("Clear Form");
btnClearFrom.setForeground(new Color(0, 0, 0));
btnClearFrom.setBounds(210, 496, 124, 21);
contentPane.add(btnClearFrom);
btnClearFrom.addActionListener(new ActionListener() {

    public void actionPerformed(ActionEvent e) {

        // Clear all text fields
        tfLNAME.setText("");
        tfEID.setText("");
        tfFNAME.setText("");
        tfDOB.setText("");
        tfDID.setText("");
        tfADD.setText("");
    }
});

```

```

        tfMail.setText("");
        tfNO.setText("");
        tfNtn.setText("");
        tfSAL.setText("");
        tfQUA.setText("");
        tfUSER.setText("");
        tfPASS.setText("");
        // Set focus on the first text field after clearing (optional)
        tfLNAME.requestFocus();
    }
});

```

```

        JButton btnNewButton = new JButton("< Back ");
        btnNewButton.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                LoginPageGUI pl = new LoginPageGUI(); // Create an instance of
HomePageGUI
                pl.setVisible(true); // Set the HomePageGUI visible

                // Dispose of the current login page (LoginPageGUI)
                JFrame currentFrame = (JFrame)
SwingUtilities.getWindowAncestor(OperationsPageGUI.this);
                currentFrame.dispose();
            }
        });
        btnNewButton.setForeground(new Color(0, 0, 0));
        btnNewButton.setBounds(96, 496, 85, 21);
        contentPane.add(btnNewButton);

```

```

        JLabel labell = new JLabel("New label");

        labell.setIcon(new ImageIcon("C:\\Users\\HP\\Desktop\\final bg.png"));

        labell.setBounds(0, 0, 976, 573);

        contentPane.add(labell);

    }

    private boolean isValidEmail(String email) {

        String emailRegex = "^[a-zA-Z0-9_+&-]+(?:\\.[a-zA-Z0-9_+&-]+)*@(?:[a-zA-Z0-9-]+\\.)+[a-zA-Z]{2,7}$";

        return email.matches(emailRegex);

    }

}

```

DELETE EMPLOYEE

```

package newprojet;

import java.awt.EventQueue;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.border.EmptyBorder;

import javax.swing.JLabel;

import javax.swing.JOptionPane;

import java.awt.Font;

import javax.swing.JTextField;

import javax.swing.SwingUtilities;

import javax.swing.JButton;

import java.awt.event.ActionListener;

import java.sql.Connection;

import java.sql.DriverManager;

```

```

import java.sql.PreparedStatement;

import java.sql.SQLException;

import java.awt.event.ActionEvent;

import javax.swing.ImageIcon;

import java.awt.Color;


public class deletepage extends JFrame {


    private static final long serialVersionUID = 1L;

    private JPanel contentPane;

    private JTextField textField;


    /**
     * Launch the application.
     */
    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    deletepage frame = new deletepage();
                    frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    /**

```

* Create the frame.

*/

```
public deletepage() {
```

```
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
```

```
    setBounds(100, 100, 400, 400);
```

```
    contentPane = new JPanel();
```

```
    contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
```

```
    setContentPane(contentPane);
```

```
    contentPane.setLayout(null);
```

```
    JLabel lblDeleteAnEmployee = new JLabel("DELETE AN EMPLOYEE");
```

```
    lblDeleteAnEmployee.setForeground(new Color(255, 255, 255));
```

```
    lblDeleteAnEmployee.setFont(new Font("Tahoma", Font.BOLD, 25));
```

```
    lblDeleteAnEmployee.setBounds(33, 20, 317, 53);
```

```
    contentPane.add(lblDeleteAnEmployee);
```

```
    JLabel lblNewLabel = new JLabel("Please enter the Employee ID to delete the record:");
```

```
    lblNewLabel.setForeground(new Color(255, 255, 255));
```

```
    lblNewLabel.setFont(new Font("Tahoma", Font.PLAIN, 12));
```

```
    lblNewLabel.setBounds(33, 91, 317, 22);
```

```
    contentPane.add(lblNewLabel);
```

```
    textField = new JTextField();
```

```
    textField.setBounds(33, 146, 134, 19);
```

```
    contentPane.add(textField);
```

```
    textField.setColumns(10);
```

```
    JButton btnNewButton = new JButton("Delete");
```



```

btnNewButton.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {

        String textFieldValue = textField.getText();
        int intValue = 0; // Default value

        if (!textFieldValue.isEmpty()) {
            try {
                intValue = Integer.parseInt(textFieldValue);
                System.out.println("The integer value entered is: " +
intValue);
            } catch (NumberFormatException e2) {
                System.err.println("Please enter a valid integer.");
            }
        } else {
            System.err.println("Please enter a value.");
            // Decide what to do if no value is entered
        }

        try (Connection connection =
DriverManager.getConnection("jdbc:mysql://localhost:3306/sys","root","BSF21#F@LL23")) {
            String deleteQuery = "DELETE FROM etable WHERE id = ?";

            PreparedStatement preparedStatement =
connection.prepareStatement(deleteQuery);

            preparedStatement.setInt(1, intValue); // Set the parameter (ID to be
deleted)

            int rowsAffected = preparedStatement.executeUpdate();

```

```

        if (rowsAffected > 0) {
            System.out.println("Data with ID " + intValue + " deleted
successfully!");
        } else {
            System.out.println("No data found to delete with the given ID: " +
intValue);
        }

        preparedStatement.close();
        JOptionPane.showMessageDialog(null, "Deleted successfully!");
    } catch (SQLException e1) {
        e1.printStackTrace();
    }
}

btnNewButton.setBounds(178, 246, 134, 21);
contentPane.add(btnNewButton);

JButton btnNewButton_1 = new JButton("<<Back");
btnNewButton_1.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        updateclass up = new updateclass(); // Create an instance of
HomePageGUI
        up.setVisible(true); // Set the HomePageGUI visible

        // Dispose of the current login page (LoginPageGUI)
        JFrame currentFrame = (JFrame) SwingUtilities.getWindowAncestor(deletepage.this);
        currentFrame.dispose();
    }
});

```

```

        }

    });

    btnNewButton_1.setBounds(33, 246, 134, 21);
    contentPane.add(btnNewButton_1);

    JLabel lblNewLabel_1 = new JLabel("New label");
    lblNewLabel_1.setForeground(new Color(255, 255, 255));
    lblNewLabel_1.setIcon(new ImageIcon("C:\\Users\\HP\\Desktop\\final bg.png"));
    lblNewLabel_1.setBounds(0, 0, 386, 373);
    contentPane.add(lblNewLabel_1);
}
}

```

DATABASE CONNECTOR

```

package newprojet;

import java.sql.*;
import java.sql.DriverManager;
import java.sql.SQLException;

public class DatabaseConnector
{
    public static void main (String args[])
    {
        //Step 1: Establishing the Connection
        try
        {
            Class.forName("com.mysql.cj.jdbc.Driver");

```

```

    }

    catch (ClassNotFoundException e)

    {

        // TODO Auto-generated catch block

        e.printStackTrace();

    }

    try

    {

        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/sys","root","BSF21#F@LL23");

        Statement s = con.createStatement();

        System.out.print("Connection Established Successfully");

        // Create Employee table

        String createEmployeeTable = "CREATE TABLE ETable (" +
"id INT PRIMARY KEY AUTO_INCREMENT," +
"first_name VARCHAR(255)," +
"last_name VARCHAR(255)," +
"date_of_birth VARCHAR(255)," +
"gender VARCHAR(255)," +
"email VARCHAR(255)," +
"contact_no VARCHAR(255)," +
"address VARCHAR(500)," + // Increased size to accommodate longer addresses
"department_id VARCHAR(255)," +
"nationality VARCHAR(255)," +
"salary VARCHAR(255)," +
"qualification VARCHAR(255)," +
"username VARCHAR(255)," +
"password VARCHAR(255))";

```

```

s.executeUpdate(createEmployeeTable);

        System.out.print("\n Table created Successfully");

        String insertQuery = "INSERT INTO ETable (id, first_name, last_name,
date_of_birth, gender, email, contact_no, address, department_id, nationality, salary, qualification,
username, password) VALUES " +

                "(121, 'John', 'Doe', '1990-05-15', 'Male', 'johndoe@gmail.com', '123-
456-7890', '1234 Elm Street, City', '12', 'American', '60000', 'Masters', 'johndoe', 'pass123')," +

                "(122, 'Jane', 'Smith', '1991-07-20', 'Female', 'janesmith@gmail.com',
'987-654-3210', '5678 Oak Avenue, Town', '12', 'British', '55000', 'Bachelor', 'janesmith', 'pass456')," +

                "(123, 'David', 'Johnson', '1988-02-10', 'Male',
'davidjohnson@gmail.com', '111-222-3333', '789 Maple Drive, Village', '11', 'Canadian', '62000', 'PhD',
'davidjohnson', 'pass789')," +

                "(124, 'Emily', 'Davis', '1993-11-30', 'Female', 'emilydavis@gmail.com',
'333-444-5555', '9012 Pine Street, County', '10', 'Australian', '58000', 'Bachelor', 'emilydavis',
'passABC')," +

                "(125, 'Michael', 'Brown', '1985-09-25', 'Male',
'michaelbrown@gmail.com', '777-888-9999', '3456 Cedar Avenue, District', '11', 'French', '65000',
'Masters', 'michaelbrown', 'passDEF)";

        s.executeUpdate(insertQuery);

        System.out.print("DONE");

        System.out.println("\n Employee records inserted successfully");

        s.close();

        con.close();

    } catch (SQLException e1)
    {

        e1.printStackTrace();

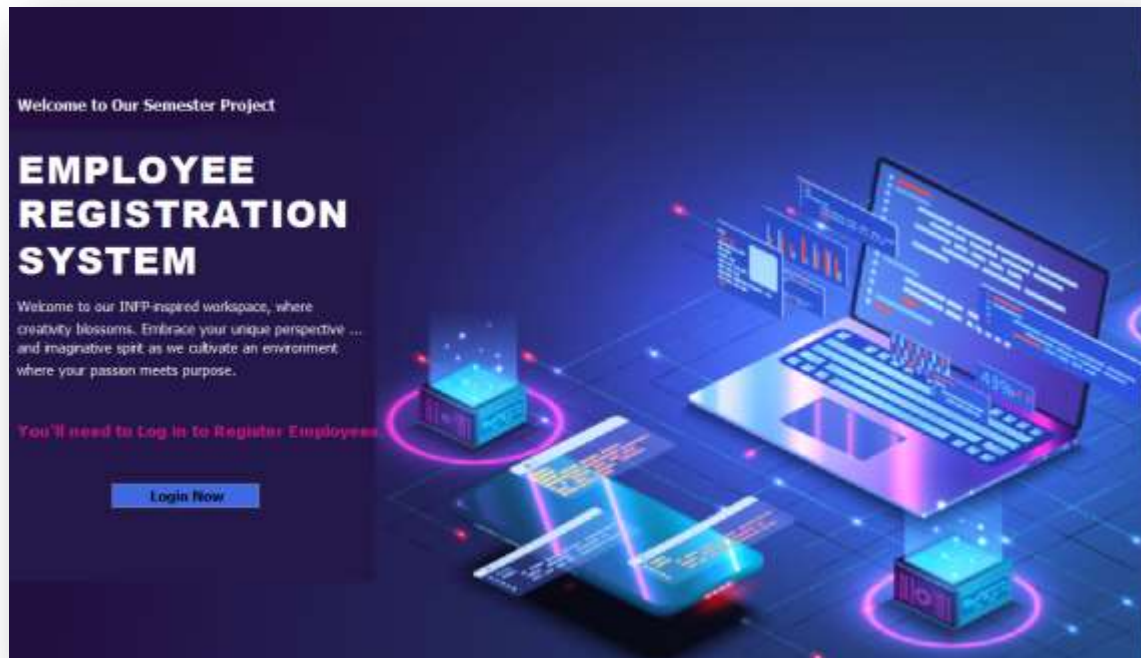
    }

}

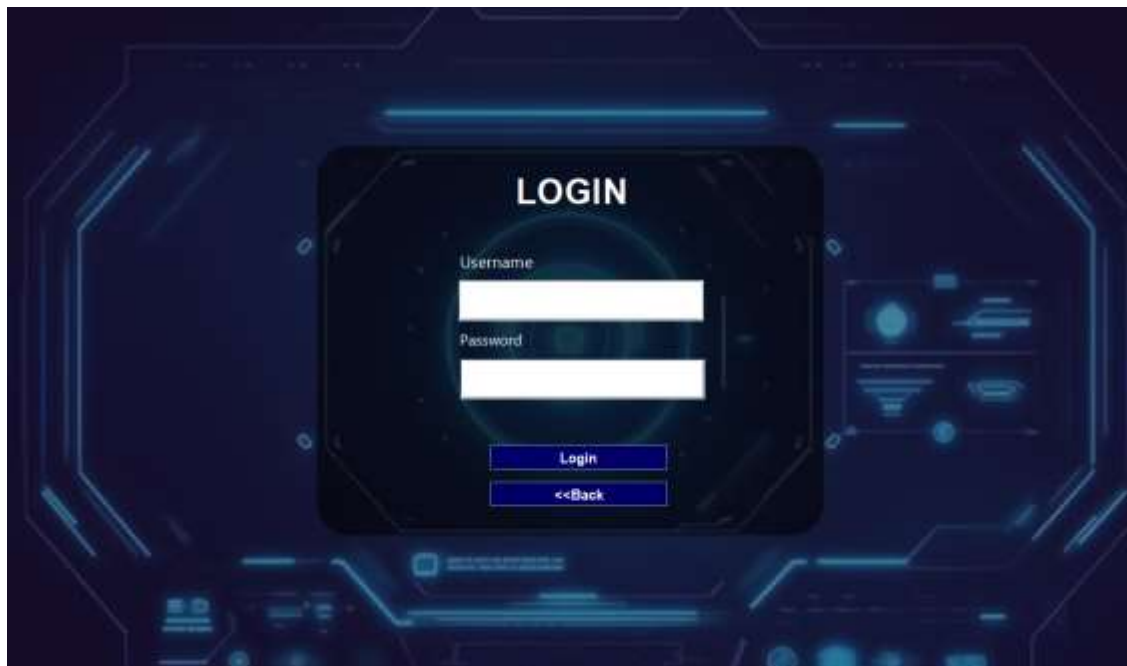
```

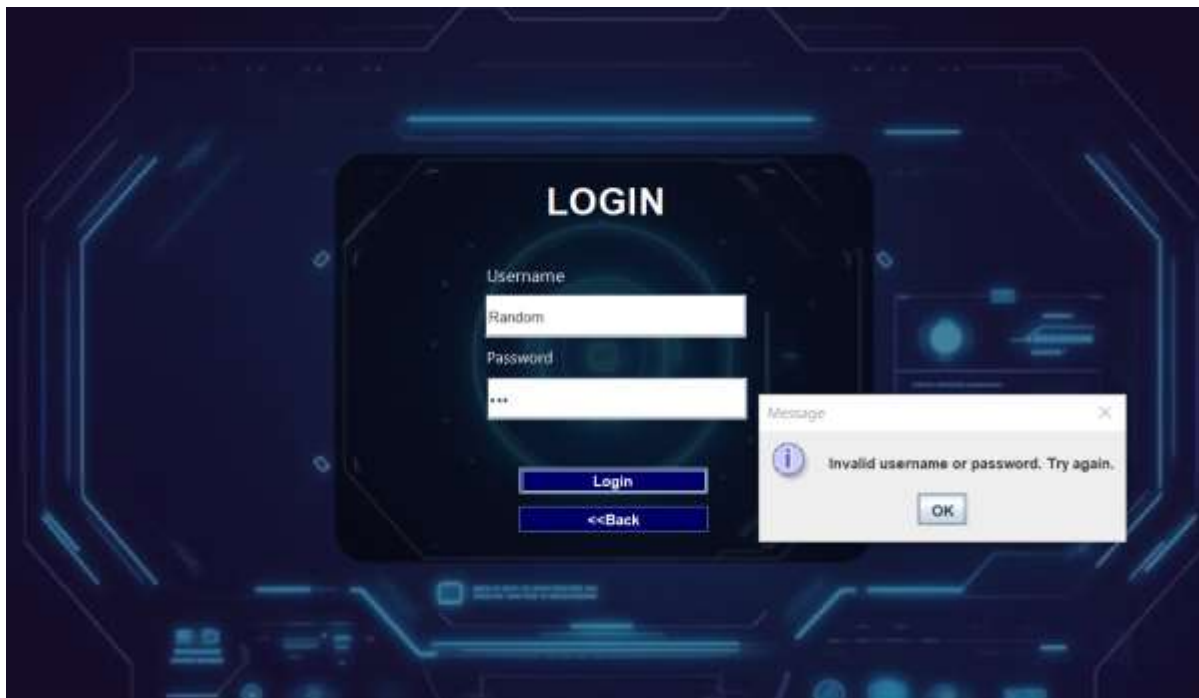
PROJECT DEMONSTRATION

1. HOME PAGE:



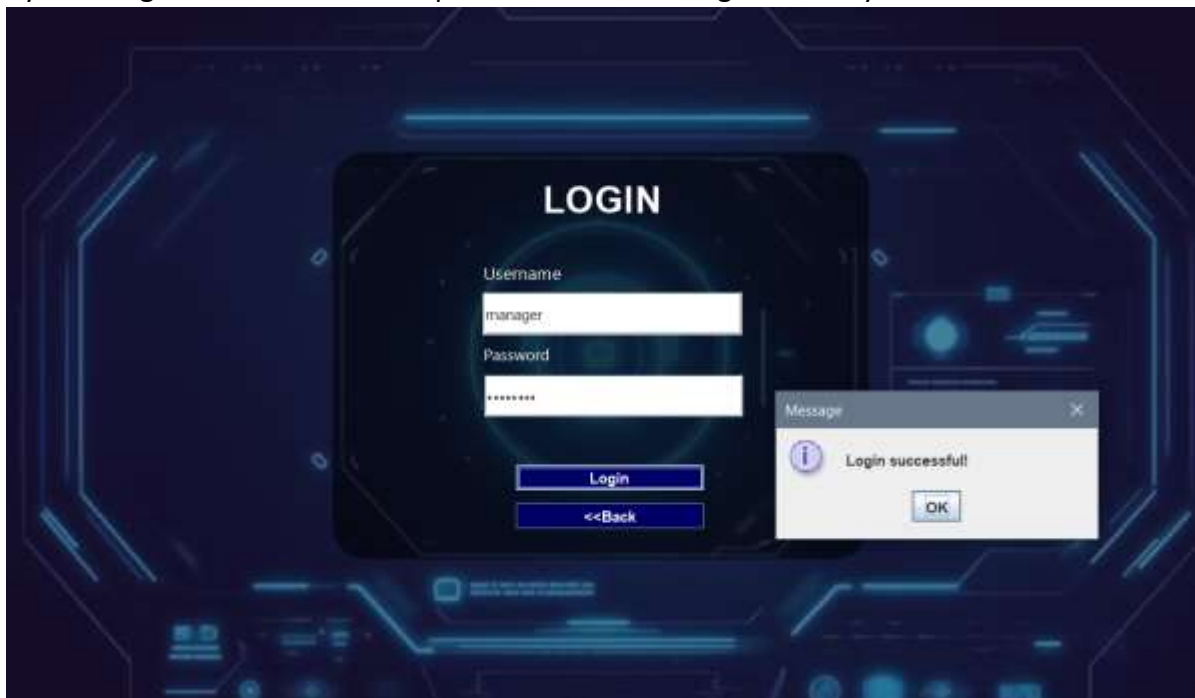
2. LOGIN PAGE:





When User enters wrong username or password, a dialog box will appear.

By entering correct username or password User can Login to the system.



3. OPERATIONS PAGE:

The operation page will show to operations. The first one is adding new employee to the system. And second operation is to delete an employee from the database.



OPERATIONS TO PERFORM

Please click the Buttons to perform different operations

Add New Employee to the Database

Delete an Employee from the Database

Back to Home Page Exit System

4. REGISTRATION PAGE:

Upon clicking the first operation, User will enter information to register an employee.



REGISTER EMPLOYEE

Employee ID: 127

First Name: John

Last Name: Alex

Date of Birth: 01-01-2000

Department ID: 10

Address: house no 1 ,street no 1,Town

Gender: ☐ Female ☒ Male

E-mail: johnalex@gmail.com

Contact No.: 1202939819

Nationality: Irish

Salary: 20000

Qualification: Masters

Username: john1

Password: pass11

< Back Clear Form Save >

REGISTER EMPLOYEE

Employee ID:

First Name:

Last Name:

Date of Birth:

Department ID:

Address:

Gender: ☐ Female ☒ Male

E-mail:

Contact No.:

Nationality:

Salary:

Message

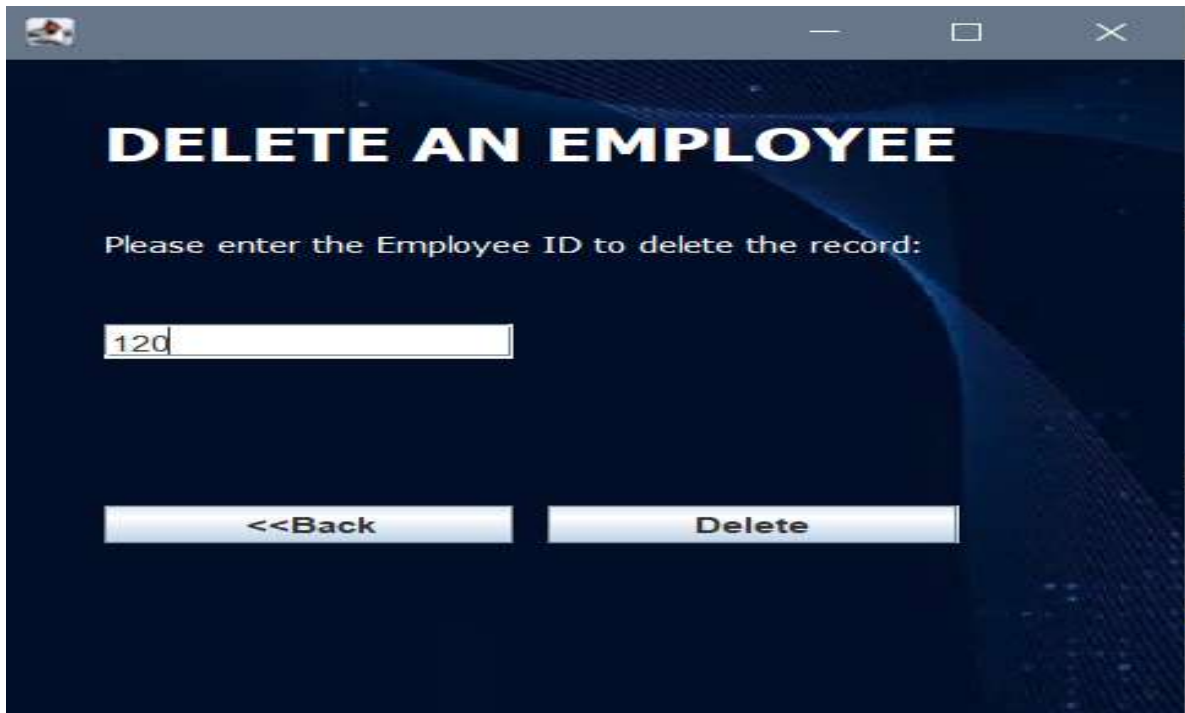
Data succesfully saved

Table is updated when user registers an employee and data is saved successfully in the Database.

id	first_name	last_name	date_of_birth	gender	email	contact_no	address	department_id	nationality	salary	qualification	username	password
120	aylin	day	01-01-2003	Female	aylin@gmail.com	122344566	house 0,street 4,H-10	10	Turkish	200000	PHD	aylin1	pass111
121	John	Doe	1990-05-15	Male	johndoe@gmail.com	123-456-7890	1234 Elm Street, City	12	American	60000	Masters	johndoe	pass123
122	Jane	Smith	1991-07-20	Female	janesmith@gmail.com	987-654-3210	5678 Oak Avenue, Town	12	British	55000	Bachelor	janesmith	pass456
124	Emily	Davis	1993-11-30	Female	emilydavis@gmail.com	333-444-5555	9012 Pine Street, County	10	Australian	58000	Bachelor	emilydavis	passABC
125	Michael	Brown	1985-09-25	Male	michaelbrown@gmail.com	777-888-9999	3456 Cedar Avenue, District	11	French	65000	Masters	michaelbrown	passDEF
126	karen	John	01-01-1998	Female	karenjohn@gmail.com	111-222-3333	house 73,street 3,H-13,Ontario	10	canadian	30000	masters	karenjohn1	pass123
127	John	Alex	01-01-2000	Male	johnalex@gmail.com	1202939819	house no 1 ,street no 1,Town	10	Irish	20000	Masters	john1	pass111

5. DELETE AN EMPLOYEE RECORD PAGE:

By clicking on the second operation user can delete the record of an employee by simple entering his '**employee id**' number.



If the employee id is Valid, a dialogue box will going to appear telling whether the employee record has been deleted or not.

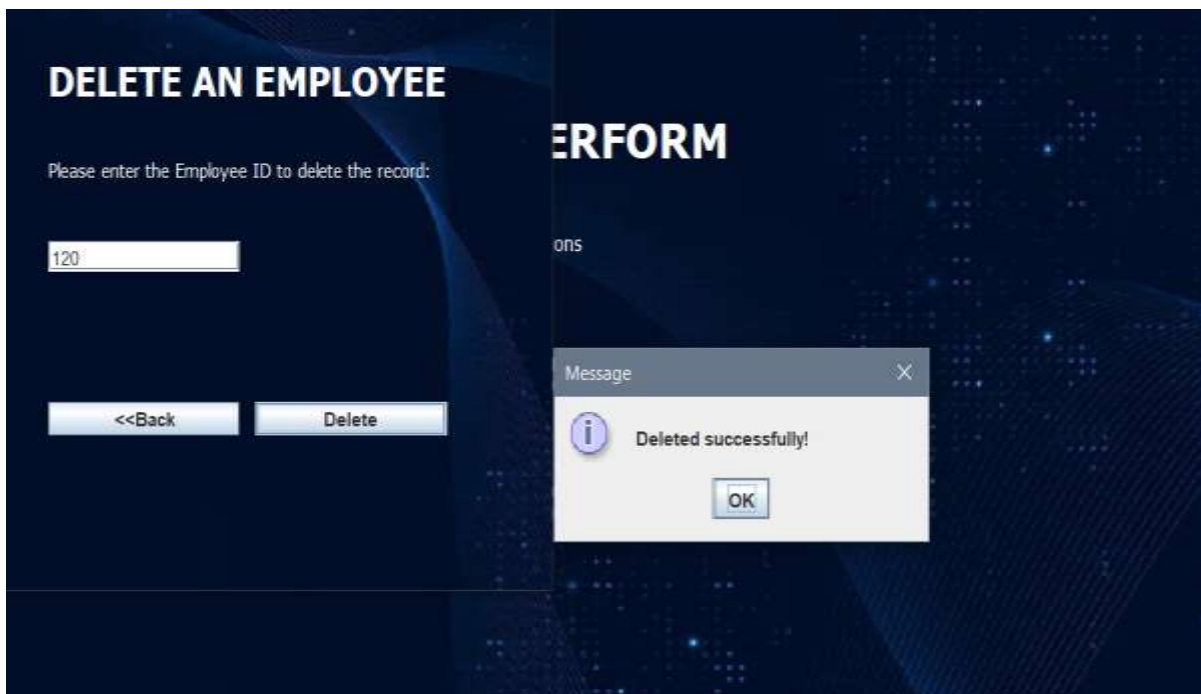


Table before deleting an employee record from database.

	id	first_name	last_name	date_of_birth	gender	email	contact_no	address	department_id	nationality	salary	qualification	username	password
▶	120	aylin	clay	01-01-2003	Female	aylin@gmail.com	122344566	house 0,street 4,H-10	10	Turkish	200000	PHD	aylin1	pass111
	121	John	Doe	1990-05-15	Male	john.doe@gmail.com	123-456-7890	1234 Elm Street, City	12	American	60000	Masters	john.doe	pass123
	122	Jane	Smith	1991-07-20	Female	janesmith@gmail.com	987-654-3210	5678 Oak Avenue, Town	12	British	55000	Bachelor	janesmith	pass456
	124	Emily	Davis	1993-11-30	Female	emilydavis@gmail.com	333-444-5555	9012 Pine Street, County	10	Australian	58000	Bachelor	emilydavis	passABC
	125	Michael	Brown	1985-09-25	Male	michaelbrown@gmail.com	777-888-9999	3456 Cedar Avenue, District	11	French	65000	Masters	michaelbrown	passDEF
	126	karen	John	01-01-1998	Female	karenjohn@gmail.com	111-222-3333	house73,street 3,H-13,Ontario	10	canadian	30000	masters	karenjohn1	pass123
•	1218	1218	1218	1218	1218	1218	1218	1218	1218	1218	1218	1218	1218	1218

Table in database after deleting an Employee Record.

	id	first_name	last_name	date_of_birth	gender	email	contact_no	address	department_id	nationality	salary	qualification	username	password
	121	John	Doe	1990-05-15	Male	john.doe@gmail.com	123-456-7890	1234 Elm Street, City	12	American	60000	Masters	john.doe	pass123
	122	Jane	Smith	1991-07-20	Female	janesmith@gmail.com	987-654-3210	5678 Oak Avenue, Town	12	British	55000	Bachelor	janesmith	pass456
	124	Emily	Davis	1993-11-30	Female	emilydavis@gmail.com	333-444-5555	9012 Pine Street, County	10	Australian	58000	Bachelor	emilydavis	passABC
	125	Michael	Brown	1985-09-25	Male	michaelbrown@gmail.com	777-888-9999	3456 Cedar Avenue, District	11	French	65000	Masters	michaelbrown	passDEF
	126	karen	John	01-01-1998	Female	karenjohn@gmail.com	111-222-3333	house73,street 3,H-13,Ontario	10	canadian	30000	masters	karenjohn1	pass123
	127	John	Alex	01-01-2000	Male	johnalex@gmail.com	1202939819	house no 1 ,street no 1,Town	10	Irish	20000	Masters	john1	pass111
	1218	1218	1218	1218	1218	1218	1218	1218	1218	1218	1218	1218	1218	1218

-----THE END-----