<u>DATABASE SYSTEMS SEMESTER PROJECT:</u> <u>Group Members:</u>

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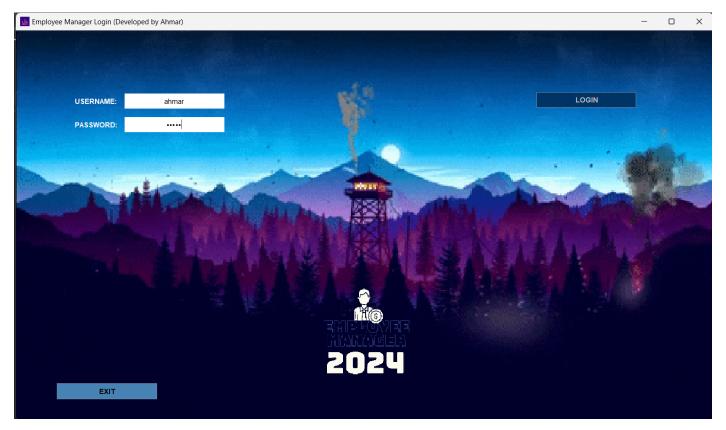
<u>Class and Program: BSCSev – II – C</u>

TITLE: EMPLOYEE MANAGER WITH JAVA & SQL

INTRODUCTION:

The goal is to develop a robust system that efficiently manages employee data within organizations. Leveraging Java and SQL, this project aims to streamline tasks such as adding new employees, editing details, and deleting records. By centralizing information and automating processes, the system aims to enhance efficiency and accuracy in personnel management, ultimately contributing to improved organizational effectiveness. Join me as I explore the development of an intuitive and efficient Employee Management System tailored to meet the needs of modern organizations.

LOGIN PAGE:



```
CREATE DATABASE employeeManager;

USE employeeManager;

CREATE TABLE login (
username VARCHAR(25),
password VARCHAR(30)
);

INSERT INTO login VALUES ("ahmar", "12345");
```

JAVA QUERY:

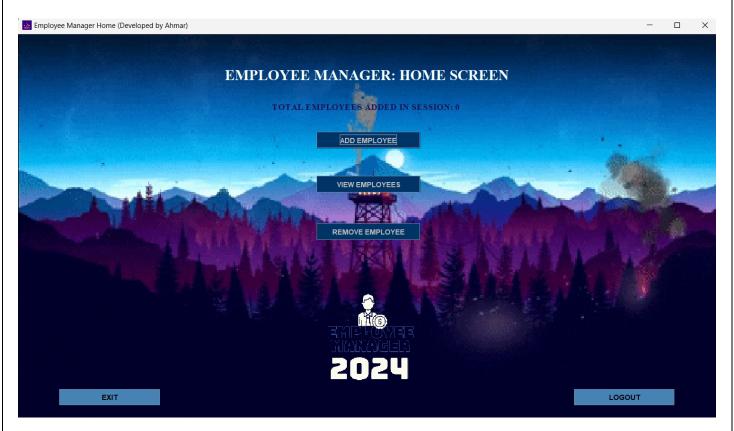
```
con = new conn();
query = "SELECT * FROM login WHERE username = '" + sUsername + "' AND password = '" + sPassword + "'";
result = con.statement.executeQuery(query);

if(result.next()) {
    setVisible(false);
    Home homeScreen = new Home();
```

- On the login page, the admin has to enter his username and password which is only saved in the database directly.

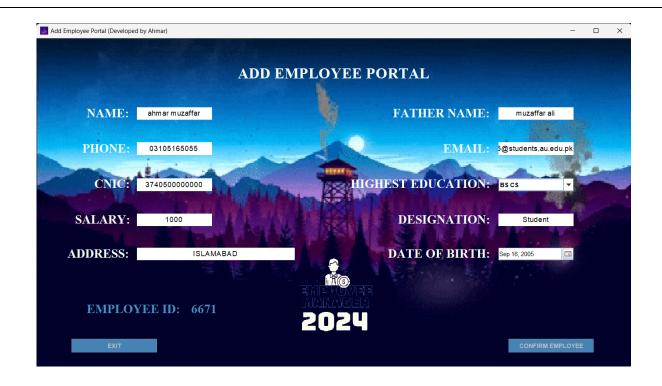
- If the username and password match, the Home Page Opens.

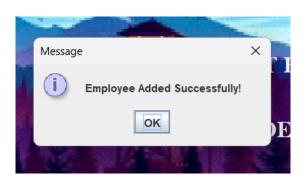
HOME PAGE:



- The Home Page provides the main features of the Program.
- Each feature further leads to other options and features embedded within.
- All of these features are connected directly to the local database.
- The Home Page also shows the Total Number of Employees added in a single session.

ADD EMPLOYEE PAGE:





```
-- Stored Procedure to Add Employee
CREATE TABLE addEmployee (
CNIC VARCHAR(14) PRIMARY KEY NOT NULL,
                                                                                               CREATE PROCEDURE AddEmployeeProc (
                                                                                                      IN p_CNIC VARCHAR(14),
Emp_ID VARCHAR(30),
                                                                                                      IN p Emp ID VARCHAR(30),
Name VARCHAR(50),
                                                                                                      IN p_Name VARCHAR(50),
                                                                                                      IN p_Father_Name VARCHAR(50),
Father_Name VARCHAR(50),
                                                                                                      IN p_Date_Of_Birth VARCHAR(40),
Date_Of_Birth VARCHAR(40),
                                                                                                      IN p_Education VARCHAR(40),
                                                                                                      IN p_Address VARCHAR(100),
Education VARCHAR(40),
                                                                                                      IN p_Phone_Number VARCHAR(40),
IN p_Email VARCHAR(50),
Address VARCHAR(100),
Phone_Number VARCHAR(40),
                                                                                                       IN p_Designation VARCHAR(30),
                                                                                                      IN p_Salary VARCHAR(40)
Email VARCHAR(50),
Designation VARCHAR(30),
                                                                                                      INSERT INTO addEmployee (CNIC, Emp_ID, Name, Father_Name, Date_Of_Birth, Education, Address, Phone_Number, Email, Designation, Salary)
Salary VARCHAR(40)
                                                                                                      VALUES (p_CNIC, p_Emp_ID, p_Name, p_Father_Name, p_Date_Of_Birth, p_Education, p_Address, p_Phone_Number, p_Email, p_Designation, p_Salary);
);
                                                                                                 END //
                                                                                                DELIMITER;
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Emp_ID Name
                                                                           Father_Name Date_Of_Birth Education Address
                                                                                                                                                                                                     Phone_Number Email
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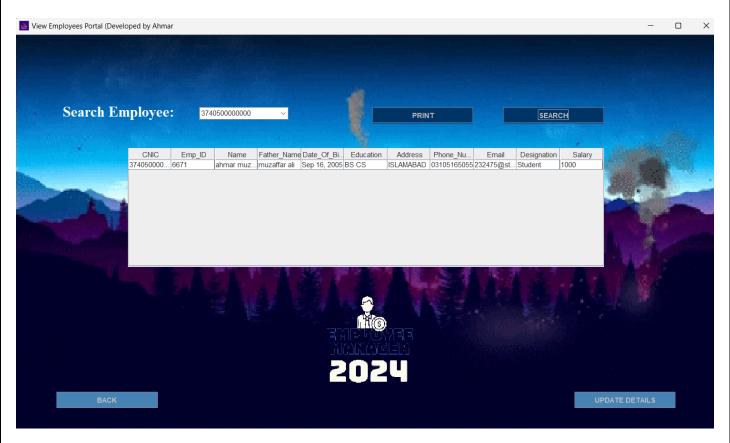
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                                                 Ahmar
```

JAVA CODE for ADDING EMPLOYEE with a Query:

```
connection = new conn();
  query = "INSERT INTO addEmployee VALUES ('"+cnic+"', '"+id+"', '"+name+"', '"+fatherName+"', '"+dateOfBirth+"', '"+edu+"', '"+address+"',
'"+phone+"', '"+edu+"', '"+designation+"', '"+salary+"');";
System.out.println("SQL Query: " + query); // Print the SQL query
connection.statement.executeUpdate(query);
JOptionPane.showMessageDialog(null, "Employee Added Successfully!");
setVisible(false);
```

- The Add Employee Page provides the interface for the user to add his/her details to add an employee.
- This page adds an employee to the local database.

VIEW EMPLOYEES PAGE:



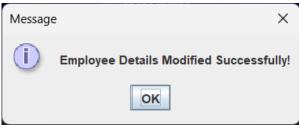
 This page provides a search box for searching for employees through their CNIC (IDs) and displays all their details by fetching them from the local database.

JAVA QUERY:

```
query = "SELECT * FROM addEmployee WHERE cnic = '" + employeeChoice.getSelectedItem() + "';";
```

UPDATE EMPLOYEE PAGE:



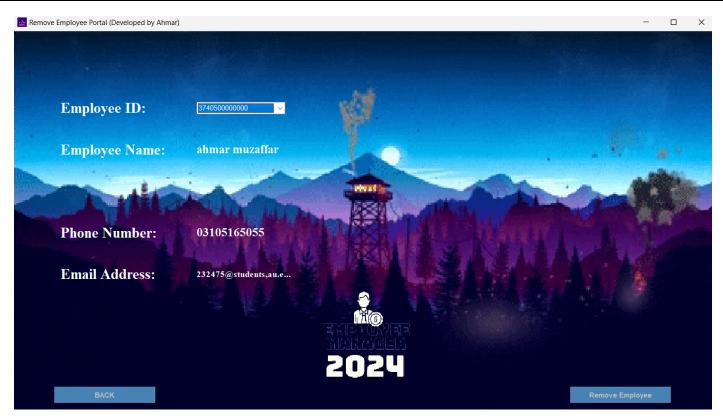


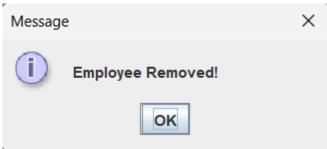
JAVA QUERY:

```
connection2 = new conn();
query2 = "UPDATE addEmployee SET Father_Name = '" + fatherName + "', Education = '" +
edu + "', Address = '" + address + "', Phone_Number = '" + phone + "', Email = '" +
email + "', Designation = '" + designation + "', Salary = '" + salary + "' WHERE CNIC =
'"+number+"';";
connection.statement.executeUpdate(query2);
JOptionPane.showMessageDialog(null, "Employee Details Modified Successfully!");
setVisible(false);
```

- This page Modifies/edits the existing employee details in case of error while entering the details before.
- Note that this page only lets you edit some specific values.

REMOVE EMPLOYEE PAGE:





```
-- Stored Procedure to Delete Employee

DELIMITER //

CREATE PROCEDURE DeleteEmployeeProc (
        IN p_Emp_ID VARCHAR(30)

)

BEGIN

DELETE FROM addEmployee WHERE Emp_ID = p_Emp_ID;

END //

DELIMITER;
```

JAVA QUERY:

```
ncon = new conn();
query = "DELETE FROM addEmployee WHERE CNIC = '"+employeeChoice.getSelectedItem()+"';";
ncon.statement.executeUpdate(query);
JOptionPane.showMessageDialog( parentComponent: null,  message: "Employee Removed!");
```