

PROJECT REPORT

EMPLOYEE MANAGEMENT

Submitted by:

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ABSTRACT

An “Employee Registration Management System” is a distributed application that will be developed to maintain the details of employees working in any organization. It would maintain the information about the personal details of employees, so that the human resource of the organization can easily know the details of all its employees. It would be simple to understand and can be used by anyone who is not even familiar with the legacy employees system. It would be user friendly and just ask the user to follow step by step operations by giving him few options. It would be fast and can perform many operations of a company.

It is simple to understand and can be used by anyone who is not even familiar with a simple employee system. It is user friendly and just asks the user to follow step by step operations by giving him few options. It is fast and can perform many operations of a company. The Employees Management Software would make it easy for the employer to keep track of all records. The combination of these modules into one application assures the perfect platform for re-engineering and aligning Human Resource processes along with the organizational goals. This proposed system would bring about an easy way of maintaining the details of employees working within any organization. The goal of this project is to design and develop an employee management system to fill existing gaps in the electronic management of employees.

INTRODUCTION

The strength of any organization depends on a large extent on its employees. The maintenance of employee records on a manual basis is a very hectic task especially in very large organizations. We have developed an Employee Management System which avoids all the ambiguities associated with these paper works. In our project, the well-developed application program and database are very important for the reliability, flexibility and functionality of the system.

The system can be accessed only by the concerned authorities in the department which maintains the employee records. The details of these authorities are stored into the database which is matched at the time of login, thereby increasing the security. Therefore only the admin has access rights to change or modify any records. It also provides error messages while providing invalid data. No formal knowledge is needed by the user to use this system. It is an application developed in Java and the database used is My SQL. It contains employee information like employee id, first name, last name, age etc. It is an easy to use application and has a user-friendly interface. The main aim of developing this application was to reduce the errors that occur in the manual system.

One can search the details easily by just entering employee id. In earlier systems, there was not such a facility to do so. All the details are stored in a My SQL database. It is easy to update any employee details. All the employee records are integrated and so this makes it user-friendly and easy to use application.

The goal of this project is to perform CRUD operations on employee data set. The admin/manager have the following authorities:

1. Add new employee
2. View complete employee details
3. Update an existing employee
4. Delete employee
5. Search employee by employee ID

REQUIREMENT SPECIFICATIONS

For building and executing this software, these requirements have to be followed.

1.Java 1.8+

JDK is the acronym for Java Development Kit. The Java Development Kit (JDK) is a software development environment which is used to develop java applications and applets. It physically exists. It contains JRE + development tools. JDK is an implementation of any one of the below given Java Platforms released by Oracle corporation: Standard Edition Java Platform, Enterprise Edition Java Platform, Micro Edition Java Platform. The JDK contains a private Java Virtual Machine (JVM) and a few other resources such as an interpreter/loader (Java), a compiler (javac), an archiver (jar), a documentation generator (Javadoc) etc. to complete the development of a Java Application.

2.Tomcat Server 7.0 or above

Apache Tomcat (sometimes simply "Tomcat") is an open-source implementation of the Java Servlet, JavaServer Pages, Java Expression Language and WebSocket technologies. Tomcat provides a "pure Java" HTTP web server environment in which Java code can run. Tomcat is developed and maintained by an open community of developers under the auspices of the Apache Software Foundation, released under the Apache License 2.0 license.

3.MySQL database 5.0 or above

MySQL tutorial provides basic and advanced concepts of MySQL. Our MySQL tutorial is designed for beginners and professionals. MySQL is a relational database management system based on the Structured Query Language, which is the popular language for accessing and managing the records in the database.

4.Eclipse IDE / STS 2018-2019

5.Maven 3.0 or above

6.Junit 4

JUnit is a unit testing framework for the Java programming language. JUnit has been important in the development of test-driven development, and is one of a family of unit testing frameworks. Its main use is to write repeatable tests for our application code units.

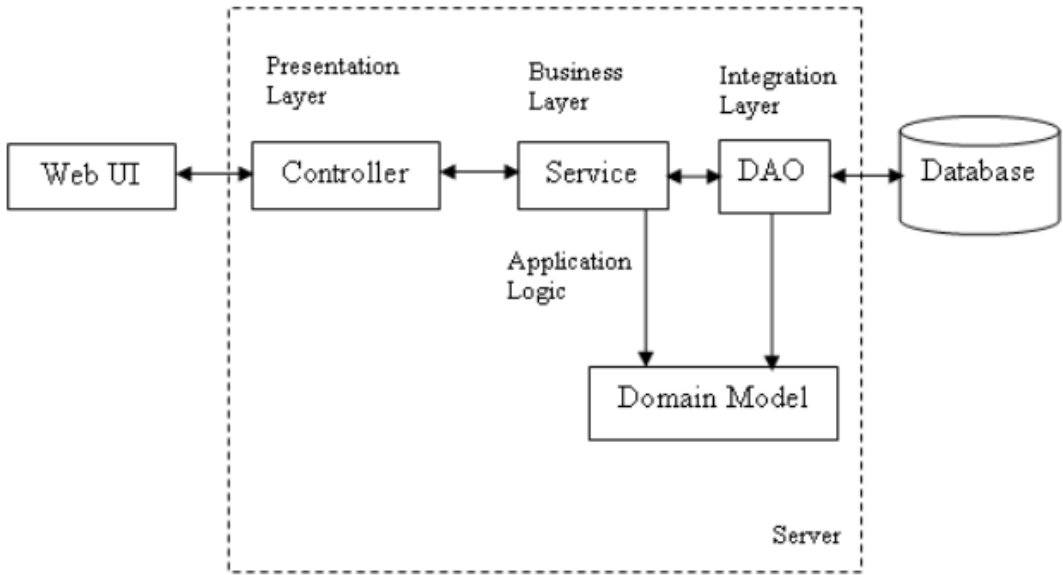
ARCHITECTURE DESIGN

The Web-UI provides presentation of content to the end user through GUI. This can be accessed through any type of client device like desktop, laptop, tablet, mobile, thin client, and so on. For the content to be displayed to the user, the relevant web pages should be fetched by the web browser or other presentation component which is running in the client device. To present the content, it is essential for Web-UI to interact with the other tiers that are present preceding it.

The middle tier is server. This is the tier in which the business logic of the application runs. Business logic is the set of rules that are required for running the application as per the guidelines laid down by the organization. The components of this tier typically run on one or more application servers.

The application data is typically stored in a database server, file server, or any other device or media that supports data access logic and provides the necessary steps to ensure that only the data is exposed without providing any access to the data storage and retrieval mechanisms.

Outline of the Project



SCREENSHOTS OF PROJECT

1. Employee List

Employee List

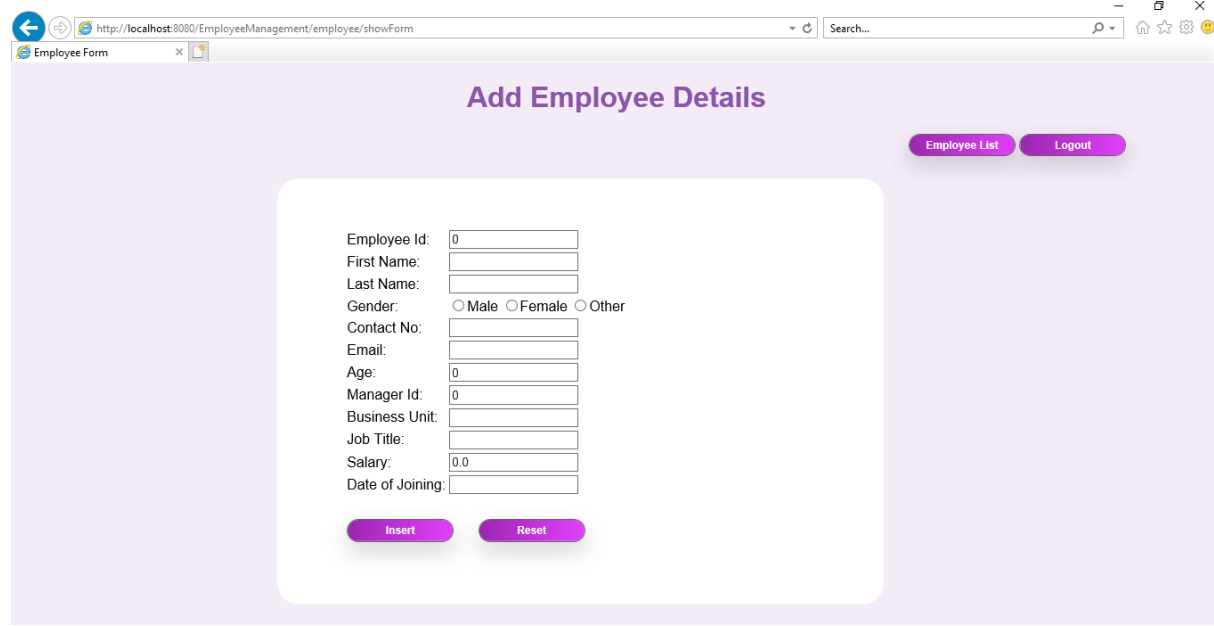
EMPLOYEE LIST

search by employee id

Searchadd employeeLogout

EMP ID	FIRST NAME	LAST NAME	EMAIL ID	CONTACT NUMBER	GENDER	AGE	MANAGER ID	BUSINESS UNIT	JOB TITLE	SALARY	DATE OF JOINING	ACTION
234353	Jyothi	Kumari	jyothi123@gmail.com	8675462376	Female	25	182346	Transport	Junior Developer	28000.0	2014-10-04	<div>UpdateDelete</div>
234354	Rakesh	Tiwari	rakesh@gmail.com	6538291090	Male	26	182347	Communication	Java Developer	30000.0	2016-07-23	<div>UpdateDelete</div>
234355	John	Pulikkattil	pkjohn@hotmail.com	8085237896	Male	30	182345	Insurance	Full Stack Developer	40000.0	2012-04-10	<div>UpdateDelete</div>

2. Employee Form

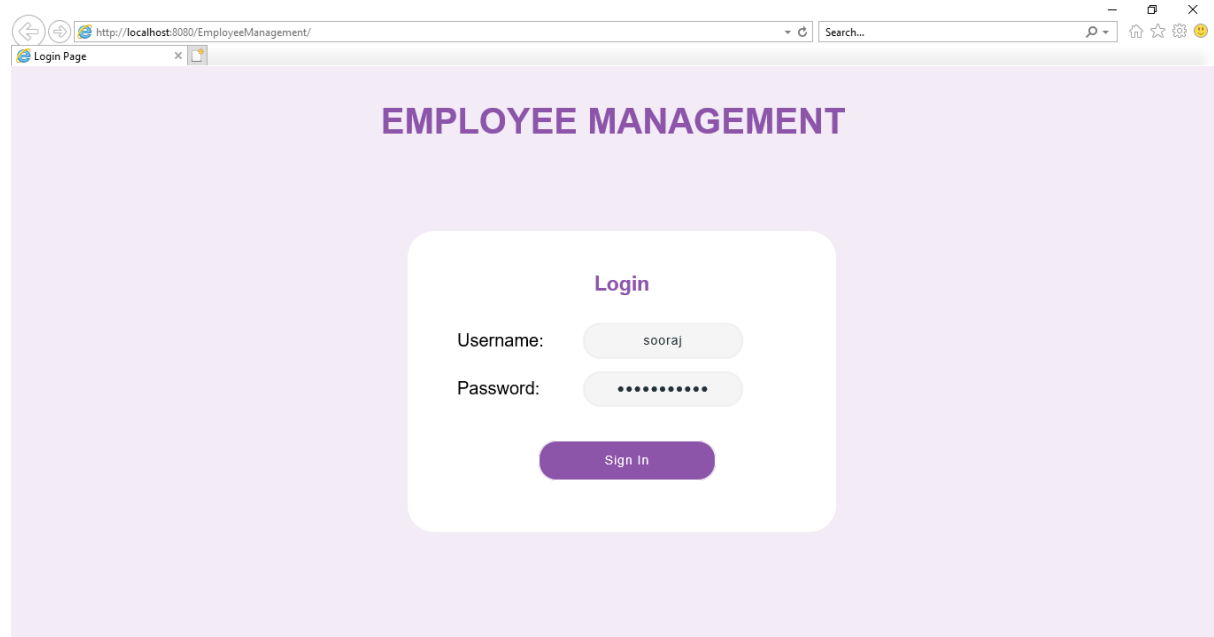


The screenshot shows a web browser window with the URL `http://localhost:8080/EmployeeManagement/employee/showForm`. The page title is "Employee Form". The main heading is "Add Employee Details". In the top right corner, there are two buttons: "Employee List" and "Logout". The form contains the following fields and controls:

- Employee Id:
- First Name:
- Last Name:
- Gender: ☐ Male ☐ Female ☐ Other
- Contact No:
- Email:
- Age:
- Manager Id:
- Business Unit:
- Job Title:
- Salary:
- Date of Joining:

At the bottom of the form, there are two buttons: "Insert" and "Reset".

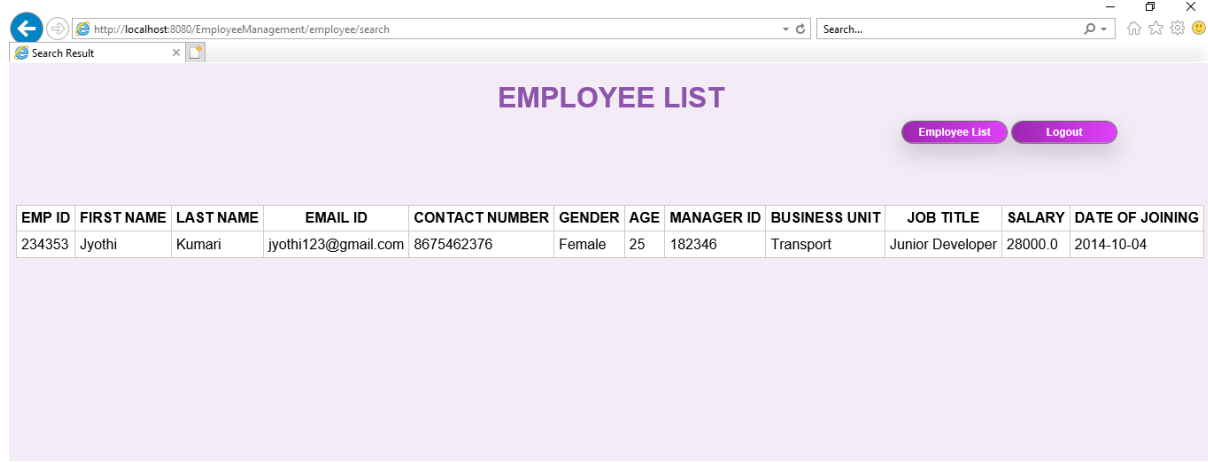
3. Login



The screenshot shows a web browser window with the URL `http://localhost:8080/EmployeeManagement/`. The page title is "Login Page". The main heading is "EMPLOYEE MANAGEMENT". In the center, there is a "Login" section with the following fields and controls:

- Username:
- Password:
- Sign In:

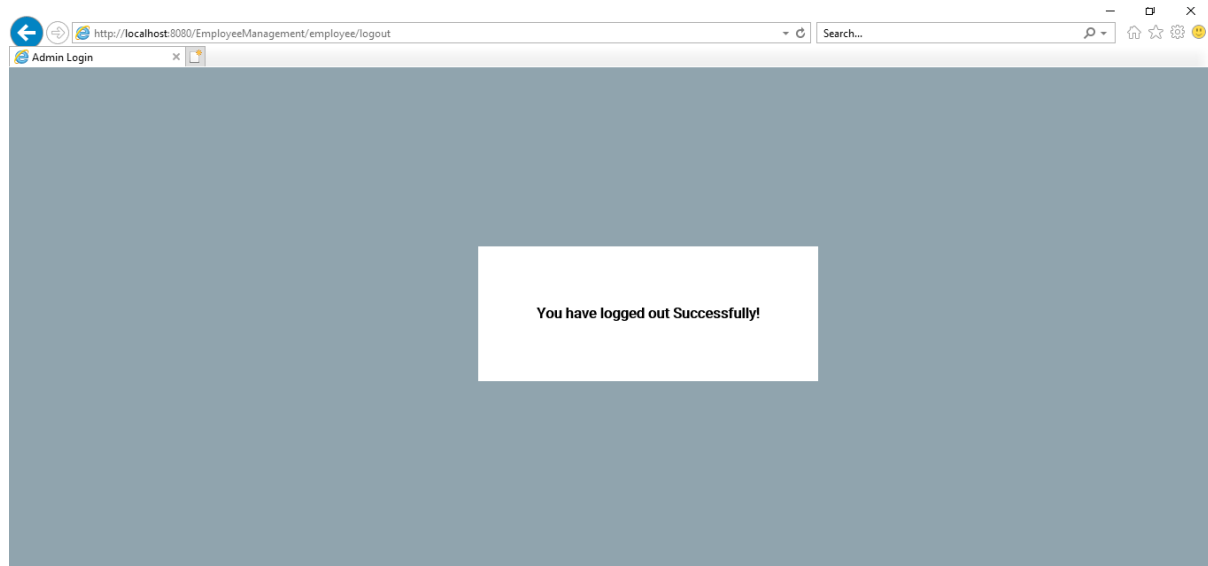
4. Search Module



The screenshot shows a web browser window with the URL `http://localhost:8080/EmployeeManagement/employee/search`. The page has a light purple header with the title "EMPLOYEE LIST" in bold purple text. To the right of the title are two buttons: "Employee List" and "Logout". Below the header is a table with 12 columns: EMP ID, FIRST NAME, LAST NAME, EMAIL ID, CONTACT NUMBER, GENDER, AGE, MANAGER ID, BUSINESS UNIT, JOB TITLE, SALARY, and DATE OF JOINING. The table contains one row of data for an employee named Jyothi Kumari.

EMP ID	FIRST NAME	LAST NAME	EMAIL ID	CONTACT NUMBER	GENDER	AGE	MANAGER ID	BUSINESS UNIT	JOB TITLE	SALARY	DATE OF JOINING
234353	Jyothi	Kumari	jyothi123@gmail.com	8675462376	Female	25	182346	Transport	Junior Developer	28000.0	2014-10-04

5 .Logout



The screenshot shows a web browser window with the URL `http://localhost:8080/EmployeeManagement/employee/logout`. The page has a dark blue background. In the center, there is a white rectangular box containing the text "You have logged out Successfully!".

CONCLUSION AND FUTURE WORK

In this world of growing technologies everything has been computerized. With large number of work opportunities the Human workforce has increased. Thus there is a need of a system which can handle the data of a large number of employees in an organization. This project simplifies the task of maintain records because its users friendly nature.

The " Employee Management System " has been developed to override the problems prevailing in the practicing manual system. This Web Application is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for the particular need of various companies to carry out the operations in a smooth and effective manner. This application is reduced as much as possible to avoid the errors while entering the data. It also provides error messages while entering the invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user friendly.

Currently only the administrators can enter the employee details. This may cause difficulties when the amount of data to be entered is large. So in future employees will be given separate user id's and passwords to enter the data themselves. The data entered by the employees will be verified by the administrator later. Also database will be expanded to contain more employee details, and collected data will stored without any redundancies. The current UI can also be improved to make it more user friendly and attractive.

REFERENCE

1. <https://docs.spring.io/spring/docs/current/spring-framework-reference/>
2. <https://docs.spring.io/spring/docs/current/spring-framework-reference/core.html#spring-core>
3. <https://docs.spring.io/spring/docs/current/spring-framework-reference/web.html>
4. <https://hibernate.org/orm/documentation/5.0/>
5. <https://maven.apache.org/guides/getting-started/index.html>