

# **PROJECT REPORT**

## **EMPLOYEE MANAGEMENT**

Submitted by

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## **ABSTRACT**

In any organisation such as schools, colleges, companies, industry, etc certain number of employee's are employed. Managing this type information by just simply noting them in a diary is a tedious task to do. So in order to manage employee's details some automation is required. Data storage is easier. Paper work will be reduced and the company staffs spend more time on monitoring the progress. The system is user friendly and easy to use. All the important data's will be stored in a database and it avoids miscalculation. Database Administrator has the authority to add employee details. And he also has the right to manipulate and view Employee dataset.

Employee Management System is an application that is developed to display and manipulate the details of employees working in an organisation. This application is mainly used by only authorized person, for example HR department or IT Department in order to add, eliminate or update employee details. This software keep track of all employee records of an organisation. The combination of many modules into one application assures the perfect platform for re-engineering and aligning Human Resource processes along with the organisational goals. This system uses proper authentication and authorization and then database administrator can perform CRUD operations on Employee dataset. This application allow database administrator to insert new employee, delete existing employee, update employee details and search employee using his/her employee ID.

Here technology stack used was Spring - Hibernate combination ,more specifically Java Spring 5, Hibernate, MySQL and basic HTML with CSS. All the details are stored in a MySQL 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.

## **INTRODUCTION**

Employee Management system is an application that allows users to create and store Employee records. This application is helpful to the department of the organization which maintains data of employees of that organization .It stores all the employee's information in a database. 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. It is totally built at the administrative end which means that only the admin has access rights to change or modify any records. So this makes it a safe and reliable application to use. 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 MySQL 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 main aim of Employee Management is to store the details of employee in a web-based system. The module of this system deals with a login page, here the manager in charge can logs into the system by entering the password provided for them. The goal of this project is to perform CRUD operations on employee data set.

The admin/manager have the following authorities:

1. Add a new employee.
2. Search an existing Employee using employee ID.
3. View complete employee details.
4. Update/Delete an existing employee.

## **REQUIREMENT SPECIFICATION**

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

### **1.Java 1.8+**

JDK is an 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 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. The data in MySQL database are stored in tables.

### **4.Eclipse IDE / STS 2018-2019**

Eclipse is an integrated development environment used in computer programming. It contains a base workspace and an extensible plug-in system for customizing the environment. Spring Tool Suite is an IDE to develop Spring applications. It is an Eclipse-based development environment. It provides a ready-to-use environment to implement, run, deploy, and debug the application. It validates our application and provides quick fixes for the applications.

## 5. Maven 3.0 or above

Maven is a software project management and comprehension tool. Based on the concept of a project object model (POM), Maven can manage a project's build, reporting and documentation from a central place.

## 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.

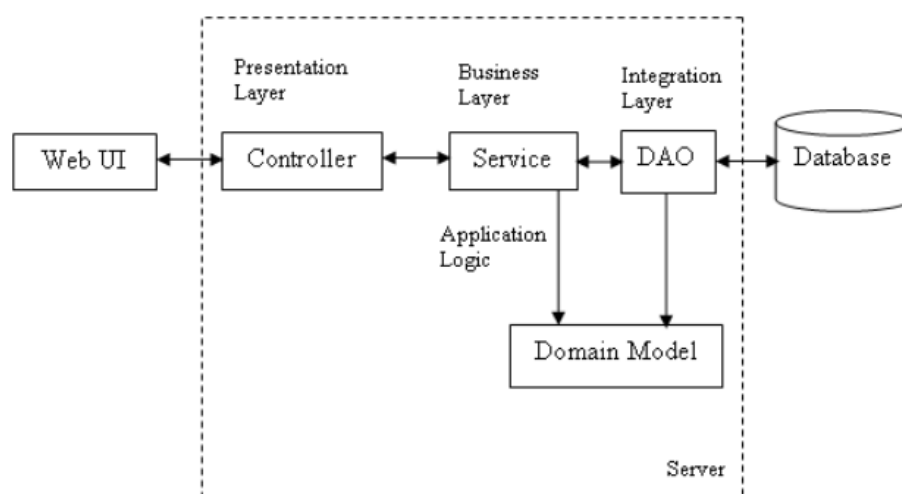
# ARCHITECTURE DESIGN

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



## EMPLOYEE MANAGEMENT SYSTEM

USERNAME

PASSWORD

login

*Login Page*

Employee List   Add New Employee   Search Employee   Logout

### ADMIN CONSOLE

EMPLOYER ID	FIRST NAME	LAST NAME	EMAIL ID	CONTACT NUMBER	GENDER	AGE	JOB LOCATION	BUSINESS UNIT	PROJECT ID	JOB TITLE	DATE OF JOINING	SALARY	ACTION
ABC001	KUMAR	RAJ	kumar@gmail.com	9293929292	male	20	Kochi	Sales	100	Trainee	2012-12-12	23000.0	<button>Update</button> <button>Delete</button>
ABC002	DEVAN	MOHAN	devan@gmail.com	8596040456	female	25	Kochi	Sales	101	Trainee	2014-02-12	21000.0	<button>Update</button> <button>Delete</button>

*Employee List*

[Employee List](#) [Add New Employee](#) [Search Employee](#) [Logout](#)

ADMIN CONSOLE

Employee ID	<input type="text" value="ABC003"/>
First Name	<input type="text" value="Hari"/>
Last Name	<input type="text" value="Krishnan"/>
Mail id	<input type="text" value="hari@y.com"/>
Contact Number	<input type="text" value="8934759302"/>
Gender	Male <input checked="" type="radio"/>   Female <input type="radio"/>
Age	<input type="text" value="26"/>
Job Location	<input type="text" value="Kochi"/>
Business Unit	<input type="text" value="Sales"/>
Project ID	<input type="text" value="100"/>
Job Title	<input type="text" value="Intern"/>
Date of Joining	<input type="text" value="20-02-2013"/>
Salary	<input type="text" value="1000"/>
<input type="button" value="SAVE"/> <input type="button" value="RESET"/>	

*Adding new employee*

[Employee List](#) [Add New Employee](#) [Search Employee](#) [Logout](#)

ADMIN CONSOLE

First Name	<input type="text" value="KUMAR"/>
Last Name	<input type="text" value="RAJ"/>
Mail id	<input type="text" value="kumar@gmail.com"/>
Contact Number	<input type="text" value="9293929292"/>
Gender	Male <input checked="" type="radio"/>   Female <input type="radio"/>
Age	<input type="text" value="20"/>
Job Location	<input type="text" value="Kochi"/>
Business Unit	<input type="text" value="Sales"/>
Project ID	<input type="text" value="100"/>
Job Title	<input type="text" value="Trainee"/>
Date of Joining	<input type="text" value="12-12-2012"/>
Salary	<input type="text" value="23000.0"/>
<input type="button" value="Save"/>	

*Updating Employee*

## ADMIN CONSOLE

Showing Details of ABC001	
First Name	KUMAR
Last Name	RAJ
Mail id	kumar@gmail.com
Contact Number	9293929292
Gender	male
Age	20
Job Location	Kochi
Business Unit	Sales
Project ID	100
Job Title	Trainee
Date of Joining	2012-12-12
Salary	23000.0

*Employee Search*

You have logged out Sucessfully!

[Click here to login](#)

*Logout Page*

## **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 such a large number of Employees in an organization. This project simplifies the task of maintain records because its users friendly and less complex.

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 has designed such a way that it shows errors when an invalid data is entered, in such a way database can be error free and stable. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user friendly.

In future, I would like to implement this to a mobile app and change the overall designing using angularJS. Also I like to implement much more features including insurance of each employee, display salary and allowances, download pay slip.

## **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>