

**Electronic Payroll Management System for Recorded
Organization Wage Transactions**

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Abstract

In the current available pay roll systems are manual or excel based. This leads to problems in searching or updating the wages of employee. Pay slip is prepared and send it to the employee manually which may contain mistakes. “Electronic Payroll Management System” is a web based application useful in managing employee information and effectively run Companywide Payroll. This provides Services to the organizations which are using manual payroll calculators to calculate employee wages. Administrator is the only user of this system. Administrator can enrol the new employee, search for an employee and update employee. It provides the facility to run the pay role, generate pay slips of each employee and send it to corresponding employees mail ids. Administrator can also edit the generated wages manually and send an email to the employee automatically. Admin can overwrite the monthly wages by running pay role of that month again. Admin can download the different statements like PF, Professional Tax, TDS and Salary statements of all employees. All these statements are generated dynamically by the system. It provides the facility that can search wages of particular employee from the joining date and admin can mail those reports as pay slips to the employee automatically without knowing employees mail ids. This provides a simple interface to the admin to login, enroll employee, update attendance of employee, manage employee, generate pay roll, update wages, Leave calculations and download statements from the web application.

Keywords: EPMS(Electronic Payroll Management System), Web based application, Payroll ,Statements.

Introduction

EPMS means Electronic Payroll Management System. This is designed to generate the payroll of Employees in an organization. It reduces the man power to calculate the wages of an Employee in an organization. The term Payroll means calculating the gross salary,

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net salary from the basic salary of an Employee. Payroll also calculates the professional tax, provident fund, TDS (Tax Deduction at Source). It stores the wages for a life to do analysis.

This runs the payroll for only active Employees in that organization. It takes the attendance sheet to generate the payroll and it automatically generates a pay slip corresponding to the wage and mails it to the registered email id of employee. It provides a facility to manage Employees and wages. It means Admin can manually edit or update the employee data and wages. It works in the absence of the man power. Payroll calculations, report creation and mailing pay slips are scheduled when payroll is generated. Total mechanism is done in the absence of the user interaction.

In the existing system organizations have to calculate the payroll manually. They are managing payroll records (wages) in excel files. In order to generate the pay slip of an employee they have to generate it manually by using tools. In order to send the generated pay slips to the employee admin have to browse each and every generated pay slip and mails to the corresponding Employee. In order to calculate the Professional tax, Provident funds, TDS of organization they are following manual process.

In order to deposit the salaries in the banks they have to create separate statements manually. In order to overcome all the limitations in the current system and to meet all their requirements the current process is replaced with this application. System generates payroll automatically by using the pre existed date in the application. It takes attendance sheet to calculate number of working days and number of leaves of an employee. It generates the statements which can be used to deposit the salaries of an employee's directly to their corresponding bank accounts. It generates the pay Slip of Employee and automatically sends it to their corresponding mail id. It generates the TDS, PF, Professional Tax, Insurance, Health Statement monthly to deposit money directly to their corresponding departments. Admin can modify the existing wages if it requires. Admin can also run the payroll of any month from the beginning time to now.

Web application for electronic payroll management system Web application for electronic payroll management system(EPMS)

The EPMS explains the existing problem in the Payroll applications and what we propose to improve the system drastically

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Objectives of EPMS

The objectives Exploring Web Application for Electronic Payroll Management System describes as follows:

- Manage Employee Benefits like Vacation, Holidays, Comp Time etc..
- Manage Employee attendance.
- Auto calculate salaries based on attendance and benefits and savings.
- Auto generate deposits for salaries based on bank information given.
- Generate Pay slips for employees to view their own and print at their will.
- Generate statutory payment reports for effectively administering the Provident Fund, Professional Tax and TDS(income tax).
- Help us manage Employee Health Insurance, Expense reimbursement and any other allowances.

Architecture of Web Application for Electronic Payroll Management System

EPMS system uses MVC (Model View Controller) architecture to develop. It uses ORM (Object Relational Mapping) technique to access or store data from and to database. MVC architecture is achieved by using the struts 2 architecture. It is designed to provide MVC architecture to the application.

Model View Controller or MVC as it is popularly called, is a software design pattern for developing web applications. A Model View Controller pattern is made up of the following three parts.

Model - The lowest level of the pattern which is responsible for maintaining data.

View - This is responsible for displaying all or a portion of the data to the user.

Controller - Software Code that controls the interactions between the Model and View.

MVC is popular as it isolates the application logic from the user interface layer and supports separation of concerns. Here the Controller receives all requests for the application and then works with the Model to prepare any data needed by the View. The View then uses the data prepared by the Controller to generate a final presentable response. The MVC abstraction can be graphically

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represented as follows.

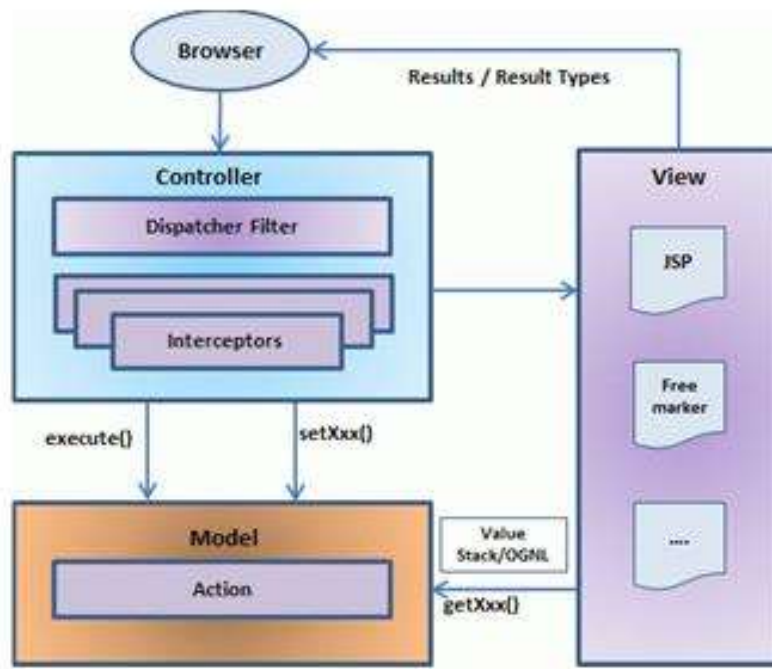


Figure 1 : General Block Diagram of MVC framework used in EPMS

Hibernate framework is used to adopt and use ORM technology. It maps the data to the database as objects and maps database as a object.

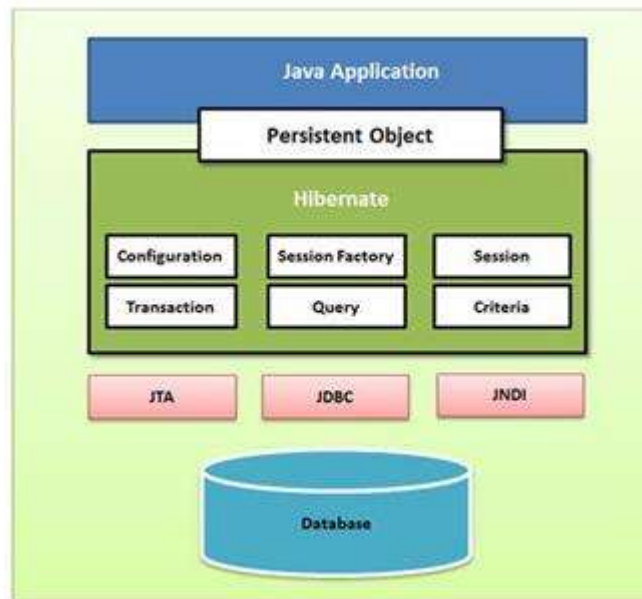


Figure 2 :Framework of EPMS

A. Admin Login Screen

Administrator has access to the Web application where he handles the username and password. This web application helps administrator in adding, editing and displaying the list of all the specified modules such as pin codes, tariffs and rates.



Figure 3: Administrator Screen

B. Employee Home Page

This page is used to Enroll and to Manage the Employee Details.

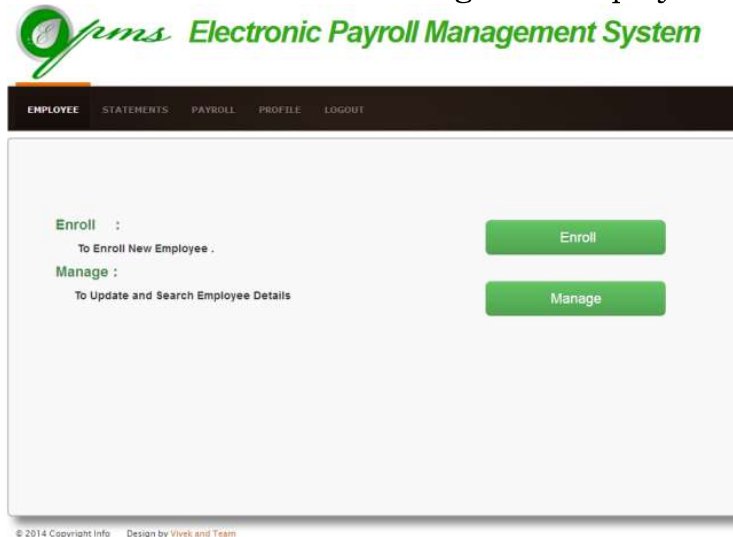


Figure 4 : Enroll and Manage Employees

C. Employee Enroll Screen

If the user is not enrolled he clicks on the button enroll H and an enroll screen is displayed as shown in figure.

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EMPLOYEE STATEMENTS PAYROLL PROFILE LOGOUT

Employee Enrollment Portal

First Name Middle Name

Last Name Department

Gender Mobile Number

Home Number Date Of Birth

Corporate Mail Confirm Corporate Mail

Personal Mail Confirm personal Mail

Date Of Joining Nationality

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D. Manage Screen and Search Screen

Figure 5 and 6 shows the Manage Employees screen along with search option.

Opms Electronic Payroll Management System

EMPLOYEE STATEMENTS PAYROLL PROFILE LOGOUT

Employee Id	First Name	Last Name	DOB	Basic
10023	KRISHNA	VADAPALLI	1992-05-04	12000.0
10024	Chandrasekhar	koduru	1992-08-11	25000.0
10025	PRANAV	yellapantula	1993-03-14	25000.0
10026	VENKATA	SAMAYAMANTULA	1992-11-27	20000.0
10027	SIVA	KUSAMPUDI	1992-07-15	20000.0
10028	KEERTHI	REDDY	1993-05-23	25000.0
10029	Sujatha	Kota	1972-11-29	100000.0
10030	chaitanya	jakkampudi	1992-08-16	67900.0
10031	VIVEK	VADAPALLI	1993-06-01	300000.0
10032	RAVI	VADAPALLI	1994-08-06	29000.0

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Figure 5: Manage Employees

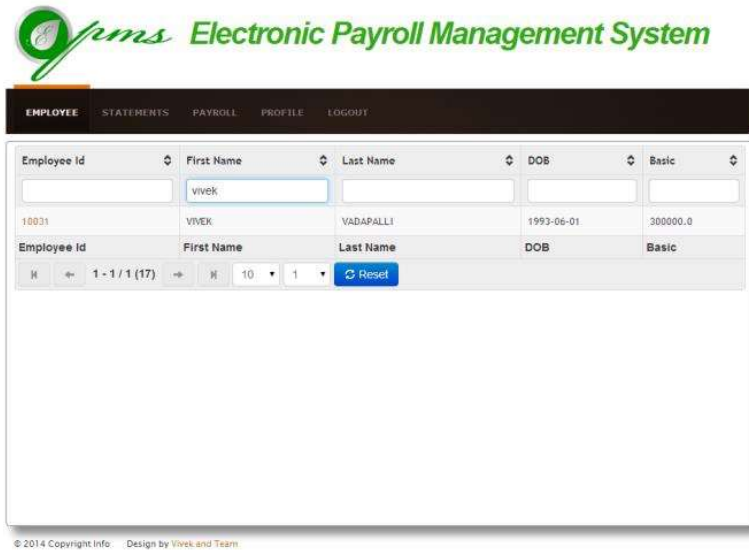


Figure 6: Search Employees

Conclusion

This software presents the part of an organization work as per the requirements, specifications and conditions mentioned in the user manual. This application s/w has been developed and completed successfully and also tests successfully by taking “Test Cases”. It is user friendly and has all the needed menu options, which can be utilized by the user to perform the desired operations. Moreover help messages are provided which will help any authorized user from using the system without trouble.

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