Payroll Management System

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CE-111

Software Requirement Specification

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1. Introduction

Payroll system is the heart of any Human Resource System of an organization. The solution has to take care of the calculation of salary as per rules of the company, income tax calculation and various deductions to be done from the salary including statutory deductions like Income tax and provident fund deductions. It has to generate pay-slip, cheque summary and MIS reports.

It is understood that we are tired of managing thousand of odd papers, pay slips, payroll reports, and salary details and so on. Imagine that we have a payroll processing system which will generate our pay slips and payroll reports within seconds. We can help others automated your payroll system by developing a customized payroll application that suits your specific requirements.

1.1 Purpose

Main aim of developing Payroll Management system is to provide an easy way not only to automate all functionalities involved managing leaves and Payroll for the employees of Company, but also to provide full functional reports to management of Company with the details about usage of leave facility.

We are committed to bring the best way of management in the various forms of PMS. We understand that PMS in not a product to be sold, it is a tool to manage the inner operation of Company related to employee leave and Payroll. This SRS can be work as legal contract between customer and the companies.

1.2 Scope

The generic function of the system that is to be developed may reflect in this name: **"Employee Payroll Management System(EPM)"**. This Application works in Multiple PC's installed on multiple Computers but sharing same database by which users of different department can use it sitting at different locations simultaneously.

But in future we can make the Application where the database will be hosted in order to manage the all departments which will be located in different places and by keeping domain of Application as Online.

Benefits:

✔ **To improve efficiency.**

✔ **Quickly find out information of an employee details.**

✔ **To provide easy and faster access information.**

✔ **To provide user friendly environment.**

1.3 Definitions, Acronyms, Abbreviations

❑ **SRS   - Software Requirements Specification**
❑ **EPM   - Employee Payroll Management**
❑ **GUI   -Graphical User Interface**

❑ **PMS   -Payroll Management System**
❑ **CMS   -Change Management System (Bug tracking tool)**
❑ **DBMS -Database Management System**
❑ **CVS   -Concurrent Version System**
❑ **D.A   -Dearness allowence**
❑ **CCA   -City Compensatory Allowence**

1.4 References

❖ *Java   swing Documentation By Oracle:*

https://docs.oracle.com/javase/tutorial/uiswing/components/

- ❖ *Java Swing^{TM} , 2 nd edition by Brian Cole,James Elliot (O'Reilly).*
- ❖ *Software Engineering by "Roger Pressman" (7e).*
- ❖ *http://www.java2s.com/Tutorial/Java/0240__Swing/Catalog0240__Swing.htm*
- ❖ *https://code.google.com/p/xswingx/wiki/GettingStarted*

1.5 Overview

The following subsections provide the complete overview of the software specifications requirements documentation for the product Employee Payroll Management. The entire SRS is documented in view of User and the following sub sections are arranged to give a complete outlook of the software, its perspective, features, system requirements and users know how it is.

2 General Description

2.1 Product perspective

This software is developed specifically to cater the company employees leave management, is totally self contained and works efficiently. It provides simple database rather than complex ones for high requirements and it provides good and easy graphical user interface to both new as well as experienced user of the computer.

2.1.2 System Interfaces

This is Desktop Application that interact with user via GUI.It is Only Standalone Application.

2.1.3 Hardware Interfaces

This section defines hardware requirements for the PMS. Hardware requirements represent the minimum physical system configuration on which the PMS runs and fulfils performance requirements. The hardware requirements for mobile devices (handhelds, mobile phones) are omitted in this document, but must be present in a real-time SRS.

Requirement ID   R13.01.01

Group   Hardware\Host system18

Description   The server part of the PMS shall be able to run and fulfill the

performance requirements on: Dual Pentium 2.8 GHz, 2 GB RAM, 5 GB disk space. LAN bandwidth: 1Gbps WAN bandwidth: 2 Mbps.

Priority   1

2.1.4 Software Interfaces

This System requires JAVA 8 with jdk 1.8.7 installation on Client machine for Good performance of the System. System requires MySQL 5.6.2 as Data Base Management Client.

2.1.5 Communication Interfaces

No other means of communication interface is necessary.

2.1.6 Memory Constraints

There are no memory constraints applicable for this system.

2.1.7 Operations

 The system provides 2 modes;

1)User mode: User can see his salary, deductions, leave status.User can also print his Pay-Slip.

2)Admin mode: Admin can change every employee's details. Admin can generate company reports. leave reports,salary reports.

2.1.8 Site Adaptation Requirements

User of this system must have following prior requirements:

- A working computer system
- Java Installation
- Internet connectivity

2.2 Product functions

Software provides Master module in which user can see Designation and Department of particular employee.

User can see Employee personal details and Salary related details. In Personal detail username,address,e-mail,mobile number,country,state,city,pincode and salary also.

PMS provides Search Faciltiy.User Can Search any details of employee from any where from Software.User only provides Employee id and he/she can see all details on the basis of Id of that particular Employee.

Software Provides Leave Management Facility .In that Employee can Submit his leave request and he can see leave status also.He can see leave approval Message too.

Software Provides Attendance related Information. When Employee can starts his work and leave office.

Software Provides deduction Calculation,that includes tax, PF, Loan, insurance,General Providant Fund(GPF), Loss of Pay, medical and other special deduction also available.

Software Provides Allowance Facility,that includes employess' basic,medical, washing, D.A, C.C.A, H.R.A ,L.T.A .

Software Provides Report Facility .User can see Comapany Details report, employee report,Loan detail report,Leave detail report,Employee Salary report.

Software Provides Pay Slip and Print the Pay Slip Facility.

2.3 User Characteristics

2.3.1 End Users

- ❖ No specific knowledge or skills are required from the end user.
- ❖ End user should have basic idea about computer operations and database.

2.3.2 Administrator

- ❖ Administrator must be having good knowledge of database management system.
- ❖ Administrator must be capable to manage user rights.
- ❖ If the network connection does not work properly than our system should not work as intended.
- ❖ Also that is assumed that the product is installed properly at web server.
- ❖ This system will not take care of any virus problem, which might occur either on the client or the server system. Avoiding the use of pirated software and ensuring that floppies and other removable media are scanned for viruses before use could minimize the possibility of viral infection.
- ❖ Recovery of data after a system crash will be possible only if backups are taken at regular intervals.
- ❖ Manual interfaces cannot be fully avoided. Documented proofs like data entry of employees etc. will have to be verified by the concerned management staff before entering it into the computerized system.

2.4 Constraints

➢ Accuracy of data
➢ Delayed output
➢ Functioning of payroll centralization process
➢ Manual data generation
➢ Follow-up on data
➢ High recruitment turnaround
➢ Lack of standard operating procedures (SOPs)
➢ Communication
➢ Delayed response to employees

2.5 Assumptions and Dependencies

Assumptions:

★ The code should be free with compilation errors/syntax errors.
★ The product must have an interface which is simple enough to understand.

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Dependencies:

★ All necessary hardware and software are available for implementing   and use of the tool.
★ The proposed system would be designed, developed and implemented based on the software requirements specifications document.
★ End users should have basic knowledge of computer and we also assure that the users will be given software training documentation and reference material.
★ The system is not required to save generated reports.

3 Specific Requirements

3.1 External Interfaces

3.2 Functions

3.1) System provides various type of user profiles

      3.1.1 System should provides admin profile

      Input :   Username &Password

      Output: Logged in with admin

      3.1.2 System provides create profile feature for new employees

Input: Employee id,username,password,dob,country,address,email,mobile number.

Output: new entry added in database.

3.1.3 System should provide facility to user that he/she will change his/her profile.

3.1.4 System provides deletion of user profile.

Input : Employee id

Output : user profile deleted

3.2) System should store the list of all user and the relation between users and user roles.

3.3)System provides search facility

3.3.1 System provides search using employee id or job id or department id.

 Input : Employee id , Job id,department id

Output: user can see all details of employees

3.3.2 System provides update feature for user profile

Input : Employee id in search box

Output: user can manually change details of employee.

3.4)System should provide payment of pay and deductions.

3.4.1 System provides monthly payment details

Input : employee id

Output: user can see payment details

3.4.2 System provides tax deduction of every employee.

Input: employee id,job,id

Output: user can check his tax deduction from salary

3.4.3 System provides PF,G.P.F,Insurance,Loan deduction of every employee

Input : employee id,job,id

Output : user can check his Pf,G.P.F ,Insurance deduction.

3.5)System provides time and attendance processing

3.5.1 System provides view of attendance report

Input: employee id with arrival and departure time

Output: user can see all the details regarding attendance of employee.

3.5.2 System provides editing of attendance report

Input: employee id with arrival and departure time

Output:user can edit that report and make graphical report.

3.6)System provides leave management

3.6.1 System should provide leave report

Input: employee id

Output:leave report of particular employee

3.6.2 System should provide leave Status

3.6.2.1 System should provide leave approval

Input:employee id

Output:user can see leave approved or not.

3.6.2.2 System should provide leave Canceling

Input:employee id

Output:user can cancel his leave

3.7)System provides all information regarding Special Allowance

3.7.1 System should provide Conveyance details

Input:Employee id

Output:all details regarding convayance details

3.7.2 System should provide medical details

Input:Employee id

Output:all details regarding medical details

3.7.3 System should provide City Compensatory Allowance

Input:Employee id

Ouput:all details regarding C.C.A

3.7.4 System should provide City Compensatory Dearness Allowance

Input:Employee id

Output:all details regarding D.A

3.8)System should provide All types of Reports

3.8.1 System should provide Company reports

Input : Company name,Project Id

Output: user can see graphical view of report in pie chart

3.8.2 System should provide Employee Salary Reports

Input:Salary Id,employee id

Output: user can see graphical view of salary report in pie chart

3.8.3 System should provide employee loan reports

Input:loan id,employee id

Output:user can user can see graphical view of loan report in pie chart

3.9)System should provide Security

3.9.1 System is given to only valid operators that has valid id and password

Input: id,password

Output:secure login

3.10)System should provide Good performance

3.10.1 System will error free and fast

3.10.2 System should have built in error checking and correction facility.

Input:wrong details

Output: Error pop-up will be shown

3.10.3 System should be able to handle large amount of data comfortably.

Input:multiple queries

Output:details will shown in new window

3.11)System provides facility for printing pay-slip

Input: pay-slip number,employee id

Output:printed pay-slip.