Software Requirements Specification

for

Payroll Management System

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version
Sakshi S Nayak	09.01.18	Initial Draft	v1.0

1. Introduction

1.1 Purpose

Main aim of developing Employee 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 and Salaries paid or to be paid to employees.

We are committed to bring the best way of management in the various forms of EPM. We understand that EPM in not just a product to be sold, it is a tool to manage the inner operation of Company related to employee leave and Payroll.

1.2 Document Conventions

The headings of the document is in Times New Roman. Both headings and subheadings are in bold. Content is in Times New Roman. The headings are of font size 18, the subheadings of font size 14 and the content is of font size 11.

1.3 Intended Audience and Reading Suggestions

The intended readers of this document are the system analyst & designer, project developer, project panel, system owners. The system analyst & designer can use this document for his cross reference to verify his future work. Project developer can use this document for traceability of the functions implemented. Project panel can use this document to verify the quantity and quality of the end product, finally this document can help bridge-up the gaps between the project stakeholders i.e. analysts, designers, developers, system users and the system owners to help them understand what functionalities this Payroll system will have and what not.

1.4 Product Scope

This Application works in Multiple PC's installed on multiple Computers by sharing same database by which users of different department can use it sitting at different locations simultaneously.
We have made an Application where the database will be hosted in order to manage all the departments which will be located in different places .

1.5 References

This document builds on the following references:
[1] Wikipedia website URL : http://en.wikipedia.org
[2] Oracle for java URL : https://www.oracle.com/in/index.html
[3] For more knowledge about Java :
https://www.tutorialspoint.com/java/
Thinking in Java by Bruce Eckel
[4] IEEE SRS Template : https://web.cs.dal.ca/~hawkey/3130/srs_template-ieee.doc

2. Overall Description

2.1 Product Perspective

The payroll system deals with all the major disadvantages of the manual and outsourced methods of payroll management. Since the software is in our hands, we can make any changes immediately at any required time and save ourselves a lot of delay and time. All the data is generated automatically through pre-defined data sets. This causes the elimination of any possibility of an error. Also when there is a revision in the pay of any employee only one update can fix the whole process without having to update each and every column of the payslip individually. And since the calculations are done by the computer so there are no chances of error. Any new employee record can be added by using the Add feature. And any changes can be made using the Edit feature. Any record of an employee can be deleted using the Delete feature. Hence it makes the work really hassle-free.

The payroll system constitutes functionalities like employee information, generation of pay-slips and tax deduction. It makes use of the salary structure of an employee to generate and manage the generation of the payroll. The employee payslip contains information about basic pay, deductions and the net salary. This Payroll System can be used to generate the payslip easily. It is easy to use and is a hassle free solution for the maintenance and generation of payslips

This software is developed specifically to cater the company employees payroll 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.

2.2 Product Functions

2.2.1 Employee module
Employee module contains the basic details about the users. It can be either the personal details or the employee detail

2.2.3 Search module
This module is used to search for a particular employee if present or not. This module can be used to display the details of that employee.

2.2.4 Attendance module
The attendance module manages the employee's leaves. It takes care about the attendance and manages his leaves.

2.2.5 Salary module
The salary module manages Deduction, net salary,tax amount. It also provides the information that need to be printed in the pay slip.

2.3 User Classes and Characteristics

The main user class here is the Employee class which helps us to add personal details and the employee details. End user should have basic knowledge about the computers and also the users will be given software training documentation or reference material. Payroll class is used to know the payroll details. It contains information like tax amount, food amount. Leave class tells about the no of days an employee was on leave. They can be of the types - annual leave and casual leave.

2.4 Operating Environment

Hardware requirements

- Memory minimum of 512MB RAM (1GB Recommended)
- Hard disk of 8 GB or more

Software Requirements

- Operating system – Windows 7 or more , Ubuntu
- Language – Java
- Database - MySql
- Network -- LAN

2.5 Design and Implementation Constraints

The system faces the following constraints:

- The user has to authenticate himself / herself.
- The employee is not prompted to print a payroll slip

2.6 User Documentation

Along with the software product, a user manual would be written to help people understand the working methodology and usage of the developed prototype system. It would be written for nontechnical individuals and the level of content or terminology would differ considerably, for example, a System Administration Guide, which is more detailed and complex. The user manual would follow common user documentation styles capturing purpose and scope of the product along with key system features and operations. Step-by-step instructions for using the system including conventions, messaging structures, quick References, tips for errors and malfunctions pointers to reference documents and glossary of terms.

2.7 Assumptions and Dependencies

The product must have an interface which is simple enough to understand.
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. External Interface Requirements

3.1 User Interfaces

1. Login Screen
2. Selection Screen
3. Employee Salary Details
4. Employee Leave Details
5. Generate Salary Slip

3.2 Hardware Interfaces

Desktop/Laptop
The user may access our software on their desktop or laptop, under the assumption that the user is using a computing environment like Java and mysql, the user may interact via mouse clicks and keyboard inputs.

3.3 Software Interfaces

- MySQL Server:
  The MySQL tables will contain the database of the employees.
- Windows/ Ubuntu Operating System.

3.4 Communications Interfaces

Windows forms

4. System Features

4.1 Adding details about the employee to the database

To add new employees personal details, employee details and Financial details. We also assign the username and passwords

4.2 Login

The purpose of this feature is to facilitate the user with the access of all services provided by the system by authenticating him/her.
The feature is of high priority as authenticating is necessary to avoid unregistered and unauthenticated users from modifying the data.

4.3 Updating or delete details about the employee, leave and salary

Any information about the employees may be personal or employee details can be modified later. You can also change the leave records and the salary records later. Suppose you want to delete any records you can do that.

4.4 Searching Employee

The purpose of this feature is to facilitate the user to view his/her details.
The feature is of medium priority. Suppose you want to check the details about an employee if he is present or not, you can easily search in that case.

4.5 Generate Pay Slip

It can contain net pay and deductions. This feature is of medium priority. If you want to generate payroll slip for an employee you can click print pay roll slip.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

The software should handle the following tasks

a) It should be able to handle the data of at least 100 employees.
b) Everyone who has an account should be able to login to the system.
c) The software should run fast.

5.2 Safety Requirements

The database might get crashed at any certain time due to virus or operating sytem Failure. Therefore it would be better if you had a database backup. Java built in security measures ensure java program will operate within the rules of the java virtual machine.

5.3 Security Requirements

The Software will

a) Authenticates each user that logs in.
b) When the user performs any action, authorize him/her to perform the actions allowed for the user and display an error message if found unauthorized.

5.4 Software Quality Attributes

5.4.1 Standards compliance

There shall be consistency in variable names within the system. The graphical user interface shall have a consistent look and feel.

5.4.2 Availability
System shall be available 24*7
5.4.3 Maintainability
This project is developed by Java. Java is an object oriented programming language and shall be easy to maintain.
5.4.4 Portability
This product shall run in any Microsoft windows environment that contain java run time environment and mysql

5.5 Business Rules

An employee must be able to view and update only his details.
As per the business policy we will not disclose the personal details of the employee.

6. Other Requirements

Database access should be as quick as possible

Appendix A: Glossary

User : the person who interacts with the system
EPM: Employee Payroll Management
IEEE*:* Institute of Electrical and Electronic Engineers
MySQL*:* Open-Source Relational Database Management System
LAN: Local Area Network
RAM: Random Access Memory