

# Vision Document

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## 1 Document Version

Version	Date	Description	Authors
V1.0	1.0	Initial Vision Document	Daniyal , Mahad, Tayyba, Usman
V2.0	--	Refined Vision Document	--

## 2 Introduction

### **Abstract:**

“Employee Database and Payroll Management System” is one of the core areas of Enterprise performance management businesses for small and mid-sized enterprises, designed to make the existing manual system automatic with the help of computerized equipment and full-edged computer software, fulfilling their requirements, so that their valuable data and information can be stored for a longer period with easy access and manipulation. The required software is easily available and easy to work with. This web application can maintain and view computerized records. This document describes how to manage user data for good performance and provide better services for the client.

### **Project Definition:**

The proposed project “Employee Database and Payroll Management System” has been developed to overcome the problems faced in the practicing of manual system. This software is built to eliminate and, in some cases, reduce the errors and problems faced by the existing system. Moreover, this system is designed for the company to carry out its operations in a smooth and effective manner.

It is used to manage the employee’s allowances, salary, gross salary, deductions, tax, filing records, keeping track of hours, reducing proxy attendances via GPS based system, processing daily wages, printing and delivering paychecks, managing company and employees’ taxes (federal, withholding, sales), and many more. It also provides error message while entering invalid data. It is user-friendly as no formal knowledge is required to use the system, and very less input from the employer. The employer is just required to input his name and ID, and the system automatically verifies it from the database, and automatically generates everything, as the attendances are GPS based.

### **Project Description:**

Human resource challenges are faced by every organization which has to be overcome by the organization. Payroll is an area, in which you don’t want to take any risks because it might lead to some serious financial and legal consequences. Every organization has different employee and payroll management needs. Therefore, I have design exclusive Employee and payroll Management System that are adapted to the organization’s Managerial Requirements or as per the government rules and regulations dealing with all the financial aspects. While it is possible for smaller businesses to handle payroll duties in-house and take risks through manual processing, much time is wasted while attempting to calculate everything, moreover, manpower, resources are also ineffectively used. One miscalculation and the business could find themselves in legal plus financial troubles. So, mid-sized business upto 100 employees can easily invest in this system and find themselves great long-term profits!

### **Purpose:**

The purpose of this document is to describe the functionality and specifications of the design of a web based and mobile application for Managing Employees and their payroll. The expected audiences of this document are the developers, the admin of the web application and the end users (employees). Now with the help of this system the admin has the information on his finger tips and can easily prepare a good record based on their requirements, or the system can automatically generate the required reports based on the criterion set by the Admin. Finally, we can say that this system will not only automate the process but save the valuable time of the manager, the admin, and the employees which can be well utilized by his institute. In a nutshell, Payroll management system gives you the power to:

- Manage employees Information efficiently and effectively
- Define the salaries, profits, bonuses, deductions, taxes, leaves, attendance percentage etc.
- Generation of pay slips, paychecks, paystubs via computer or mobile
- Admin can generate and manage the payroll processes according to the salary structure assigned to the employee
- Auto generation of all the reports (Attendances, leaves, expenses, profits, payrolls) related to organization or employee or management (annually or monthly)
- Managing extra workhours, shifts and attendances.

### **HISTORY OF PAYROLL SYSTEM:**

A computerized payroll system, the employer invests in a computerized payroll software. Using a software such as quickbooks allows the employer to enter the wages into the system after he has manually calculated them. The payroll and check printing are processed through the system. The employer has access to payroll reports that he/she can print and use to double-check against what she has entered before printing the checks. This allows his/her to correct any detectable errors beforehand. Computerized payroll system allow you to process all your normal payroll task via a computerized system, rather than by hand. Essentials like name, address. Social Security number and withholding rate for each employee are automatically filled in for every pay period until you make an employee's record inactive. Many different vendors offer computerized payroll system. Like different word processors or other computer programs, they largely offer the same types of features with slightly different interfaces. Payroll is essentially how employees are paid. It's the legal paperwork involved. There's more to payroll than just handing out cash or checks. However, after gathering data on what the employees did and compared it to their salaries, some simple payday mathematics will let the employer hand out the dough.

### **Significance of the study**

This part of the study discusses about the importance of creating computerized Payroll System. It provides sample discussed how to run a Computerized Payroll System and here are some examples of how it run. Many employers use a timekeeping system, such as clock time, to track work hours employees. Can separate this system regular hours from overtime hours worked Payroll all people will do is make edits / adjustments, if necessary. If time employees are imported into the computerized Payroll system, the latter rounds up and down time employees appropriately, as the nearest quarter hour. It calculates the total hours worked and paid. It is saving the time spent manually calculating time and reduces errors. If the person enters Payroll time system itself, automatically calculates its income, based on its input. The system calculates all pay frequencies, such as weekly, biweekly, and twice a month. Only people attended Payroll data which the reduction is based, such as form for withholding information federal income tax. Necessary you a manual payroll system to print paychecks on a typewriter or by hand.

A computerized Payroll system has direct deposit capability, which saves money spent on live checks and reconciliation. Moreover, paycheck and pay stub generation occurs rapidly, regardless of the quantity developing a computerized system and Prints Payroll reports If you want to double check before printing Payroll stubs paychecks/pay, just refer to the corresponding report. A computerized payroll system allows hard - copy printing of Payroll registers pertaining to each pay period. Also saves its information systems without boundaries The system generates reports to ensure compliance with tax Payroll tax. This includes quarterly and annual wage reporting and development of employee terms. If a related departments such as accounting office holding Payroll taxes and reconciliation of the company, print the required reports would require the department through the computerized system. Furthermore, these days, such as vacation and personal time taken and paid to benefit the track system.

### **Scope:**

#### **1. Recurring payroll services:**

- Gross pay calculation (Basic salary, wage supplements, occasional payments, cost reimbursements, attendance management, etc.)
- Calculation of payroll related taxes and contributions.
- Recording and processing of garnishment (includes Federal taxes, state taxes, child support, loans, emergencies etc.)
- Preparation of payroll slips and other outputs broken down by employees or by cost centers for managerial and operational use.
- Data recording and processing in connection with voluntary pension and health insurance funds, reporting to the pension funds.
- Recording of wage and labor related data( holiday and sick leave balances)
- Providing data and info to the General ledger
- Data reports and certificates to payroll processing (to the tax and social authorities, the Statistical office etc.)

#### **2. Full range of social insurance management**

#### **3. Tasks related to new comers and departing employees**

4. **Annual services connected to payroll processing and social security administration**
5. **Preparation and submission of tax declarations**
6. **Payroll disbursement services:**
  - Movement of all payments calculated during the pay processing cycle.
  - Net salary, Tax, social security's etc.
  - Specified data reports for Client's accounting
7. **Other services upon separate written request including:**
  - Cafeteria management
  - Tax advisory
  - Labor management

### **Definitions, Acronyms, and Abbreviations**

PMS – Payroll Management System

HR – Human Resource

## 3 Business Opportunity

### **Modules:**

#### **Admin:**

The admin gets logged in by valid username and password. Admin can add new Employee, add new Department, add new Pay Grade for the employees. Admin can set the 'from' and 'to' date worked by an employee in a department with specific pay grade. The admin can generate an automated monthly salary of an employee. The admin can view all the past records of any recorded employee.

#### **User:**

The user gets logged in via valid username and password. User can view his/her records, generate his/her current success reports, apply for a leave, turn on email notifications, view Dashboards, Turn off image capturing for some time, write survey and feedbacks.

The payroll system modules manages an employee's financial records, such as salary, bonuses, deductions, benefits, and costs, among other things. Payroll administration is one of the most important tasks that any organization undertakes, but it is also one of the most complicated and time-consuming.

**Employee Information Management:** This module provides a consolidated database for application tracking, employee demographics, compensation and benefit options, time tracking, and more. It's also the central location for all of your personnel data, including the most up-to-date statistics on your organization's hiring and retention patterns.

**Report Monitoring:** Its role is to accurately calculate compensation including overtime. Withholding the appropriate amount of payroll taxes from each applicable payroll tax's wages.

**Generate Performance Reports:** It's useful for keeping track and securing the leave information of the employees. This can also assist in problem solving and avoid conflicts. Generating these reports will assist the admin in updating details regarding important payroll information.

**Salary Monitoring:** This module will help the admin to oversee the creation and distribution of paychecks or electronic bank transfers. It will also resolve the payroll inconsistencies to bring the payroll accounts into balance.

**Deduction Management:** The deduction management will help the admin in managing all the deductions from the salary of their Employees. These deduction were done payment for the employees' benefits and taxes.

**Generates Payroll Reports:** This module will automatically secure the system's payroll transactions for monitoring all of their activities

#### **User Characteristics:**

- A payroll system that is computer driven offers to manage and automate the functions of payrolls systems in a particular organization. Before emergency of the computer systems, most organizations calculated the payroll manually.
- The use of the computer in payroll calculation has de it easier for the management to make and retain the information relating to payroll. Among the main characteristics of payroll systems, include the heightened security with regard to storage of sensitive company information and automatic calculations in employee payments.
- An organization's payroll system ought to effectively accommodate all its workers and the hours worked by each in an accurate manner. In essence, a good pay roll systems is the once which ensures that the hours worked by each employee in the firm are accurately kept. Although human is to err, an automated system minimizes the potential of such error as the only factor employed is the reporting and departure of these employees.
- In the case when the time clock malfunctions or when certain employees forget to go out for lunch, the correction can easily be made by the admin or the accountant using the payroll system. Therefore, the payroll system is the third party which could effectively and accurately keep and record the hours for outsourcing the payroll functions.

#### **Advantages**

- It is cost effective as the user control the web application himself and does not go for professional service.

- It saves time as it speeds up every aspect of the employee database management and payroll process with a range of automated features.
- It is secure as the employee database and the payroll process is managed by the admin in house rather than sending private information to a third party.
- Validating procedures and checks restrict user from making mistakes.
- The software is easy to use and is user friendly so no expertise is required.
- The calculations are automated so no chance of error.

#### **Control vs. Outsourcing:**

The decision to use a payroll service could be a personal choice dictated by how much control you want to have over the different aspects of your company. If you keep payroll in house, it is easy to make changes and answer questions concerning the pay information of your employees. The decision to use a payroll service means giving up some control of that portion of your business. However, payroll is primarily a prepositional operation, so letting someone else handle the details can free up time for more productive tasks.

#### **Disadvantages**

- It requires an internet connection.
- It requires large database.

#### **Benefits of Employee database and payroll management system:**

- Easy to use.
- It is completely secure.
- It is completely controlled by admin.
- This system is easily compatible with most of the web browsers.
- It is very interactive and saves time.
- Reduces paper works.
- Calculations are automated so it is highly accurate.
- Admin can view all the records whenever necessary with ease.

## **4 Problem Statement**

**Problem:** After undertaking an in-depth examination of the existing manual payroll management system and analyzing its shortcomings, it has been found necessary to remove its deficiencies



such as transparency problems, proxy attendances, security defects and non-automated systems and provide a suitable solution for presently encountered problems to reduce human error, increase time effectiveness, efficiency and productivity, reduce paperwork and prevention of time theft.

**Affects:** The stakeholders in this case which is usually the government for governmental organization and the business owner in private organization are affected largely by such absurd, redundant, non-secure and non-transparent system; these systems when easily manipulated hurt the quality of work being done and above all affects the finances of the organization to a very large extent ultimately crippling down the organization.

**Approach:** This study presents the software design for an automated employee management system that has the features of both a payroll management system and an HR management system. This software changes the manual operation into a computer-based system to automate study, provide efficiency, accuracy, timelessness, security and economy. The calculations are based on the user provided employee details like basic pay, house rent allowance, loan details, leaves, attendance, department, dues, bonuses, pensions, and so on. Based on these user inputs the system automatically generates pay slips, pay bills, all schedules for debit and credit payments along with the dispatchment of the pay stubs to the respective employees' bank account. Above all, this system provides utmost transparency at the employees end not allowing him to proxy his attendance and his location at the time of work by accessing the GPS location of his android and by the image capture feature of this system. This system is developed in such a way to suit both the governmental and private employees. The system design can be directly implemented to any other organization with slight modifications.

## 5 Summary of Features

### Product Features

- 5.1 Start System
- 5.2 Shutdown System
- 5.3 View Status of System
- 5.4 Session Management
- 5.5 Add a new Employee
- 5.6 Delete an existing employee
- 5.7 Update an Employee Information
- 5.8 Departmentalization of Employees
- 5.9 Monitor Employee Activity on the System
- 5.10 Payroll Processing

- 5.11 Direct Bank Disbursement
- 5.12 Payroll Compliance
- 5.13 Employee Self-Service
- 5.14 Accounting Integration
- 5.15 Tax Filing Services
- 5.16 Compensation Administration
- 5.17 Reporting
- 5.18 Track of Employee Earnings
- 5.19 Management of Payroll Ledger
- 5.20 Schedule uptime for the employees
- 5.21 Time & Attendance Management
- 5.22 Absence & Leave Management
- 5.23 Biometric Time and Attendance
- 5.24 Sick days Tracking
- 5.25 Employee Performance evaluation
- 5.26 Bonuses and compensation administration
- 5.27 Employee Benefits Administration
- 5.28 Pay-slip generation
- 5.29 Complete data security
- 5.30 Error-free calculations
- 5.31 Annual Report for all & individual Employee
- 5.32 Policy details
- 5.33 Short learning curve
- 5.34 Smart Upgrades
- 5.35 Notifications and Alerts
- 5.36 Mobility
- 5.37 Employee Tracking through GPS and Image Capture
- 5.38 Turn Of Employee Tracking through GPS and Image Capture (for a particular employee)

5.39 Turn Of Employee Tracking through GPS and Image Capture (for a particular department)

5.40 Turn Of Employee Tracking through GPS and Image Capture (for all employees)

5.41 Role Based Dashboards

5.42 Email Notifications

5.43 Surveys & Feedback

5.44 Mobile Workforce Management

5.45 Automatic notification of emergency

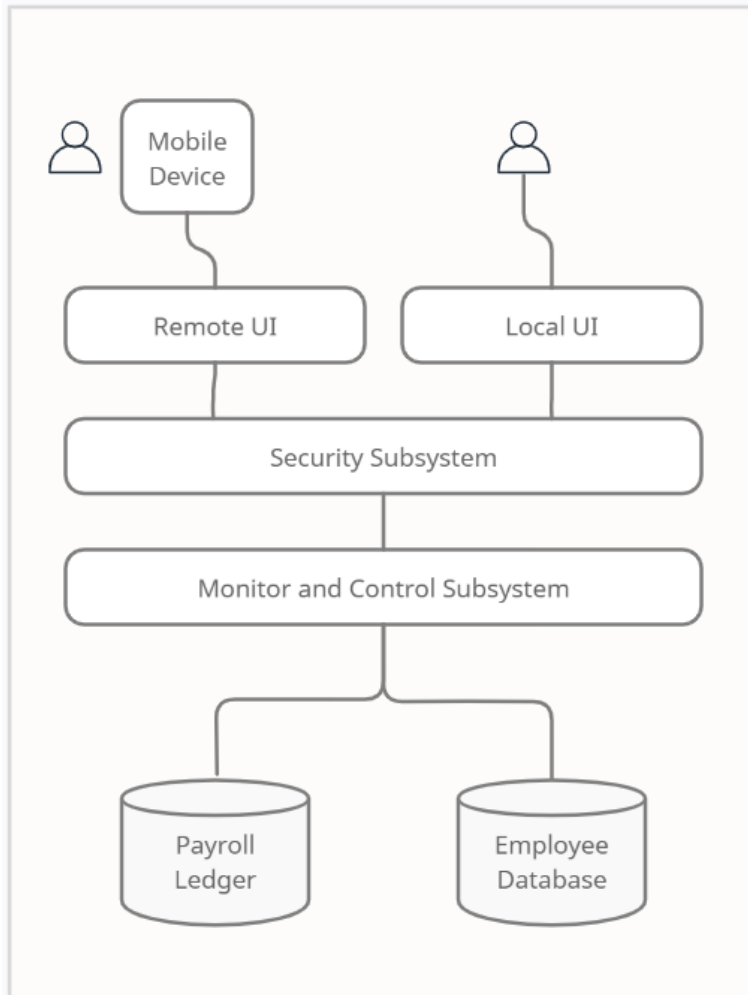
5.46 Employee Database

5.47 Security

5.48 Customizations

## 6 Product Overview

### **Product Perspective:**



### Summary of Capabilities

Customer Benefit	Supporting Features
Convenient, flexible access to the system	Both local and remote access
Secured access to the system	Authentication, Session Management , Access Authorization

<b>User Interface</b>	Extremely easy to understand and elegant user interface for the ease of users and the visibility of options to them
<b>Mobility</b>	Available for both android and OS
<b>Employee Transparency</b>	Payroll is a crucial part of any organization and since they are directly related to the employees and their overall performance along with their leaves and uptime working hours. So the proper record of the employee attendance and their work is a mandatory feature in order to maintain transparency at the employee's end. For this purpose the GPS and Image Capture features are added to the system.
<b>Scalable</b>	This system is a highly scalable system as it allows a very large number of employees and their payrolls to be managed simultaneously.
<b>Automated Payroll System</b>	This system automatically processes all the payroll related activities and does a very precise calculation of the salaries that are to be distributed to all the employees. After the calculation , the payslips are then generated and automatically sent over to the employee's integrated bank account ; not only that but the tax and filing management is also done automatically by this system to avoid any hassle and stress. When all the process is completed an SMS and an email is sent over to the employee and a report is sent to the Accounting and Finance Department to verify the payroll ledger and the Bank Disbursement.
<b>Report Generation</b>	Daily , Weekly , Monthly and Annual Reports are generated automatically with a comparison report based on the last report to

	monitor the progress or the regress.
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## 7 Dependencies and Constraints

### Assumptions and Dependencies

- This System is developed using a component-based software engineering approach. 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

### Limitations and Future Enhancements:

Accurate and correct payroll is very important to your employees and important to you as a business owner. Payroll is more than just sending out paychecks every two weeks. You need to comply with and make sure you pay all of the federal, state and local taxes that are tied to having employees. A payroll service will handle the details and keep you out of trouble with the taxman; however, such a service does have some drawbacks.

### Design constraints:

- The system runs under Windows XP/7/8/8.1 or Any version of Linux.
- The application is developed on VB.Net platform and SQL server 2008 as back end.

## 8 Cost and Pricing

Item	No. of items	Cost	Total
Developers			
Printer			
Others	-		

## 9 Licensing and Installation

. The product requires professional installation. It must be installed by licensed personnel only.