**SRS for EMS:**

### 1. Introduction

The objective of “Employee Management System” is designing a scheduling system for a work centre. Scheduling is such a tool with which the process of intimating activities and notifications will be easy and even online in the organization where it is installed. But these task of scheduling the different activities if manually done whether they may be personal, or official is time consuming and also may lead to confusion if not properly scheduled. Employee Management System is a distributed application, developed to maintain the details of employees and projects in any organization.

#### 1.1 Purpose

This document is intended for the following group of people: -

* Developers for the purpose of maintenance and new releases of the software.
* Documentation writers.
* Management of the organization.
* Testers.

#### 1.2 Scope

This document applies to Employee Management System EMS. This software offers services such as calculating attendance, number of leaves, performance of employees. By considering the preceding factors the salary of employee is calculated automatically and is displayed to the admin and to the employee.

The software takes as input the login Id and the Password of the admin and user for login. The outputs then comprise of an interactive display that lets the admin and user select the desirable function that he wants to perform.

The software is expected to complete in duration of 4 months and the estimated cost is Rs. 5 lakhs.

#### Definitions, Acronyms, and Abbreviations

* EMS – Employee Management System
* MB Mega Bytes.
* Ms Milliseconds.
* Sec Seconds.
* SRS Software Requirements Specification.
* TCP/IP Transmission Control Protocol/Internet Protocol.
* VGA Video Graphics Adaptor is a display standard.
* HTTP Hyper Text Transfer Protocol
* TCP Transmission Control Protocol
* UDP User Datagram Protocol
* IP Internet Protocol

#### 1.4 References

The references for the above software are as follows: -

1. [www.google.co.in](http://www.google.co.in)
2. www.wikipedia.com

#### 1.5 Overview

Section 1.0 discusses the purpose and scope of the software.

Section 2.0 describes the overall functionalities and constraints of the software and user characteristics.

Section 3.0 and 4.0 details all the requirements needed to design the software.

**2. The Overall Description**

**2.1 Product Perspective**

As Now a days Any Organisation or company will have Large Number of Employees working in it. So it is difficult to maintain Records or books To store all the Required data about them.

Here is a solution, This software application will have the functionality to store and retrieve any amount of data in Database. It will be available at any time to all the employees in it.

As it is Software It doesn’t Contains any Hardware Products.

**2.2 Product Functions**

The major functions of the Employee management system are described as follows:-

* Administrator login.

The admin has the ability to Monitor all activity logs of an employee in system by date and time. the admin can add a new user. During the process of user registration, the all Users are issued with a unique username and password. The admin can search an employee, delete an employee at any time during the entire process.

* Admin will also assign The projects to the employee. Shall add a new project. Search for a project. And delete a project.
* And Will make a Record of Working days of Each employee i.e. Attendance and the No of leaves taken.
* Calculating the salary of an employee Based on performance. Leaves, no of working days HRA, DA, etc.. is a major Task.
* Employee Login.

All users are presented with the same login interface.

User must login the system by means of valid Username and password. After access is Granted to the system. The newly added user logs into the system with a default Password which can later be changed to a more secure Password.

Any Employee Belonging to that organisation can access the data. Such as Basic Info, Project alloted, working days, leaves, salary.

**2.3 User Characteristics**

Here the user refers to an employee who will be interacting with the system.

* The Employee can Access the System using The Employee id and password provided to him By the Administrator. Only the Employees Registered by an admin can only log into the application.
* Employee out of this organisation can not have the access to the system.
* Employee In this Company shall have The access to view their
* Personal Information,
* Attendance i.e. Number of days he worked,
* The Number of leaves taken,
* And also the Number of leaves Left.
* Employee Salary. Complete Info including HRA,DA,Payscal,PF etc

**2.4 Constraints**

The major constraints that the project has are as follows:-

* The System can interact with any number of users at a Time.
* Employee can Login with his specified employee Id and password only.
* Any un appropriated data will be updated by the Admin.
* The software requires a minimum memory of 20GB
* Database used should be Oracle7.0.

**2.5 Assumptions and Dependencies**

The requirements stated in the SRS could be affected by the following factors:

• One major dependency that the employee might face is the changes that need to be changed in Database in the different aspects. Where the employee cannot be allowed for such activities.

• Another constraint relating to the operating environment is that we are specific to Oracle Database.

• The project could be largely affected if a person Login at the same time when someone is accessing that account. Such a condition shall be taken care of.

• At this stage no quantitative measures are imposed on the software in terms of speed and memory although it is implied that all functions will be optimized with respect to speed and memory. It is furthermore assumed that the scope of the package will increase considerably in the future.

### 3. System Features

#### 3.1 Functional requirements

1. Remote Accessing and Employee Management

**Admin:**

At the start, the admin is provided with a log in screen, and he is required to enter his Id and Password which will be verified by the software. In case of an unsuccessful attempt admin is asked again for his credentials, but the maximum number of attempts given to the admin is limited to 3 only, failing which his attempt is blocked and need to be unblocked by the developers.

After the login, the admin is directed towards a main page that displays a set of option along with their brief description, enabling the admin to understand their functioning. The admin can select any of the listed option and can continue with the process.

In the main page admin is presented with the options such as Employee Maintenance, Project, Employee Attendance, Employee Salary, Employee Performance. The admin can select anyone in the list for interaction with the software for the entire session.

At any moment if the admin wants to abort the activity, He is provided with an option to cancel it. Just by pressing the abort button he can cancel all the changes made so far and can begin with a new activity. After the admin is finished with his work, he is required to log out.

**Employee:**

At the start, the employee is provided with a log in screen, and he is required to enter his User Id and Password which will be verified by the software. In case of an unsuccessful attempt employee is asked again for his credentials, but the maximum number of attempts given to the employee is limited to 3 only, failing which his attempt is blocked and need to be unblocked by the admin.

After the login, the employee is directed towards a main page that displays a set of option along with their brief description, enabling the employee to understand their functioning. The employee can select any of the listed option and can continue with the process.

In the main page employee is presented with the options such as My profile, projects, attendance, salary and the performance. The employee can select anyone in the list for interaction with the software for the entire session.

At any moment if the employee wants to abort the page, He is provided with an option to close it. Just by pressing the close button he can come out of page. After the employee is finished with his work, he is required to log out if necessary.

### Validity Checks

In order to gain access to the software, the admin and employee is required to enter his/her correct user id and password failing which his attempt may be blocked. The employee can access only one account at a time and can enter only one employee Id. Also, the admin is required to enter his login id in order to access and change the facilities provided by the software.

### Sequencing Information

The information about the employee’s and their profiles should be entered into the database and the backup must be maintained for all employee’s information.

Error Handling/ Response to Abnormal Situations

If any of the above validation/sequencing flow does not hold true, appropriate error messages will be prompted to the employee for doing the needful.

**4. External Interface Requirements:**

**4.1 .1 User Interface Requirements:**

1. A login screen is available in the beginning to the user for entering the credentials like username and password

2. An unsuccessful login leads to a reattempt (maximum three) screen for again entering the same information. If the user is Admin then the successful login leads to the admin main menu and if the user is Employee then the successful login leads to employee main menu

3. In case of **Administrator**, a screen will be shown having options like Employee maintenance, Project, Attendance, Salary, Performance

4. In case of Employee maintenance, a screen will be shown having different options like searching an employee, Adding employee, Updating employee information

5. In case of Project, a screen will be shown having options like Project information, adding new project, Assigning projects to an employee, deleting the projects

6. In case of Attendance, a screen will be shown having options like Employee’s attendance, marking attendance,

7. In case of Salary, a screen will be shown having options like search for an employee’s salary and calculating salary of an employee

8.In case of Performance, a screen will be shown having a search bar to search an employee using his/her id, after accessing the information of particular employee performance is measured based on projects done and sales

9. In case of **Employee,** a screen will be shown having options like details, project, attendance, salary, performance, FAQ's

10. In the above options employee can only view the data and cannot edit the data

**4.1.2 Hardware requirements**

**Processor:**

Minimum: 1.9 gigahertz (GHz) x86- or x64-bit dual core processor with SSE2 instruction set

Recommended: 3.3 gigahertz (GHz) or faster 64-bit dual core processor with SSE2 instruction set

**Memory:**

Minimum: 2-GB RAM

Recommended: 4-GB RAM or more

**Display:**

Minimum: Super VGA with a resolution of 1024 x 768

Recommended: Super VGA with a resolution of 1024 x 768

**Network requirements:**

* Bandwidth greater than 50 KBps (400 kbps)
* Latency under 150 ms

**4.1.3 Software Interface Requirements**

In order to perform various different functions, this software needs to interact with various other softwares. So there are certain software interface requirements that need to be fulfilled which are listed as follows:-

The attendance management used to manage attendance should keep track of working days and leaves of an employee

The salary management used to calculate the salary based on attendance of an employee

The project management used to assign the projects to active employees

The performance management used to keep track of performance of all employees based on the projects done

The database shall keep all the records of employees in such a way that information cannot be lost

**4.1.4 Communication Interface Requirements**

The application needs to communicate with the organization for each session for various functions like login, attendance, leaves, salary payment, etc… The following are the various communication interface requirements that are needed to be fulfilled in order to run the application successfully:-

Once a dial-up connection is established to an IP network, then standard protocols like TCP, UDP, and HTTP can be used. Device can also connect also connect to an IP network using a network access point.