
Software Requirements Specification for Employee Leave Management System

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1.Introduction

1.1Purpose

This project aims to create an automated workflow for a company online leave management solution. Leave Management System (LMS) is a web-based programme that can be accessed by any group or department inside the organisation. The workflow for leave requests and subsequent approvals can be automated using this system. The periodic accounting of leave is also automated. This system includes features like leave cancellation and leave acceptance.

1.2Project Scope and Product Features

The Leave Management System automates the functionalities of the leave management. It is a unique software that makes event planning paperless. Users may check their leave balances, notices, and status with a few simple clicks, then apply for and approve leave as necessary. Enhance the system's mechanisms for receiving, approving, and rejecting leave requests. Eliminates paper-based leave application forms which can be submitted and approved online.

1.3References

1. Adamu, Abubakar. "Employee Leave Management System." Fudma Journal of Sciences 4, no. 2 (2020): 86-91.
2. Singh, Manish, Prachi Singh, Rohil Singh, Shubham Singh, and Shiwani Gupta. "Leave and Payroll Management System." IOSR Journal Of Computer Engineering (IOSR-JCE) (2017).
3. Lagat, Jean Jerotich. "Easy Leave Management System." (2019).
4. Malomo, L., and Zambia Lusaka. "Leave management system." International Journal of Multi-Disciplinary Research,(ISSN: 34717102) (2018).

2.Overall Description

2.1Product Perspective

The efficient and successful management of employee leave is made possible by leave management software. This system automates the entire leave process, including employee completion of leave applications, HR, and management (Boss) acceptance of leave applications, and setting up your unique corporate parameters, such as leave types (sick leave, Annual leave, etc.). The administrative department will always be up to date with the leave management of the employees.

2.2 User Classes and Characteristics

The three types of Users are:

TYPE OF USER	PRIVILEGE LEVEL	EXPERIENCE LEVEL	TECHNICAL EXPERTISE
MANAGER	Medium (Can register and have privileges to manipulate employee details and also approve leave requests)	Medium (Should have the knowledge of the rules related to organization and the functions of Manager)	Medium (Should know the system rules and well trained/skilled to handle the system effectively)
BOSS	High (Can register and have privileges to manipulate employee, manager and holiday records along with the leave records)	High (Should have the knowledge of rules related to leave approval or rejection and also be able to manage other lower role privileges .)	High (Should know the system rules and well trained/skilled to handle the system effectively)
EMPLOYEE	Low (Will be able To access data pertaining to himself only).	Low (Should have knowledge on organisation rules For requesting leave)	Low (Should know the system rules and well trained/skilled to handle The system effectively)

2.3 Operating Environment

INTERFACE:

OPERATING SYSTEMS:	Windows
SOFTWARE (WEB BROWSERS):	Mozilla 2.0 and later, Google Chrome, IE 7.0 or later

2.4 Design and Implementation Constraints

CO-1: High performance, a user-friendly interface, a security-based system that verifies users, and a lightning-quick response time.

2.5 User Documentation

UD-1: The system shall provide an online help which contains information about system controls.

UD-2: A document with snap-shots that describes each function of the system in detail and how to perform them.

UD-3: A user manual document that tells how to use system features.

2.6 Assumptions and Dependencies

AS-1: It is assumed that the User has basic knowledge of the computer.

AS-2: All the information entered by the employee is correct.

DE-2: A suitable internet connectivity in the system or the mobile.

3. System Features

To make the essential functions of the system clear, system features are arranged according to use cases and a functional hierarchy.

3.1 Login

3.1.1 Description and Priority

Users(Employee,Manager,Boss) of the system can use the system features only after the login. Login is used for identify the user is authenticated or not.

Priority: High

3.1.2 Stimulus/Response Sequences

Stimulus: As the login page pops up, enter login credentials (user-Id and password) and click on the Login button. If the user is validated from the database stored, User Homepage is shown.

Response: If user and password does not match then it shows an appropriate error message, thereby asking user to enter the correct details.

3.1.3 Functional Requirements

User-id and Password is required.

3.2 Dashboard

3.2.1 Description and Priority

The dashboard displays according to the user privileges.

Priority: High.

3.2.2 Stimulus/Response Sequences

Stimulus: Once the user(Employee,Manager,Boss) logins successfully
For Boss- Manager,Employee,Holiday and leave record tables along with employee leadership board is shown.
For Manager-Employee, holidays and leave record tables are displayed along with employee leadership board.
For Employee-leave status,applied leaves,employees and holiday record tables.

Response: It displays an error message if any information is incorrect or missing.The identical page opens once more and requests accurate information.

3.2.3 Functional Requirements Details of the employee.

3.3Change Password

3.3.1 Description and Priority

If a user (employee, manager, or boss) can reset their password anytime.

Priority: High

3.3.2 Stimulus/Response Sequences

Stimulus: Click the Change Password option on the profile page.
Enter the old password and new password. Confirm the new password by reentering .
Save the changes. Successful message is displayed.

Response: If new password and confirm password doesn't match error is displayed and the user is asked to reenter the correct details.

3.3.3 Functional Requirements

User-id of the user is required.

3.4 View Profile

3.4.1 Description and Priority

A user's personal information are collected in their user profile. Users have access to edit their profile
Priority: Medium

3.4.2 Stimulus/Response Sequences

Stimulus: After logging in, select Profile from the menu.

Response: The user is presented their user profile.

3.4.3 Functional Requirements

User has to login

3.5 Apply for Leave

3.5.1 Description and Priority

The employee must submit a leave application in order to take time off. He/she must give appropriate reason for the leave and also information about duration of the leave.
Priority: High

3.5.2 Stimulus/Response Sequences

- Stimulus: After logging in, select the Apply Leave option.
 Choose the reason and enter all the necessary information.
 Also select dates to give information about the duration of the leave.
 On the Apply Now button, click.
 User sees confirmation message
- Response: It displays an error message if any fields are incomplete or inaccurate. The identical page, which requests accurate data, opens again.

3.5.3 Functional Requirements Leave-type is required.

3.6 Approve/Reject Leave

3.6.1 Description and Priority

The employer's submitted leave application is viewable by both Boss and Manager. The Boss or manager can then approve or deny the leave application after reviewing all the application facts.

Priority: High

3.6.2 Stimulus/Response Sequences

- Stimulus: After logging in, select the Apply Leave option.
 Choose the type of leave and enter all the necessary information.
 On the Apply button, click. Verify the form, then request confirmation.
 User sees confirmation message.
- Response: It displays an error message if any fields are incomplete or inaccurate.
 The identical page, which requests accurate data, opens again

3.6.3 Functional Requirements Leave History is required.

3.7 Leave status

3.7.1 Description and Priority

Once the leave is approved employee can view the status of the leave in his dashboard.

Priority: High

3.7.2 Stimulus/Response Sequences

Stimulus: Login as employee,there choose leave status.

Response:

3.7.3 Functional Requirements

Employee must have applied for a leave

3.9 Holidays record

3.9.1 Description and Priority

The holidays list will be determined by the Boss. The Boss can change and introduce new holidays.

Priority: High

3.9.2 Stimulus/Response Sequences

Stimulus: Login as Boss by opening the Boss login page.
Add or change the holidays list.

Response: Holidays list gets updated.

3.9.3 Functional Requirements

User must have privileges.

4.External Interface Requirements

4.1User Interfaces

U1-Login: Login into the system

U2-Employee: Display all the employees, apply for leave, leave status.

U3-Manager: Display all the employees, employee leave requests.

Approve leave and manage employees (can add or delete)

U4-Boss: Display all the employees, manager, employee leave requests, holidays list. Can make changes to employee, manager and holidays list and also approve employee leave requests.

4.2Hardware Interfaces

No hardware interfaces have been identified.

4.3Software Interfaces Web Browsers such as Mozilla Firefox, Google Chrome and others.

4.4Communications Interfaces

CI-1: A web-based interface where user can interact with the system to perform various functions.

5.1Performance Requirements

Because it is a web application, it uses minimal resources and works on practically all computers. Its features and operations do not require a lot of computing. It doesn't need a lot of RAM, disc space, or a powerful processor or graphics card. Only the most recent browser is needed.

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5.2Safety Requirements

This application, like all other web applications, requires access to the Internet. It also mandates that the user maintain his private keys private and secure and not divulge them to anyone.

5.3Security Requirements

For each login, correct authentication is required.

5.4 Software Quality Attributes

Availability-1: The system will be available 24*7 for user access.

Interoperability: Can be run on windows or any other operating system

Appendix A: Data Dictionary and Data Model

Role	=Role Name Role Id email Gender Date Of Birth
Role name	= * Name of the employee who is in the organization shall be applying for leave if he is employee; 30 character alphanumeric * *Name of the manager who shall be managing employee and their leave records* *Name of the boss who shall be managing employee, manager, employee elave and holiday records*
Role ID	= * Company ID number of the employee who shall be applying for leave; 6character numeric string *
Role Date Of Birth	= * DOB of the role*
Role gender	= * Gender of the role;
Role e-mail	= * e-mail address of the employee who applied for leave; 50 character alphanumeric * *email address of the manager who shall be managing employee and their leave records * * email address of the boss who shall be managing employee, manager, employee leave and holiday records*

leave request = leave type
 + leave date
 + leave document
 + No. of days
 + Leave request status

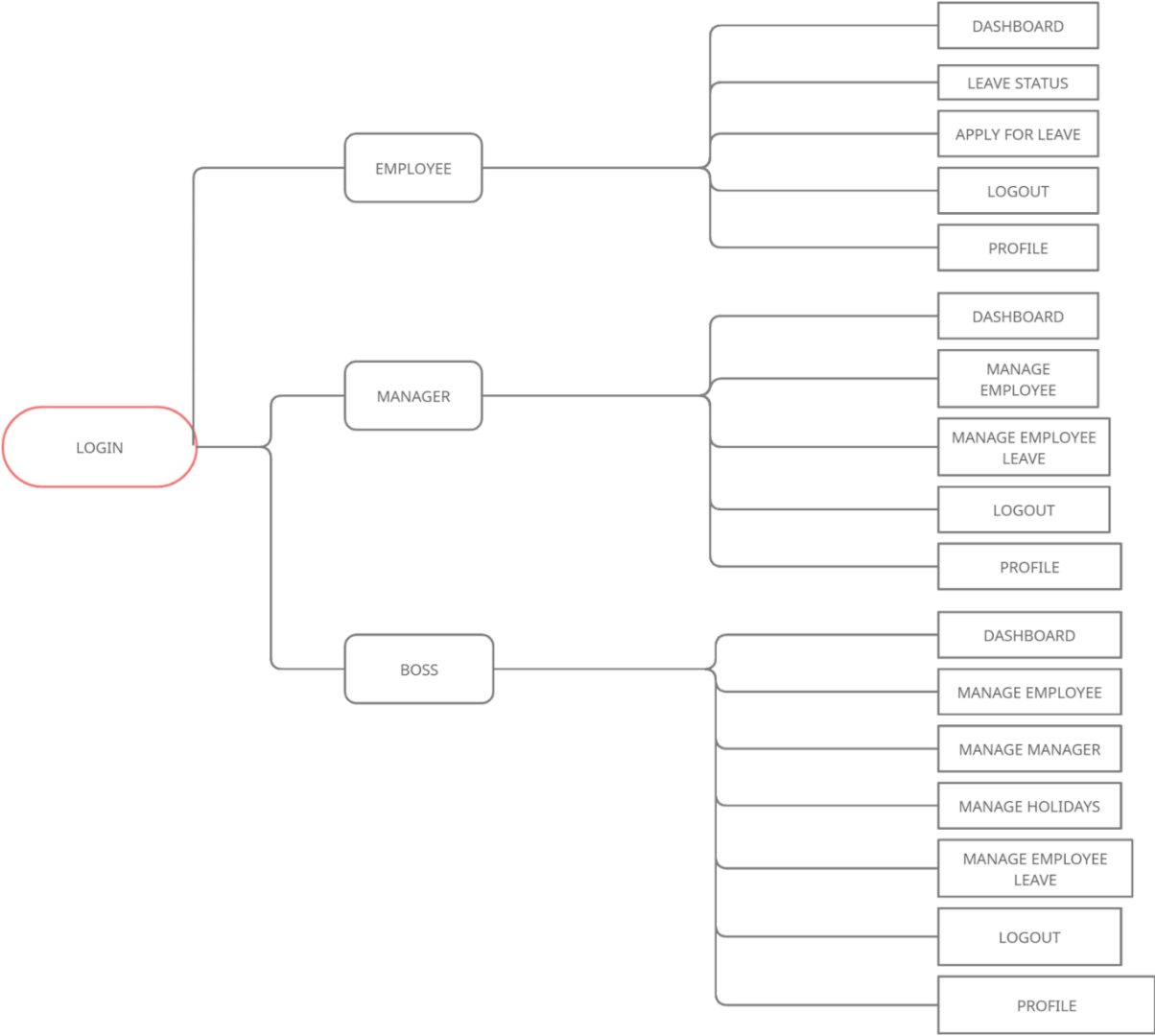
start date = Dates on which employee would be on leave
and end date

Leave Reason Reason for the leave

No. of days = Number of days the employee would be on leave.

Leave status = Either shows approval or rejection of the leave request or still in pending

Appendix B: UML Diagram



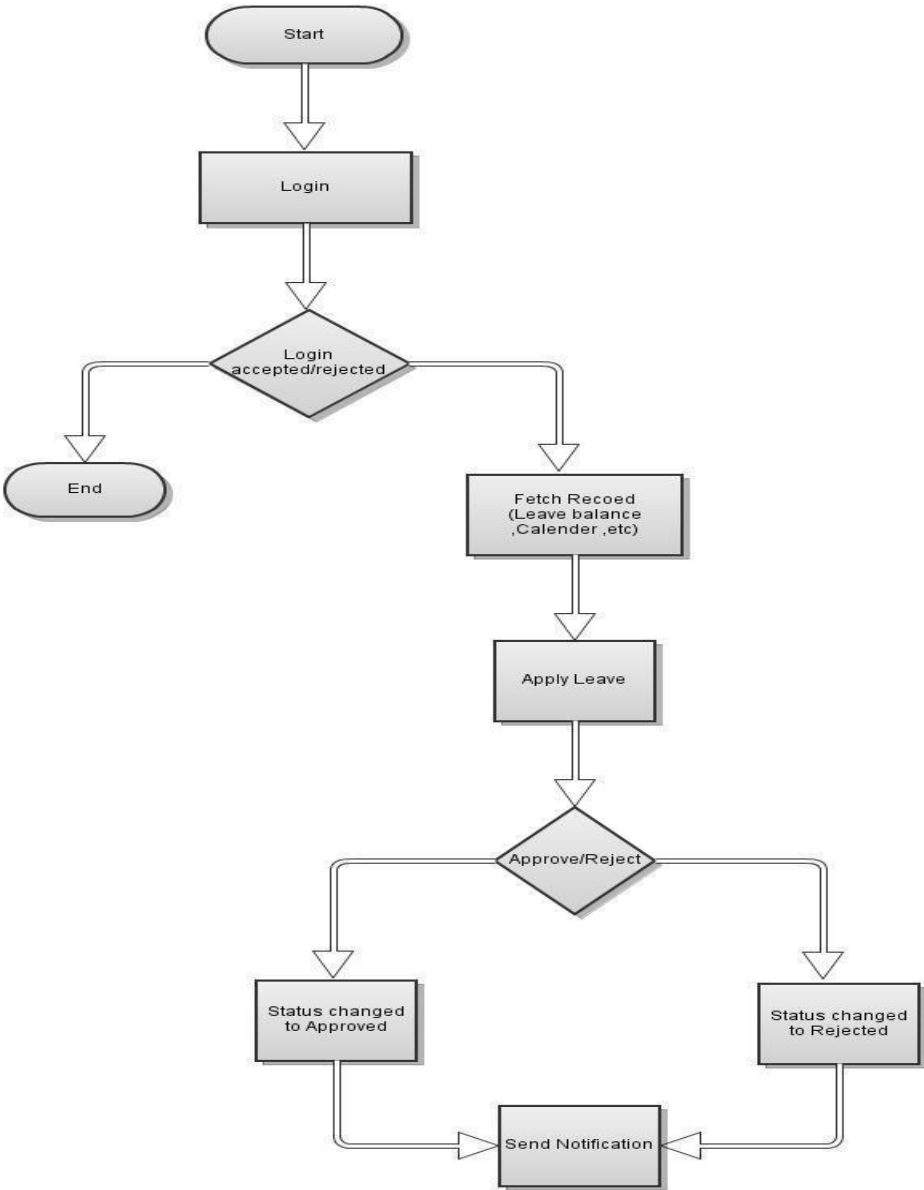


Fig: System Flow Chart