

Leave Management System

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Abstract

The Leave Management System (LMS) is a web-based application designed to automate and streamline the process of managing employee leave within an organization. The system overcomes the limitations of traditional manual methods—such as email-based requests, spreadsheets, and paper forms—by providing an integrated, centralized, and user-friendly platform. LMS enables employees to apply for leave digitally, while managers can review, approve, or reject requests efficiently.

By maintaining structured leave records, automating workflows, and enabling transparent communication, the system reduces human error, increases productivity, and supports better decision-making. With clearly defined roles, integrated dashboards, and secure data management, the Leave Management System ensures a seamless and reliable experience for both employees and administrators.

1. Introduction

The Leave Management System (LMS) is a web-based application designed to automate and simplify the process of managing employee leaves within an organization. Traditional leave handling relies on emails, verbal communication, or paper-based forms, which often leads to delays, errors, and miscommunication between employees, managers, and the HR department.

A digital leave management solution ensures that the entire workflow—applying for leave, tracking requests, approving or rejecting applications, and maintaining leave records—is handled efficiently and transparently.

This system provides role-based access for employees, managers, and administrators, allowing each user to perform their responsibilities through an intuitive dashboard. By integrating digital workflows with a central database,

the LMS improves accuracy, reduces administrative workload, and enables organizations to maintain proper leave policies and auditing processes.

Overall, the Leave Management System modernizes the leave workflow, enhances communication, and contributes to better workforce planning and operational efficiency.

2. Problem Statement

Organizations often struggle with outdated and manual leave-handling processes. Employees typically apply for leave using emails, handwritten forms, or verbal communication. Managers face difficulty tracking multiple requests, verifying leave balances, or maintaining accurate historical records.

This results in:

- Delayed approvals
- Miscommunication
- Lost or inaccurate data
- Lack of transparency
- Poor compliance and auditing

The Leave Management System solves these challenges by digitizing the end-to-end process, offering automated workflows, secure storage, and clear visibility into leave activities across the organization.

3. Scope of the Project

The scope of the Leave Management System includes the development of all necessary features required to manage employee leaves digitally within an organization. The system supports:

User Registration and Login

Employees and managers can securely log in and access their respective dashboards.

Leave Application

Employees can submit leave requests with details such as leave type, dates, and reason.

Leave Approval Workflow

Managers can view pending requests and approve or reject them based on organizational policies.

Leave Tracking

Users can view leave history, status of current applications, and remaining leave balances.

Leave Types Management

Administrators can define different leave categories such as sick leave, casual leave, and earned leave.

Database Management

All leave and user-related data is stored securely and can be accessed for reporting or audit purposes.

Dashboard View

Role-specific dashboards allow quick access to pending tasks and relevant information.

4. Functional Requirements

Employee Features:

- Register and log in securely
- Apply for leave
- View leave history and status
- Check available leave balance

Manager Features:

- Review pending leave requests
- Approve or reject applications
- View team calendar and availability
- View employee leave history

Admin/HR Features:

- Manage leave types
- Maintain user roles
- Oversee system logs
- Generate reports

5. System Requirements

5.1 Software Requirements

- Operating System: Windows / Linux / macOS
- Programming Language: PHP
- Framework: Laravel
- Database: MySQL
- Web Server: Apache (XAMPP/WAMP/LAMP)
- Browser: Google Chrome / Firefox
- Code Editor: VS Code / Sublime Text / Cursor

5.2 Hardware Requirements

- Processor: Minimum 1.5 GHz
- RAM: Minimum 4 GB
- Storage: 500 MB free space
- Stable internet connection (optional)

6. System Design

6.1 Architecture Design (MVC)

The system follows the Model-View-Controller (MVC) architecture of CodeIgniter:

- **Model:** Database interaction (Users, Leaves, Leave Types)
- **View:** User interface (forms, dashboards)
- **Controller:** Business logic (login, apply leave, approve leave)

7. Module Description

7.1 Authentication Module

Handles user registration, login, logout, and session management.

7.2 Employee Module

Employees can apply for leave, view leave history, and track approval status.

7.3 Manager Module

Managers can view pending leave requests, approve or reject them, and check employee histories.

7.4 Leave Module

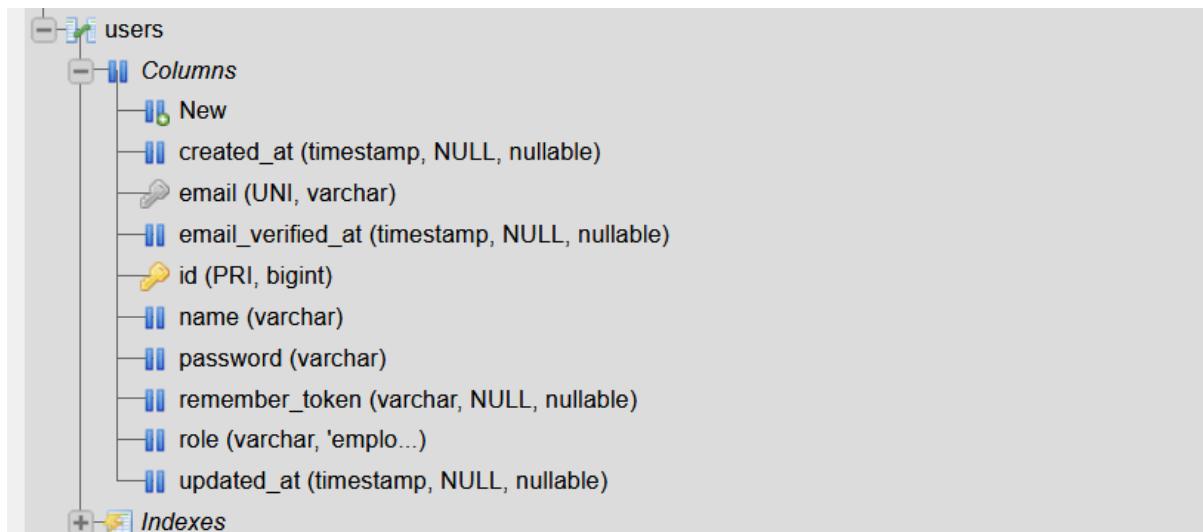
Manages leave types, leave duration, balances, and validations.

7.5 Admin Module (optional)

Manages users, leave policies, and system-level settings.

8. Database Design

8.1 Users Table



8.2 Leaves Table



9. Implementation

9.1 Frontend

- Built using **HTML, CSS, and Bootstrap**
- Blade templates used for layouts and reusable components
- Includes forms for:
 - Login
 - Registration
 - Apply Leave
- Separate dashboards for **Employee** and **Manager**

9.2 Backend

- Developed using the **Laravel framework**
- **Controllers** handle all main operations
 - AuthController for login & register
 - LeaveController for leave requests
 - ManagerController for approvals
- **Models (Eloquent ORM)** interact with the database
 - User model
 - Leave model
 - LeaveType model
- **Routes (web.php)** manage all navigation and actions
- **Middleware** used for authentication and role checking

9.3 Business Logic

- **Role-based redirection** after login
 - Employee → Employee Dashboard
 - Manager → Manager Dashboard
- **Leave validation**
 - Date checks
 - Required fields
- **Approval workflow**
 - Manager can approve or reject leave
- **Status updates** stored in the database and shown to the user

10. Screenshots

Login Page



Email

Password

Remember me

[Forgot your password?](#)

Registration Page



Name

Email

Password

Confirm Password

[Already registered?](#)

Employee Dashboard

Welcome, sai31728

Total Leaves 1	Approved 0	Pending 1	Rejected 0
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[Apply for Leave](#)

Recent Leave Requests

Date	Leave Type	Status
24 Nov 2025	Earned Leave	Pending

Manager Dashboard

The screenshot shows a Manager Dashboard interface. At the top, there's a header with a logo, 'Dashboard', and a user profile 'praneeth'. Below the header is a section titled 'Manager Dashboard' with a sub-section 'All Leave Requests'. A table displays five leave requests from different employees (sai, swamy) with details like leave type (Casual Leave, Sick Leave), dates (From: 2025-11-26, To: 2025-11-29), reason (earned leave, saple, nothing, holiday vacation), status (Approved, Rejected), and action (No Action). Below the table is a large, empty light-gray rectangular area.

Admin Dashboard

The screenshot shows an Admin Dashboard interface. It features a sidebar with navigation links: Home, Employees, Managers, Leave Requests, Approvals, and Logout. Below the sidebar, there are several summary cards: 'Total Employees' (1), 'Total Managers' (1), 'Total Leave Requests' (5), 'Pending Leaves' (0), 'Approved Leaves' (3), and 'Rejected Leaves' (2). The 'Rejected Leaves' card is highlighted with a red background.

11. Conclusion

The Leave Management System successfully replaces traditional manual leave-handling methods with a digital, automated, and efficient solution. It simplifies communication between employees and managers, ensures accurate leave tracking, reduces workload on HR, and maintains all records securely.

This system improves overall operational efficiency, promotes transparency, and supports better workforce planning within the organization.

12. Future Enhancements

- Email/SMS notifications for leave approvals

- Mobile application (Android/iOS)
- Attendance integration
- Multi-level managerial approval
- Leave analytics dashboard
- Export leave reports as PDF or Excel
- Auto leave balance calculation based on company policy

13. References

1. **Laravel Framework Documentation**

<https://laravel.com/docs>

2. **PHP Official Documentation**

<https://www.php.net/docs.php>

3. **PHP Official Documentation**

<https://www.php.net/docs.php>

3. **Bootstrap Official Documentation**

<https://getbootstrap.com/docs/>

4. **MDN Web Docs (HTML, CSS, JavaScript Reference)**

<https://developer.mozilla.org/>

5. **OpenAI ChatGPT**

Used for proof-reading, generating explanations, and improving clarity of documentation content.

<https://chat.openai.com/>

6. **Stack Overflow Community**

Used for troubleshooting common Laravel and PHP errors.

<https://stackoverflow.com/>

