

# Leave Management System

Built by **Paila Jeevan** for Flipkart Task-1  
📅 Last Updated: 21 July 2025

A comprehensive web-based Leave Management System built with Flask, SQLAlchemy, and modern HTML/CSS.

## Overview

- The Employee Leave Management System (ELMS) is a comprehensive web application designed to streamline and automate the process of managing employee leave requests. It provides features for employees to request leave, managers to approve/reject requests, and administrators to manage the system and generate reports.

## Features

- **User Authentication:** Secure login for employees, managers, and administrators
- **User Roles:** Admin, Manager, and Employee with different permissions
- **Leave Request Workflow:** Submit, approve, reject, and cancel leave requests
- **Dashboard:** Overview of leave statistics and recent requests
- **Reporting:** Generate CSV and PDF reports
- **User Management:** Admin can create and manage users
- **Profile Management:** Users can update their profiles and change passwords
- **Responsive Design:** Works on desktop and mobile devices

## Technology Stack

- **Frontend:** HTML5, CSS3, JavaScript, Bootstrap 5
- **Backend:** Python, Flask
- **Database:** SQLite (with SQLAlchemy ORM)
- **Authentication:** Flask-Login
- **Reporting:** CSV, PDF generation

## Installation

1. Clone the repository:

```
git clone https://github.com/pailajeevan/leave-management-system.git
cd leave-management-system
```
2. Create and activate a virtual environment:

```
python -m venv venv
source venv/bin/activate # On Windows use `venv\Scripts\activate`
```
3. Install dependencies:

```
pip install -r requirements.txt
```
4. Initialize the database:

```
python app.py
```
5. Run the application:

```
python app.py
```
6. Access the application at : `http://localhost:127.0.0.1:5000`

## Default Users

The system creates default users when first initialized:

- Admin:

Username: admin

Password: admin123
- Manager:

Username: manager

Password: man123
- Employee:

Username: employee

Password: emp123

## Project Structure

```
leave-management-system/
├─ app.py                # Main application file
├─ templates/            # HTML templates
│   ├── _flash_messages.html
│   ├── _leave_status_badge.html
│   ├── _pagination.html
│   ├── 404.html
│   ├── 500.html
│   ├── base.html
│   ├── change_password.html
│   ├── dashboard.html
│   ├── leave_requests.html
│   ├── login.html
│   ├── new_leave_request.html
│   ├── new_user.html
│   ├── profile.html
│   ├── reports.html
│   ├── users.html
│   └─ view_leave_request.html
├─ README.md             # This file
└─ requirements.txt      # Python dependencies
```

## Individual Features

### Employee Features

- View leave balances
- Submit new leave requests
- Track request status
- View request history

### Manager Features

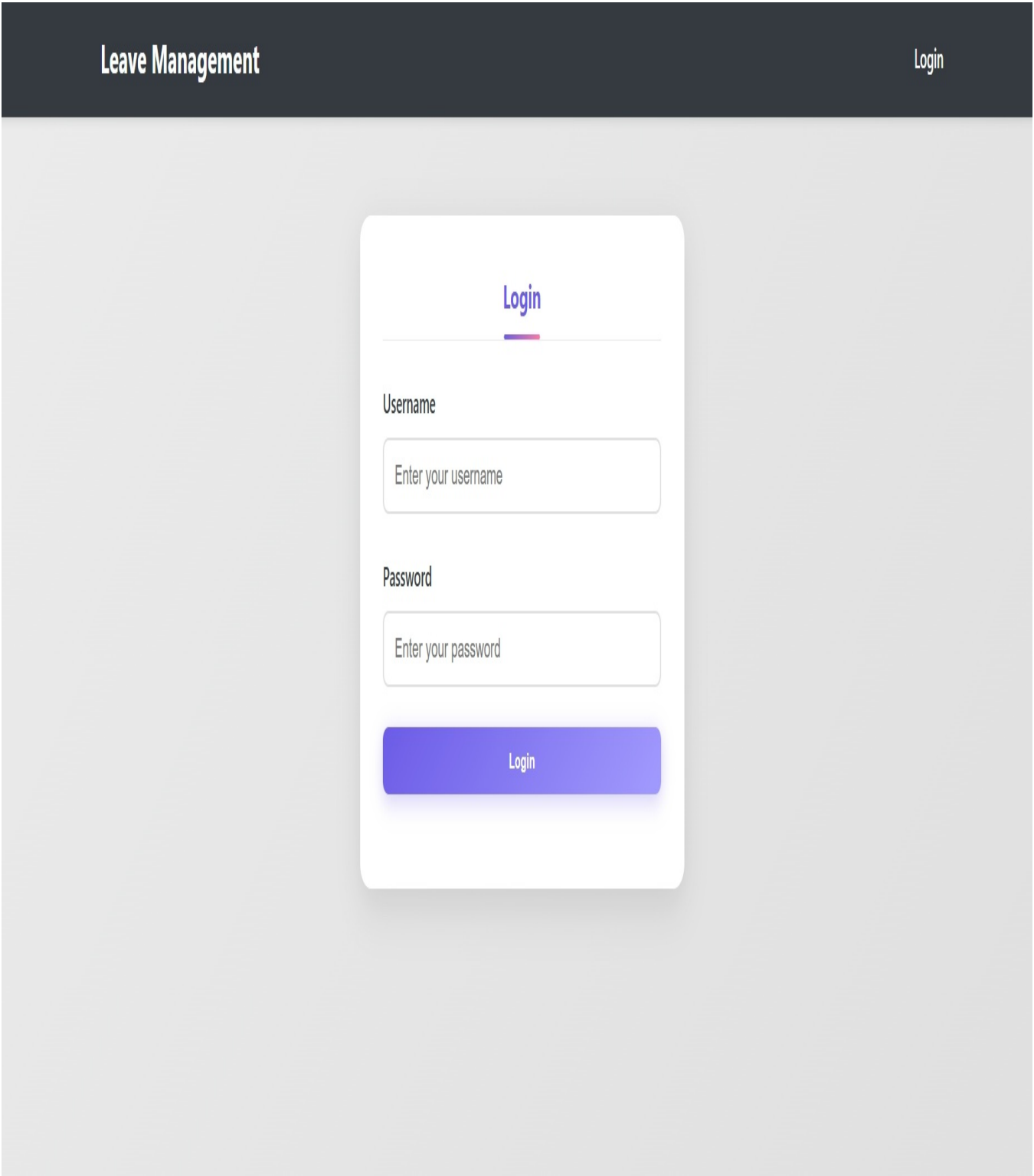
- Approve/reject leave requests
- View team leave calendar
- Monitor pending approvals

### Admin Features

- Manage all users
- Configure leave types
- Generate system reports
- Monitor system activity

# Screenshots

- Login Page



- Admin\_Dashboard

AUAdmin UserAdmin

MENU

Dashboard

Leave Requests

Reports

Users

Profile

Logout

Search...

3

AUAdmin

Welcome back, Admin!

Here's what's happening with your leave requests and team activities.

1

Total Employees

1

Team Managers

0

Pending Requests

1

Approved Requests

0

Rejected Requests

Recent Leave Requests

View All >

| Employee | Leave Type | Dates | Days | Status | Actions |
|----------|------------|-------|------|--------|---------|
|----------|------------|-------|------|--------|---------|

- Admin\_Profile



Admin User

Admin

Menu

[Dashboard](#)

[Leave Requests](#)

[Profile](#)



Admin

## My Profile



Admin User

admin@example.com

Admin

Personal Info

Security

First Name

Last Name

Email

Department

- Admin\_Reports

AU

Admin User

Admin

MENU

Dashboard

Leave Requests

Reports

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Search...

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AU

Admin

Reports

Generate Custom Report

Select filters and options to generate a custom leave report

Report Type

Select Report Type

Format

CSV

Start Date

30-06-2025

End Date

30-07-2025

Generate Report

Quick Reports

- Manager Dashboard

JM

Jeevan Manager

Manager

MENU

Dashboard

Leave Requests

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Logout

Search...

3

JM

Jeevan

Welcome back, Jeevan!

Here's what's happening with your leave requests and team activities.

1

Team Members

0

Pending Requests

1

Approved Requests

Recent Leave Requests

View All

| Employee  | Leave Type | Dates                       | Days | Status   | Actions         |
|---|------------|-----------------------------|------|----------|-----------------|
| <div><div>AE</div><div>Akhilesh Employee</div><div>Operations</div></div> | Sick       | Jul 26, 2025 - Jul 30, 2025 | 3    | Approved | <div>View</div> |

- Manager\_Profile

JM

Jeevan Manager

Manager

Menu

Dashboard

Leave Requests

Profile

Q Search...

3

JM

Jeevan

JM

Jeevan Manager

manager@example.com

Manager

Personal Info

Security

First Name

Last Name

Jeevan

Manager

Email

manager@example.com


Department

Management

Save Changes


- Manager\_Reports








Jeevan Manager  
Manager


MENU


 Dashboard

 Leave Requests


 Reports

 Profile

 Search...



3



Jeevan

Reports

Generate Custom Report

Select filters and options to generate a custom leave report

Report Type

Select Report Type

Format


CSV

Start Date

30-06-2025

End Date

30-07-2025

 Generate Report

Quick Reports

Predefined reports for common needs

- Employee Dashboard

AE

Akhilesh Employee

Employee

MENU

Dashboard

Leave Requests

Profile

Logout

Q Search...

3

AE Akhilesh

Welcome back, Akhilesh!

Here's what's happening with your leave requests and team activities.

0

⌚

Pending Requests

1

✓

Approved Requests

0

✕

Rejected Requests

3

📅

Days Taken This Year

Recent Leave Requests

View All >

| Leave Type | Dates                       | Days | Status   | Actions |
|------------|-----------------------------|------|----------|---------|
| Sick       | Jul 26, 2025 - Jul 30, 2025 | 3    | Approved | View    |

- Employee Profile



**Akhilesh Employee**

employee@example.com

Employee

Personal Info

Security

First Name

Akhilesh

Last Name

Employee

Email

employee@example.com

Department

Operations

 Save Changes

- Employee Leave\_Request

AE

Akhilesh Employee

Employee

Menu

[Dashboard](#)

[Leave Requests](#)

[Profile](#)

3

AE

Akhilesh

Q

Search...

New Leave Request

Fill out the form below to submit a new leave request

Leave Type

Select Leave Type

Start Date

dd-mm-yyyy

End Date

dd-mm-yyyy

Reason

← Cancel

Submit Request

## Database Schema

The system uses the following database tables:

- User : Stores employee information
- LeaveType : Defines different types of leave
- LeaveRequest : Tracks all leave requests
- LeaveBalance : Maintains leave balances for employees

## Future Enhancements:

- Email notifications for leave request status changes
- Calendar view of approved leaves
- Leave balance tracking

- Multi-language support
  - API endpoints for mobile applications
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## Acknowledgments

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- Flask documentation
  - Font Awesome for icons
  - Various open source projects that inspired this work
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## License

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This project is licensed under the MIT License. See the LICENSE file for details.

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## Contributing

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Contributions are welcome! Please fork the repository and submit a pull request with your changes.

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## Contact

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For questions or support, please contact the project maintainer at [pailajeevan@example.com](mailto:pailajeevan@example.com)