

Leave Management System

Built by **Pabbu Hemalatha** for Flipkart Task-1

📅 Last Updated: **24 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**

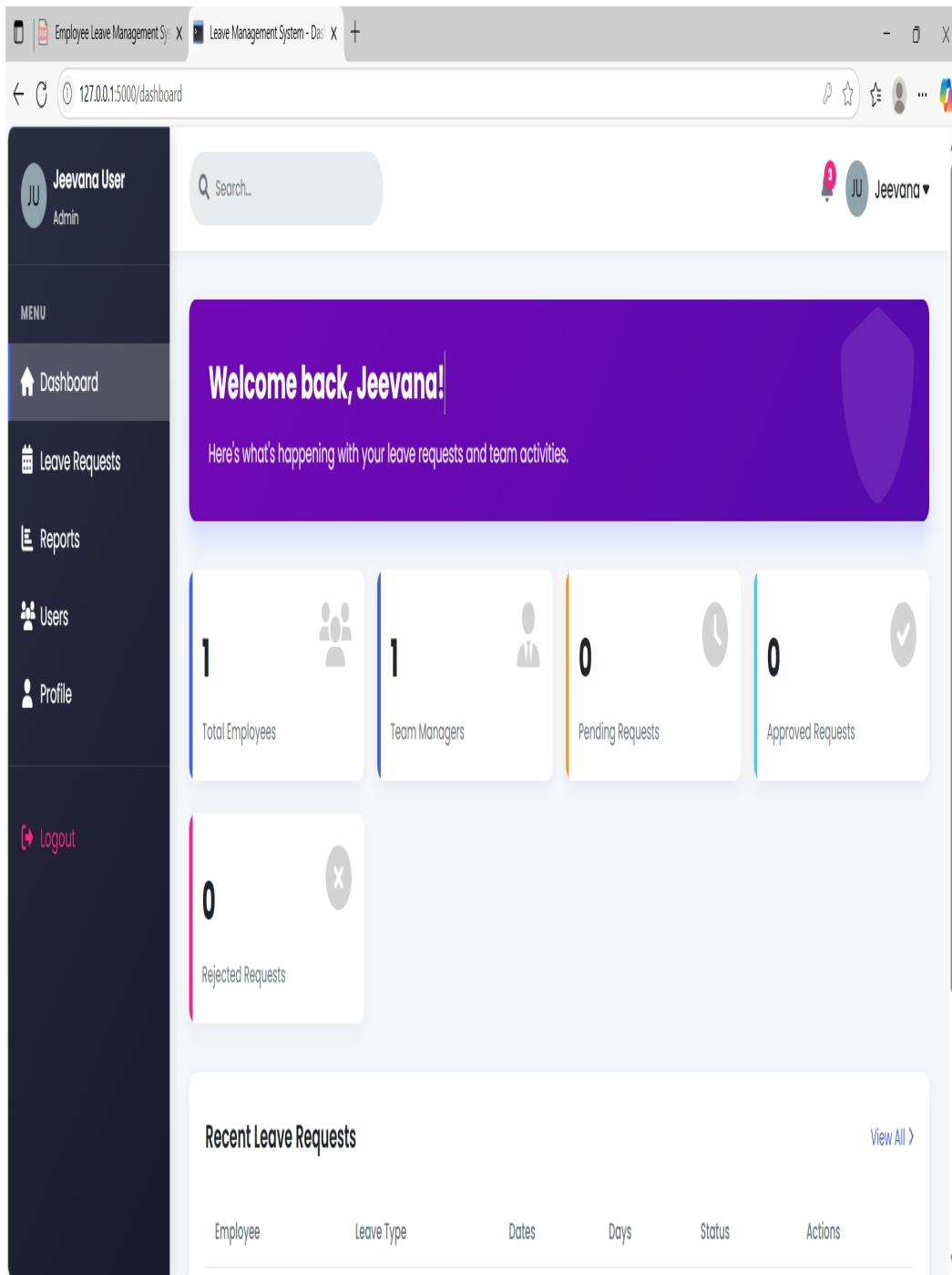
Login

Username


Password

Login

- Admin_Dashboard



- **Admin_Profile**



Jeevana User

admin@example.com

Admin

Personal Info

Security

First Name

Jeevana

Last Name

User

Email

admin@example.com

Department

Administration

Save Changes

- Admin_Reports

AU

Admin User

Admin

MENU

Dashboard

Leave Requests

Reports

Profile

Search...

3

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

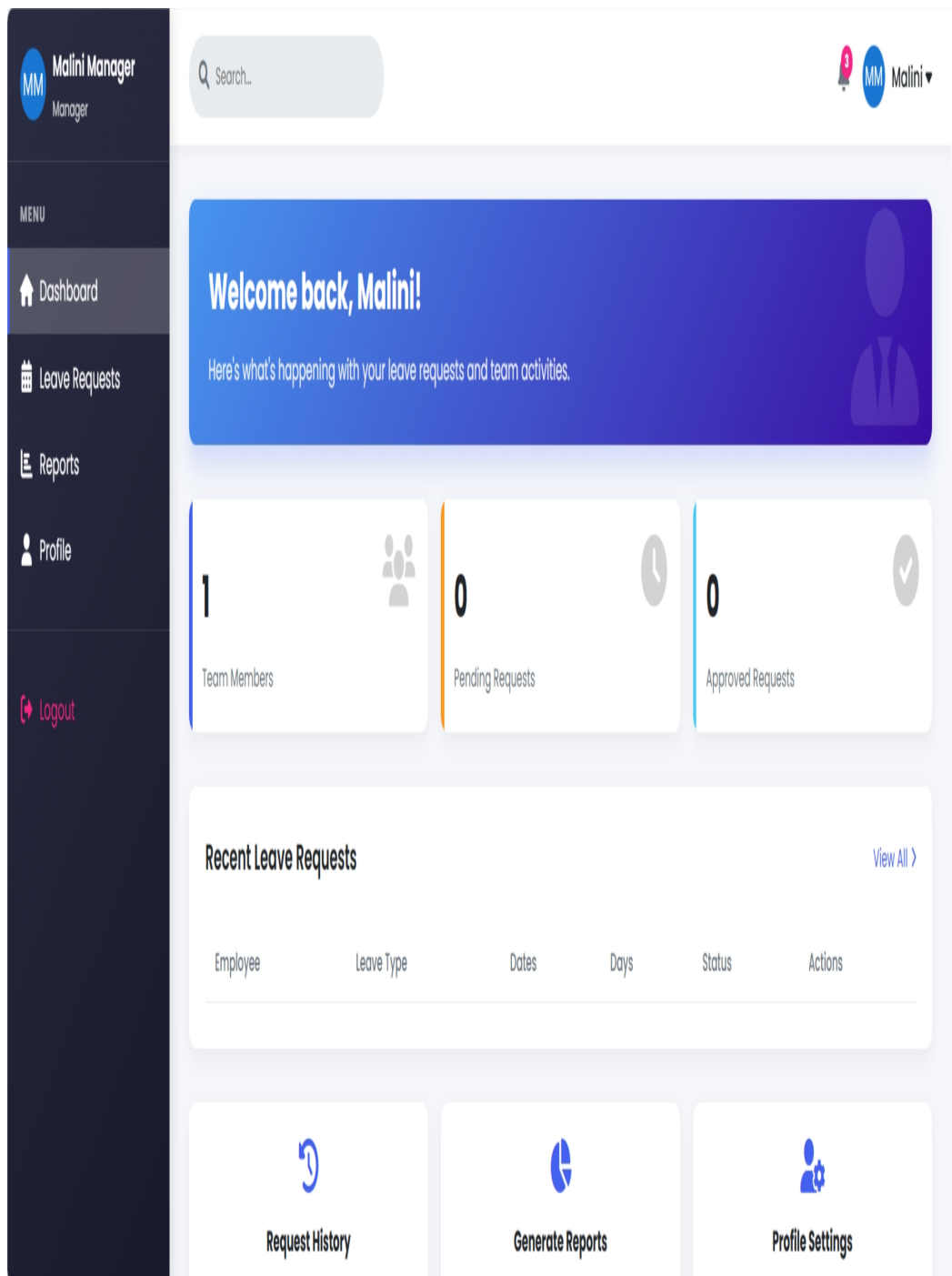
End Date

30-07-2025


Generate Report

Quick Reports

- **Manager Dashboard**





- **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

Format

Select Report Type


CSV

Start Date

End Date

30-06-2025

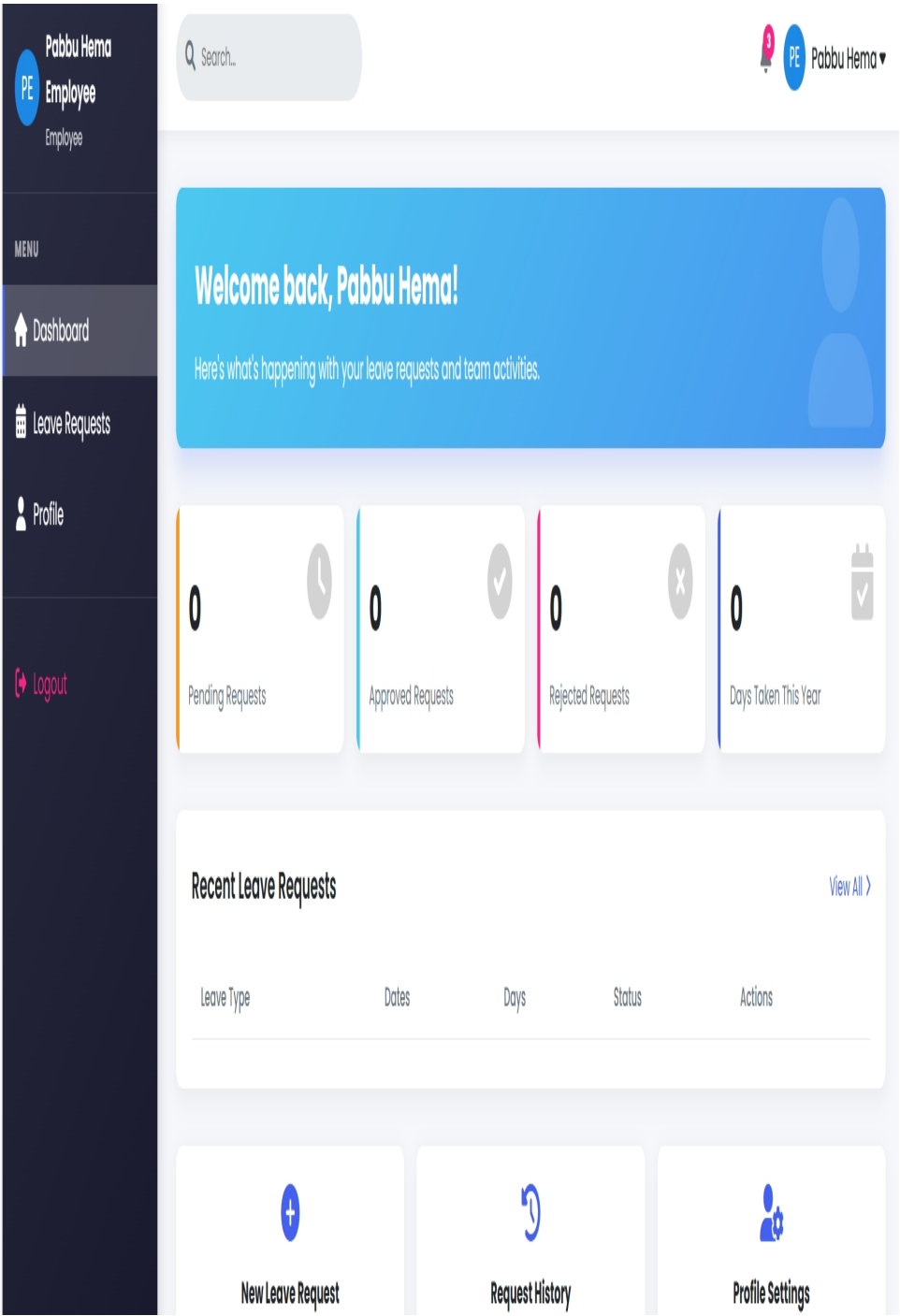
30-07-2025

Generate Report

Quick Reports

Pre-defined reports for common needs

- **Employee Dashboard**



• Employee Profile



Pabbu Hema Employee

employee@example.com

Employee

Personal Info

Security

First Name

Pabbu Hema

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

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

License

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

Contributing

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

Contact

For questions or support, please contact the project maintainer at hemalatha@example.com