# Leave Management System

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

#### Overview

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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/malini-30/leave-management-system.git cd leave-management-system

```
2. Create and activate a virtual environment:
   ```bash
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: mng123
```

• Employee:

```
Username: employee
Password: employee123
```

## **Project Structure**

```
leave-management-system/
                          # Main application file
  - app.py
 - 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
                       # This file
 README.md
  - requirements.txt # Python dependencies
```

### **Individual Features**

### **Employee Features**

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

#### **Manager Features**

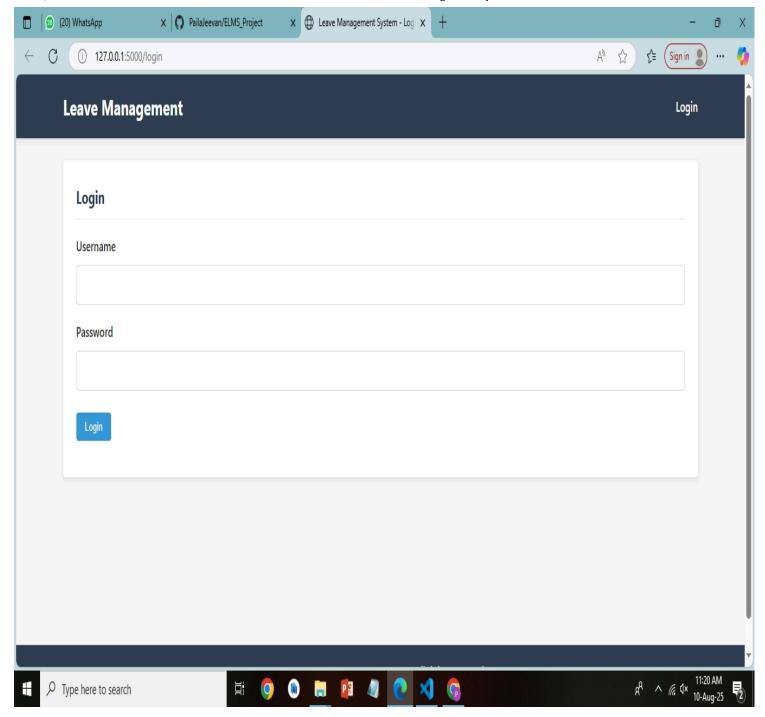
- Approve/reject leave requests
- View team leave calendar
- Monitor pending approvals

#### **Admin Features**

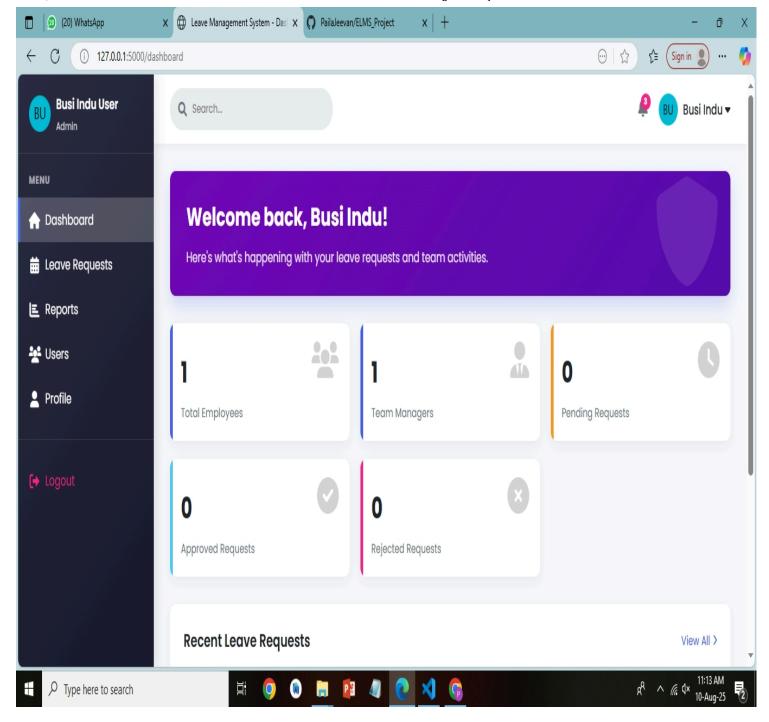
- Manage all users
- Configure leave types
- Generate system reports
- Monitor system activity

### **Screenshots**

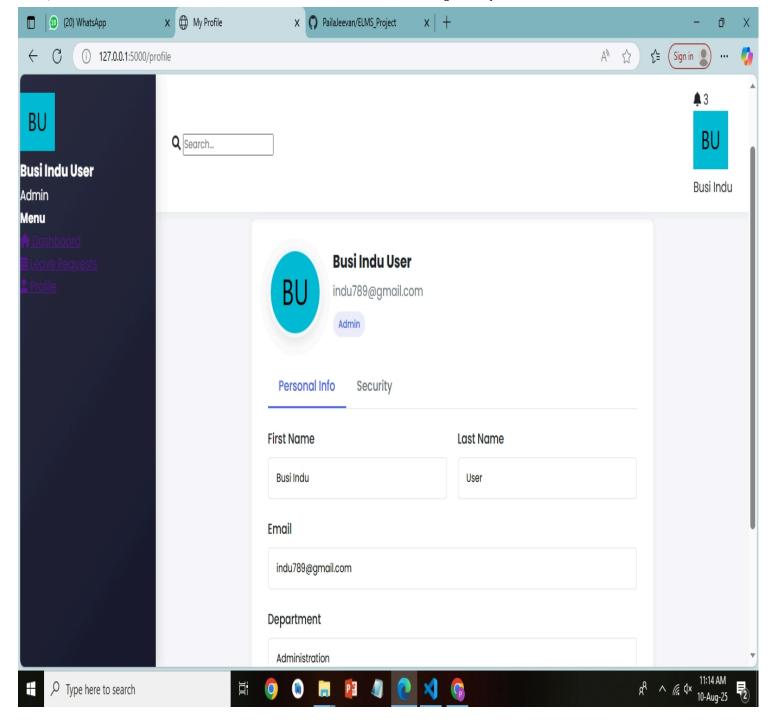
• Login Page



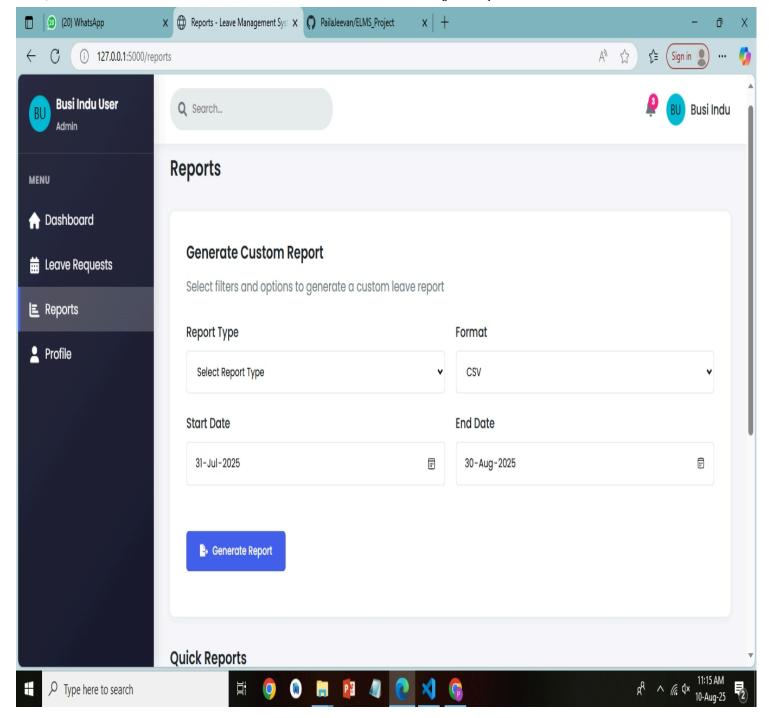
Admin\_Dashboard



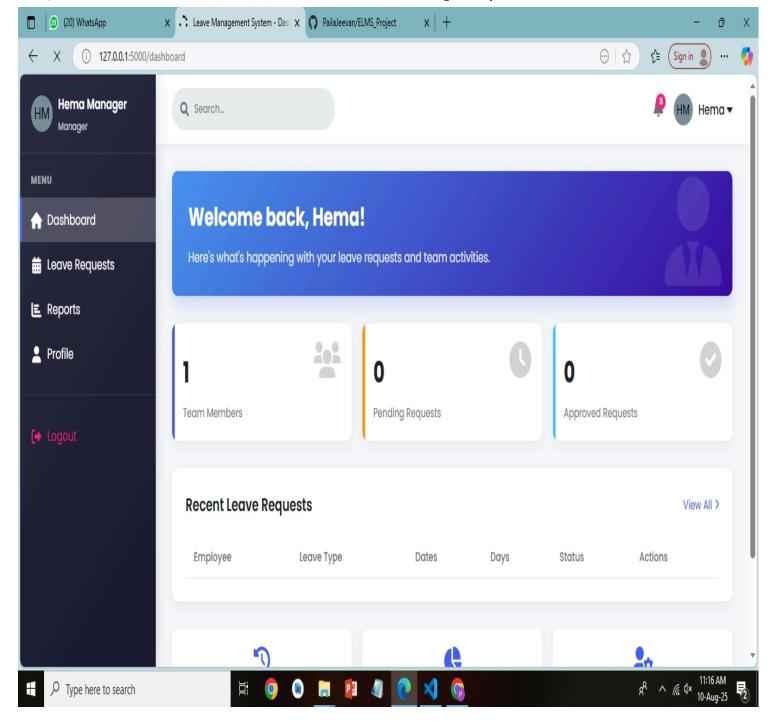
• Admin\_Profile



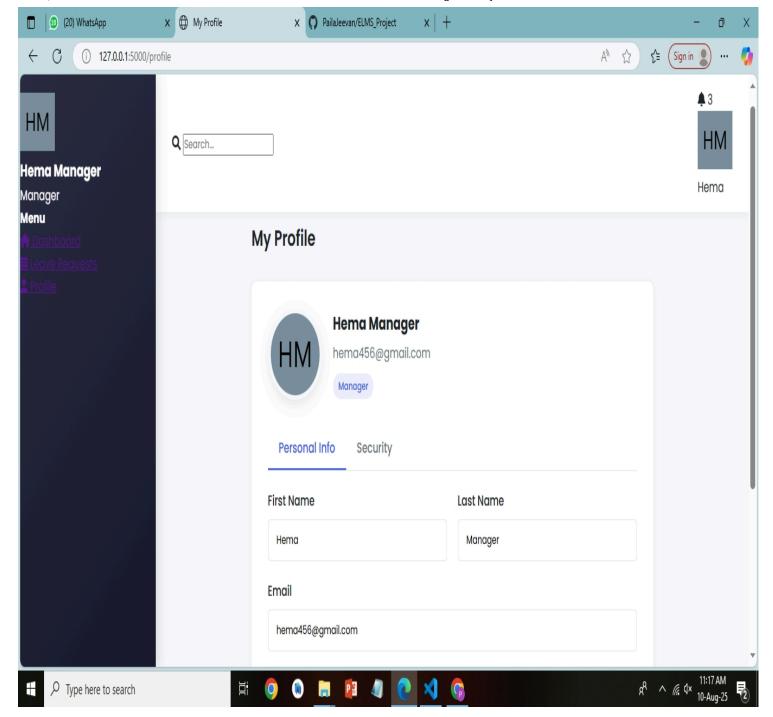
• Admin\_Reports



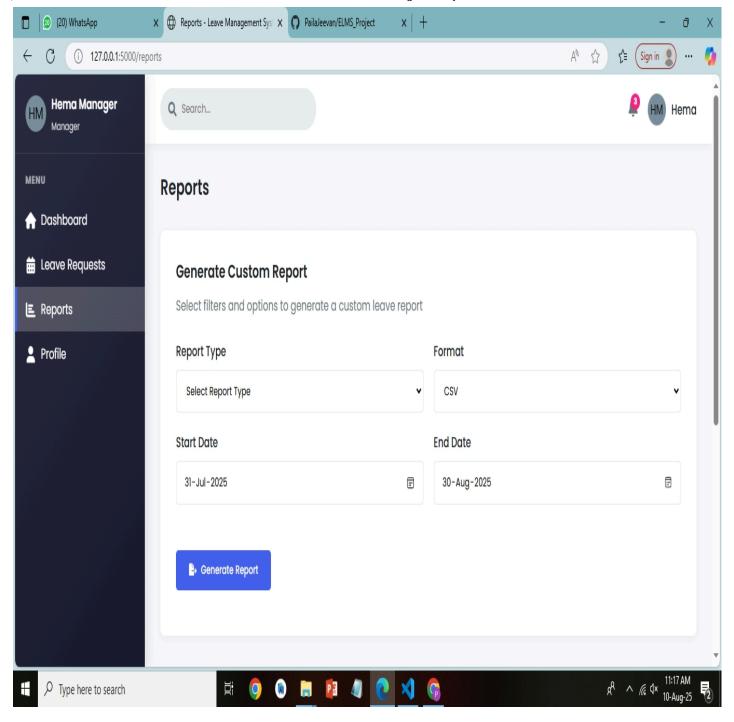
Manager Dashboard



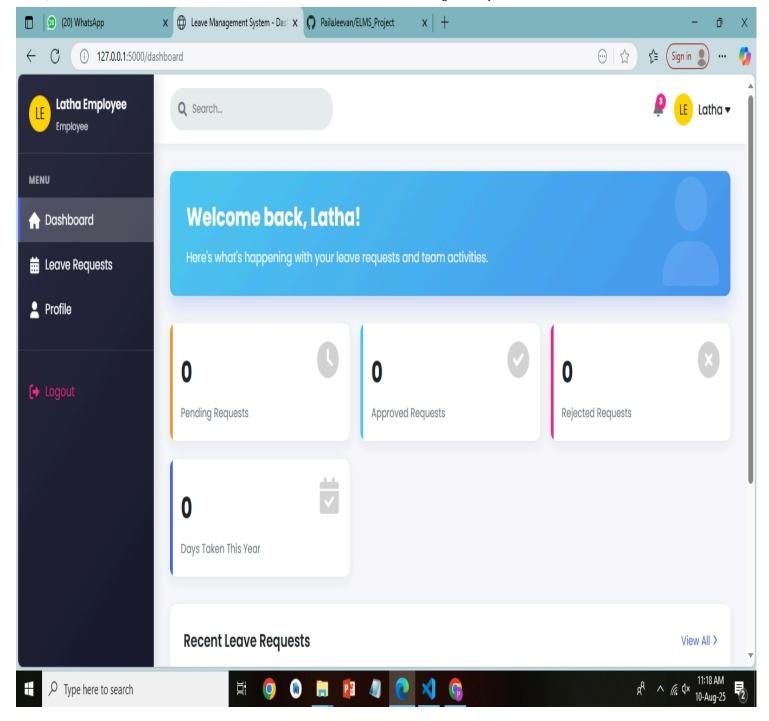
• Manager Profile



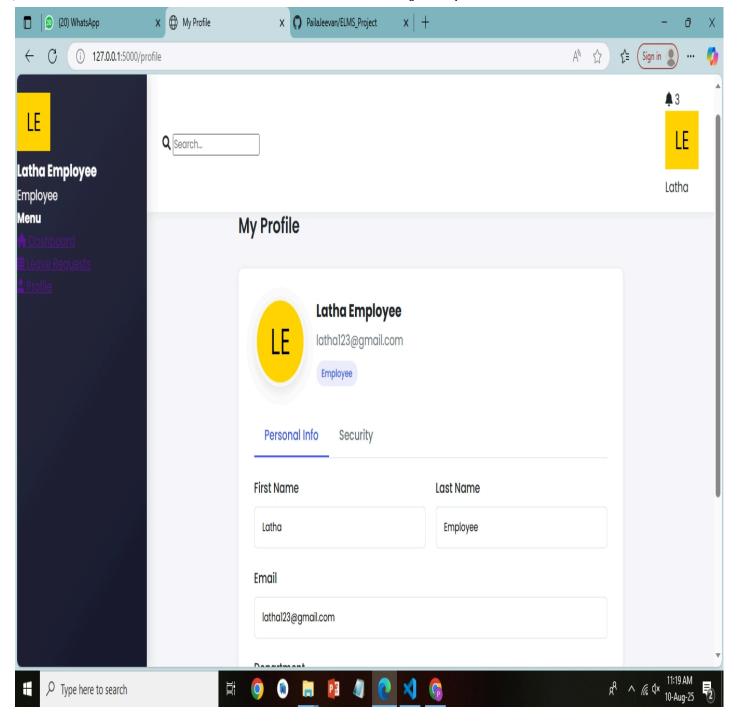
Manager\_Reports



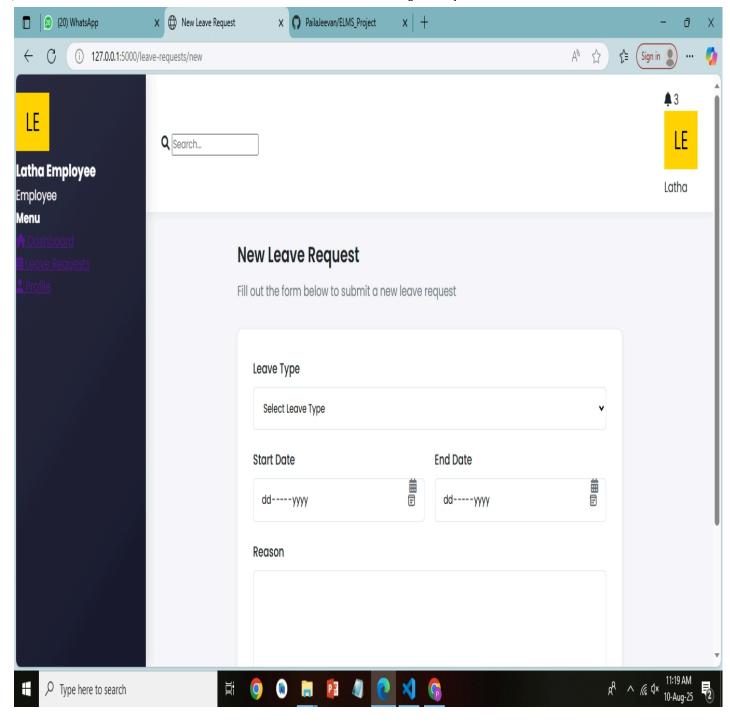
• Employee Dashboard



• Employee Profile



• Employee Leave\_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
- Calender view of approved leaves
- Leave balance tracking
- Multi-language support
- API endpoints for mobile applications

## **Acknowledgements**

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

#### 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 23jr1a4494@gmail.com