Leave Management System

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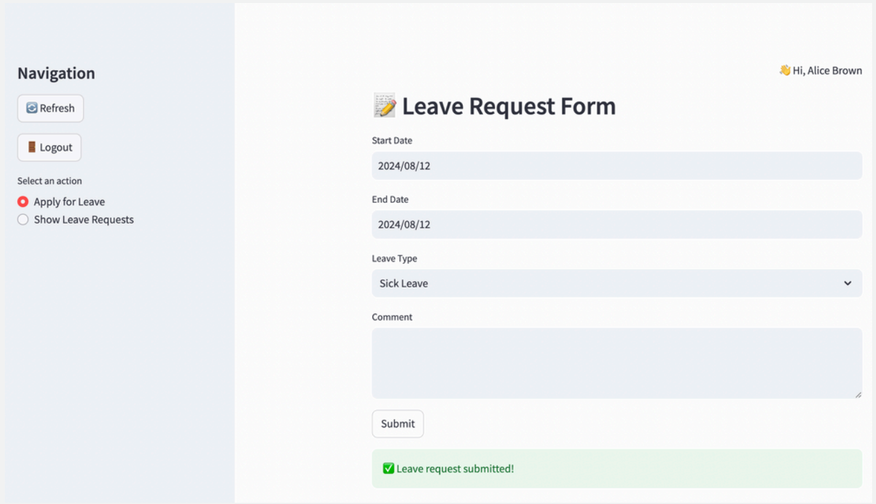
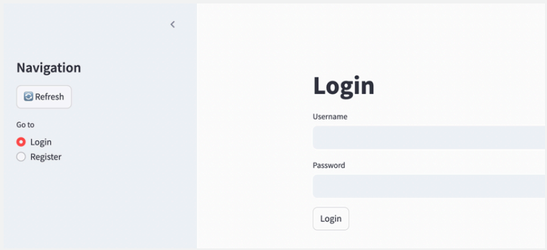
1- Introduction

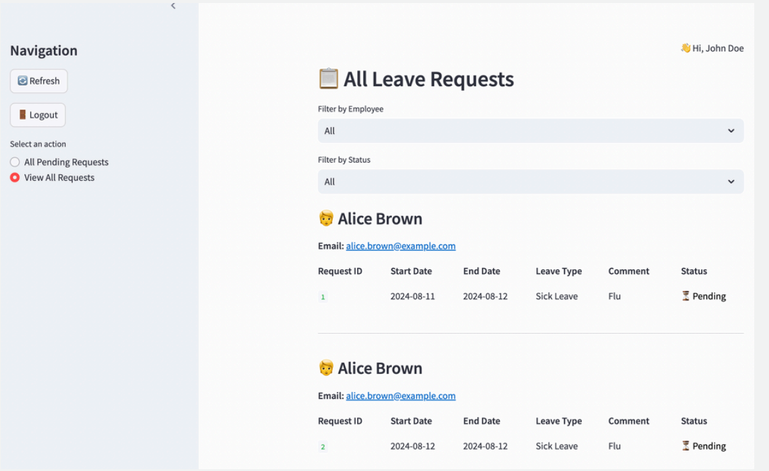
- This is a Streamlit-based Leave Management System that allows managers and employees to manage leave requests.

- Features:
  - User Authentication: Register and log in as a manager or employee.
  - Leave Requests: Employees can apply for leave, and managers can approve or reject requests.
  - Dashboard: Separate dashboards for managers and employees to manage and view leave requests.

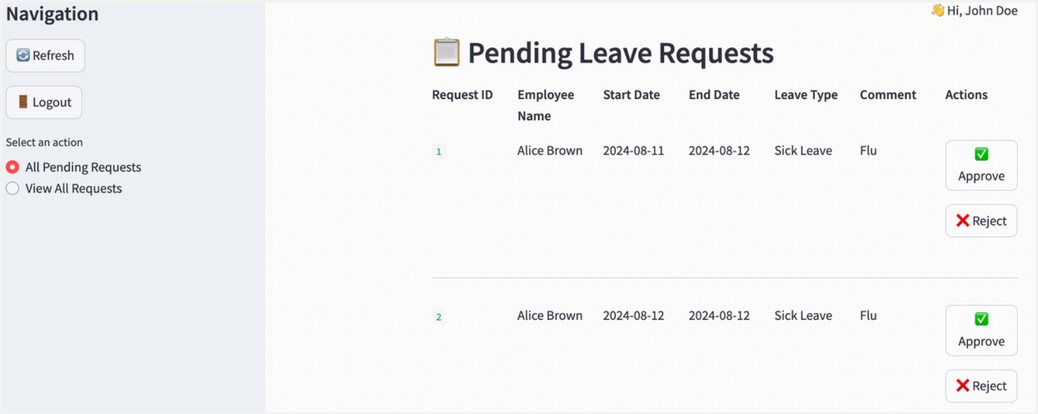
2- Quick demo


Navigation
Refresh
Logout
Select an action
Apply for Leave
Show Leave Requests
Hi, Alice Brown
Leave Request Form
Start Date
2024/08/12
End Date
2024/08/12
Leave Type
Sick Leave
Comment
Submit
Leave request submitted!


Navigation
Refresh
Go to
Login
Register
Login
Username
Password
Login


Navigation
Refresh
Logout
Select an action
All Pending Requests
View All Requests
Hi, John Doe
All Leave Requests
Filter by Employee
All
Filter by Status
All
Alice Brown
Email: alice.brown@example.com
Request ID
Start Date
End Date
Leave Type
Comment
Status
1
2024-08-11
2024-08-12
Sick Leave
Flu
Pending
Alice Brown
Email: alice.brown@example.com
Request ID
Start Date
End Date
Leave Type
Comment
Status
2
2024-08-12
2024-08-12
Sick Leave
Flu
Pending

Navigation
Refresh
Logout
Select an action
Apply for Leave
Show Leave Requests
Hi, Alice Brown
My Leave Requests
1
2024-08-11
2024-08-12
Sick Leave
Flu
Pending
2
2024-08-12
2024-08-12
Sick Leave
Flu
Pending


Navigation
Refresh
Logout
Select an action
All Pending Requests
View All Requests
Hi, John Doe
Pending Leave Requests
Request ID
Employee Name
Start Date
End Date
Leave Type
Comment
Actions
1
Alice Brown
2024-08-11
2024-08-12
Sick Leave
Flu
Approve
Reject
2
Alice Brown
2024-08-12
2024-08-12
Sick Leave
Flu
Approve
Reject

user profile sample

Manager

manager user	pass	name	email
manager1	manager1 pass	John Doe	john.doe@example.com
manager2	manager 2pass	Jane Smith	jane.smith@example.com

Employee

employee user	pass	name	email	manager
employee1	employee1 pass	Alice Brown	alice.brown@example.com	manager1
employee2	employee2 pass	Bob White	bob.white@example.com	manager1
employee3	employee3 pass	Kate Park	kate.park@example.com	manager2

3 - Setting Up Instructions

Folder Structure

```
Leave-Management-System/
├── README.md           # Project documentation and setup instructions
├── create_tables.sql   # Database schema script
├── leave_management.db # SQLite database file
├── main.py             # Main application code
└── requirements.txt    # List of neccessary dependencies
```

Installation

1. **Clone the repository**:

```
git clone https://github.com/Kattie-Nguyen/Leave-Management-System.git
cd Leave-Management-System
```

2. **Set up a virtual environment**:

```
python3 -m venv venv
source venv/bin/activate  # On Windows: .\venv\Scripts\activate
```

3. **Install the dependencies**:

```
pip install -r requirements.txt
```

4. **Create the database** using `create_tables.sql` with SQLite:

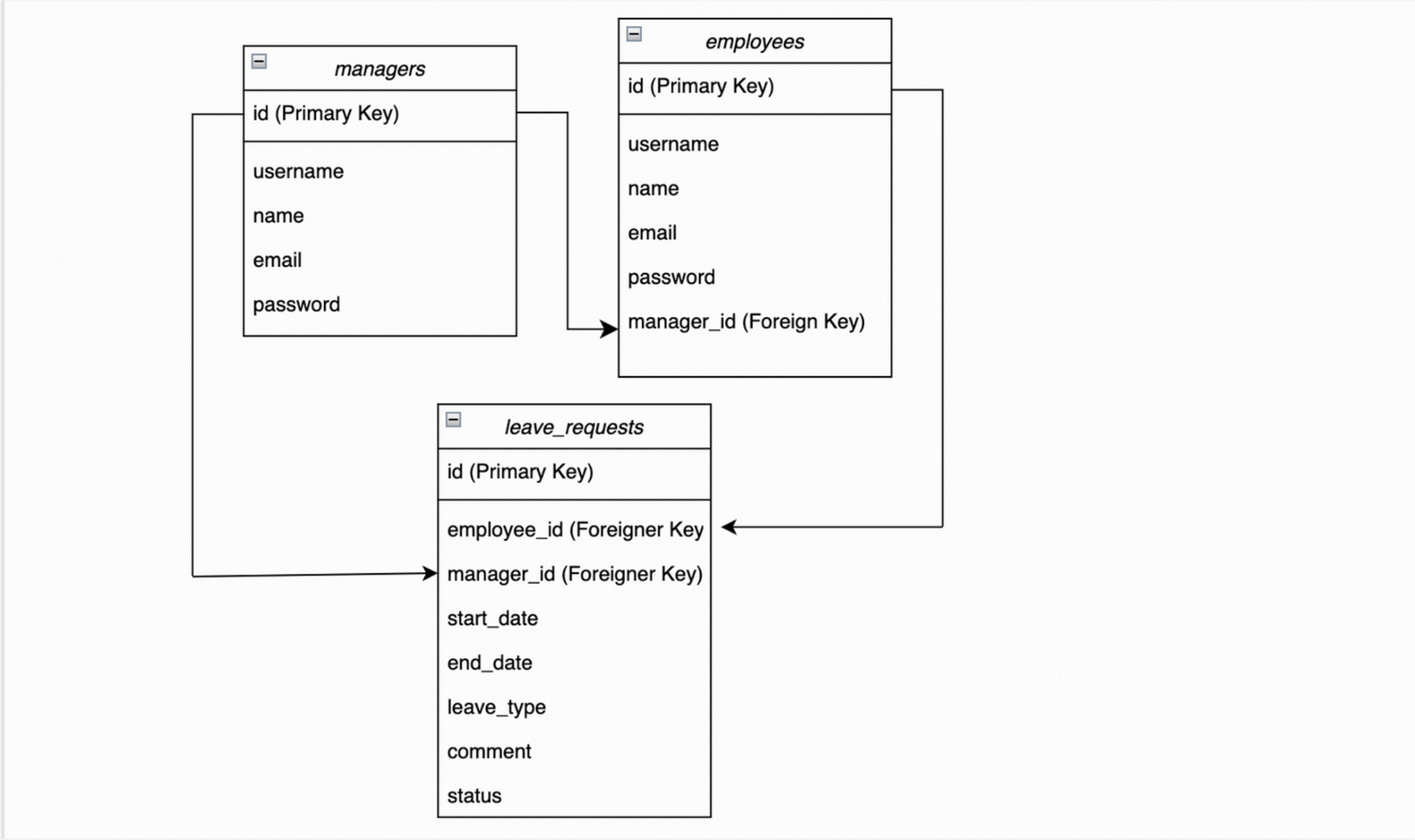
```
sqlite3 leave_management.db < create_tables.sql
```

5. **Run the application**:

```
streamlit run main.py
```

4 - Backend Overview

Database Schema



4 - Backend Overview

Database in SQLite

New Database | Open Database | Write Changes | Revert Changes | Undo | Open Project | Save Project

Database Structure | Browse Data | Edit Pragmas | Execute SQL

employees | leave_requests

leave_requests

Table: leave_requests — Filter in any column

	id	employee_id	manager_id	start_date	end_date	leave_type	comment	status	total_times_off
	...	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
1	1	1	1	2024-08-11	2024-08-12	Sick Leave	Flu	Pendi...	0

Table: employees

	id	username	name	email	password	manager_id
	...	Filter	Filter	Filter	Filter	Filter
1	1	employee1	Alice...	alice...	pbkdf2:sh...	1

Table: managers

	id	username	name	email	password
	...	Filter	Filter	Filter	Filter
1	1	manager1	John Doe	john.doe@example.com	pbkdf2:sha256:26000...

4 - Frontend Demo

Test Register Function	• Register new manager • Register new employee • Register with an existing account
Test Login as Employee and Employee Page	• Create Leave forms with max 10 submissions • See "View My Leave" • Log out
Test Login as Manager and Manager Page	• Log in as manager • Check all pending requests • See all requests and filter by employee and status
Return to Employee Dashboard	• Log in as the employee again • View the status of leave requests to confirm updates

Thank you for listening