

ExpenseMate

AN EXPENSE TRACKER

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Overview

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Internship/Project Summary

Internship Project name is “**ExpenseMate – An Expense Tracker**” is a user-friendly digital solution designed to help individuals manage their personal finances efficiently. By allowing users to **record, categorize, and analyze** their Expenses and Income, the platform facilitates financial discipline and aids in achieving monetary goals. With a focus on simplicity and effectiveness, the Expense Tracker serves as a versatile tool for optimizing budgeting practices.

Expected Outcome

- Increased financial awareness and improved money management skills among users.
- A seamless and structured budgeting process powered by digital tools.
- Reduced impulsive spending and better financial planning.

Tools & Technologies

- **Frontend** : React.js/vite, Javascript, TailwindCSS
- **Backend** : Python, FastAPI
- **Database** : MongoDB
- **Tools** : VsCode, PostMan, MongoDBCompass, PyCharm

Key Features

Expense & Income Tracking

- Users can log daily transactions by entering their income and expenses.
- Provides an intuitive interface to quickly add, edit, or delete financial records.

Categorization & Organization

- Transactions can be categorized into predefined groups such as Food, Transport, Entertainment, Bills, and Savings.
- Users can also create custom categories to match their financial habits.
- Offers color-coded visual representation for easy tracking.

Key Features

Financial Analysis & Insights

- Provides detailed analytics to help users understand their spending habits.
- Displays monthly, weekly, and yearly financial summaries in charts and graphs.

Simplicity & Effectiveness

- Designed with a clean and minimalistic UI for ease of use.
- Ensures quick access to financial data with minimal effort.
- Provides a seamless experience across different devices, including web and mobile platforms.

Security & Data Protection

- OTP-Based Authentication: Ensures secure login with a one-time password verification system.
- Data Encryption: Sensitive financial data is encrypted to protect user privacy.

Database Schemas (MongoDB)

User Collection

- Stores User Credentials with timestamps
- Fields Consist of **id,name,email,password,isAdmin,status,updated_at,created_at**

Transactions Collection

- Stores Transaction Data, Tracks User's Expenses and Incomes with timestamps
- Fields Consist of **id,user_id,amount,category_id,description,type,date,status**

Category Collection

- Stores Transaction's Categories with timestamps
- Fields Consist of **id,user_id,name,status**

Budget Collection

- Stores Transaction's Categories with timestamps
- Fields Consist of **id,user_id,name,status**

Backend APIs (FASTAPI)

User EndPoint

- All the user related apis endpoints start with
- **/api/users**
- for Authentication :
- **/api/login**
- **/api/signup**

Transactions EndPoint

- All the transactions related apis endpoints start with
- **/api/transactions**

Category EndPoint

- All the category related apis endpoints start with
- **/api/category**

Backend APIs (FASTAPI)








Analytics EndPoint

- All the analytics related apis endpoints start with
- **/api/analytics**

Budget EndPoint

- All the budget related apis endpoints start with
- **/api/transactions**

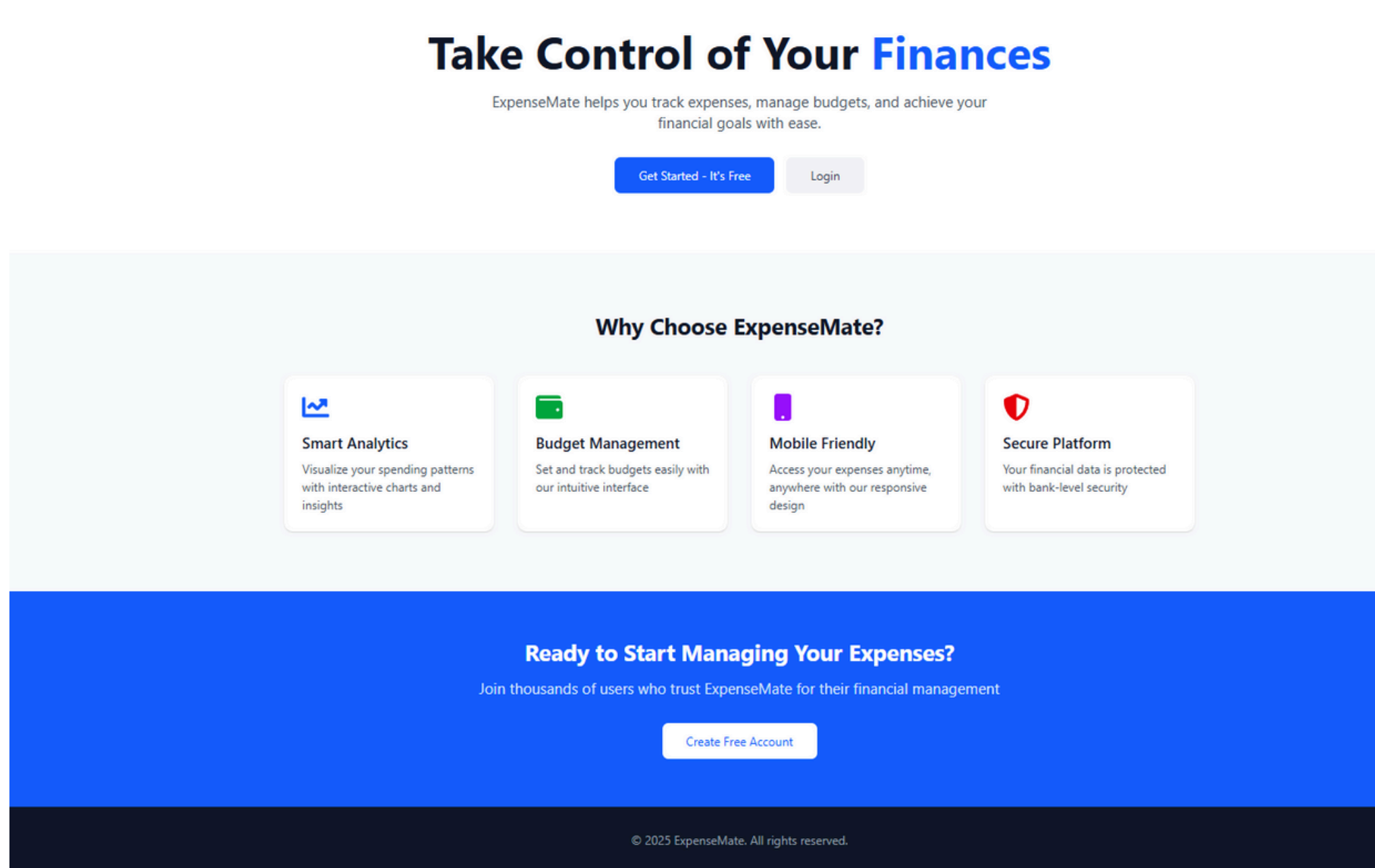
Backend Packages

-  **FastAPI** – High-performance Python web framework for building APIs.
-  **Uvicorn** – ASGI server for running FastAPI apps efficiently.
-  **bcrypt** – Secure password hashing for authentication.
-  **Pydantic** – Data validation and settings management.
-  **Motor** – Async MongoDB driver for handling database operations.
-  **Datetime** – Built-in Python module for managing dates and times.
-  **Typing** – Provides type hints for better code readability and safety.

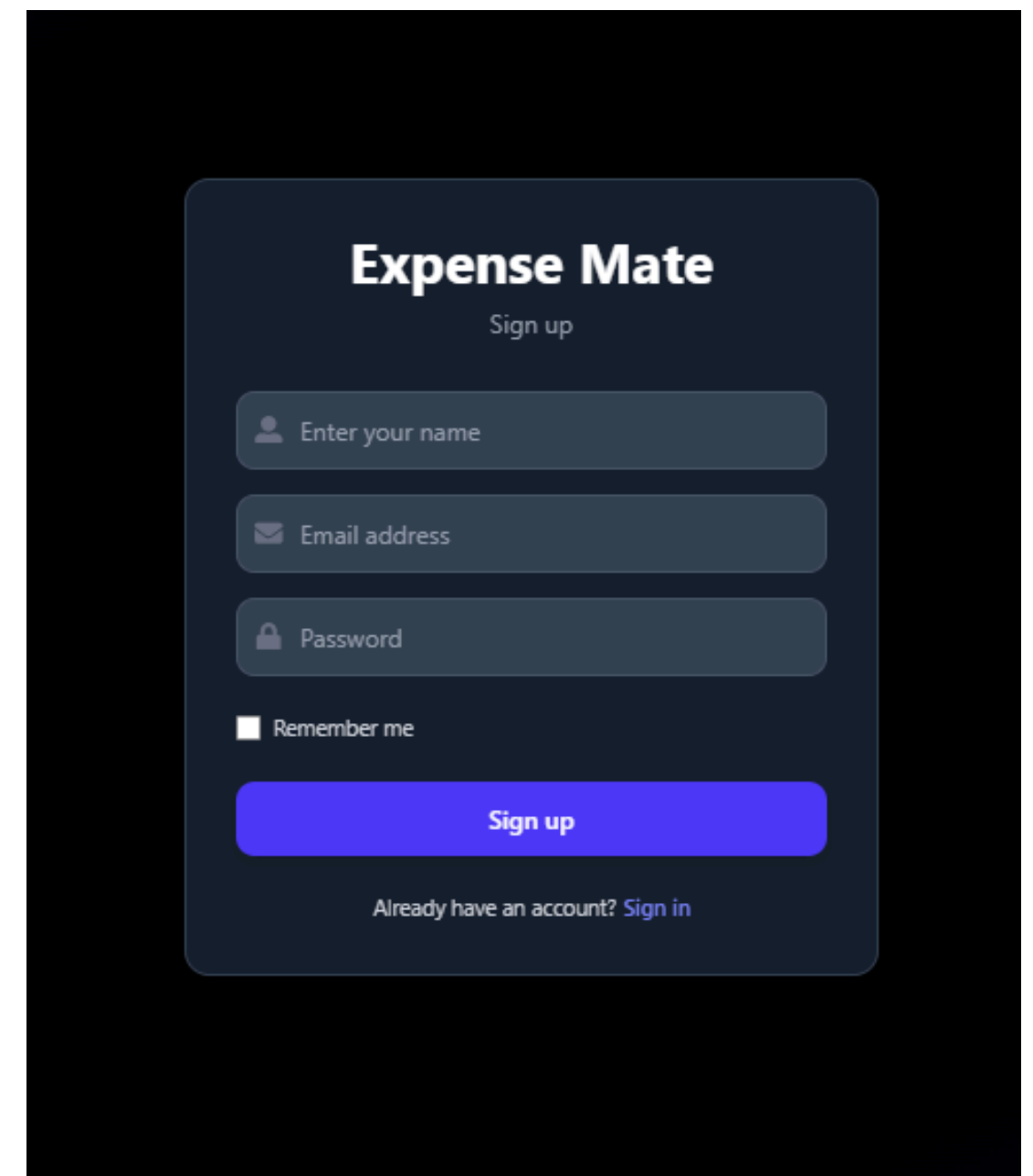
Frontend

- ⚡ **Vite** – Super-fast frontend build tool for a smooth dev experience.
- ⚛️ **React.js** – Component-based UI framework for efficient development.
- 🎨 **Tailwind CSS** – Utility-first CSS for fast and responsive styling.
- 🌐 **Axios** – Handles API requests easily with built-in error handling.
- 🔄 **React Router DOM** – Enables seamless client-side navigation.
- 📝 **React Hook Form** – Efficient form management with built-in validation.
- 🎬 **Framer Motion** – Adds smooth animations and UI transitions.
- 📅 **Date-fns** – Lightweight library for date handling and formatting.
- 🎨 **React Icons** – Collection of customizable icons for React apps.
- 📊 **Recharts** – Easy-to-use charting library for data visualization.

Frontend UI (User)

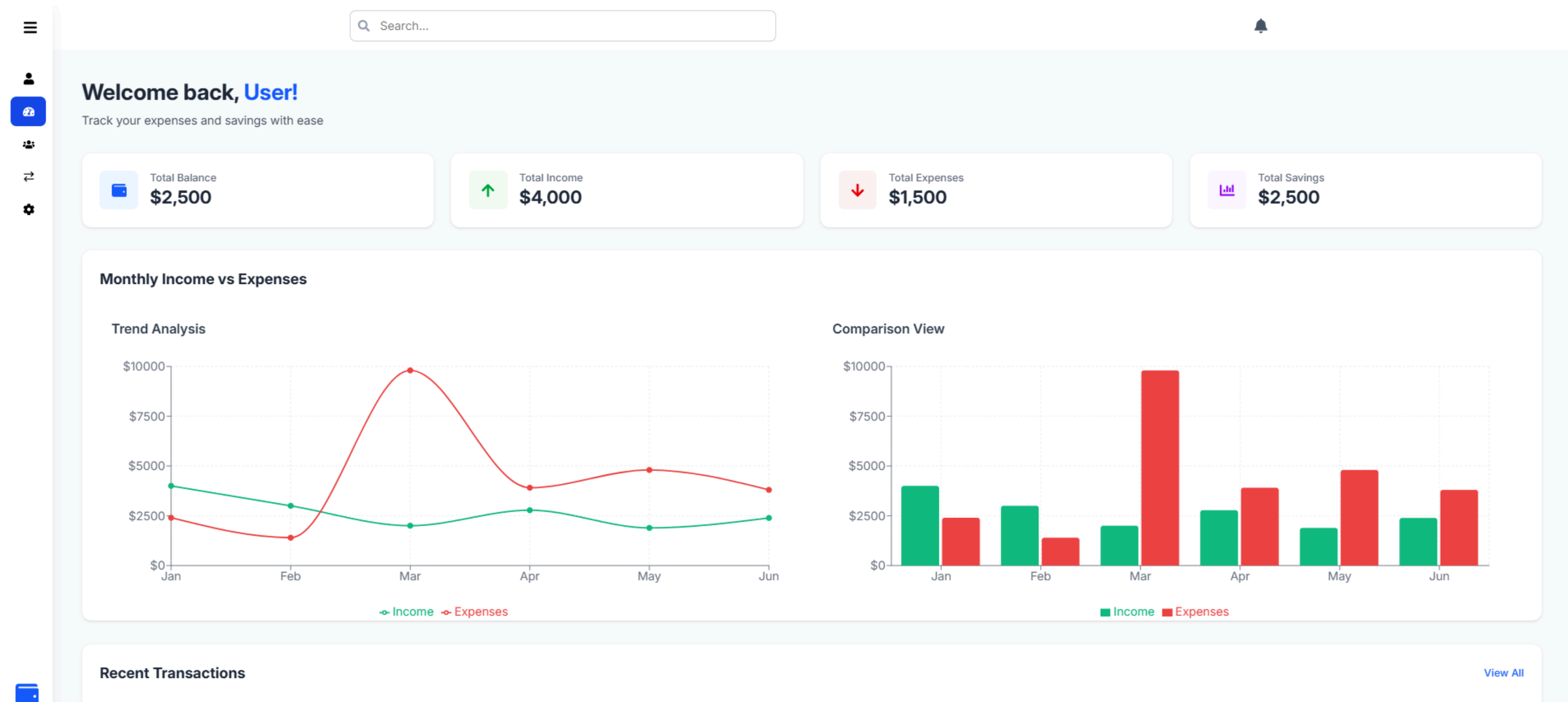


Landing Page



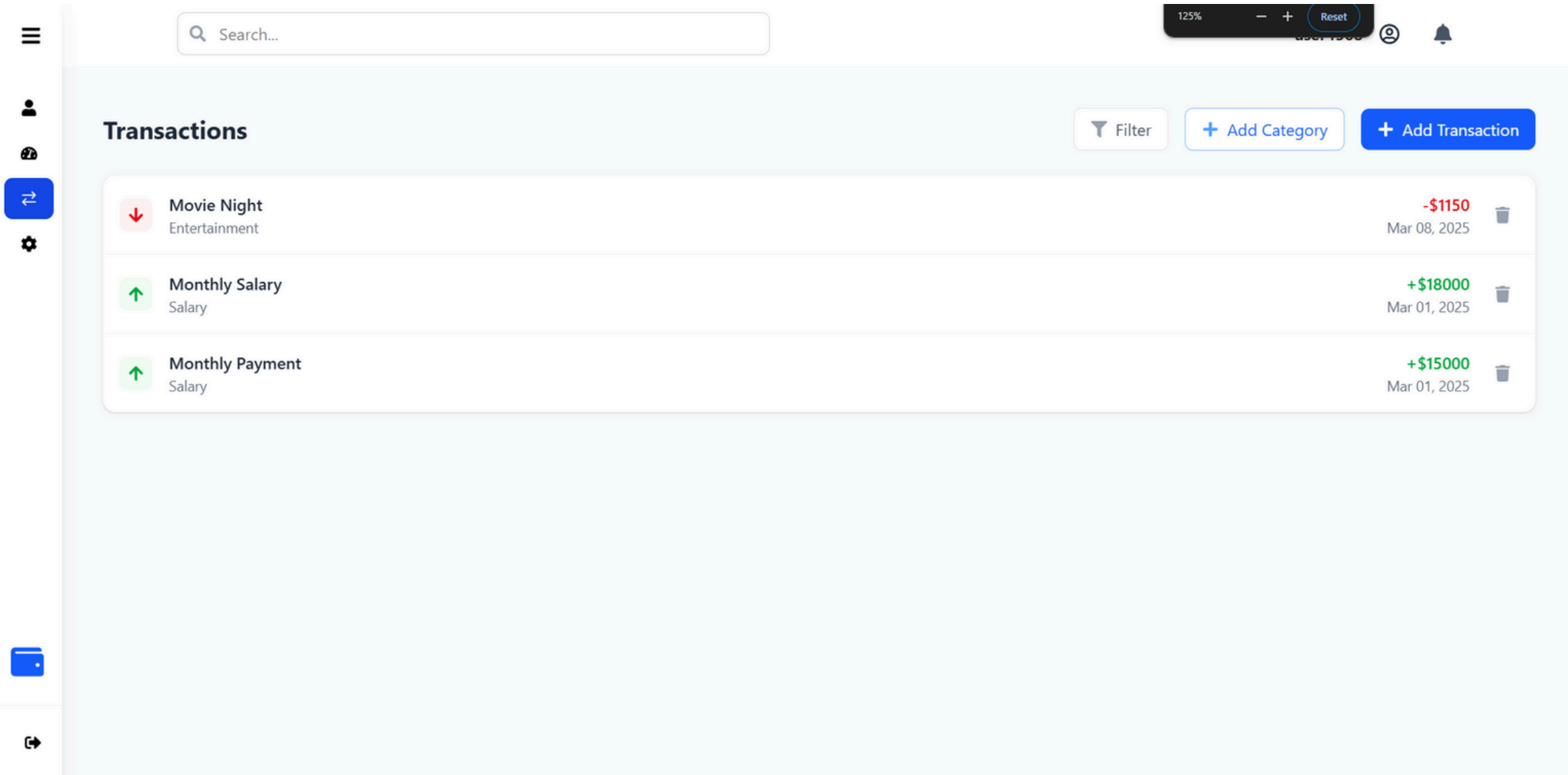
Signin/Signup Page

Frontend UI (User)

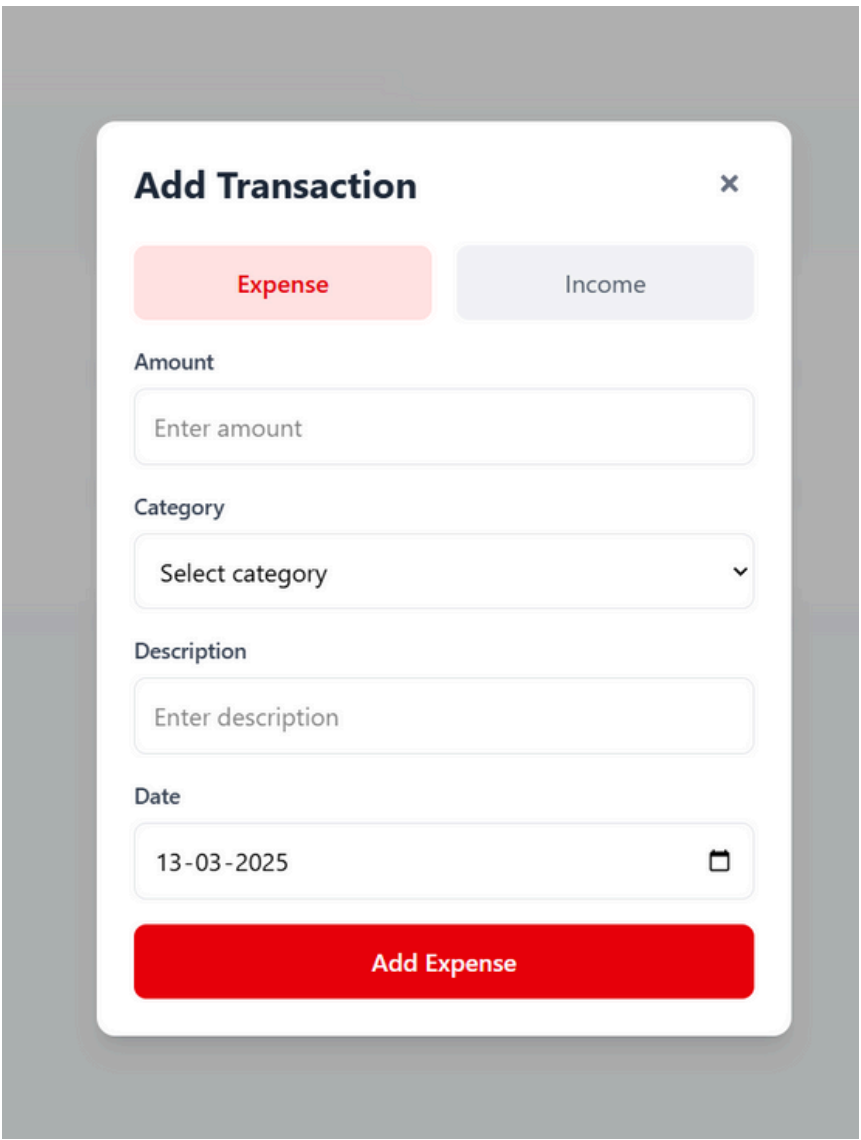


User Dashboard

Frontend UI (User)

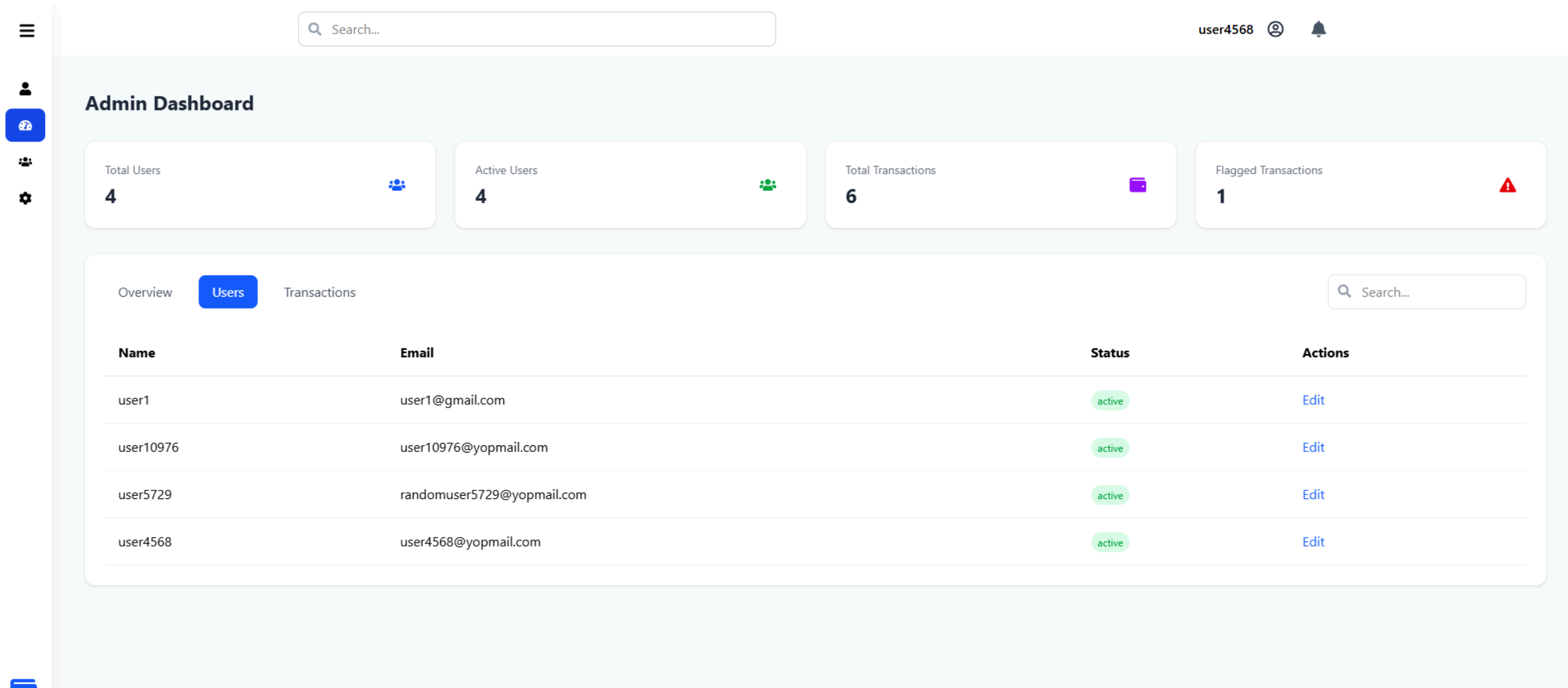


Transactions Page




Add Transaction

Frontend UI (Admin)




Admin Dashboard

Future Enhancements

 **Bank & Card Integration** – Sync with bank accounts and credit cards for automatic transaction tracking.

 **Smart Notifications & Reminders** – Alerts for bill payments, budget limits, and upcoming expenses.

 **Multi-Currency Support** – Convert and track expenses in different currencies for global users.

 **Enhanced Security** – Implement biometric login, two-factor authentication (2FA), and encryption.

Thank You