HELPING UNITY

FINAL PROJECT PRESENTATION

EEY4189 – SOFTWARE DESIGN IN GROUP

FEBRUARY 28, 2025

05/03/2025

INTRODUCTION & BACKGROUND

Introduction

- The web application aims to bridge the gap between donors and those who in need. Donations can include used items, money, services, blood, or even human organs. The platform provides a trustworthy environment where donors can securely contribute, and knowing their donations will not reach to wrong hands.
- For those who in need, the platform provides a reliable source to meet their urgent requirements. While they may depend on others' help, they still wish to maintain their dignity and live like everyone else. The platform ensures this by keeping their personal information confidential, sharing it only with the necessary parties.

Background

- In today's society, many generous donors are willing to contribute their wealth to support social welfare and community development. However, the lack of a reliable platform to identify genuine needs and deserving individuals often discourages them from engaging in charitable activities. Existing donation channels may lack transparency, security, and proper curation, making it difficult for donors to ensure their contributions reach the right beneficiaries.
- This project aims to bridge that gap by providing a secure and trustworthy platform that connects donors with those in genuine need. The platform will enhance donor confidence by verifying requests, curating causes, and offering recognition if desired. At the same time, it will provide peace of mind to individuals who require assistance but may hesitate to seek help due to social stigma.
- The platform will prevent fraudulent requests by tracking user behavior and implementing a rating system to help donors make informed decisions and direct support to truly needy individuals.

PROBLEM STATEMENT & OBJECTIVES

- Problem:
  - Lack of a reliable platform for donations
  - Donors struggle to verify genuine needs
  - Privacy concerns for recipients

- Objectives:
  - Secure and verified donation process
  - Protect recipient privacy
  - Ensure transparency and trust

SIMILAR SYSTEMS

- Existing Systems:
  - Crowdfunding Platforms (GoFundMe, Kickstarter)
  - Food Banks & Blood Donation Networks
  - Organ Transplant Networks

- Helping Unity enhances these by ensuring transparency and privacy.

PROJECT SOLUTION

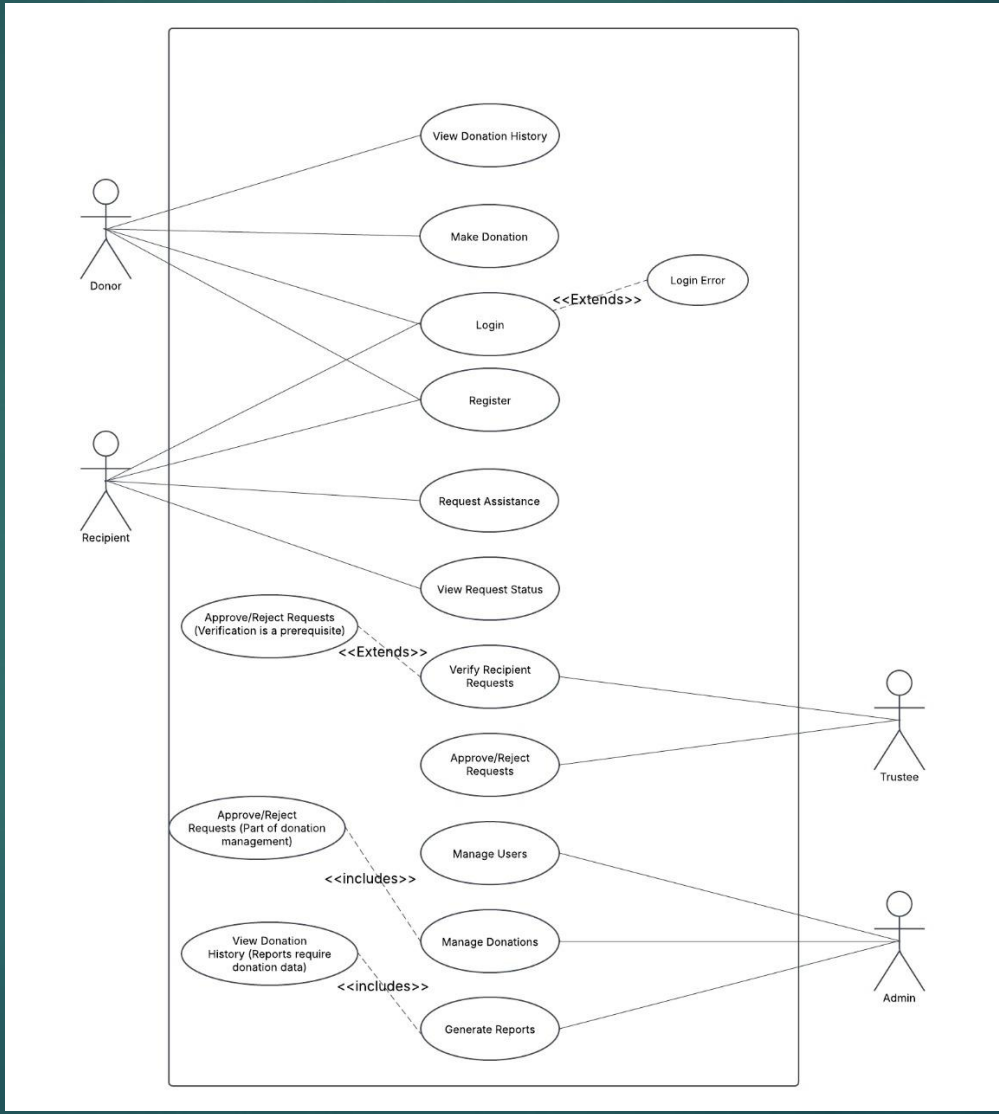
- Helping Unity provides:
  - Secure donor and recipient verification
  - Multiple donation types (money, items, blood, organs)
  - Confidentiality and trust-building
  - Transparent donation tracking

TECHNOLOGY STACK

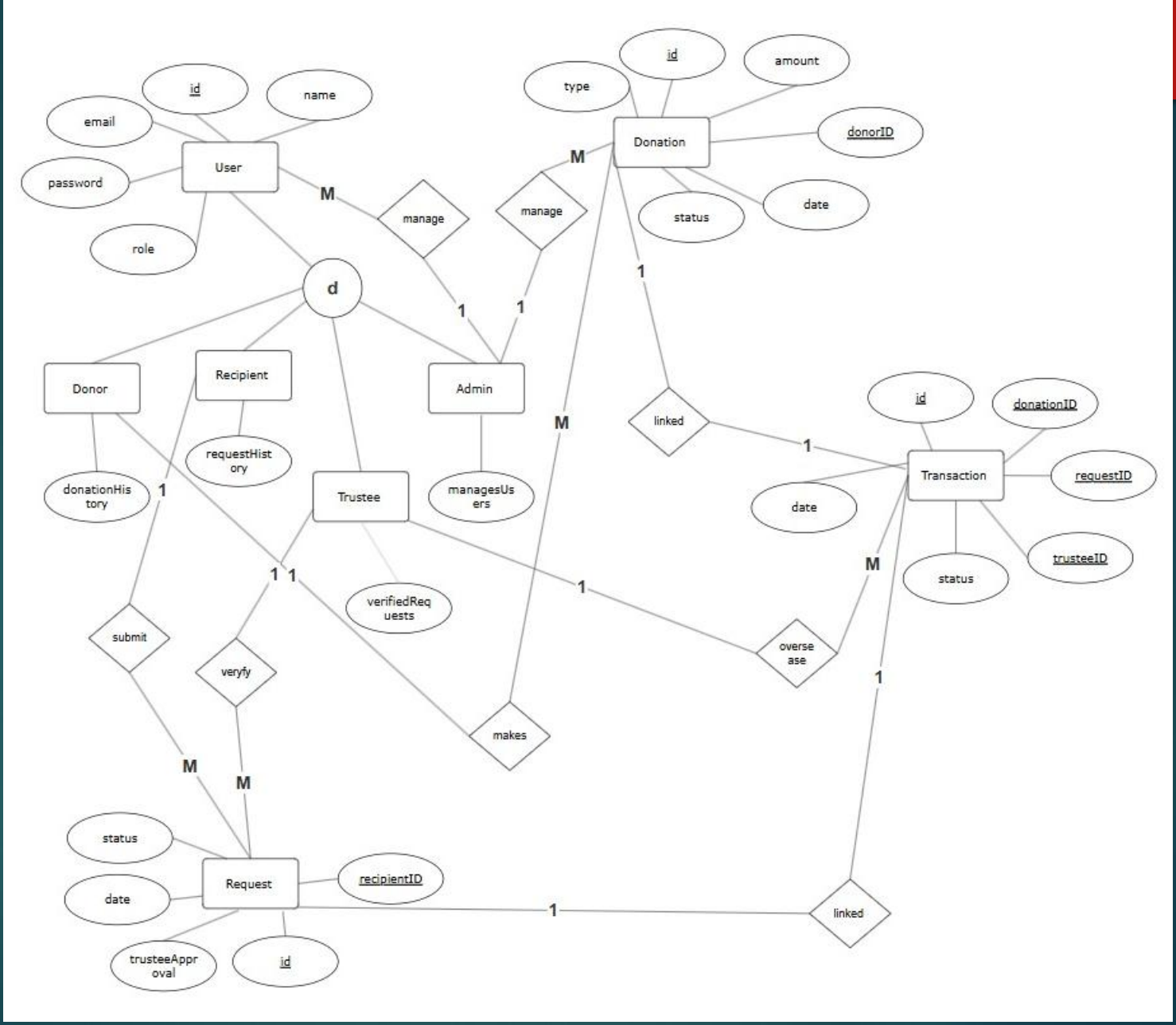
- Frontend: *ReactJS, Vite, HTML, CSS*
- Backend: *Java (Spring Boot), REST API*
- Database: *MySQL*
- Version Control: *GitHub*
- Project Management: *Trello*
- UI Design: *Figma*

SYSTEM DESIGN

Use Case Diagram



ER Diagram



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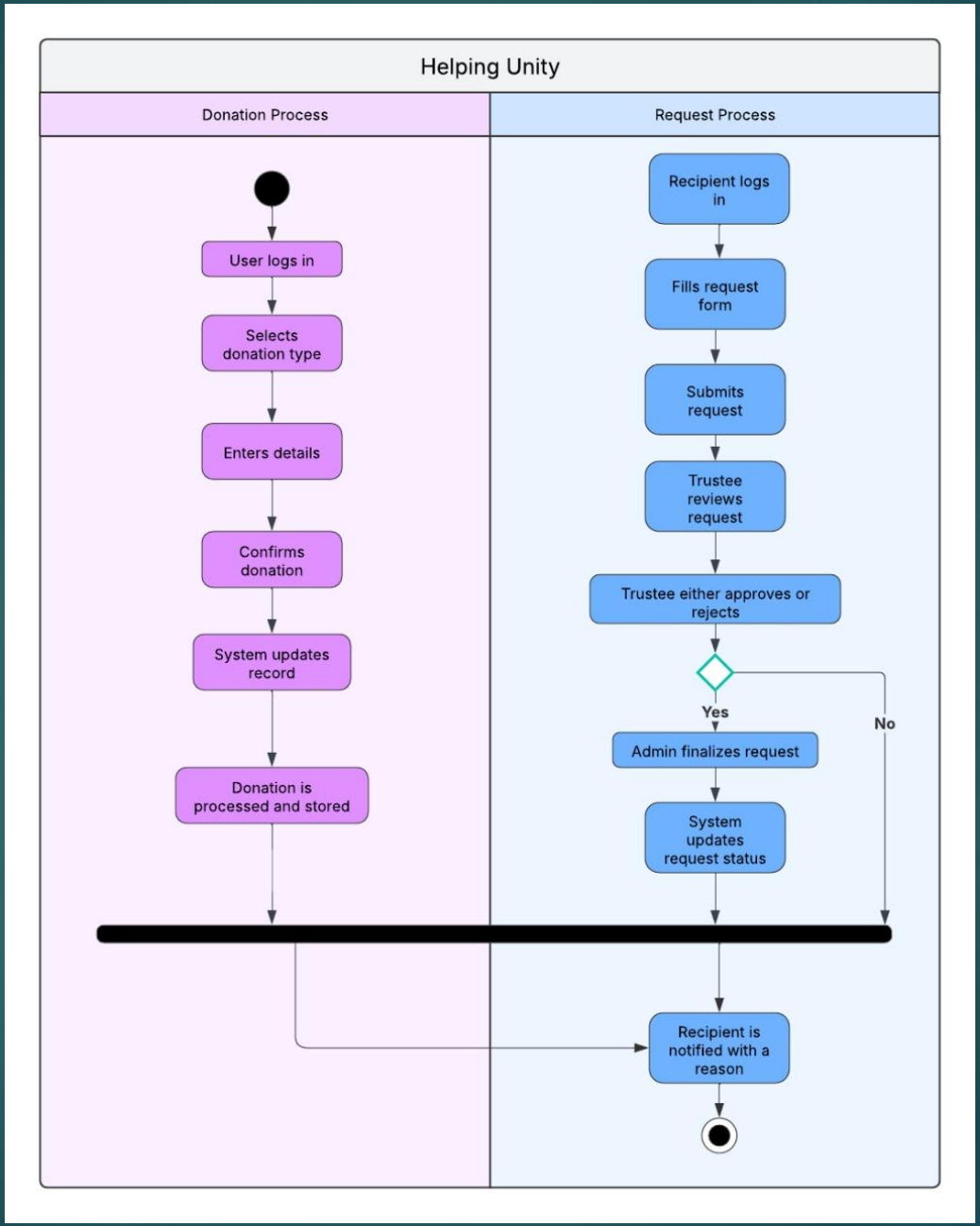
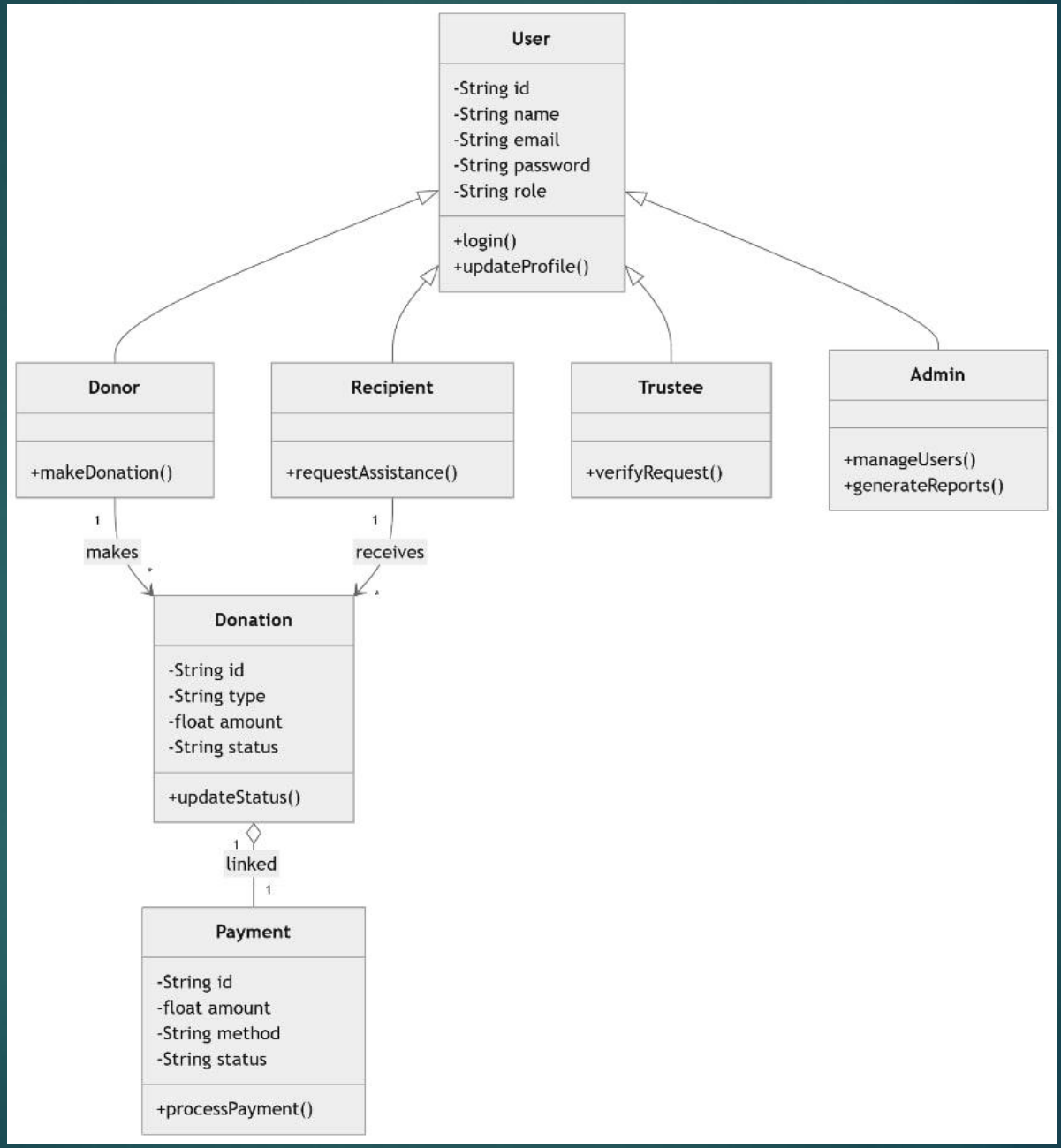
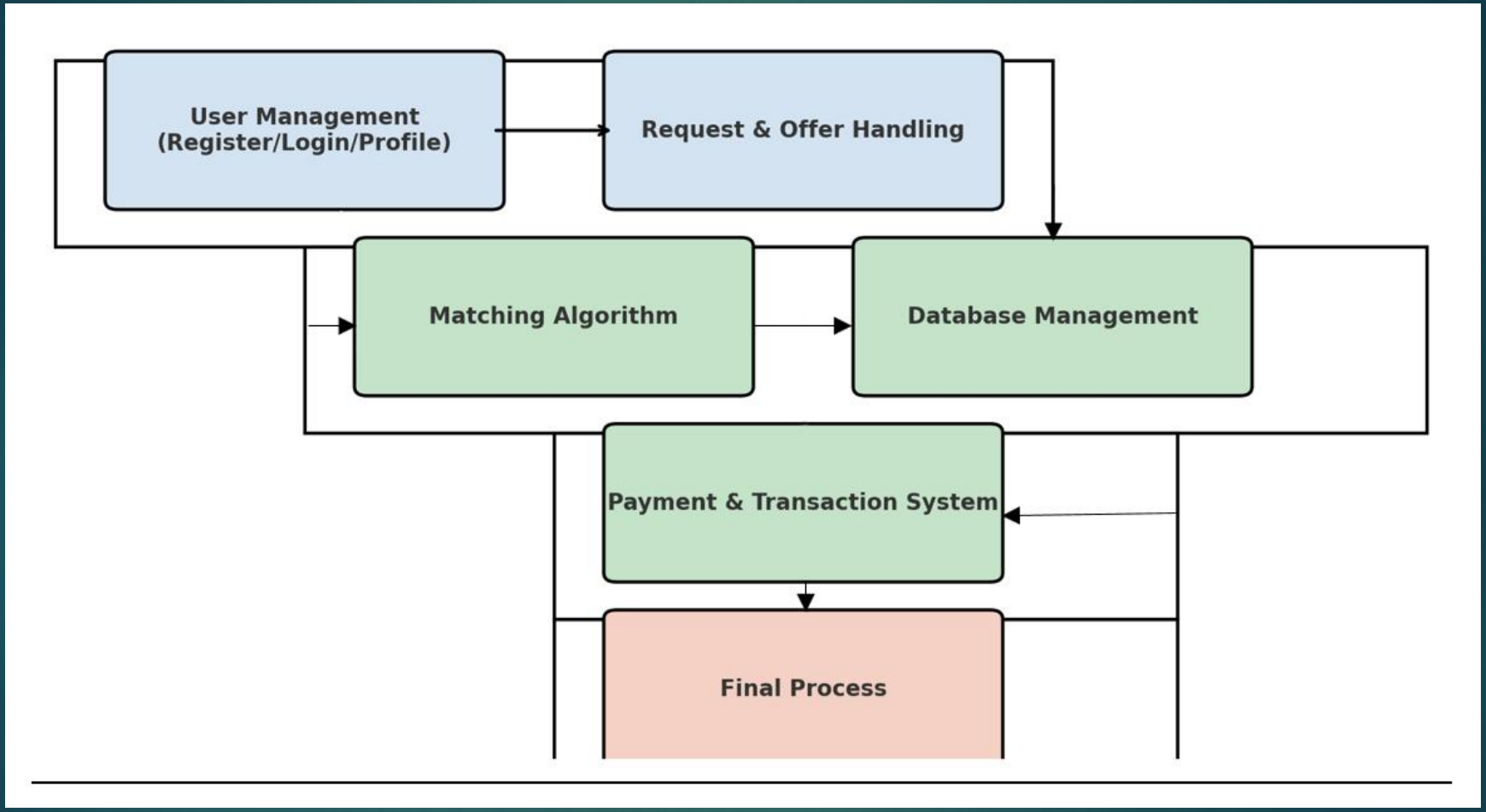
Activity Diagram



Class Diagram



Workflow And Structure Of The Helping Unity System



Project Demonstration

- Demonstration Video has Uploaded to the following Google Drive Link:

https://drive.google.com/drive/folders/1rgFTkOw6CYEExBn0w6zQ6JwY6oWxr5JC?usp=drive_link

Conclusion & Future Enhancements

- Helping Unity is a groundbreaking project aiming to provide a secure, transparent, and dignified platform for donations, demonstrating the potential of technology to address social needs.
- Future Improvements:
  - AI-Based Fraud Detection
    - Implement machine learning algorithms to detect fraudulent donation requests and prevent misuse.
    - Enhance pattern recognition for detecting duplicate or fake users.
  - Automated Verification System
    - Implement **AI-powered document verification** to reduce dependency on human trustees.
    - Use biometric authentication to validate recipient identity securely.

- Mobile Application Development
  - Create an **Android and iOS app** for a **better user experience** and improved accessibility.
  - Enable push notifications for donation requests, updates, and approvals.
- Multi-Language & Accessibility Support
  - Provide multi-language support for global accessibility.
  - Improve **screen reader compatibility** and **voice-based navigation** for differently-abled users.

THANK YOU !