

OOAD Project

Project Deliverable 1

Topic:

“My Donation App”

Team Members:

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Vision

Introduction:

Charity is an act of kindness where the person can fulfil the needs of those who are less capable. It's difficult to manage fundraising and finding donors for different organizations. The purpose of this project is to facilitate the donor and organizations to interact with each other effectively. The organizations registered with the system will accept donations and arrange fund raising through the system.

Positioning:

The target audience of our product will be the donors and the organizations who accept donations. It's benefits over other products will be that it will be providing a safe end to end transaction of the donation. It not only allows people to donate money but also provides the facility of donating goods.

Stakeholder Description:

- Donation Organizations
- Donor
- Admin
- Third Party

High Level Goal:

· Goal is to provide Organizations and donors an interface to interact effectively and organize fundraising.

User Level Goal:

- Donor can make an online donation
- Organization can accept donation

- Fundraising can be done by Organization
- Donor can also donate tangible things

Summary of Features:

- System will register donors and organizations
- Donor can make an online donation
- Organization can do fundraising
- The system will notify donors about fundraising
- System will notify after successful donation.
- System will keep track of payments.
- System will provide accessibility features for disables.

Major Requirements (FURPS+)

Functional Requirements

- Register and authenticate new donor and organization
- Authentication of existing donors and organizations
- Generating list of donation organizations
- Online donation by donors
- Donor must be able to make online payments
- Donors must also be able to donate goods instead of money
- System must provide track of donations
- System must notify the users about the donation stages

Non-Functional Requirements

Usability:

- The text must be visible from 1 meter.
- Avoid color associated with color blindness
- Should be accessible for disabled persons
- Easy of use and speed are essential

Reliability:

- Donations and information of donor must be secured from outer threats
- System must be recoverable in case of shut down
- Frequency of Failure must be minimum
- Error handling

Performance:

- Response time of system must be good so that donor can donate without any inconvenience
- System must be capable of dealing with multiple users.P
- System must perform efficiently when in a particular workload
- Database handling must be efficient

Supportability:

- System must be scalable
- System must be designed so that it is maintainable in case of errors.
- System must adapt different kind of users e.g., admin, donor, donation organization etc

Supplementary Requirements

Interface requirements:

- Touch screen mobile device
- Audio/Video software interfaces

Design requirements:

- Database must be used for storing information of donation, donors and organization.
- The database must retain transaction of data for a minimum of 1 year

Physical Requirements:

- Supported devices must have free physical space required by the app.

Implementation requirements:

- Java
- MySql

Concurrency:

- The system must be able to support an access of 100 users simultaneously

Features List

- Register and authenticate new donor and organization
- Authentication of existing donors and organizations
- Generating list of donation organizations that are accepting donations
- Donor will enter donation information
- Donor will be able to make online payments
- Donors will also be able to donate goods instead of money
- System can provide track of donations
- System can notify the users about the donation stages
- System will notify donors about fundraising events
- System can be able to facilitate the disabled users
- System will display donation amount, no of donors and organization till date
- Avoid color associated with color blindness
- Should be accessible for disabled persons.
- System must be able to update or delete information about the donations donors organizations
- System will provide a facility to search a record of a particular donation, donor or organization..
- System will provide a facility to view information of all donors, donation and organizations

Domain Rules

- Users must be 18 or above for registration.
- Donor can donate \$5000 per day
- Credit payment reversals may only be paid as a credit to the organization's credit account.
- Organization must be registered with the government.

Risk List

- Performance Risk: If multiple users tried to donate/access at the same time then performance risk may occur.
- Communication Risk: Efficient and timely communication must be assured
- Scope Risk: Change in scope of the system may lead to a risk.
- Security Risk: As we are dealing with credits cards, so security is one of the main risks
- Technology Risk: As there is high turnover in the technologies which can lead to a risk.
- Resource risk: Lack of resources (time, skilled workers) can lead to risk

Feasibility Study

- System must be built within 1 year in multiple iterations where each iteration is no longer than 2-3 months
- 10-15 employees will be working on the project
- Total cost of the project will be within the range *** and ***
- We have necessary skills and technology to develop this product

Identify actors, goals and use cases

Identify actors:

- Primary actor
 1. Donor
 2. Admin
 3. Donation organization
- Secondary actor

Third party

- Offstage actor
Donation acceptor

Goals:

- User Level Goals
 - Donor can make an online donation
 - Organization can accept donation
 - Fundraising can be done by Organization
 - Donor can also donate tangible things
 - User can view the record of a particular donor
 - User can view the list of all existing donors
 - User will be able to update or delete the records from database
- High Level Goal
 - Provide Organizations and donors an interface to interact effectively and organize fundraising.

Use Cases:

- Register user
- User Login
- Authenticate user
- Generating list of donation organizations
- Online donation
- Track Donation
- Notify User
- Facilitate the disabled users
- Display Achievements
- Update record

- Delete record
- Search record
- View information
- Fund Raising

Fully Dressed Use Cases

1- Use Case:

Online Donation

Actor:

Donor

Stakeholders & interests:

- Donor will select the organization for making donation and makes the donation by making payment
- Third Party will provide services if donation is made through them

Pre Condition:

It's checked that the donor doesn't exceed the limit of donation.

Success Guarantees:

Donor completes the donations successfully.

Main Success Scenario:

- Donor goes to donation tab
- Donor selects organization to donate from the visible list
- Donor selects method of donation
- Donor does online payment for the respective method
- System checks if donor doesn't exceed the donation limit
- System transfers the donation to the organization
- The donation of the donor successfully completes

Alternative Scenario:

- Donors donation limit exceeds
 - System notifies error
- Donors online payment doesn't proceeds
 - System notifies error

2- Use Case:

Register User

Actor:

- Donor
- Organizations

Stakeholders & interests:

- Donors will register for the app under the donor category.
- Organizations will register for the app under the organizations category.

Pre Condition:

- It's checked that the donor's age is 18 or above.
- It's checked that the organization is government registered. .

Success Guarantees:

Donor / Organization completes the registration.

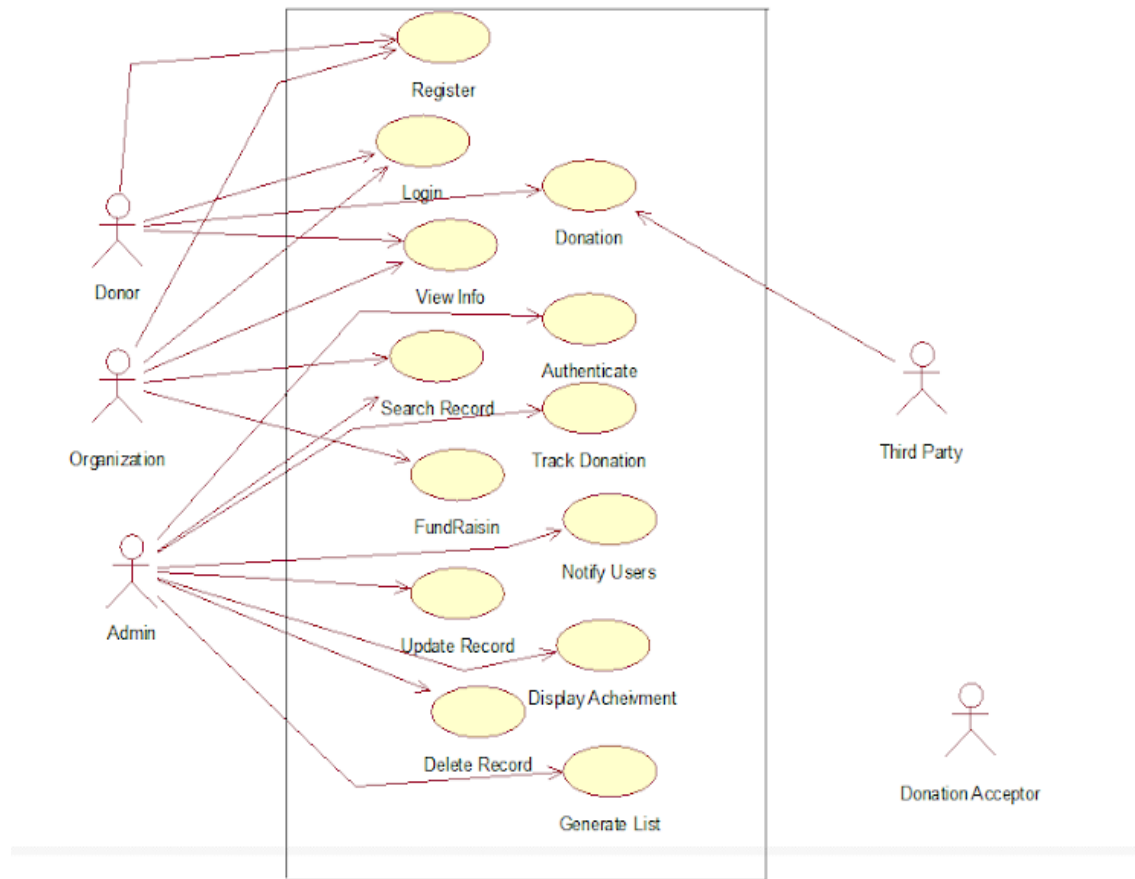
Main Success Scenario:

- User opens the app
- System displays registration screen
- User selects the category for registration
- User provides the information
- System notifies the info is correct
- User will provide a unique username and password
- User registers successfully.

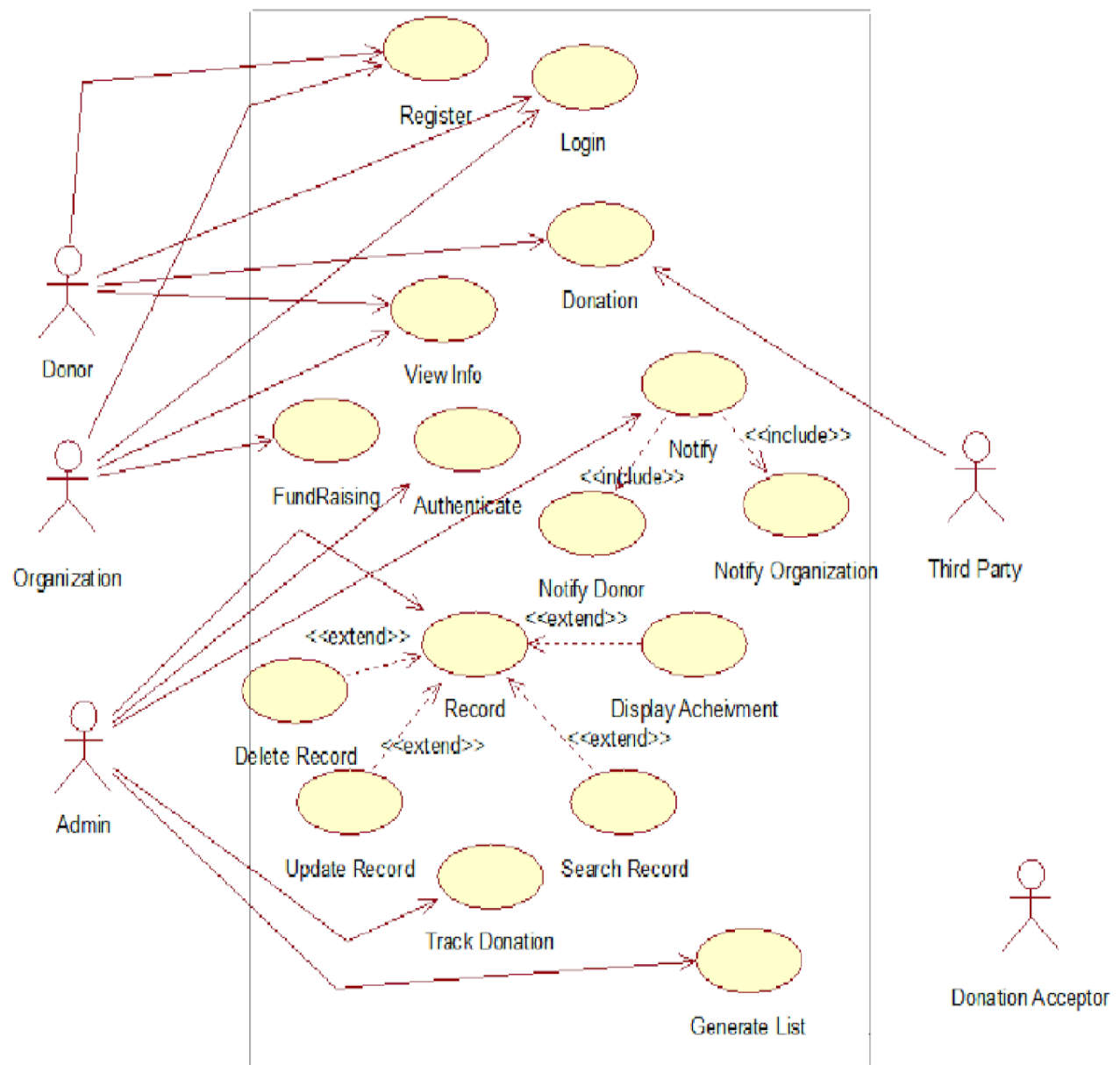
Alternative Scenario:

- Donor age is below 18
 - System notifies error
- Organization is not government registered
 - System notifies error
- User provides false info
 - System notifies error
- User provides weak password
 - System notifies user that password is weak
- User provided username is not unique
 - System notifies user that username is taken already

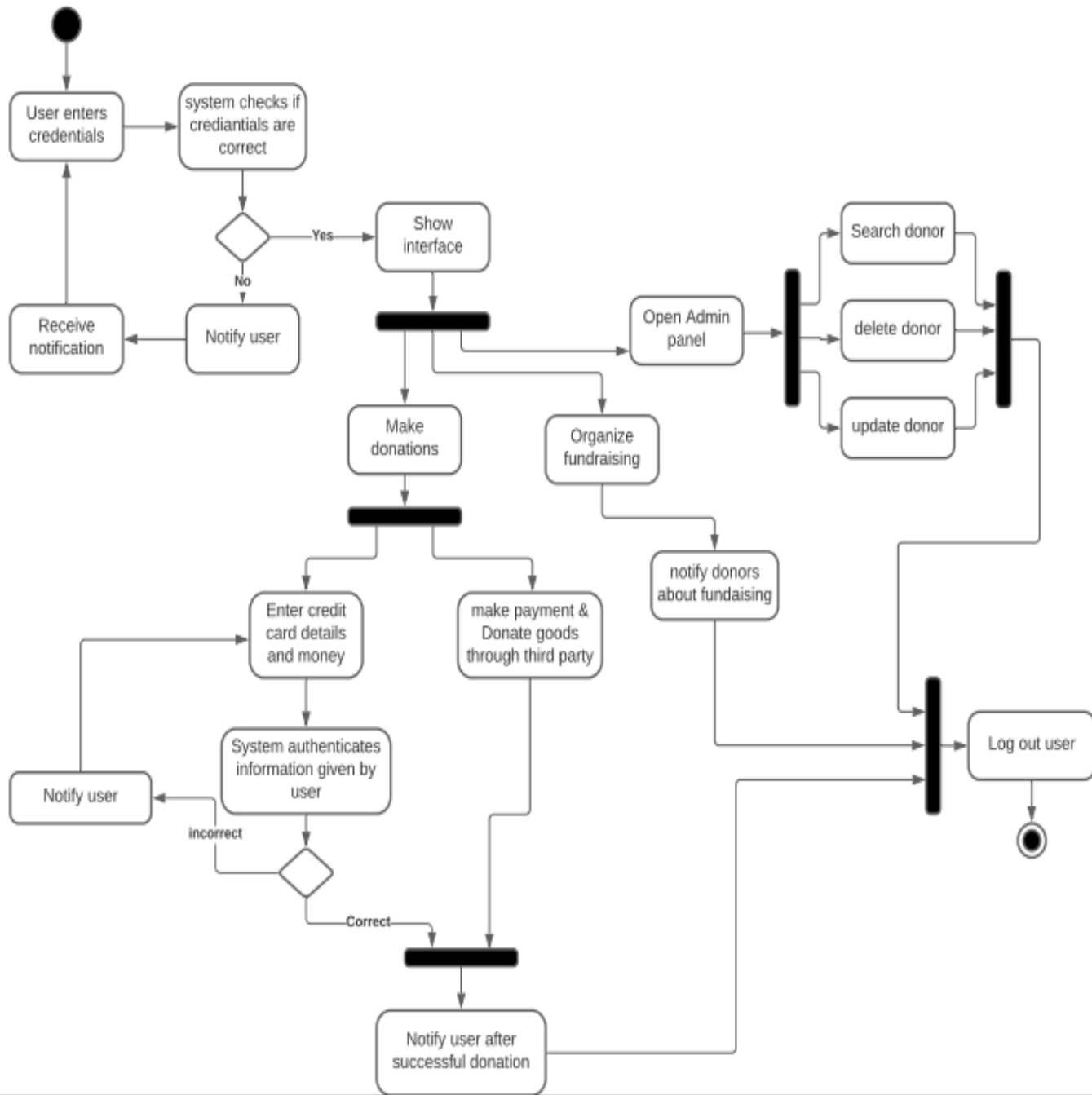
Use Case Diagram



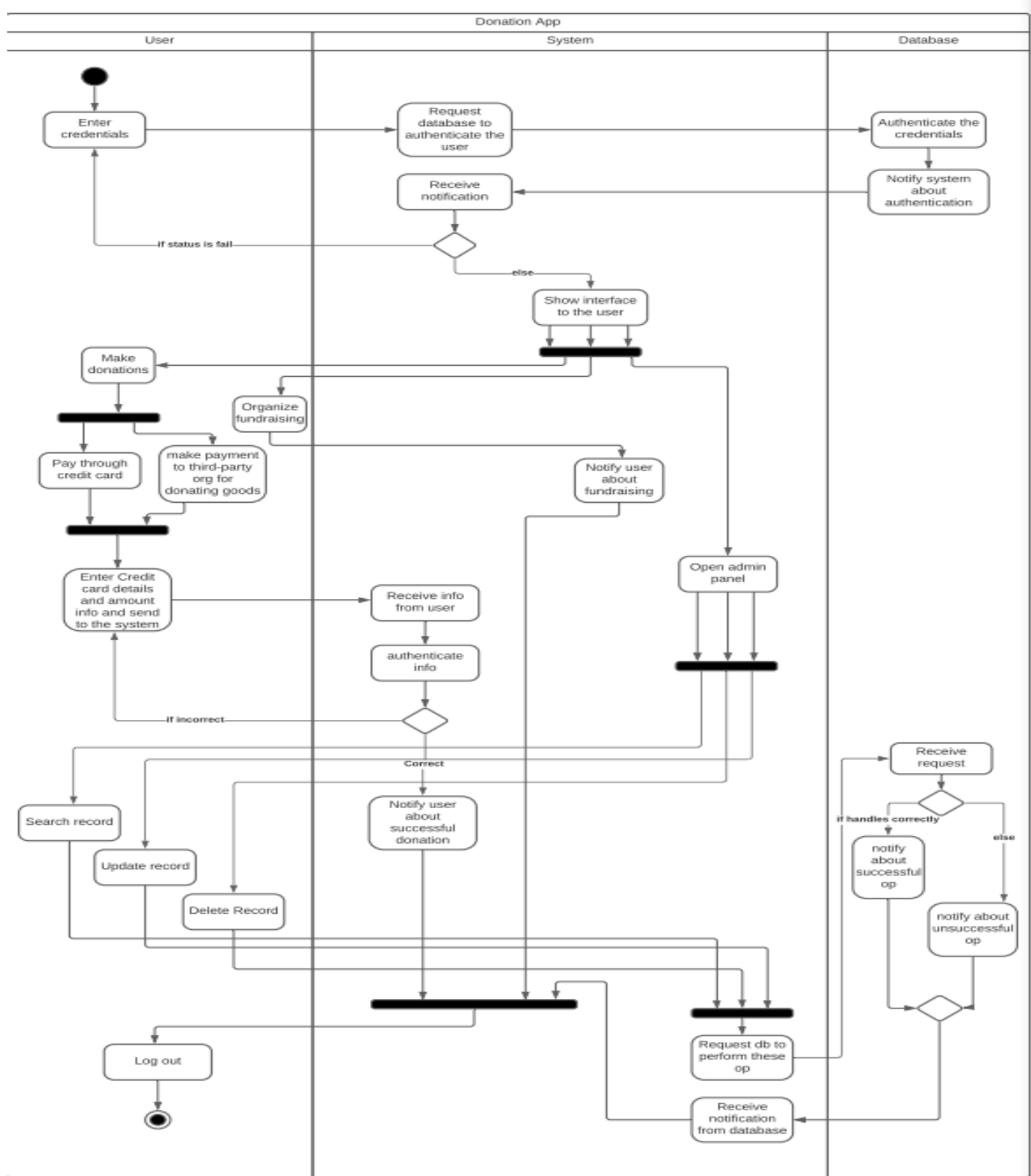
Analysis Level Use Case Diagram



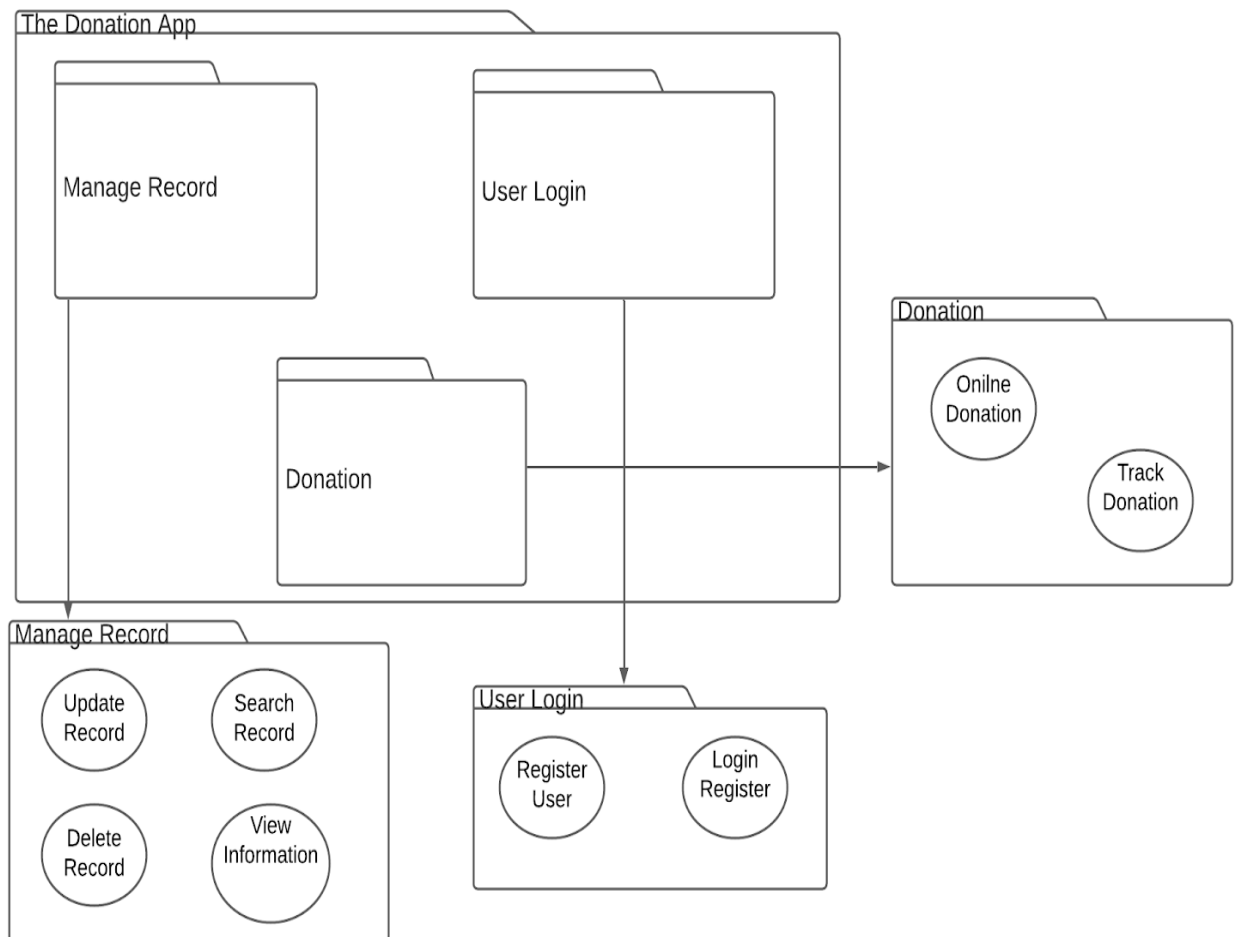
Activity Diagram



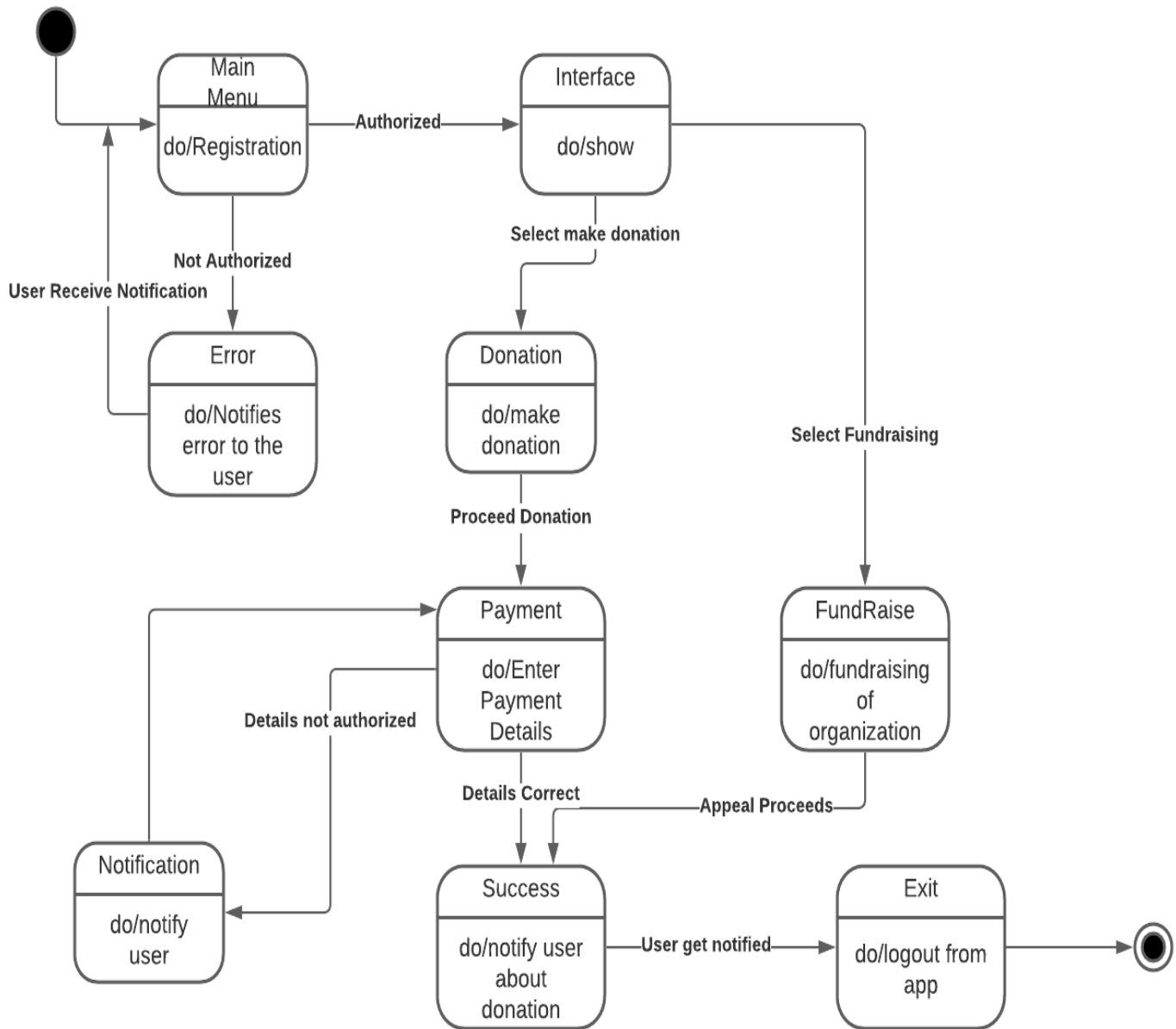
Activity Diagram with SwimLanes



Package Diagram



State Chart Diagram



Glossary

- **ThirdParty:**

Third party is an outside system/store which will provide goods if a person wants to donate goods instead of money.