

CS GROUP 47



Food For ALL

Donate • Spread Love • Volunteer

PROJECT PROPOSAL

SCS 2202 - Group Project 1



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Details of Project Supervisor, Co-supervisor, Advisors and Clients

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Signature of the supervisor:



Date: 12/8/2022

Proposed Project Co-Supervisor (Assigned by Course Coordinator):

Name of the co-supervisor: Mr. Thusara Ekanayake

Signature of the co-supervisor: 

Date: 12/8/2022

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1 Introduction

1.1 Problem statement

The International Federation of Red Cross and Red Crescent (IFRC) has informed that the economic crisis in the country drastically increased the charitable works throughout the country to help the millions of people who suffer from the shortage of foods, cooking gas, medicine, and fuels. Before the crisis happened, these people had suffered from the COVID pandemic, and they struggled to put their foods on the table.

However, with the current crisis in the country, single-parent families have been faced with a huge burden on their heads, because they rely on low income, and they couldn't manage all the expenses in the family. According to the latest analysis on the World Food Programmed (WFP) showed that 3 in 10 households in Sri Lanka suffered from food shortage and 65,600 are severely food insecure [1]. Current inflation on food prices have impacted the populations in Sri Lanka and they failed to put sufficient and nutritious foods on their dining table. According to their analysis two in five households skip their meals due to the less income in the families. Because of that, many people have suffered from nutritious problems and sometimes it can be life threatening as well.

To overcome that problem, we need community support to help thousands of people who suffer from food shortage related issues to face this economic crisis by donation from the voluntary ones. There are numerous charity-based food distribution activities carried out in every region of Sri Lanka. Donating money, raw items, or cooked food to people in need is a common activity done by many people and organizations. With the political crisis and instability of the country's economy, these food distribution activities for the destitute have increased by a considerable amount.

However, most of these events don't have a proper platform to organize their distribution processes, collect funds and a transparent mechanism to identify needy families, and raise public awareness on such charity works. Therefore, these event organizers perform the above-mentioned processes through various social media. Still, that process has lots of issues, such as trustworthiness of the system, poor structuring, lack of evidence on the activities and it consumes a lot of time to select the most appropriate one based on our requirements.

So, it's important to have a proper platform to perform these things easily and systematically. So, people who are willing to participate with charitable work can join with it in an effective way and they can help the people who're in need of food.

1.2 Our solution

The “**FoodForAll**” is a web-based application where charitable communities and organizations around the island get a space to showcase their events to the public. Once an organization gets registered, it can get the necessary donations and volunteers for preparing meals depending on their requirements. In addition to that, these organizations can get a verified list of needy people through the connection we established with the area coordinators for selected areas, who are known as “the Grama Niladari”. It helps us to identify the needed family and support them based on their family background considering the number of children, number of senior citizens etc. Because the items that are needed for children differ from the senior ones and to tackle that we need to have some background information on the families.

The application allows people who are willing to participate with the charitable events via donation in any mode depending on their priorities. For that, first they have to get registered as donors and people who like to volunteer to get registered as a volunteer for the selected volunteering activities. Each organization will list down their donation and volunteering activities in their profile and depending on the registered user preferences they can enroll with them. Anyone who visits the website as an unregistered or guest user has access to the details of these organizations and through this, these organizations can gain social recognition for their works. Each organization can analyze their performances via reporting features. Additionally, those who offer to help with cooking as a voluntary activity can systematically notify organizers of their status through the system starting from the raw item collection to meal packaging.

1.3 What's different in FoodForAll?

The normal way of arranging charitable activities to donate food to people takes place with the use of social media and it doesn't limit to one platform, and it takes lots of time to do filtering based on the requirements due to its poor structuring. And through social media, the main thing the organizations get is public awareness and we cannot guarantee on the transparency and the security aspect. But with this proposed solution, the organizers can get registered users as donors or volunteers, and they can track the progress of the preparation of meals and monitor

the performance of the whole organization. Not only that, through this proposed approach we can identify the needy families with the help from the area coordinators.

Through this web application, organizations can view evidence of other completed activities which were done by other organizations in the gallery, and from that they will get an influence to start more charity works depending on the community feedback. Due to that, we can attract more and more people to engage with charity works. With its user-friendly interface, this product may be used by any kind of community, and we can extend it from local groups to major organizations, and it assists people in systematically organizing their donations.

2 Project Goals

Our main goal is to establish a web-based platform for organizations that are willing to contribute food to the needy so that they can plan their voluntary activities in an effective and appealing manner. To facilitate that goal our proposed solution will create a place where those who are willing to engage with volunteering and donations can easily register and engage in the selected charity event. Through this application we can,

- Gain more trust from donors by making it simple for them to donate to any organization they choose and providing them with a single location to find out how their money will be utilized by that organization.
- Make it simpler for organizations to find new volunteers and donors.
- Provide the data and information needed to distribute goods more equitably and efficiently among people.

3 Project Scope

3.1 Project Boundaries

3.1.1 User

- Guest user
- Registered User (Volunteer, Donor, Area coordinator)
- Organization User
- System Admin

3.1.2 In-Scope

- Create a platform to advertise upcoming charitable activities in each organization including donation and volunteer options.
- Create an interface to view information on past activities by maintaining the gallery.
- Create an interface to select to be a donor or a volunteer for a particular activity.
- Donors and volunteers can select the organization and activities with their preference.
- Make donations to the organization with money or raw items.
- Organizations keep their inventory details on the collected raw items for the analysis purpose.
- Volunteers can engage with events and the required number of volunteers will be specified by the organizations in the beginning of the events.
- Registered or guest users can give their reviews or complaints through the website.
- Each organization can view a statistical report of their organization.
- Send notifications to registered users, organizations, and area coordinators.
- Update the food preparation status.

3.1.3 Out-Scope

- Managing transportation of cooked meals/raw items to needy families.
- Internal management functions/features of organizations.
- We are not providing a mobile application for donors or volunteers.

4 Project Objectives

- Identify the requirements of the relevant charity organizations, donors, and volunteers through discussion.
- Develop a web application to provide solutions to their requirements.
- To provide a platform to donors and volunteers can take part in charity works.
- To provide a platform to notify donors and volunteers about upcoming events to donors and volunteers.
- Create a platform to donors which is faithful to donate and give information about how their donations are utilized.
- Improve documentation skills alongside learning web application development technologies.
- Improve teamwork and boost individual soft skills.

5 Project Feasibility

5.1 Social feasibility

In Sri Lanka, due to the current situation of the country, there are many people in need of prepared food and raw items as well as organizations who collect donations with the charitable purpose and want to donate to and support them. Also, there are people who want to support the activities of such organizations but don't know how and to what their donations will be used for. Because of that, most people are afraid to be involved with such charity events due to its poor structure. To bridge this issue, this proposed application provides a platform for each separate organization to display the work that they do in their timeline. By referring to that, donors/sponsors can pick one of the organizations and then donate their required items.

Another drawback for traditional ongoing charity organizations is to find families in need because these families may be reluctant to provide their private information to an unknown organization due to the privacy concerns. As a solution to that, this proposed application uses a separate person known as the area coordinator or Grama Niladari for each area, and he will be a person trusted by the people of that area. Therefore, people can share their information without worry. Based on that we can easily figure out the needed families with their income level and

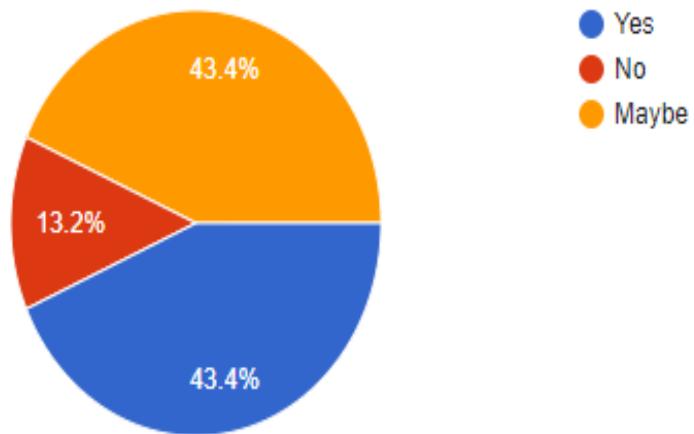
family background prior to the donation. So, then donors can have guarantee on their donation because they transferred to the needy families.

Given below are the results for a survey conducted by our team on the subject.

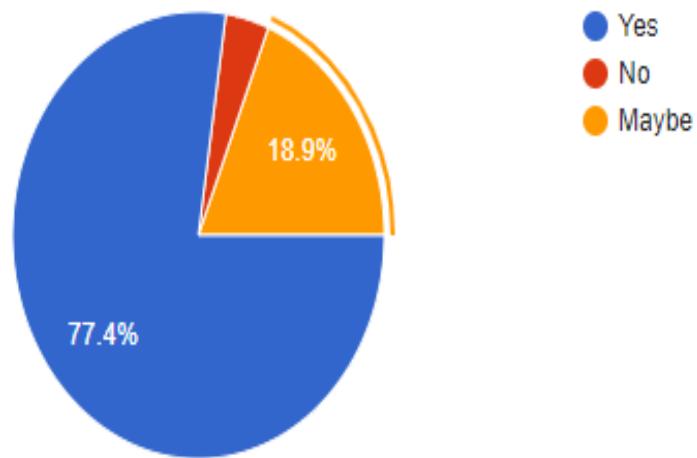
Q3. Are you interested in donating money/raw food items to the poor?



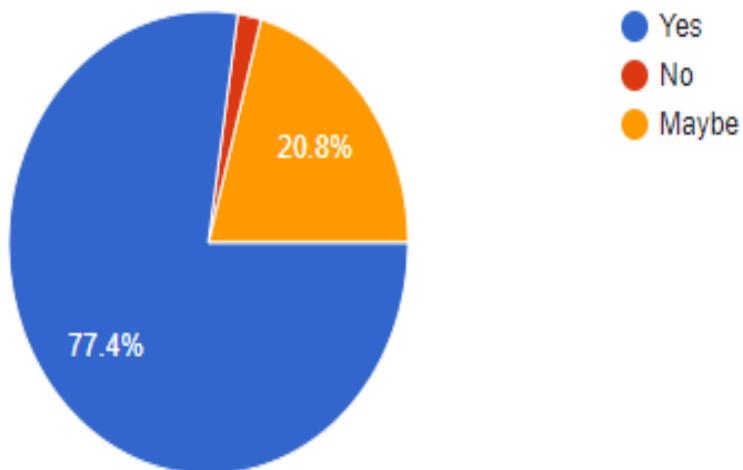
Q4. Would you like to volunteer for activities related to food donations such as cooking food?



Q5. Would you like to have an online platform where you can get registered and take part in donating cash/raw food items to the poor?



Q6. If there's an online platform where you can easily find such organizations that collect donations, would it encourage you to donate more?



This survey had 53 responses and can be accessed [here](#)

According to the data gathered, it could be seen that such a system would be welcomed by the public. This web-based application will have long term use as issues faces by the relevant parties will not disappear immediately.

5.2 Technical feasibility

The main deliverable of this project is a web-based application is a platform to connect donors and volunteers, charity organizations and the people in need of food items. The system is to be built in a way so that it could be hosted in any cloud provider, therefore the technologies used in development are open source or freely available.

Mainly, the front end of the web application will be built using HTML for the structure, CSS for styling and JavaScript for changes and creating forms. PHP and the Apache HTTP server (to run PHP applications) will be used for the backend with MySQL as the datastore. The system will rely on a SMS gateway and a simple mail transfer protocol (SMTP) to send notifications to users through SMS and emails and a payment gateway for receiving payments.

Additional tools used,

- Figma/Canva for UI
- GitHub to collaborate and as a version control tool
- Trello as a project management tool

The team has a basic understanding of those technologies before and while developing the project. It is not an easy task, but with the allocated timeline it allows us to gain depth understanding on them before we start the implementation phase. and with the allocated time duration it allows us to gain a considerable amount of technical knowledge before we start the implementation phase.

5.3 Operational feasibility

This section ensures how well our proposed solution facilitates the user requirements of the system to handle the issues in the present system. For that, it is necessary to meet the necessary requirements operationally feasible otherwise users are not willing to use it. At present most of the voluntary activities are carried out by social media, which takes more time to filter out the activity or events which are aligned with the user's requirements. Basically, the system will be supporting 2 groups of users, the organizations looking for donations and the people who want to donate money or raw items. Currently people must search one by one to find an organization to donate and to know what these organizations actually need. The organizations also are not able to find families who are in need. This structure is inefficient and time consuming.

Therefore, it is necessary to have a proper platform to connect organizations with the donations and volunteers. To facilitate that, as a 2nd year undergraduate group, we are proposing a web-based application called “**FoodForAll**”. Anyone with any browser can access that by using our internet connection.

As this is a web-based application all users must have an internet connection and a suitable device to get connected with the internet. They must have a basic knowledge in IT and in making online payments. Not only that, in order to carry out the donations, users must have a basic understanding of the online payment mechanism.

5.4 Economic feasibility

Here the cost for the project will be taken into consideration.

Since the team uses open-source technologies for the development process there will not be a cost for purchasing them and the team will not be making profits. Therefore, the development will be cost free.

Although for hosting the web application as well as the database, free web hosting can be used completely freely or shared hosting packages can be used at a low cost, the growth of the user base and platform will require a more expensive hosting package.

The website requires a domain name for which it will cost around Rs.4000 annually for a domain of “.lk”.

As there is a SMS gateway to send SMS notifications to users implemented in the application, each email sent will cost Rs.3.0+tax.

Hence the cost for building and maintaining the web application is affordable and economically feasible.

5.5 Legal and ethical feasibility

5.5.1 Licensing and attribution

- The technology used to build application will be open source and the development will be in compliance with their license agreement (“Royalty free” or “free for commercial use”) and pirated versions will not be used. Attribution for original authors will be provided when necessary.

5.5.2 Data handling

- The users will have to provide their information at registration, and it will be verified for analytical purposes.
- The personal data of the users will be protected. And confidentiality of information collected on people in need will also be ensured.
- No data will be given to any third parties.

5.5.3 Transparency

- The Donations are made directly to the organizations and the transparency will be maintained by the system.

5.6 Schedule feasibility

- The project spans a duration of 9 months.
- Estimated man hours for the project completion,
 - Weekdays working hours = 5 hours
 - Weekend working hours = 5 hours
 - Number of group members = 4
 - Number of weeks = 36
 - Total man hours = $(5 + 5) * 4 * 36$ hours = 1440 hours
- Since the requirements are clear and well defined, we are using a waterfall model for development and with requirement gathering almost done, we can predict that with the identified features and scope it is possible to finish the other tasks of the SDLC and complete the development of the product by the mid of March, 2023.

- Also, requirements are almost stable at this point so there won't be any major changes to the requirements that can affect the schedule of the project

6 Project Deliverables



Web based application



Administrators' manual



SRS Document



User guide

7 Project Constraints and Assumptions

7.1 Project Constraints

- One user cannot have more than one account.
- Same user can act as a donor and a volunteer.
- Only registered users can send volunteer/donor requests.
- One area coordinator is responsible for a single area.
- Only registered users can be notified through the notification system.

7.2 Project Assumptions

- Area coordinators verify all the details of the families before entering the system.
- It is assumed that the quality of food is up to the standard.
- The items that are included in each package(items) has been pre-defined.
- Cash donations are carried only through the website.

8 Requirements

8.1 Functional Requirements

After discussing with grama niladhari officers and human welfare organizations, the following requirements were determined. Additionally, the responses from the public poll were used to determine what are the needs of the general population.

8.1.1 Donating

- Users who are registered as donors shall be able to browse and select available charity organizations and their events.
- Donors shall be able to send requests to an organization to get access to the donating process.
- Donors shall be able to select the mode of donation, either cash or raw materials.

- Donors will have the option to choose the type and quantity of raw materials they wish to donate.
- Donors shall be directed to a payment gateway if it's a cash donation.

8.1.2 Volunteering

- Users who are registered as volunteers shall be able to browse and select available charity organizations.
- Volunteers shall be able to check available events of an organization and select an event.
- Volunteers shall be able to send requests to an organization to get access to the volunteering process.
- A volunteer might have the chance of updating the status of food preparation.

8.1.3 Charity Organizations

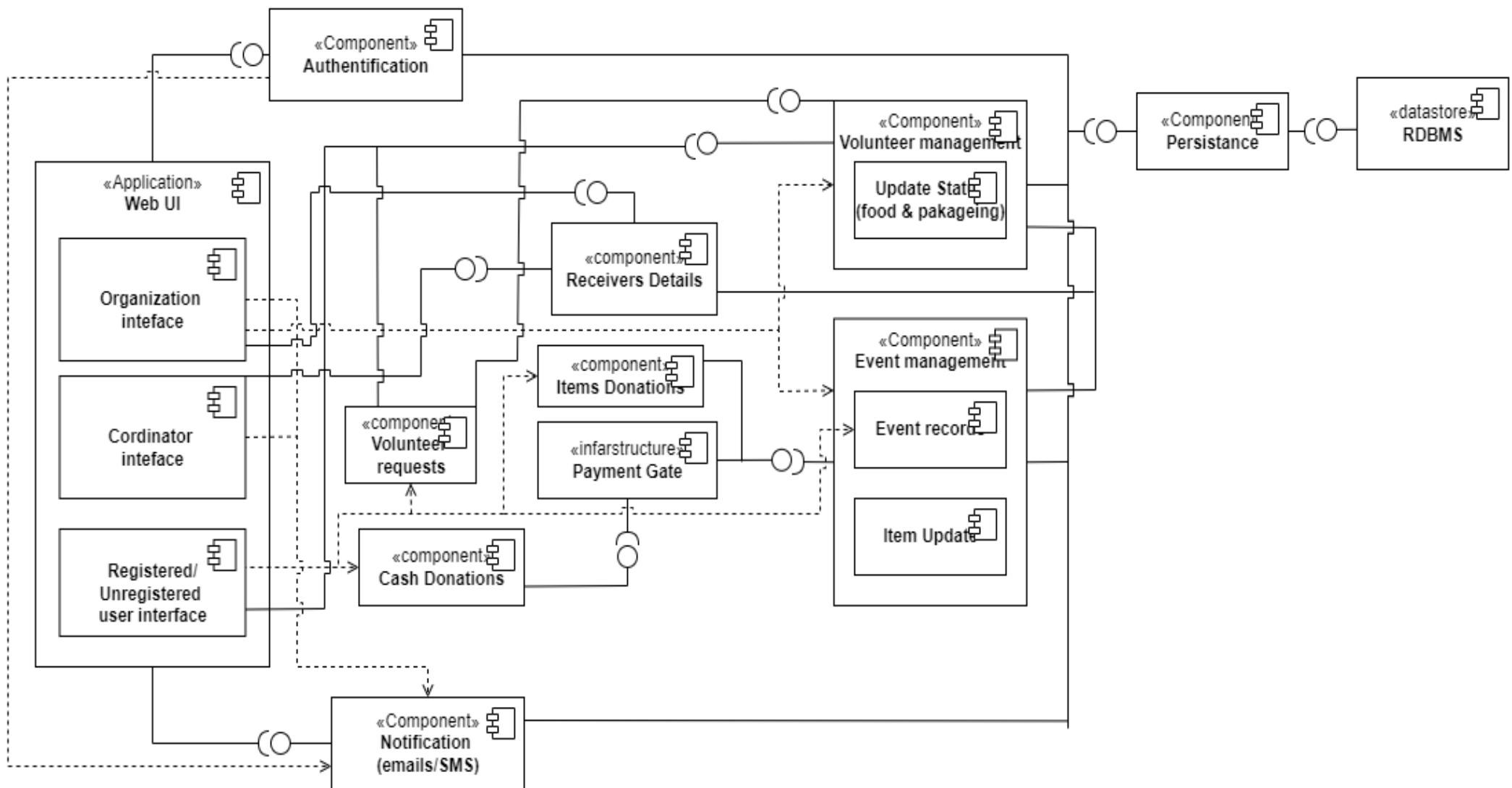
- Organizations shall be able to post updates about their upcoming events.
- Registered/unregistered users shall be able to view the work that an organization has done.
- Registered/unregistered users shall be able to provide feedback & complaints to organizations.
- Organizations shall be able to respond to volunteer/donor requests.
- Organizations shall be able to respond to user's feedback and handle complaints.

8.1.4 Raw material packing and food preparation process

- Organization admin shall be able to filter out area coordinators which are assigned to a certain area.

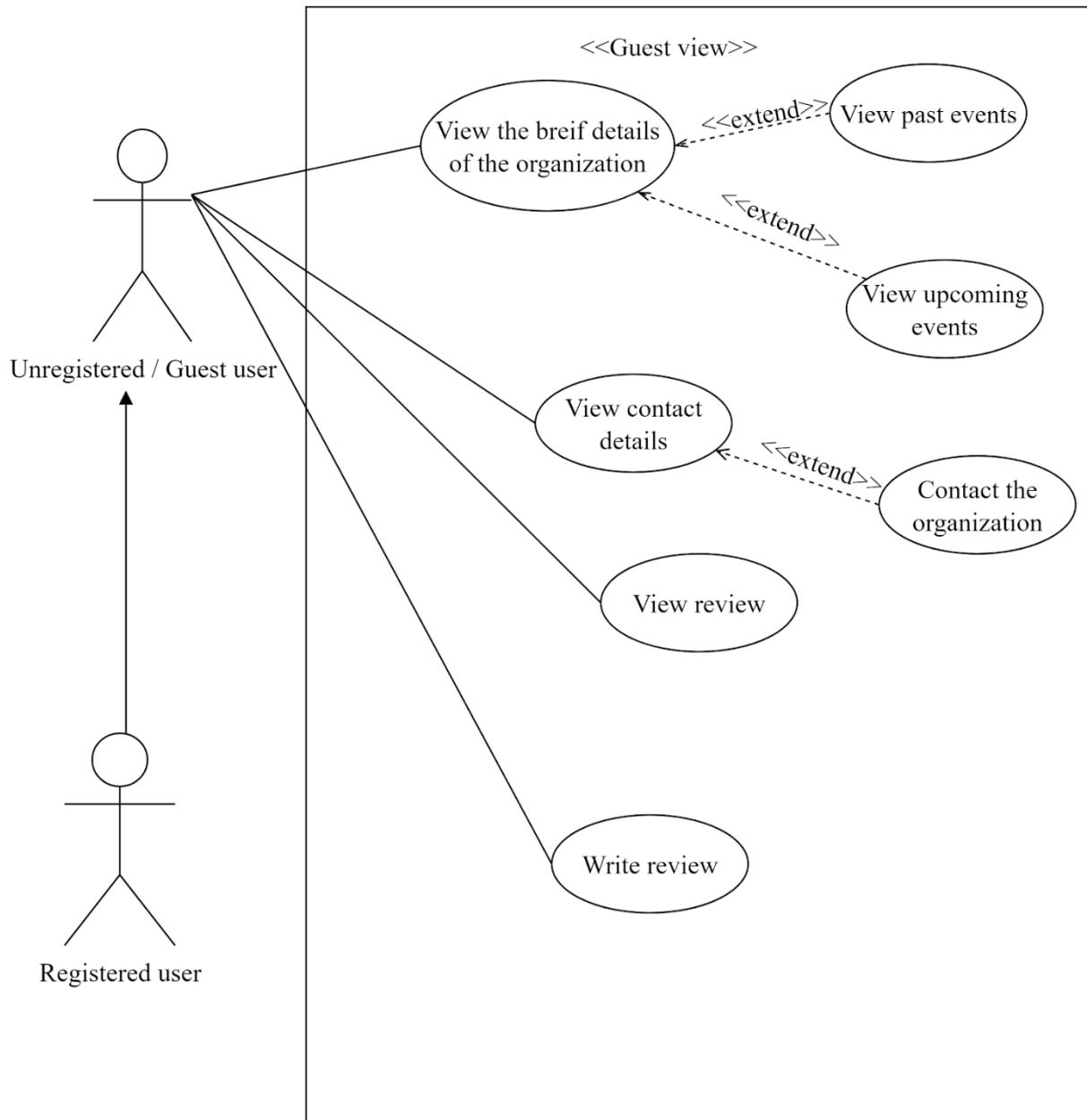
- Organization admin shall be able to send a request to the area coordinator requesting a list of needy people together with their family background.
- Organization admin shall be able to edit the required resources when a new event is added.
- Organization admin shall be able to appoint a volunteer in charge to update the food preparation process.
- Organization admin shall be able to check the status of food preparation and packaging.

8.2 Component Diagram

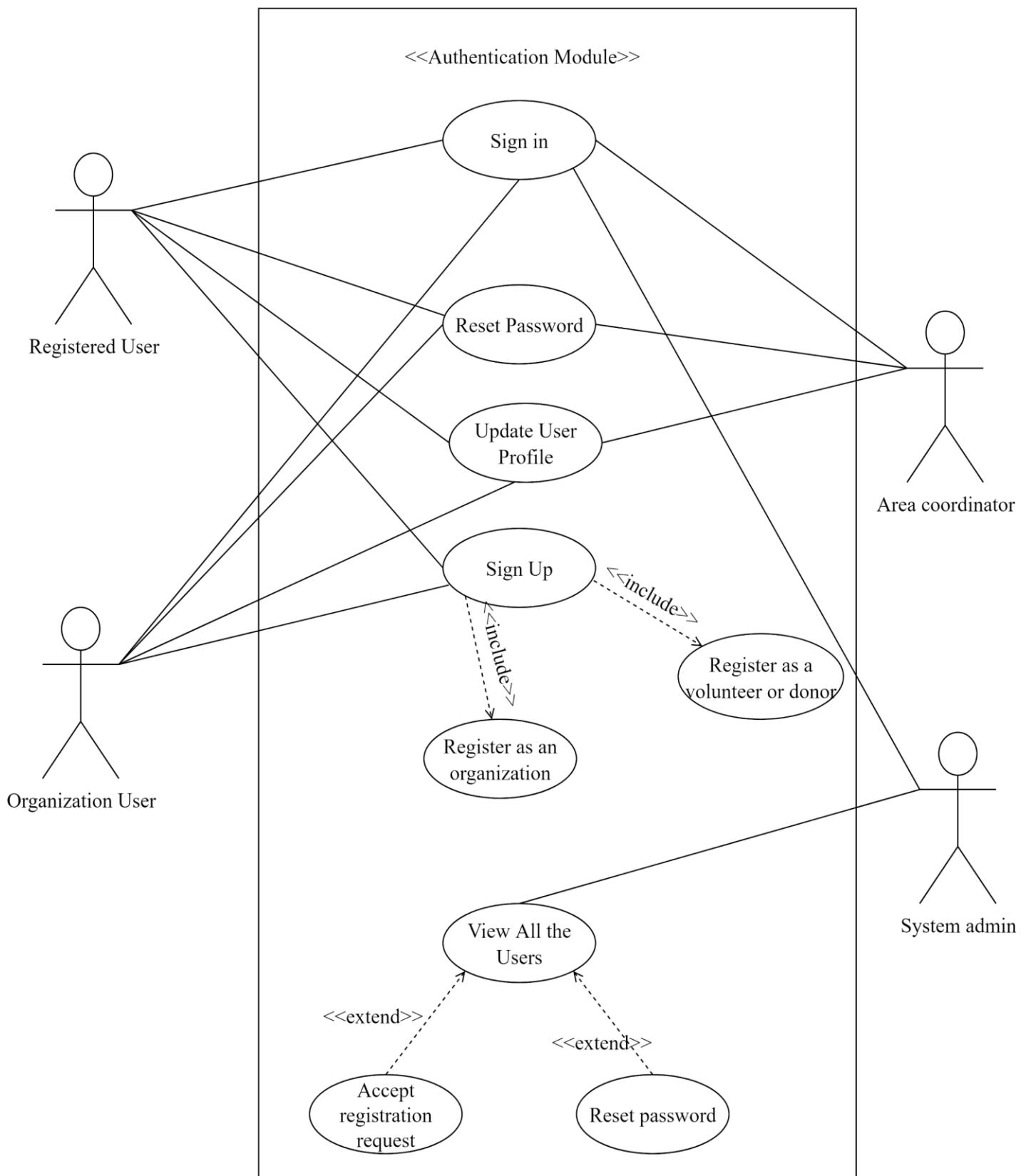


8.3 Use case Diagrams

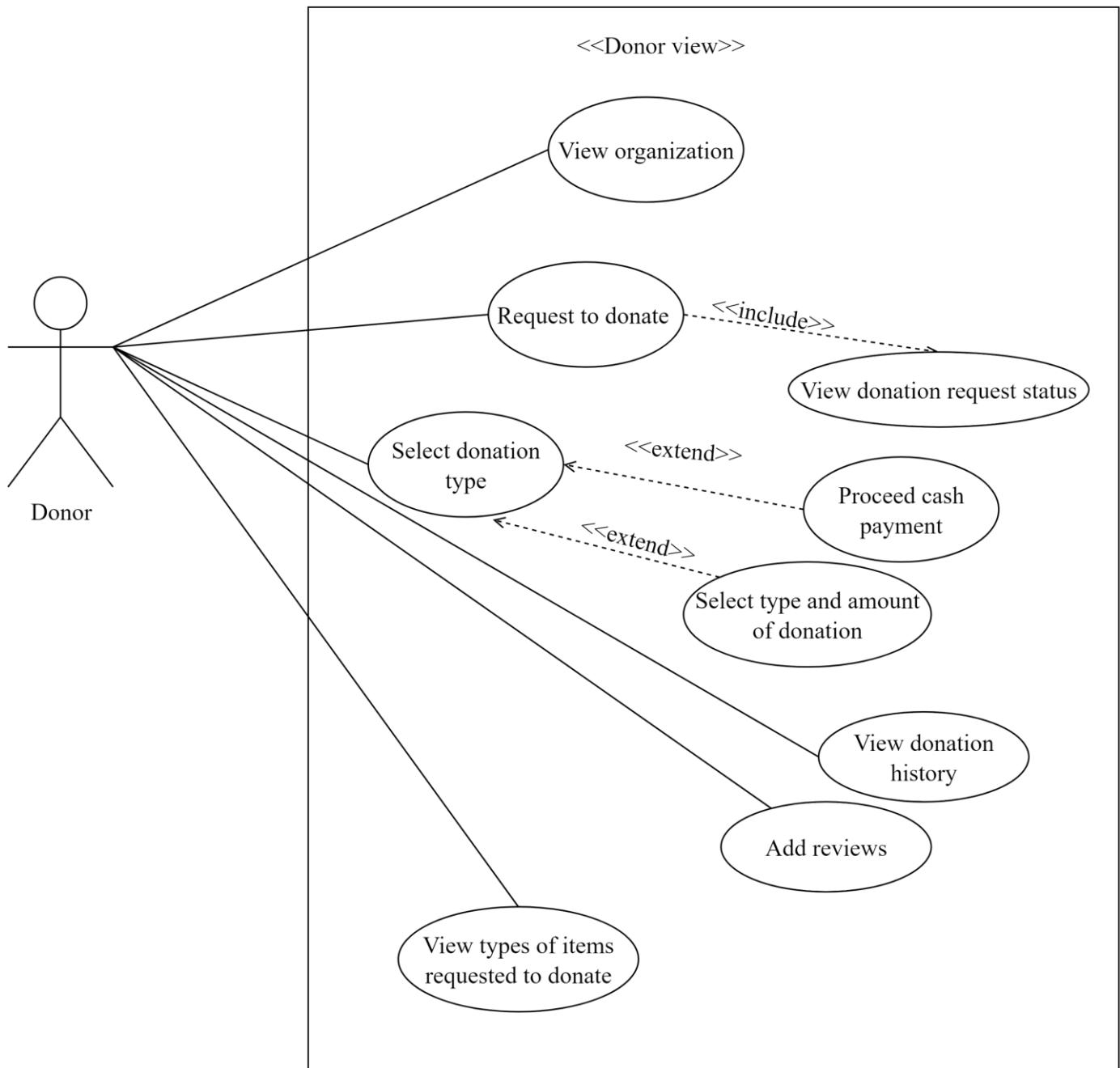
8.3.1 Unregistered /Guest



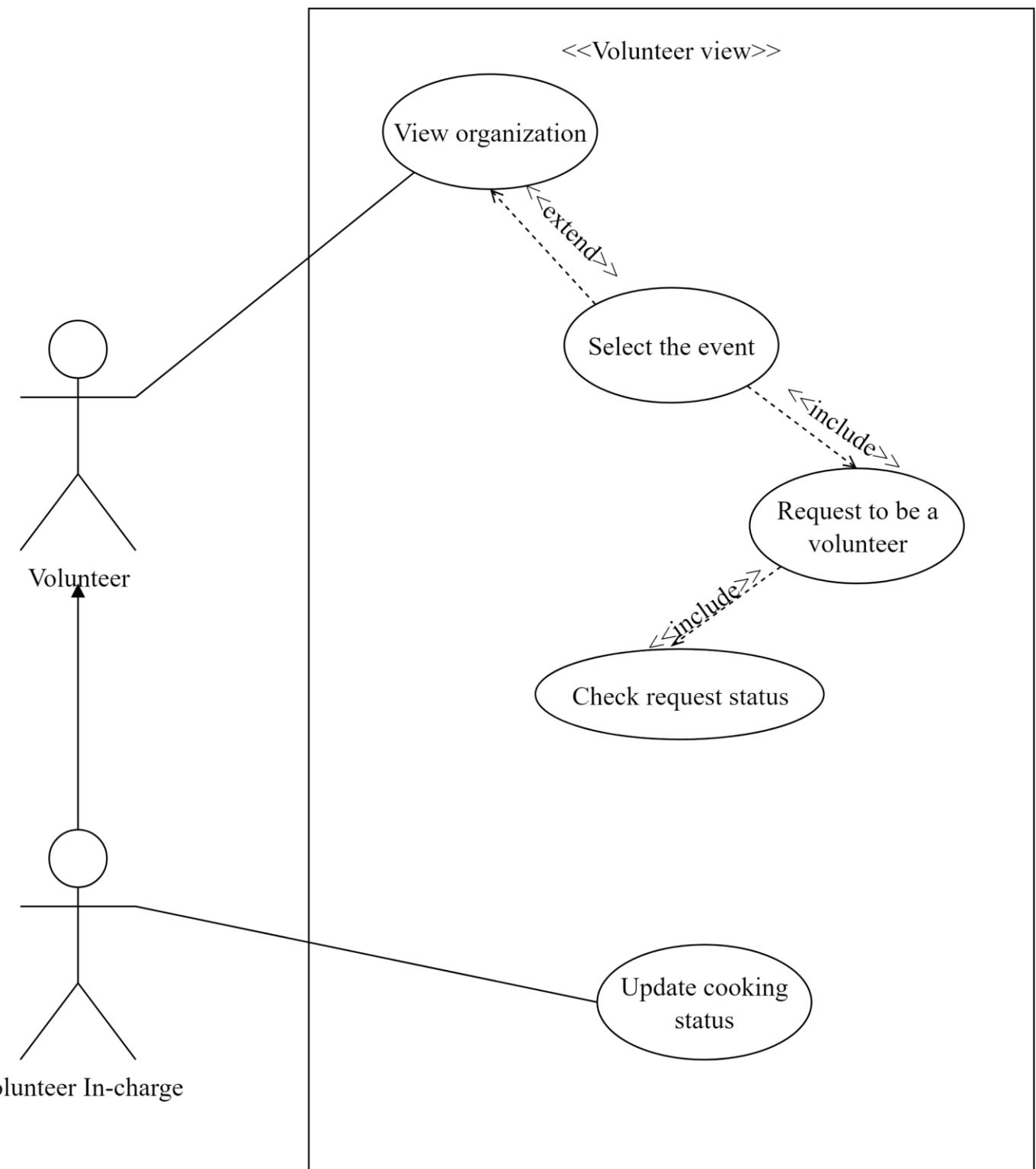
8.3.2 Authentication Module



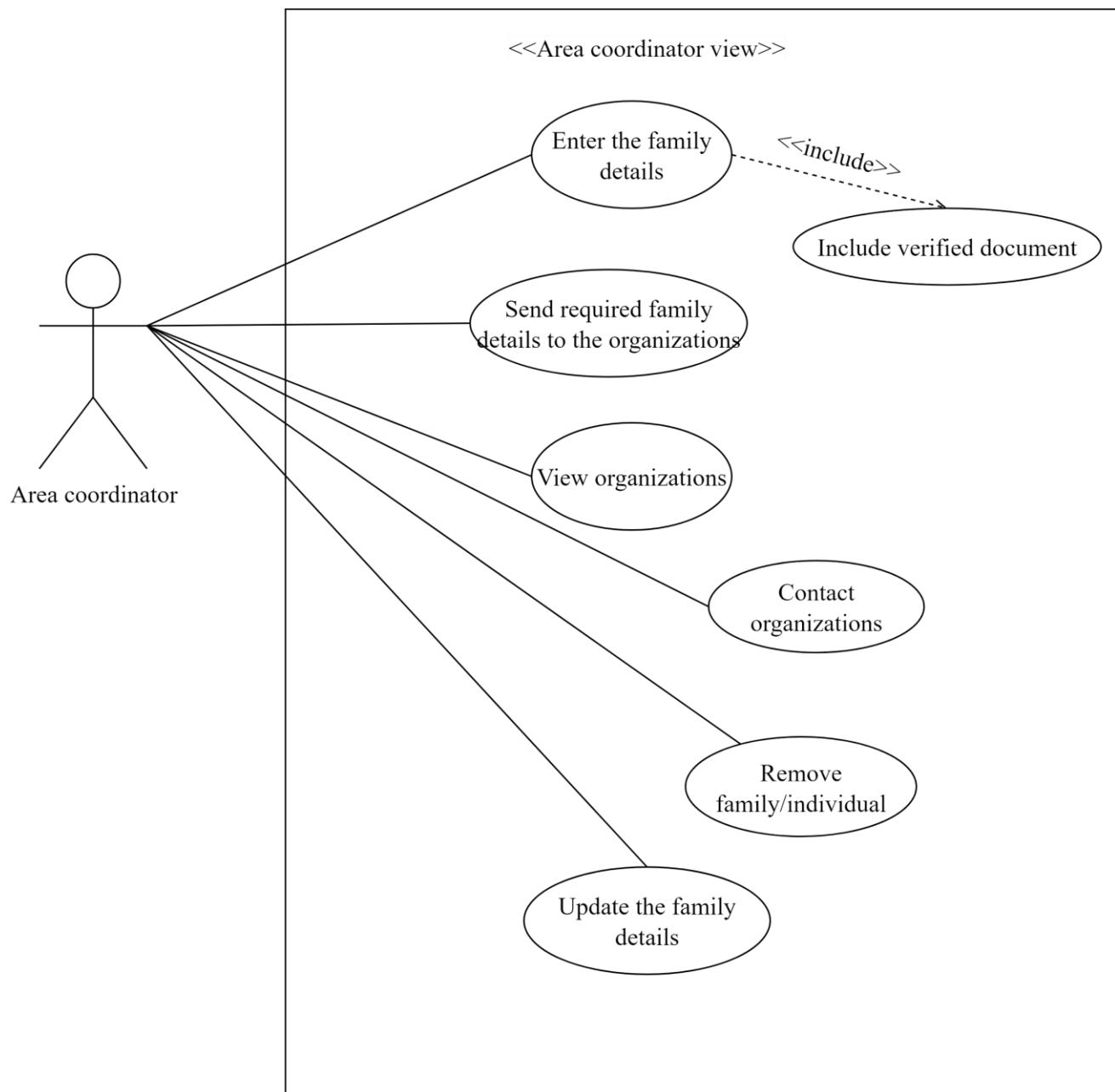
8.3.3 Donor view



8.3.4 Volunteer View



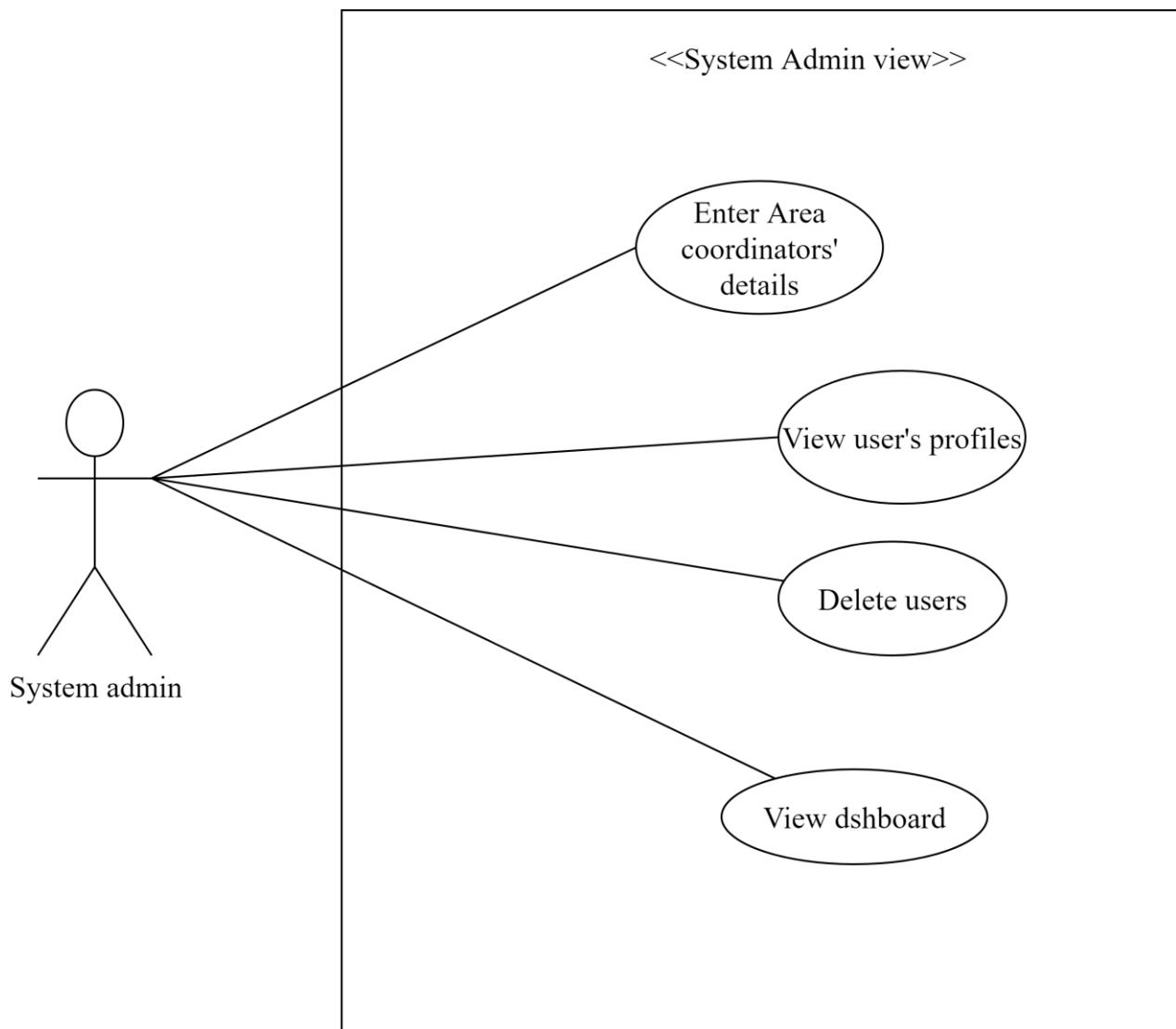
8.3.5 Area Coordinator View



8.3.6 Organization Admin View

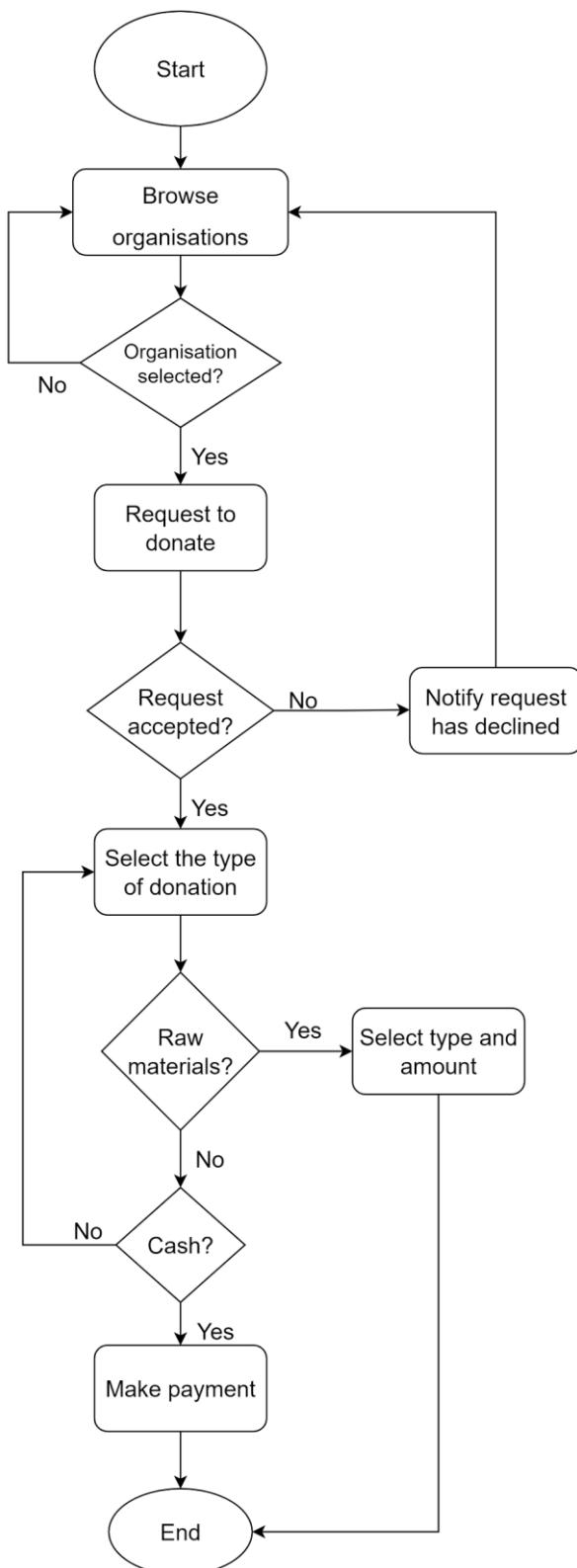


8.3.7 System Admin View

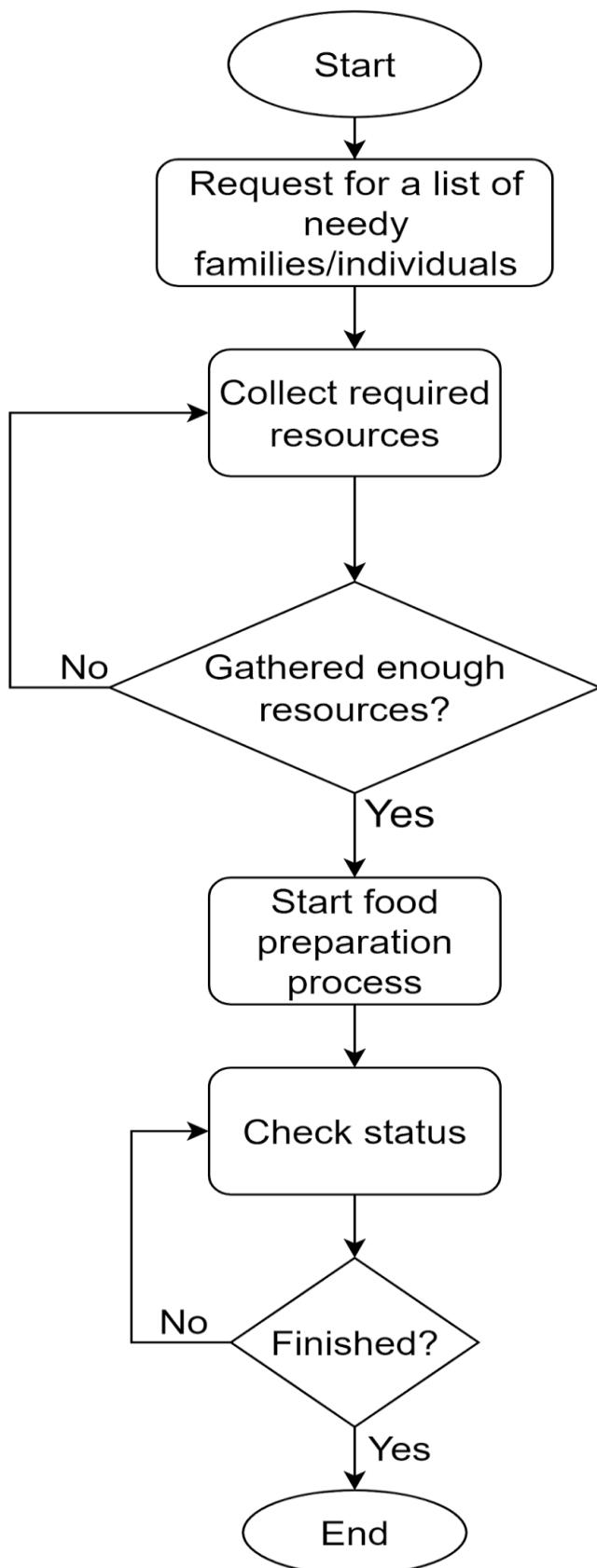


8.4 Flow Charts

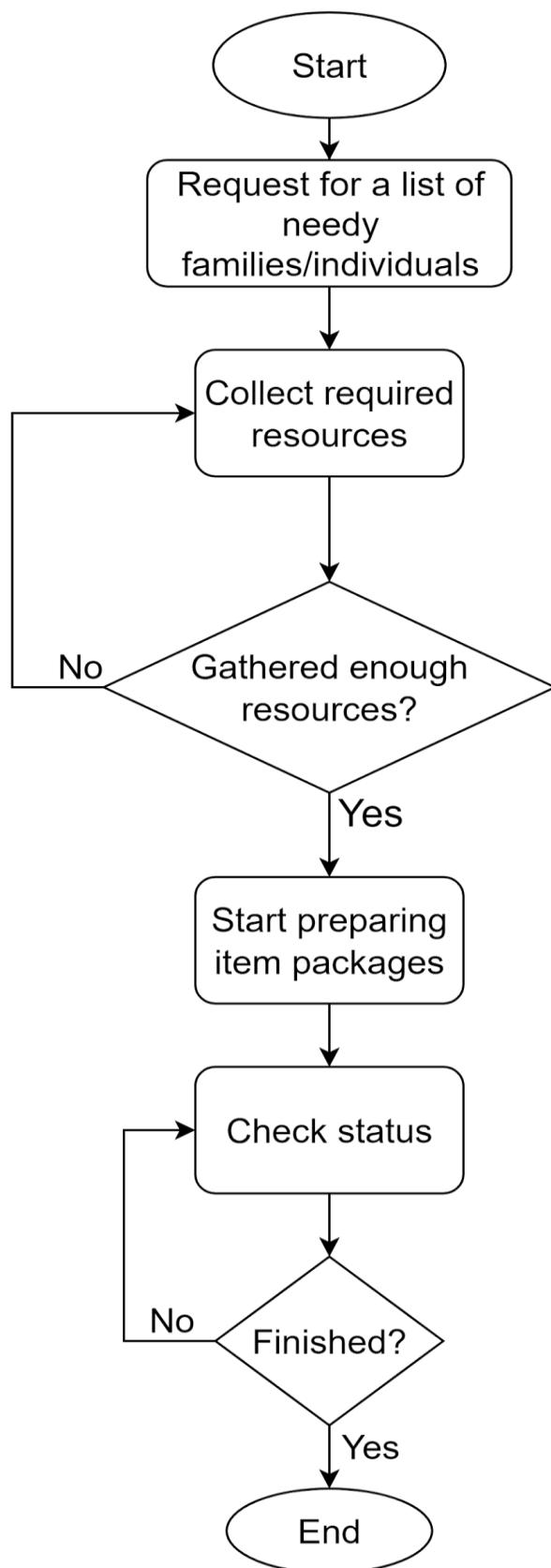
8.4.1 Donating process



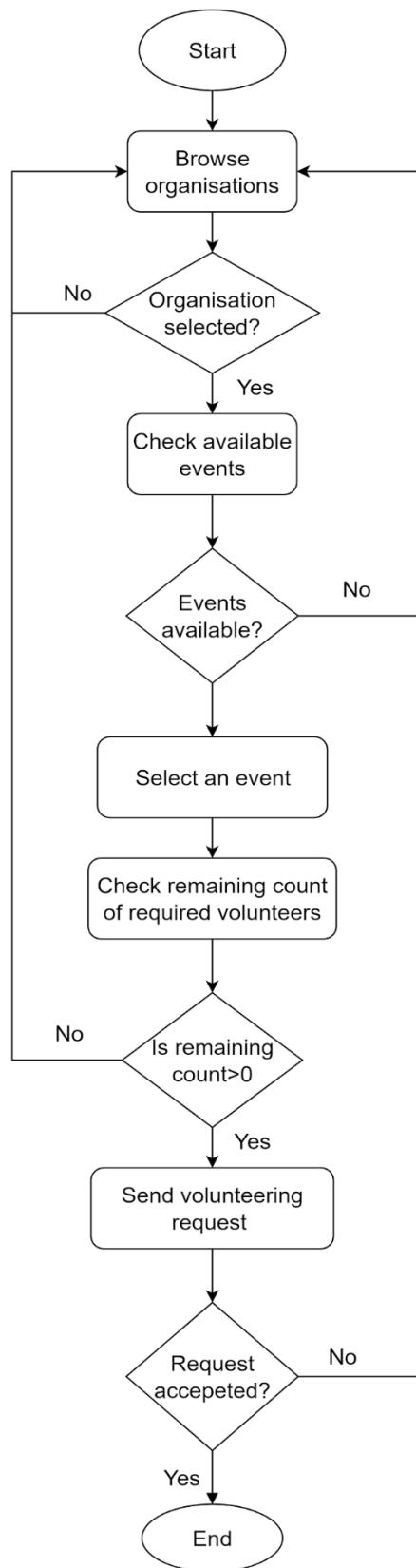
8.4.2 Cooked food packaging process



8.4.3 Packed items preparing process



8.4.4 Volunteering process



8.5 Use case Descriptions

Use Case ID	1
Use Case Name	View Organization Profile / Feed
Primary Actor/s	Guest User, Registered User, Organization Admin, System Admin
Description	Organizations can maintain a profile and a timeline of the events held. Users can view those events.
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> ● Search and filter organization ● Select an organization from the available list ● View Profile
Exceptions	
Post-Conditions	

Use Case ID	2
Use Case Name	Add reviews/complaints
Primary Actor/s	Guest User, Registered User
Description	Users can select an organization and write a review or a complaint
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> ● Search and filter organization ● Select an organization from the list ● Select add a review ● Write a review/complaint ● Post the review
Exceptions	

Post-Conditions	The system sends a notification to the organization admin
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Use Case ID	3
Use Case Name	View contact details
Primary Actor/s	Guest User, Registered User, System Admin
Description	User can contact organizations via the phone number/email
Pre-Conditions	There must be contact details added by the organization
Main Scenario	<ul style="list-style-type: none"> ● Search and filter organization ● Select an organization from the list ● View contact details
Exceptions	
Post-Conditions	

Use Case ID	4
Use Case Name	Request to donate
Primary Actor/s	Registered User
Description	User must request from the organization to become a donor
Pre-Conditions	Organization user must check the notification and approve/reject
Main Scenario	<ul style="list-style-type: none"> ● Signup as a donor ● Search and filter organization ● Select an organization from the list ● Select send donor requests and inform organizations
Exceptions	Organization user doesn't respond at all
Post-Conditions	Show request in pending requests Receive a notification as accepted/declined

Use Case ID	5
Use Case Name	Request to register as a volunteer
Primary Actor/s	Registered User
Description	User must request from the organization to become a volunteer
Pre-Conditions	Organization user must check the notification and approve/reject
Main Scenario	<ul style="list-style-type: none"> ● Signup as a volunteer ● Search and filter organization ● Select an organization from the list ● Select send volunteer requests to organizations
Exceptions	Organization user doesn't respond at all
Post-Conditions	Show request in pending requests

Use Case ID	6
Use Case Name	View volunteer/donor request status
Primary Actor/s	Registered User
Description	User can see whether the request is still pending, rejected, or approved
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> ● Sign in ● Visit profile ● Go to My Requests ● View request status
Exceptions	Request will no longer visible if user has deleted it

Post-Conditions	
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Use Case ID	7
Use Case Name	Receive notification regarding the status of a request
Primary Actor/s	Registered User
Description	User receives a notification saying whether the request was rejected or approved
Pre-Conditions	Organization user must check the notification of adoption request
Main Scenario	<ul style="list-style-type: none"> ● Organization User approves or rejects the registered user's adoption request ● User receives notification ● Check if request was accepted or rejected
Exceptions	Organization user does not respond to request at all
Post-Conditions	

Use Case ID	8
Use Case Name	Donate cash
Primary Actor/s	Registered User
Description	User who's registered as a donor can participate in cash donations
Pre-Conditions	Organization must be open for funding
Main Scenario	<ul style="list-style-type: none"> ● Search and filter organization ● Select an organization from the list ● Go to donate cash ● Enter amount ● Be directed to payment gateway ● Enter payment details including amount to be

	<p>donated</p> <ul style="list-style-type: none"> ● System credits the amount to the organization's account ● Updates the user's donation history ● Generate receipt ● Email it to the user
Exceptions	User enters invalid payment details
Post-Conditions	Show confirmation of successful payment

Use Case ID	9
Use Case Name	Donate raw items
Primary Actor/s	Registered User
Description	User who's registered as a donor can participate in donation of raw items
Pre-Conditions	Organization should accept donation of raw items
Main Scenario	<ul style="list-style-type: none"> ● Search and filter organization ● Select an organization from the list ● Go to donate raw items ● Select the type and enter amount of food ● System reduces the amount from required stock ● Updates the user's donation history ● Generate receipt ● Send an email to the user
Exceptions	Organization no longer collects donation of raw materials
Post-Conditions	<p>Show confirmation of successful donation</p> <p>Show updates values of required resources for the relevant organization</p>

Use Case ID	10
Use Case Name	Update meal preparation
Primary Actor/s	Registered User (Appointed)
Description	Organizational user appoints a person registered for cooking purposes as the responsible person for updating the meal preparation of a certain event
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> ● Sign in ● Visit profile ● Go to update status ● Update each stage of meal preparation as cutting vegetables, cooking curries, packing meals and ready to delivery. ● System sends a notification of each update to the organizational user ● View status
Exceptions	
Post-Conditions	

Use Case ID	11
Use Case Name	View donation history
Primary Actor/s	Registered User
Description	User who's registered as a donor can view all the donations, he/she has made
Pre-Conditions	User has made previous donations
Main Scenario	<ul style="list-style-type: none"> ● Sign in ● Visit profile

	<ul style="list-style-type: none"> ● Go to my donations
Exceptions	User hasn't made any previous donations
Post-Conditions	

Use Case ID	12
Use Case Name	Add new events
Primary Actor/s	Organization User
Description	Organization User adds details about new upcoming events
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> ● Organization User navigates to Events section ● Select add new event ● Add relevant details about the event ● Confirm the details ● Update list of raw materials required ● Send notifications to registered users
Exceptions	
Post-Conditions	Display new event in events section

Use Case ID	13
Use Case Name	Assign a responsible person among volunteers
Primary Actor/s	Organization User
Description	The organization admin chooses a volunteer among the registered volunteers of the event to update the inventory.
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> ● View registered people ● Choose a person among them.

	<ul style="list-style-type: none"> • Inform to that person
Exceptions	
Post-Conditions	Display the volunteer's name on the event description

Use Case ID	14
Use Case Name	Maintain vital organization information
Primary Actor/s	Organization User
Description	Each organization displays the description of the organization on its site.
Pre-Conditions	Sign in as an organization
Main Scenario	<ul style="list-style-type: none"> • Sign in as organization admin • Edit the profile • Update the profile
Exceptions	
Post-Conditions	Display the edited profile

Use Case ID	15
Use Case Name	View dashboard
Primary Actor/s	Organization user
Description	Organization Admin can view summary of the past and upcoming events, volunteer, and donators involvement.
Pre-Conditions	Sign up as an organization
Main Scenario	<ul style="list-style-type: none"> ● Filter events ● Select volunteer or donor ● View the summary
Exceptions	
Post-Conditions	

Use Case ID	16
Use Case Name	Add family/ individuals
Primary Actor/s	Area Coordinator
Description	Area coordinators add family information that needs to be supported.
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> ● Area coordinator navigates to the add/remove family details ● Select add family details ● Enter the family details ● Confirm details
Exceptions	
Post-Conditions	

Use Case ID	17
Use Case Name	Remove or Update family/individual details
Primary Actor/s	Area coordinator
Description	Area coordinators delete the information of families that don't need to support.
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> ● Area coordinator navigates to the add/remove family details ● Select the family ● Select remove/update family details ● Make changes ● Confirm
Exceptions	Doesn't remove the past event involvements.
Post-Conditions	

Use Case ID	18
Use Case Name	View available families
Primary Actor/s	Area Coordinator
Description	The Area Coordinator can view the entered family details.
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> ● Navigate to the family details section ● Filter the family ● View family details.

Exceptions	
Post-Conditions	

Use Case ID	19
Use Case Name	Send required family details to the organizations
Primary Actor/s	Area coordinator
Description	Based on organization's charity activity, area coordinator can filter out and send details of families/individuals to the organizations when requested
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> • Check organization's requirements • Filter out from the list of needy families/individuals • Send the details to the organization
Exceptions	There are no families/individuals as the organization requested
Post-Conditions	

Use Case ID	20
Use Case Name	Maintain donation records
Primary Actor/s	Area coordinator
Description	The area coordinator updates the previous donation records of the families.
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> • View families • Select family • Edit donation records

Exceptions	
Post-Conditions	

Use Case ID	21
Use Case Name	Sign up
Primary Actor/s	Registered user, organization admin
Description	Users can create own account in the system
Pre-Conditions	Log to the web site
Main Scenario	<ul style="list-style-type: none"> ● Navigate to the sign-up section ● Choose user or organization ● Enter the personal details ● Confirm the details
Exceptions	
Post-Conditions	

Use Case ID	22
Use Case Name	Search relevant area coordinator for an area
Primary Actor/s	Organization admin
Description	Organization admin searches for an area coordinator to request information of families in a certain area
Pre-Conditions	There must be a coordinator for the relevant area
Main Scenario	<ul style="list-style-type: none"> ● Organization admin visits available area coordinators list ● Filter by area

Exceptions	There is no area coordinator for the relevant area
Post-Conditions	Contact area coordinator

Use Case ID	23
Use Case Name	Request family/individual details from area coordinator
Primary Actor/s	Organization admin
Description	To find the families that are in need of food, organization admin sends a request to the area coordinator to get details of families in an area
Pre-Conditions	Presence of an area coordinator Coordinator has collected the details
Main Scenario	<ul style="list-style-type: none"> ● Search for relevant area coordinator ● Select one ● Send the request via email
Exceptions	
Post-Conditions	Receive an email from the area coordinator with the details

Use Case ID	24
Use Case Name	Approve or reject donor or volunteer requests
Primary Actor/s	Organization admin
Description	When a registered user sends a request to donate items or to be a volunteer for an event, the organization admin has to accept that request.
Pre-Conditions	The user should be a registered user
Main Scenario	<ul style="list-style-type: none"> ● View requests ● Check whether required resources are collected ● Permit or deny the user from donating or

	<p>volunteering</p> <ul style="list-style-type: none"> ● Notify the user
Exceptions	There are no vacancies
Post-Conditions	Registered user is notified

Use Case ID	25
Use Case Name	View cash / donated items
Primary Actor/s	Organization Admin
Description	Can view the amount of money and other donations provided by doners for a particular event
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> ● Go to organization dashboard ● Go to event section ● Select the event ● View donations made section
Exceptions	
Post-Conditions	

Use Case ID	26
Use Case Name	View food preparation status
Primary Actor/s	Organization admin
Description	Can view the food preparation status updated by the appointed volunteer leader.
Pre-Conditions	There must be events happening at the time
Main Scenario	<ul style="list-style-type: none"> ● Go to the events section

	<ul style="list-style-type: none"> ● Select an event ● Go to prepared foods ● View status of the food
Exceptions	<p>Volunteer has not updated the status</p> <p>A volunteer leader is not present</p>
Post-Conditions	

Use Case ID	27
Use Case Name	Send notifications to donors
Primary Actor/s	Organization admin
Description	Notify donors about most needed items for an event and other upcoming events
Pre-Conditions	There is a requirement for some item or a new event
Main Scenario	<ul style="list-style-type: none"> ● Update the events section ● Select to notify donors
Exceptions	There are no donors to notify
Post-Conditions	Donor receives a notification

Use Case ID	28
Use Case Name	View items requested to be donated
Primary Actor/s	Registered/unregistered users
Description	Can view the items/cash amount that are requested by the organizations for their event
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> ● Go to organization and select one

	<ul style="list-style-type: none"> • Go to the events section • Select an event • Go to requested items
Exceptions	
Post-Conditions	

Use Case ID	29
Use Case Name	Enter area coordinator details
Primary Actor/s	System admin
Description	System admin creates the profile for a selected area coordinator
Pre-Conditions	Details should be validated
Main Scenario	<ul style="list-style-type: none"> • Sign in as admin • Go to user profiles settings • Go to area coordinator section • Select new profile • Enter area coordinator details into the system
Exceptions	
Post-Conditions	Area coordinator gets a profile and can sign in

Use Case ID	30
Use Case Name	Respond to reviews
Primary Actor/s	Organization admin
Description	Responding to review left by registered/unregistered users
Pre-Conditions	Organization receives reviews
Main Scenario	<ul style="list-style-type: none"> • Organization admin views reviews • Leave a response

Exceptions	
Post-Conditions	Display response

Use Case ID	31
Use Case Name	Delete users
Primary Actor/s	System admin
Description	System admin can delete registered users
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> ● Sign in as admin ● Go to user profiles ● Search users ● Go to profile settings ● Delete profile
Exceptions	
Post-Conditions	Deleted user cannot login again

Use Case ID	32
Use Case Name	Sign in
Primary Actor/s	Registered user, organization admin, Area coordinator, system admin
Description	Enable users to login to the system
Pre-Conditions	Account must be already signed up
Main Scenario	<ul style="list-style-type: none"> • User enters the username and the password • System verifies username and password • System confirms entered details • User will be logged in to the system
Exceptions	
Post-Conditions	Users are granted access to the system and will be directed From the login screen.

Use Case ID	33
Use Case Name	Update user profile
Primary Actor/s	Registered user, organization admin, Area coordinator
Description	Enable users to update their user profiles
Pre-Conditions	User should be login to the web site
Main Scenario	<ul style="list-style-type: none"> • User enters the data need to be changed • User confirmed entered data will be sent to the system • System verifies the validity of the entered data • System updates the database with new data
Exceptions	
Post-Conditions	System informs the user that updates are successfully done and directed to the main settings.

Use Case ID	34
Use Case Name	Change password
Primary Actor/s	Registered user, organization admin, Area coordinator
Description	Enable users to change their own password
Pre-Conditions	User should be login to the website User should enter their current password correctly.
Main Scenario	<ul style="list-style-type: none"> • User enters the current password • System verifies the password • User enters the new password • User re-enter the new password • System checks validity of new password • User's password will be updated
Exceptions	<ul style="list-style-type: none"> • Old password incorrect • New password is invalid
Post-Conditions	System informs the user that the password changed successfully, and the user will be directed from the change password section.

Use Case ID	35
Use Case Name	Reset password
Primary Actor/s	Registered user, organization admin, Area coordinator
Description	Enable users to reset their password if forgotten
Pre-Conditions	<ul style="list-style-type: none"> • User must be Sign up to the website • User must enter the correct email or phone number assigned with his\her account. • User must enter correct verification code
Main Scenario	<ul style="list-style-type: none"> • Go to sign in page • User selects forgot password • System will send the verification code to the given email/phone number. • User enters verifications code • System checks whether the verification code is correct or not. • Users enter and re-enter new password. • System checks the validity of the new password. • System updates database
Exceptions	<ul style="list-style-type: none"> • Email or phone number is not working • User enters wrong verification code • New password is invalid
Post-Conditions	System informs the user that the password reset successfully, and user will be directed to the login screen

Use Case ID	36
Use Case Name	View organizations, registered users
Primary Actor/s	System admin
Description	System admin can view profiles of the organizations and the users who are registered to the system
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> • Sign in • Search for required user or organization

	<ul style="list-style-type: none"> ● View profile
Exceptions	
Post-Conditions	

Use Case ID	37
Use Case Name	View dashboard
Primary Actor/s	System admin
Description	System admin can view the no. of organizations, no. of events and no. of registered users, etc by viewing the dashboard.
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> ● Sign in ● Go to dashboard ● View dashboard
Exceptions	
Post-Conditions	

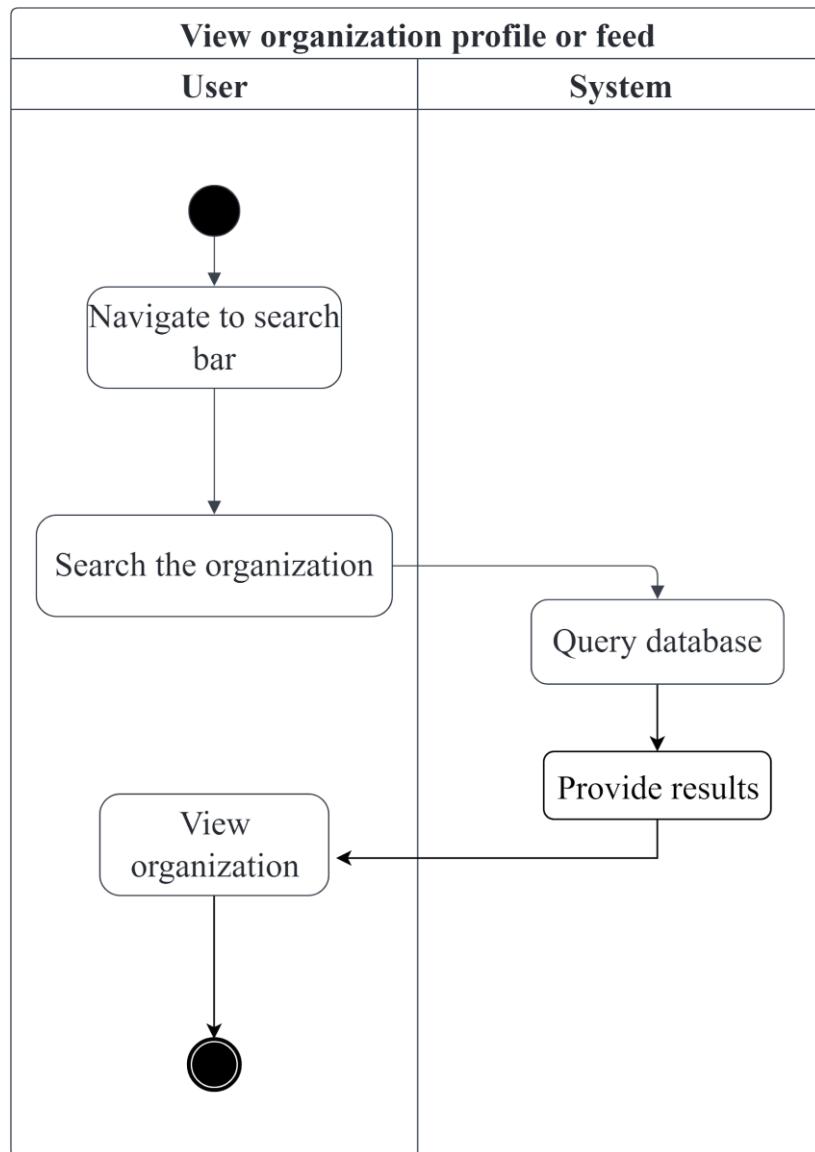
Use Case ID	38
Use Case Name	View registered donors and volunteers
Primary Actor/s	Organization admin
Description	Organization admin can view the list of donors and volunteers of an event
Pre-Conditions	Donors and volunteers have to be involved in an event organized by the organization
Main Scenario	<ul style="list-style-type: none"> ● Navigate to the events section ● Go to donations made to view donors ● Go to assigned volunteered to view volunteers
Exceptions	
Post-Conditions	

Use Case ID	39
Use Case Name	Update required food list
Primary Actor/s	Organization admin
Description	Organization admin can update necessary food items needed for the event so that other donors can view.
Pre-Conditions	
Main Scenario	<ul style="list-style-type: none"> ● Navigate to event section ● Go to required items ● Select update ● Update the items list
Exceptions	
Post-Conditions	Registered users are notified

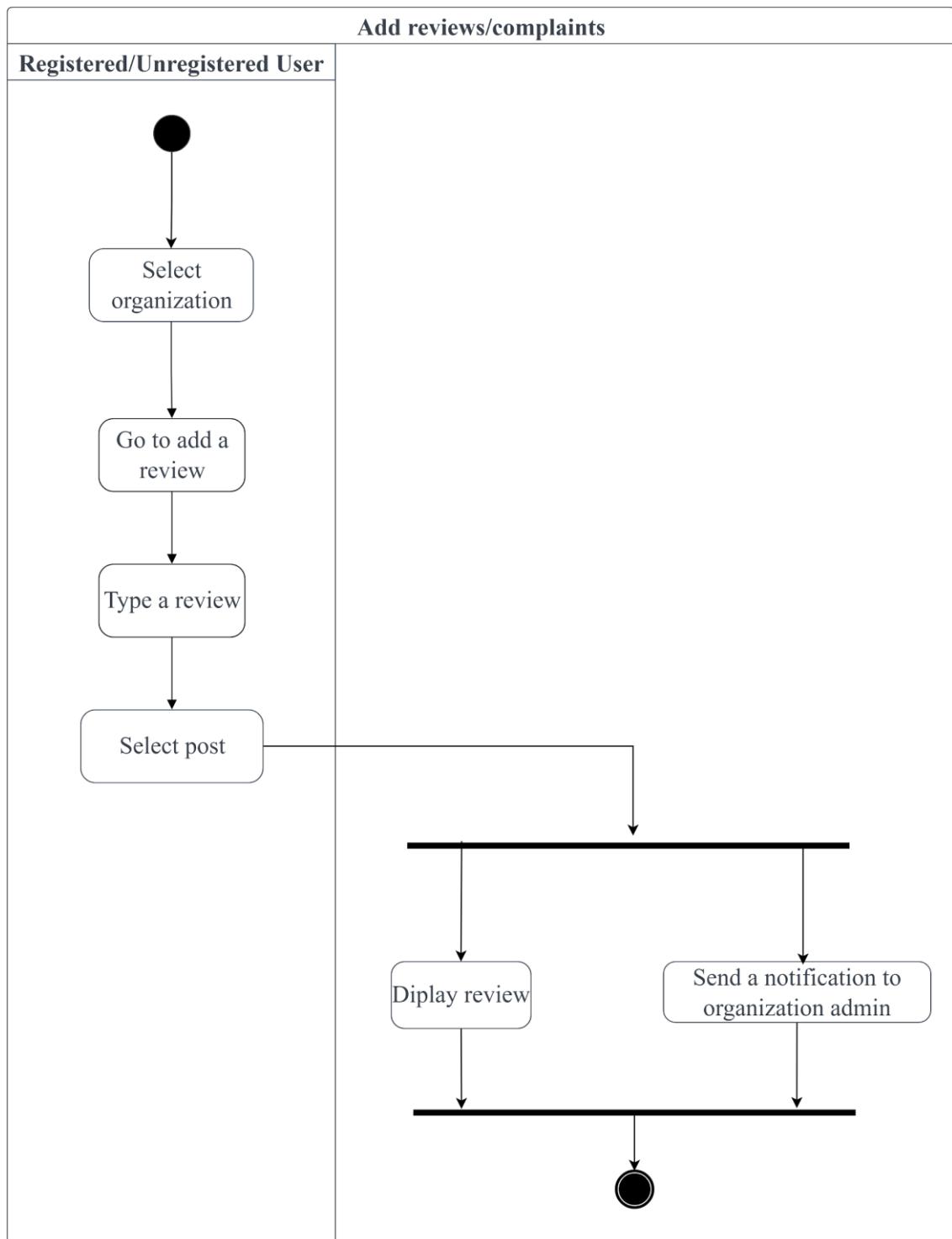
Use Case ID	40
Use Case Name	Post photos and information on upcoming events
Primary Actor/s	Organization admin
Description	Organization admin can post photos related to the event to promote it
Pre-Conditions	There is an ongoing or upcoming event
Main Scenario	<ul style="list-style-type: none">● Navigate to events page● Select edit data● Upload photos
Exceptions	Photos are too large Photos exceed the limit
Post-Conditions	Photos are uploaded to the events page

8.6 Activity Diagrams

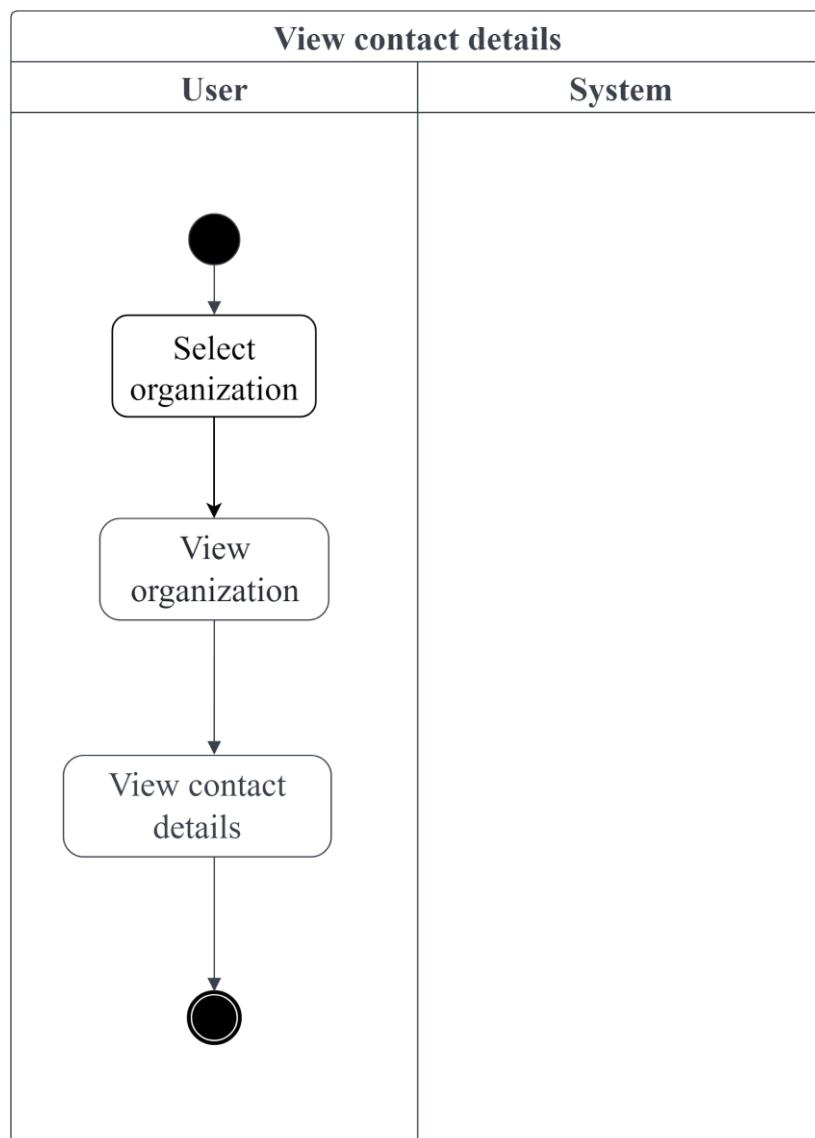
8.6.1 Activity diagram 1 - View organization profile or feed



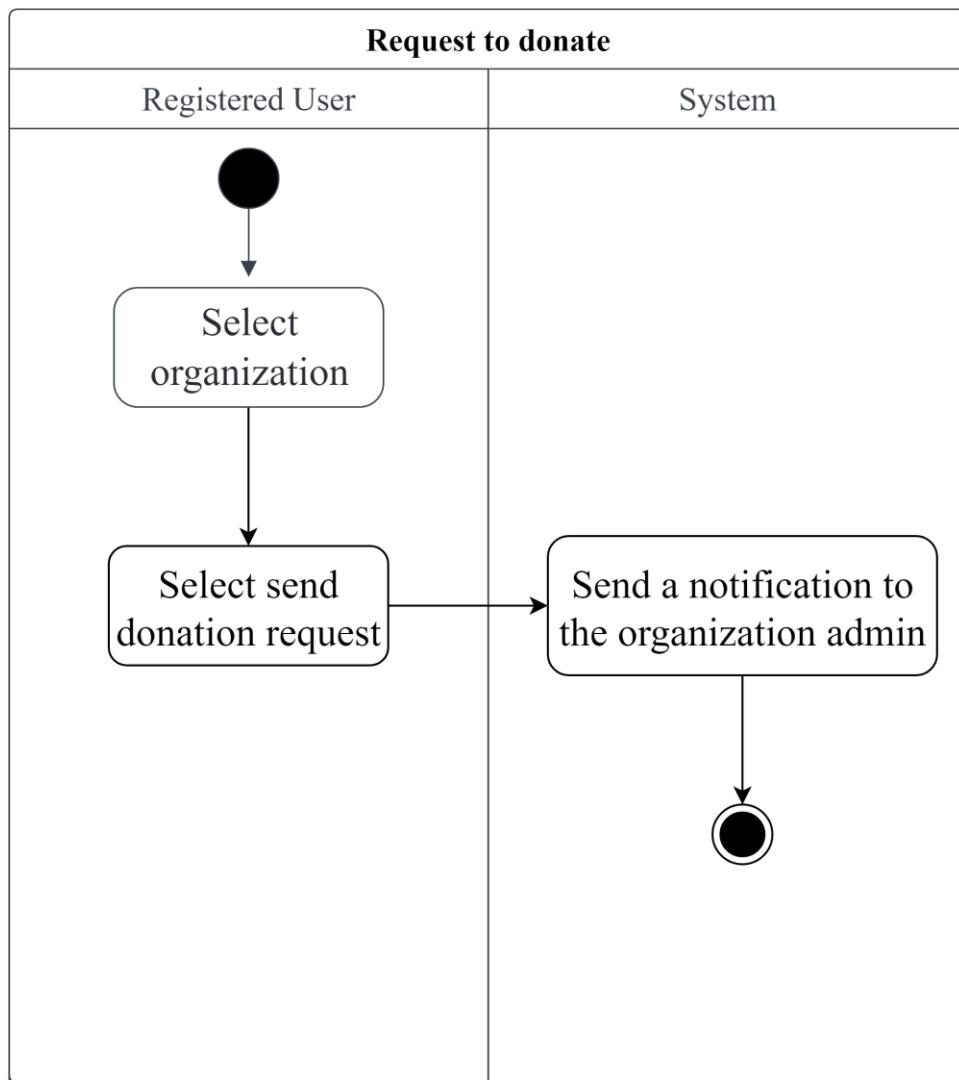
8.6.2 Activity diagram 2 - Add reviews/complaints



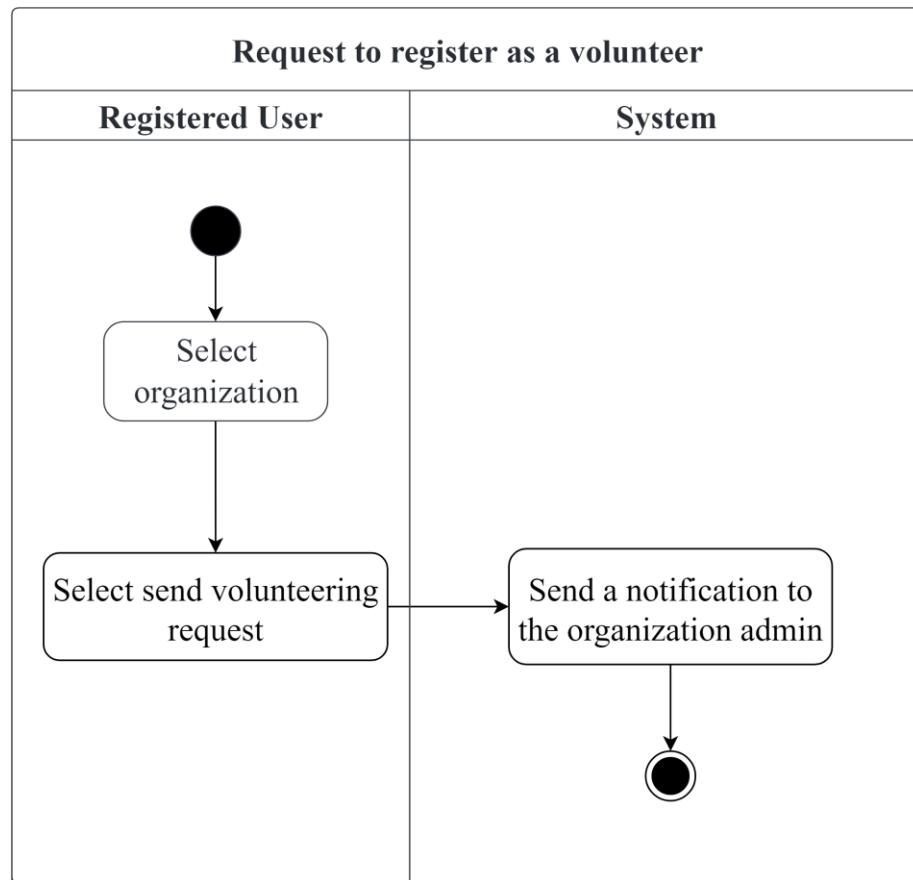
8.6.3 Activity diagram 3 - View contact details



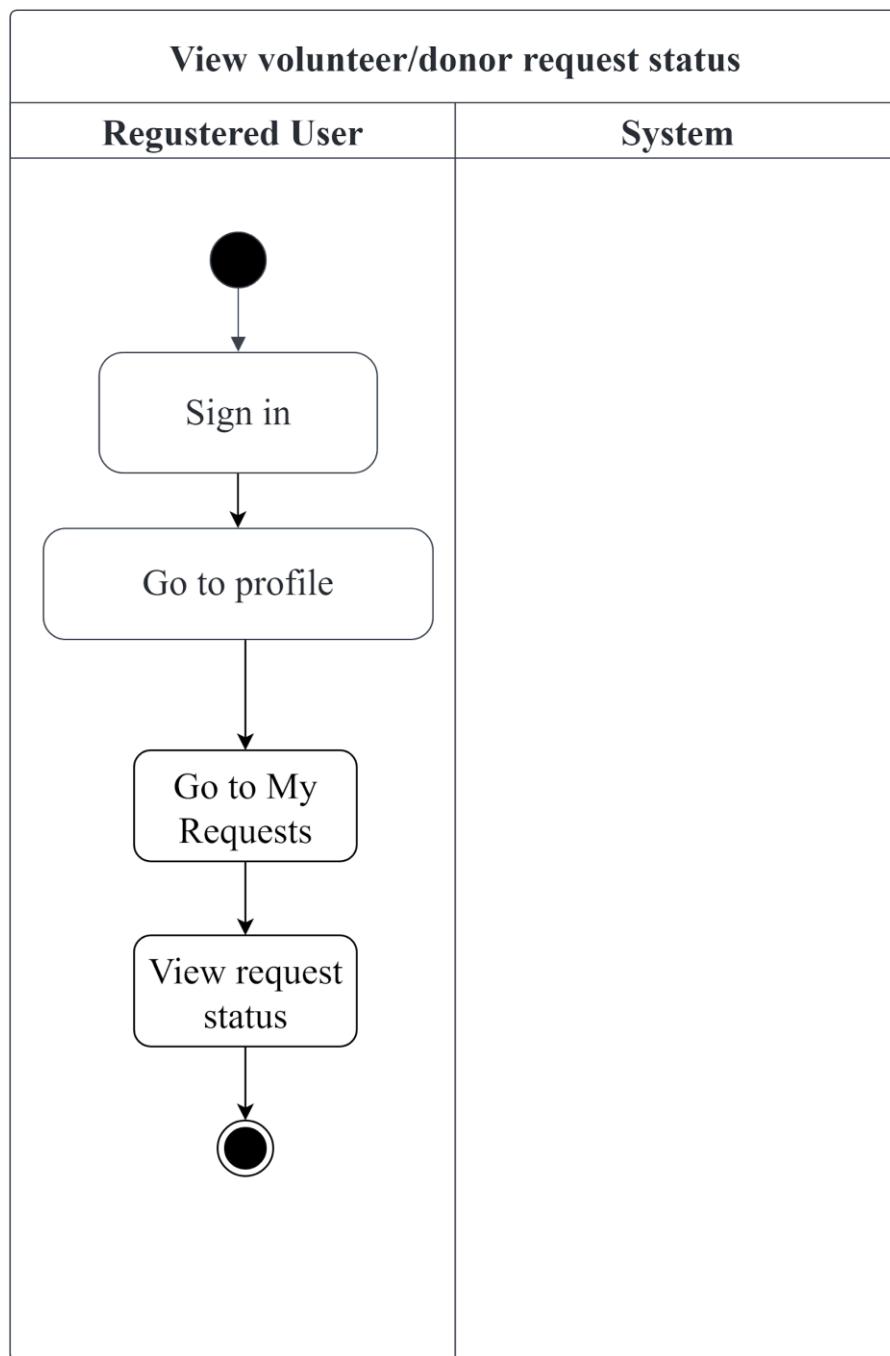
8.6.4 Activity diagram 4 - Request to donate



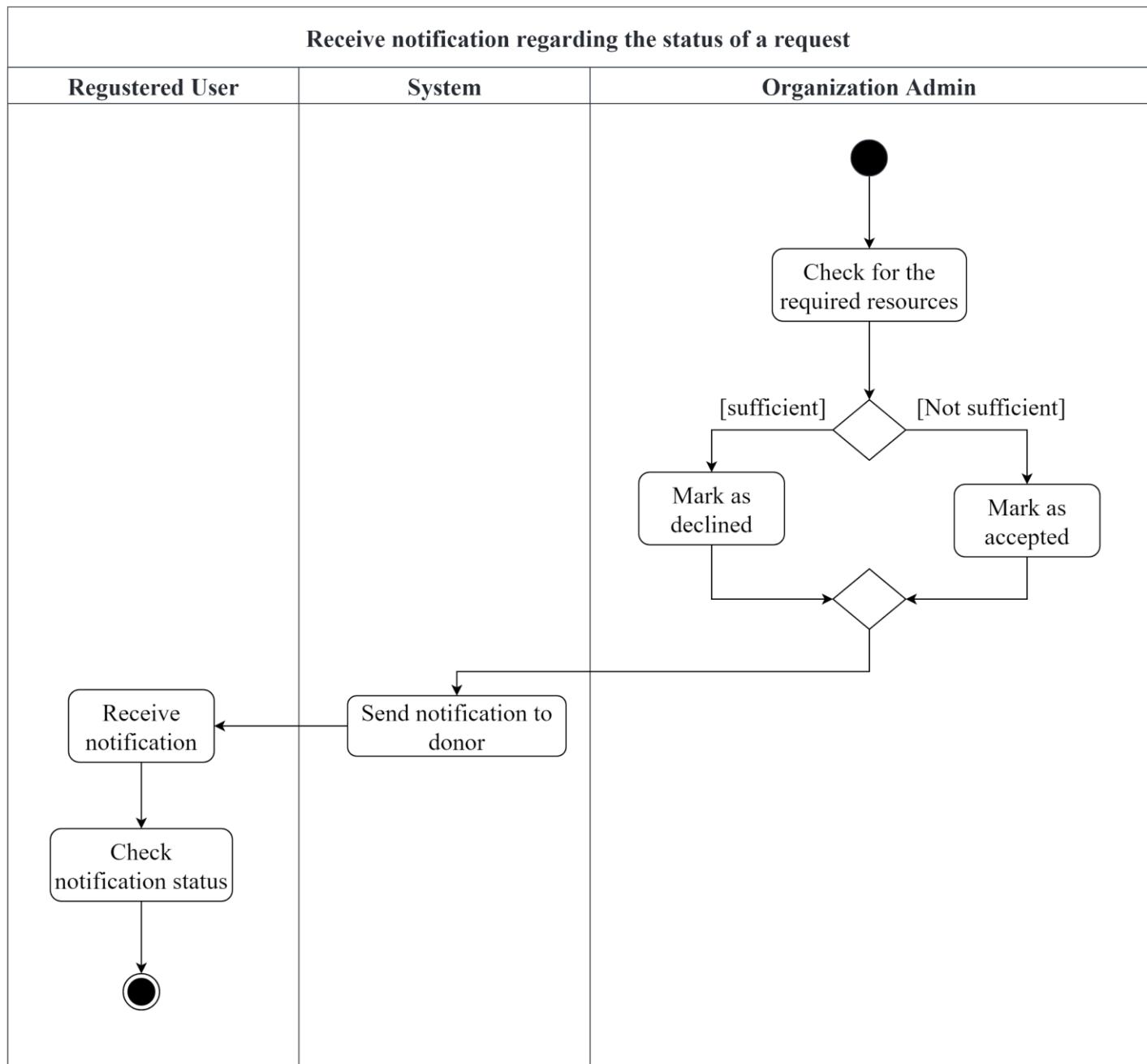
8.6.5 Activity diagram 5 - Request to register as a volunteer



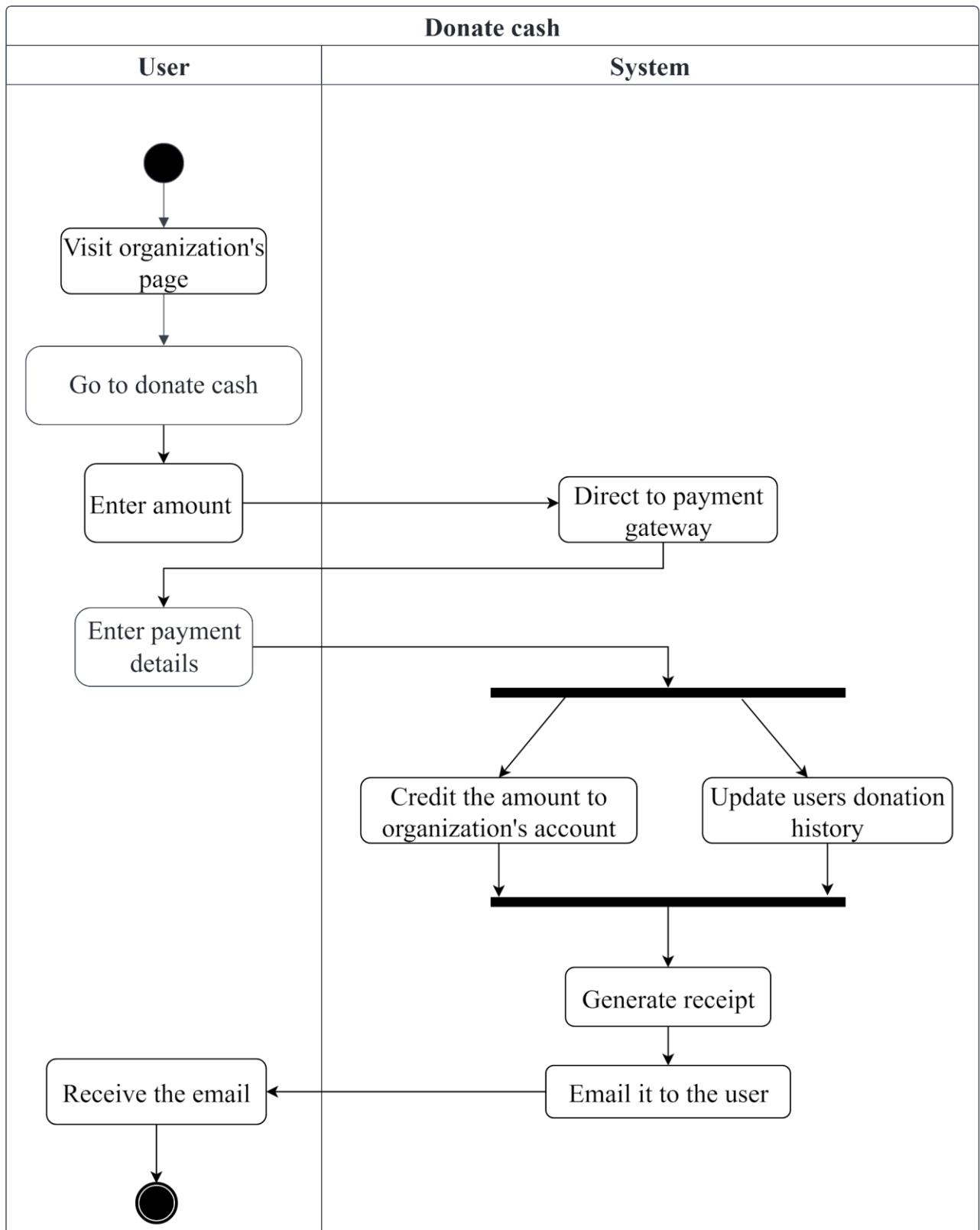
8.6.6 Activity diagram 6 - View volunteer/donor request status



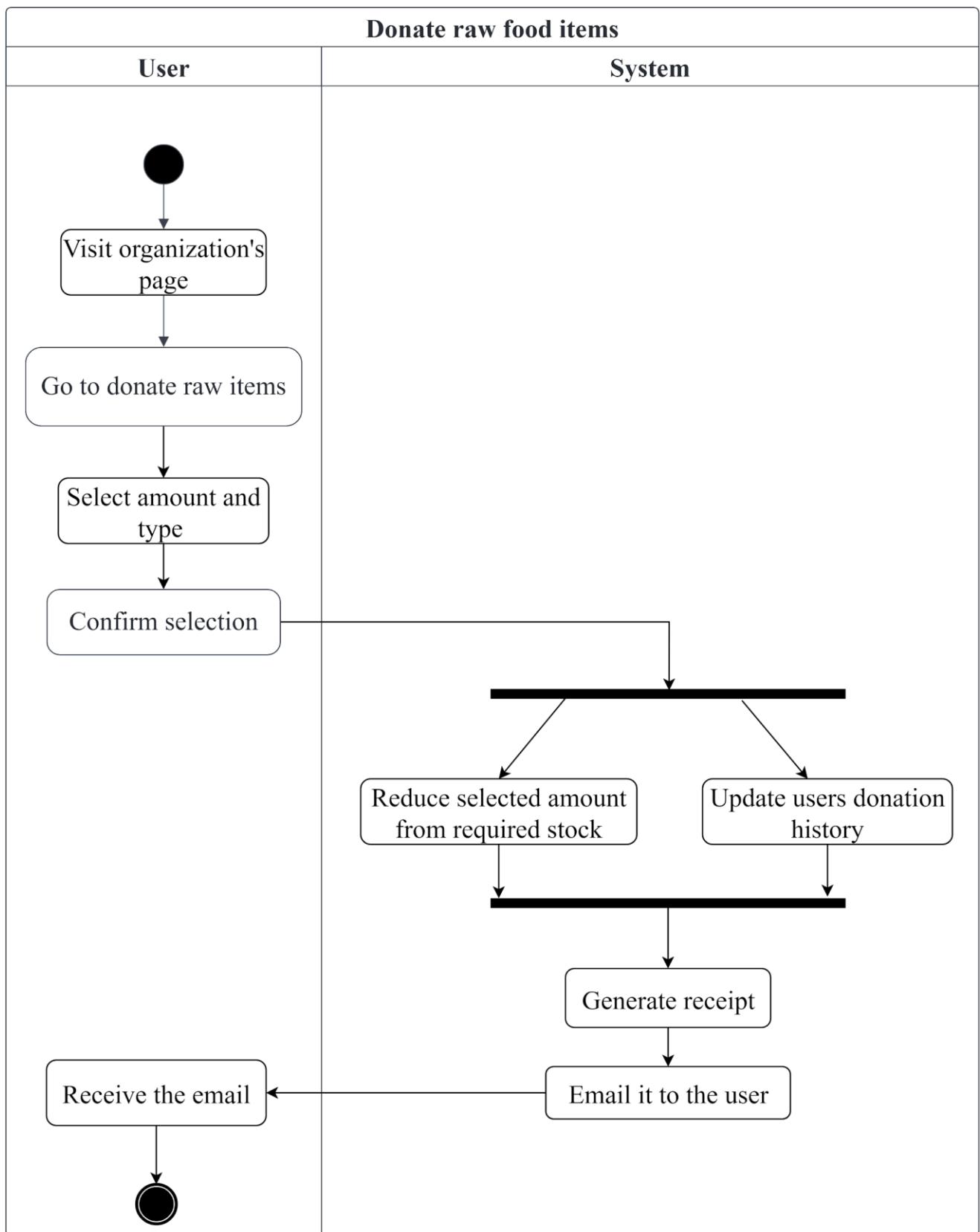
8.6.7 Activity diagram 7- Receive notifications regarding the status of a request



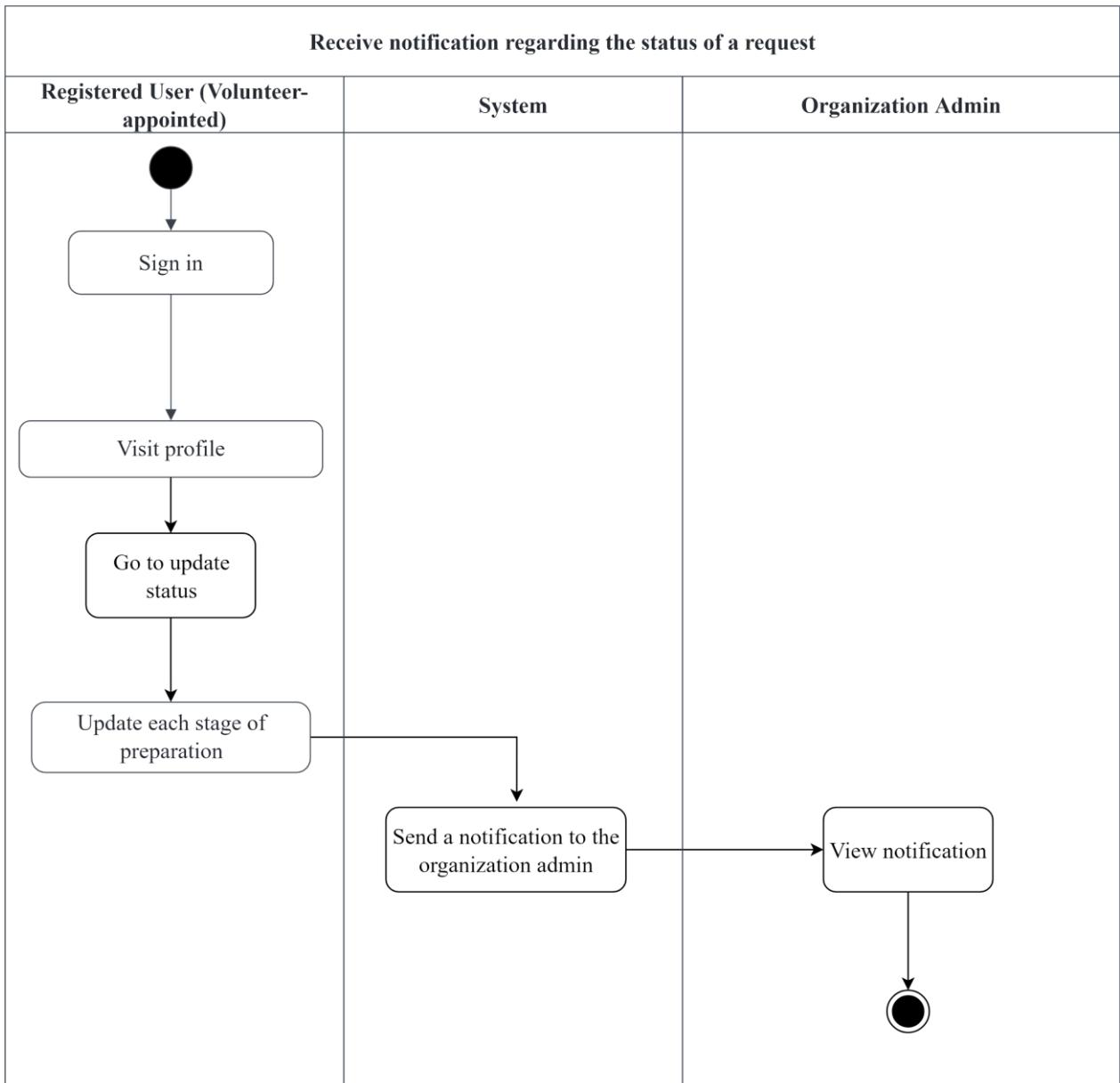
8.6.8 Activity diagram 8 - Donate cash



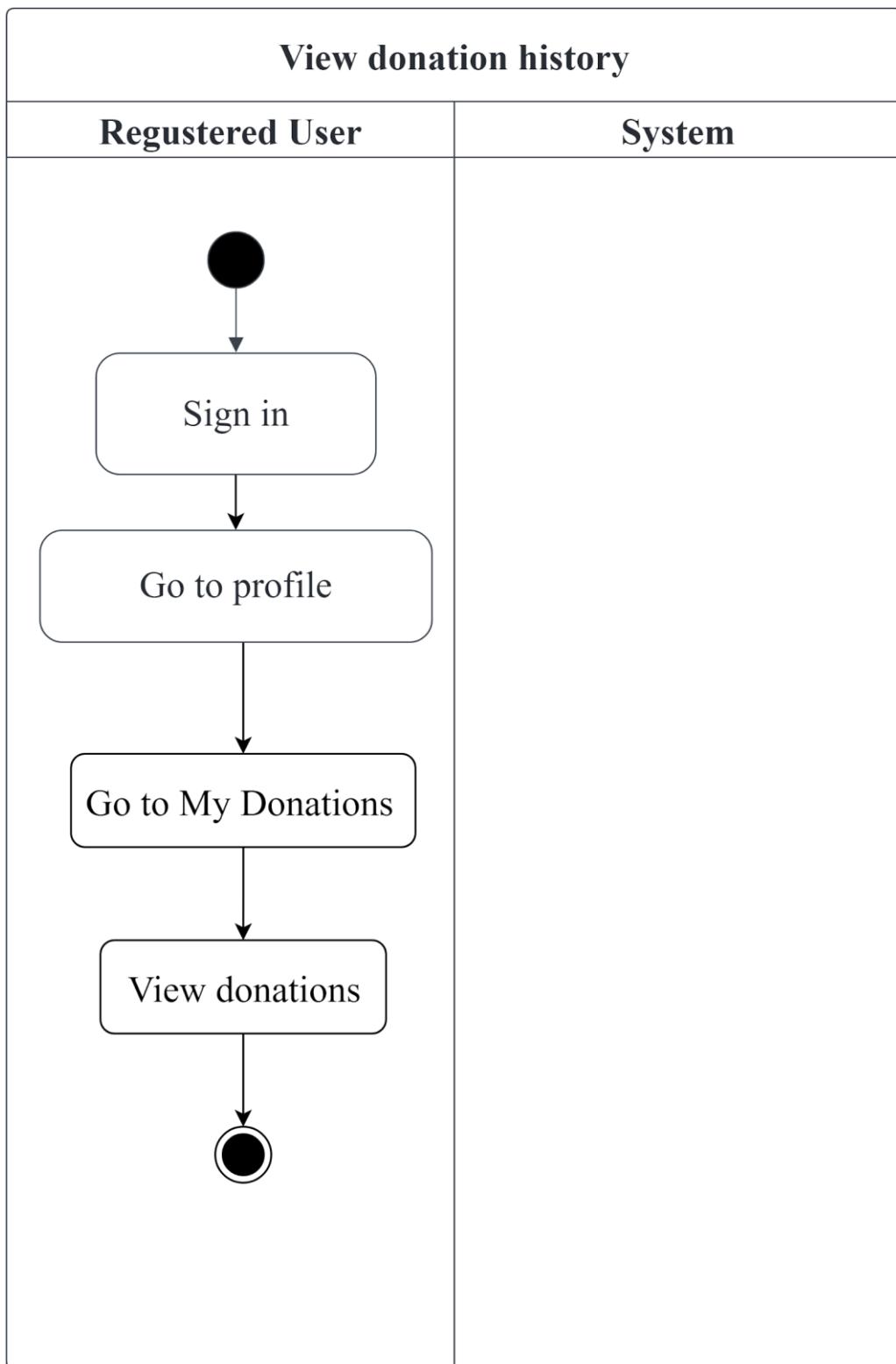
8.6.9 Activity diagram 9 - Donate raw food items



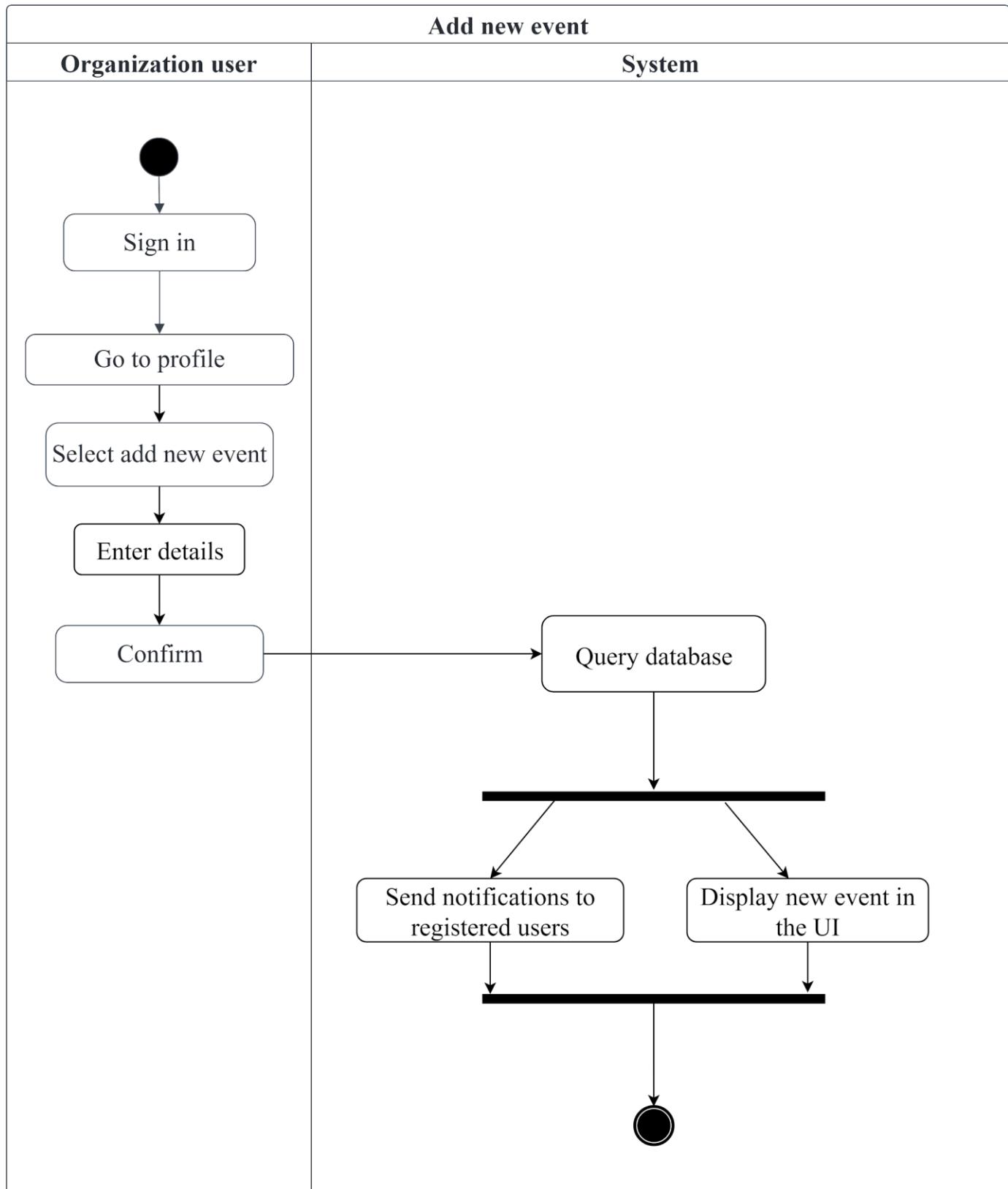
8.6.10 Activity diagram 10 - Update meal preparation



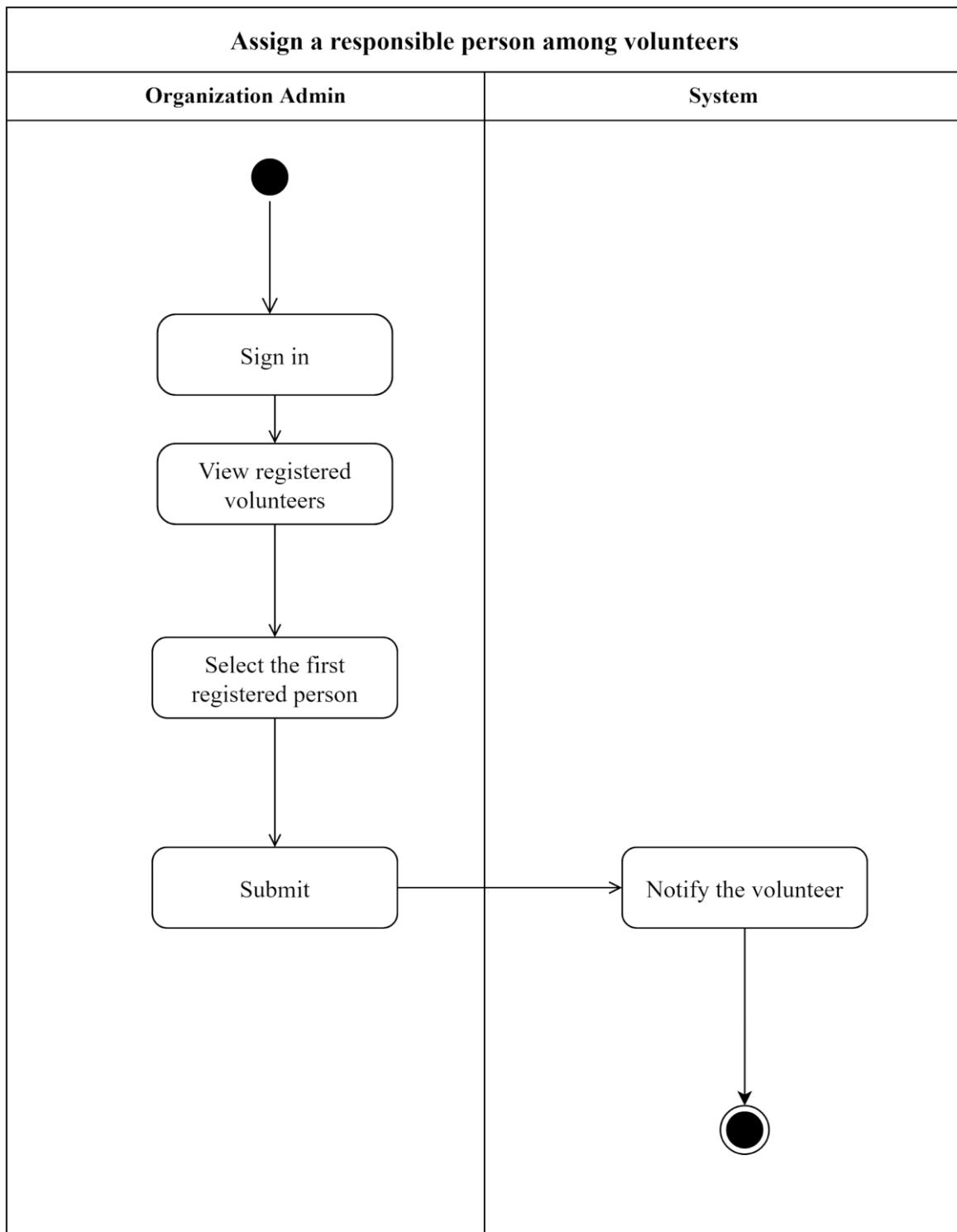
8.6.11 Activity diagram 11 - View donation history



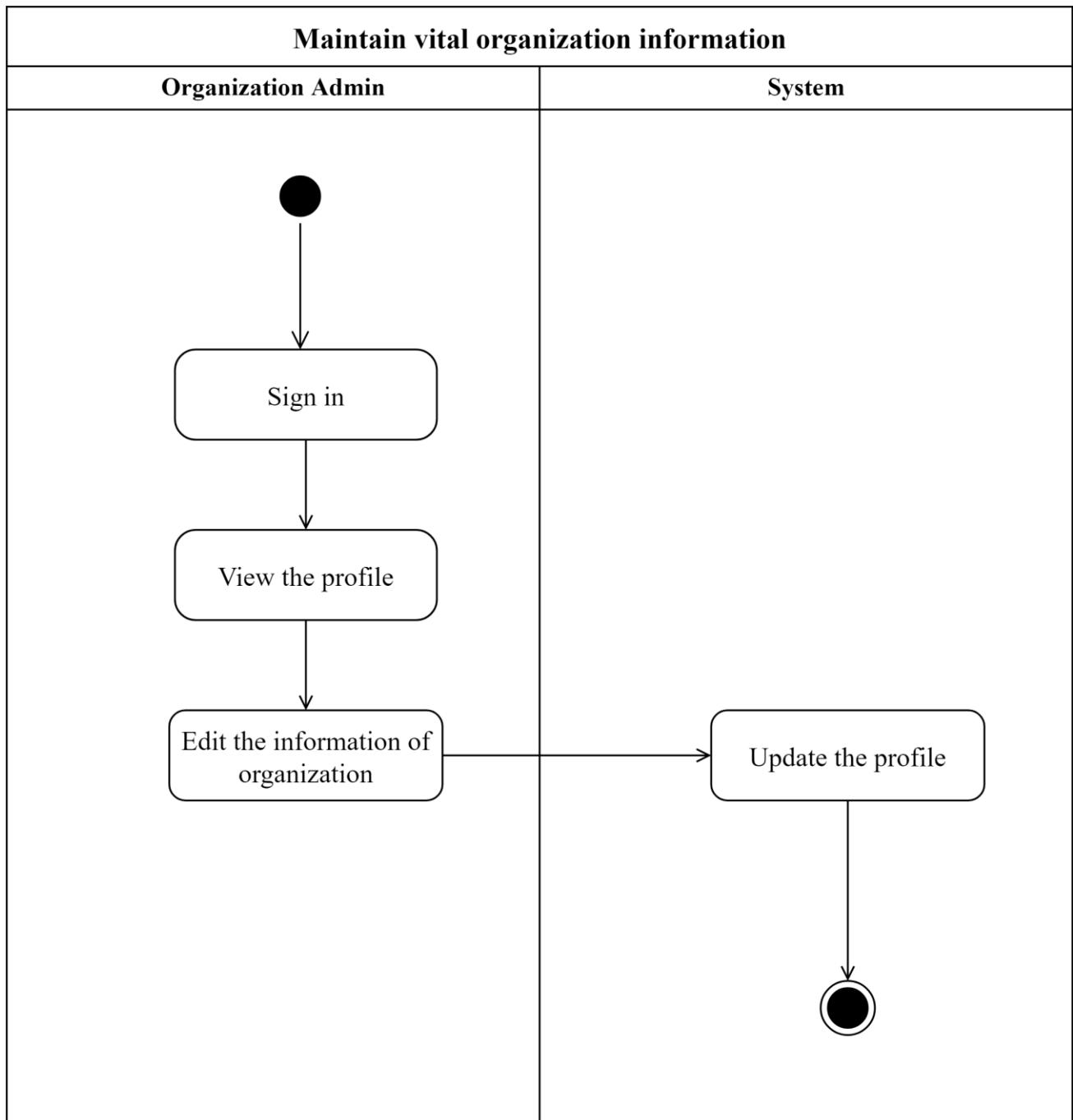
8.6.12 Activity diagram 12 - Add new event



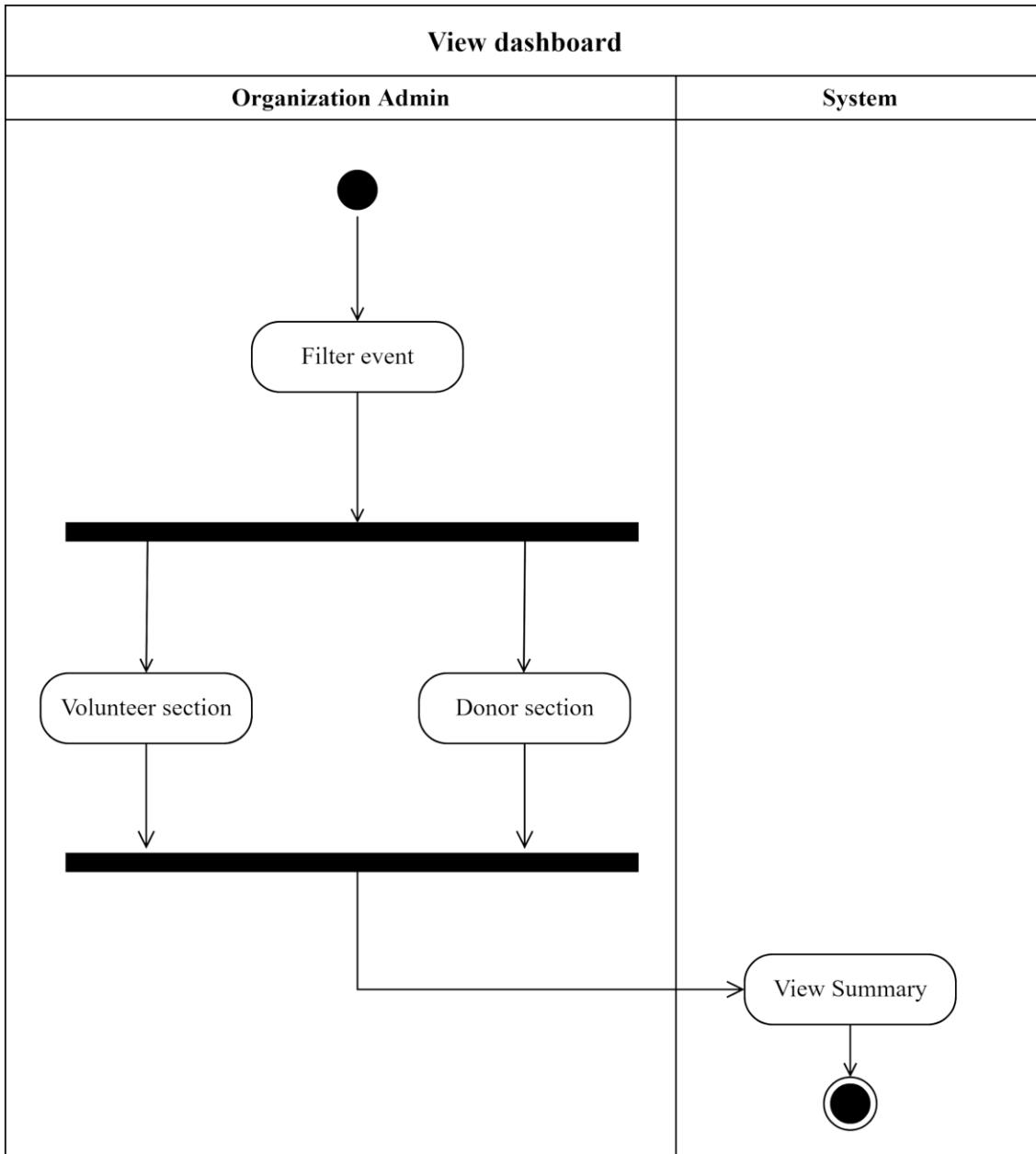
8.6.13 Activity diagram 13- Assign a responsible person among volunteers



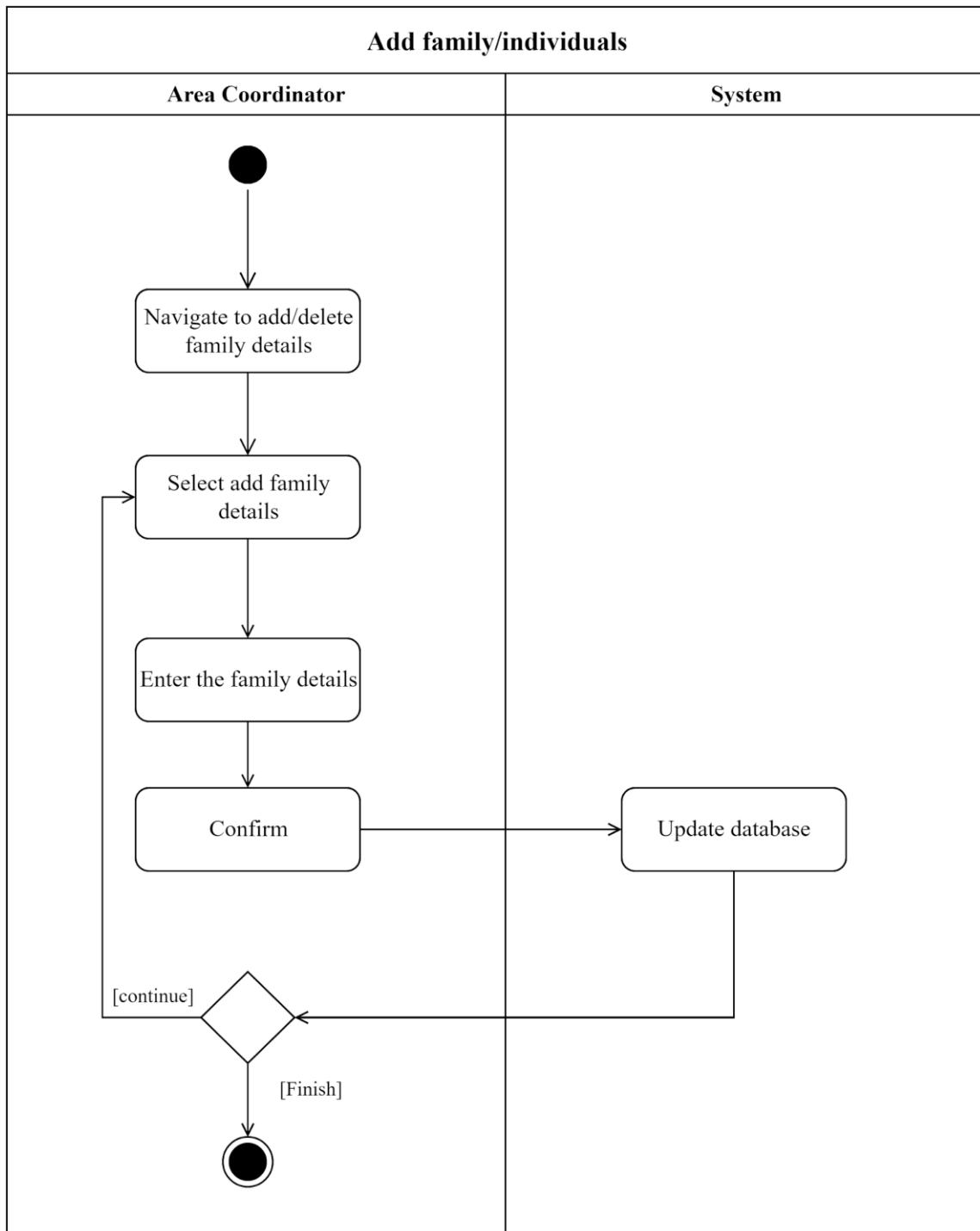
8.6.14 Activity diagram 14 - Maintain vital organization information



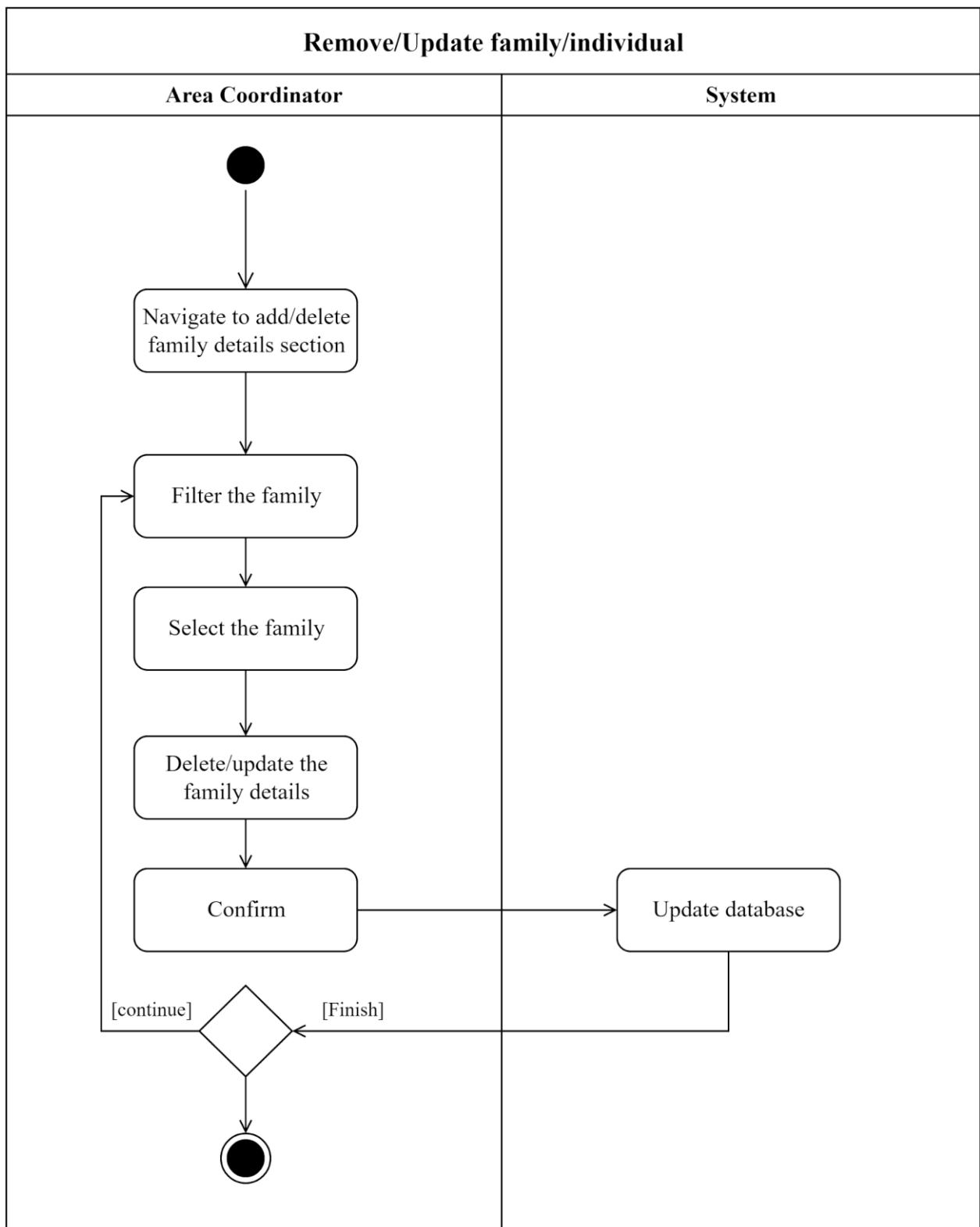
8.6.15 Activity diagram 15 - View dashboard

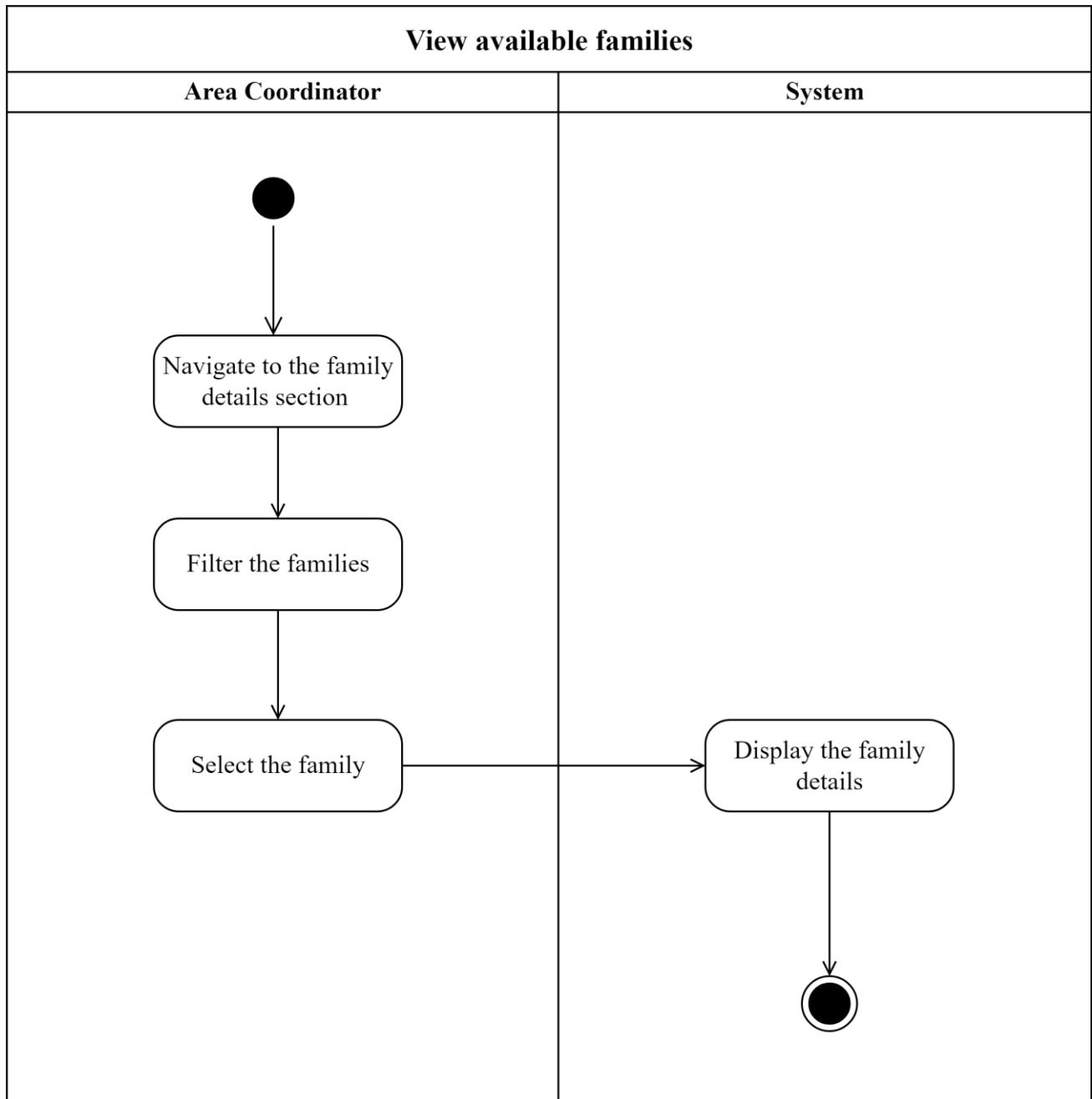


8.6.16 Activity diagram 16 - Add family/individuals

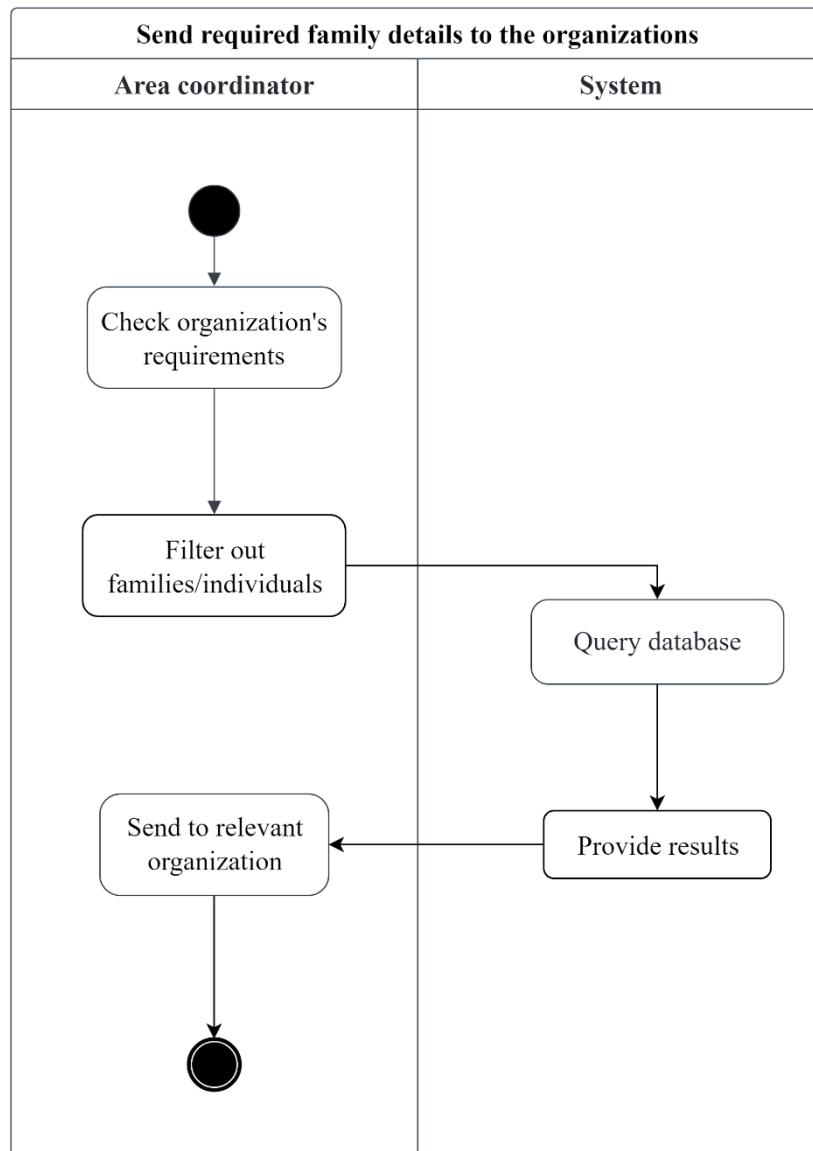


8.6.17 Activity diagram 17 - Remove/Update family/individuals

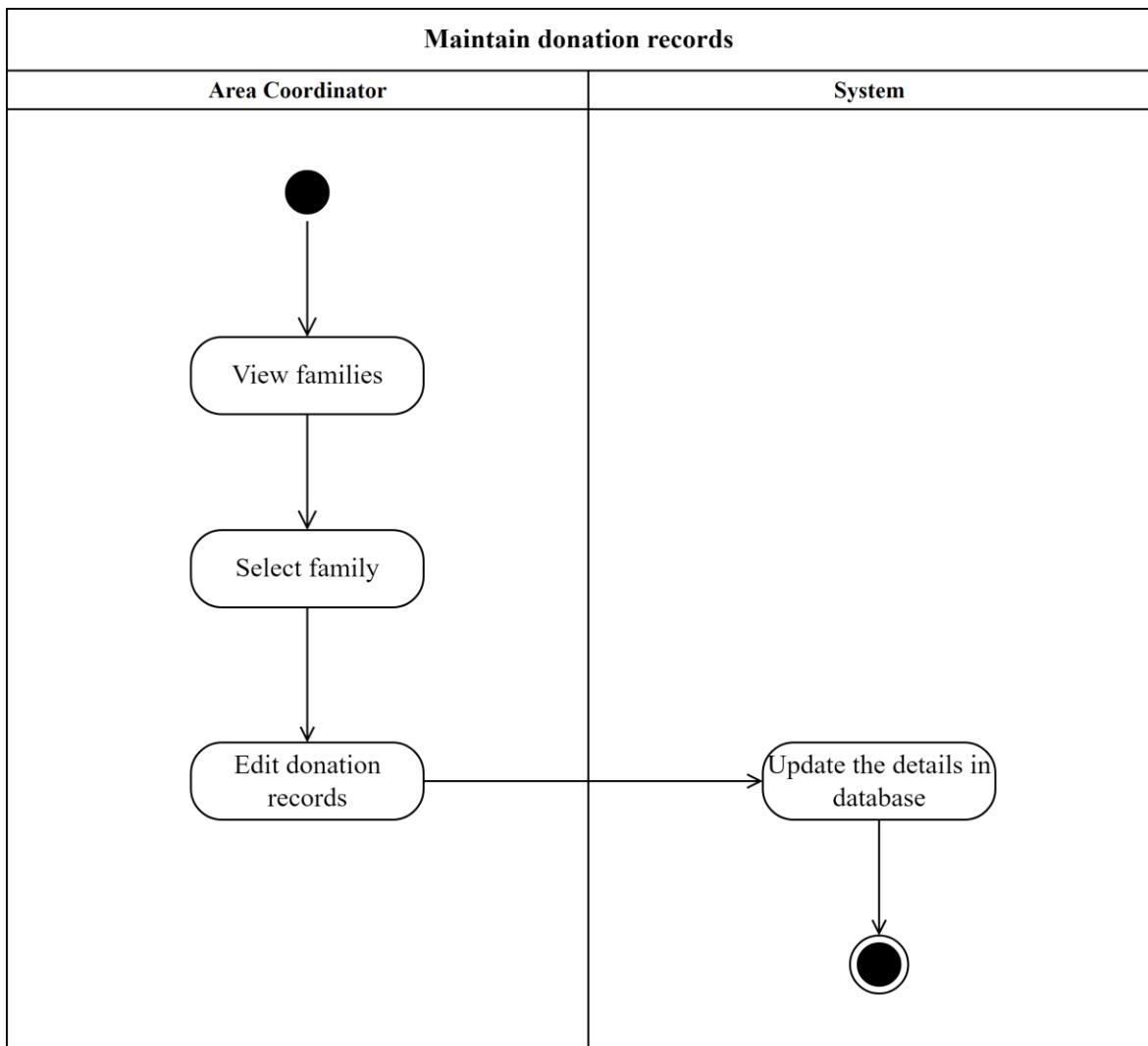


8.6.18 Activity diagram 18 - View available families

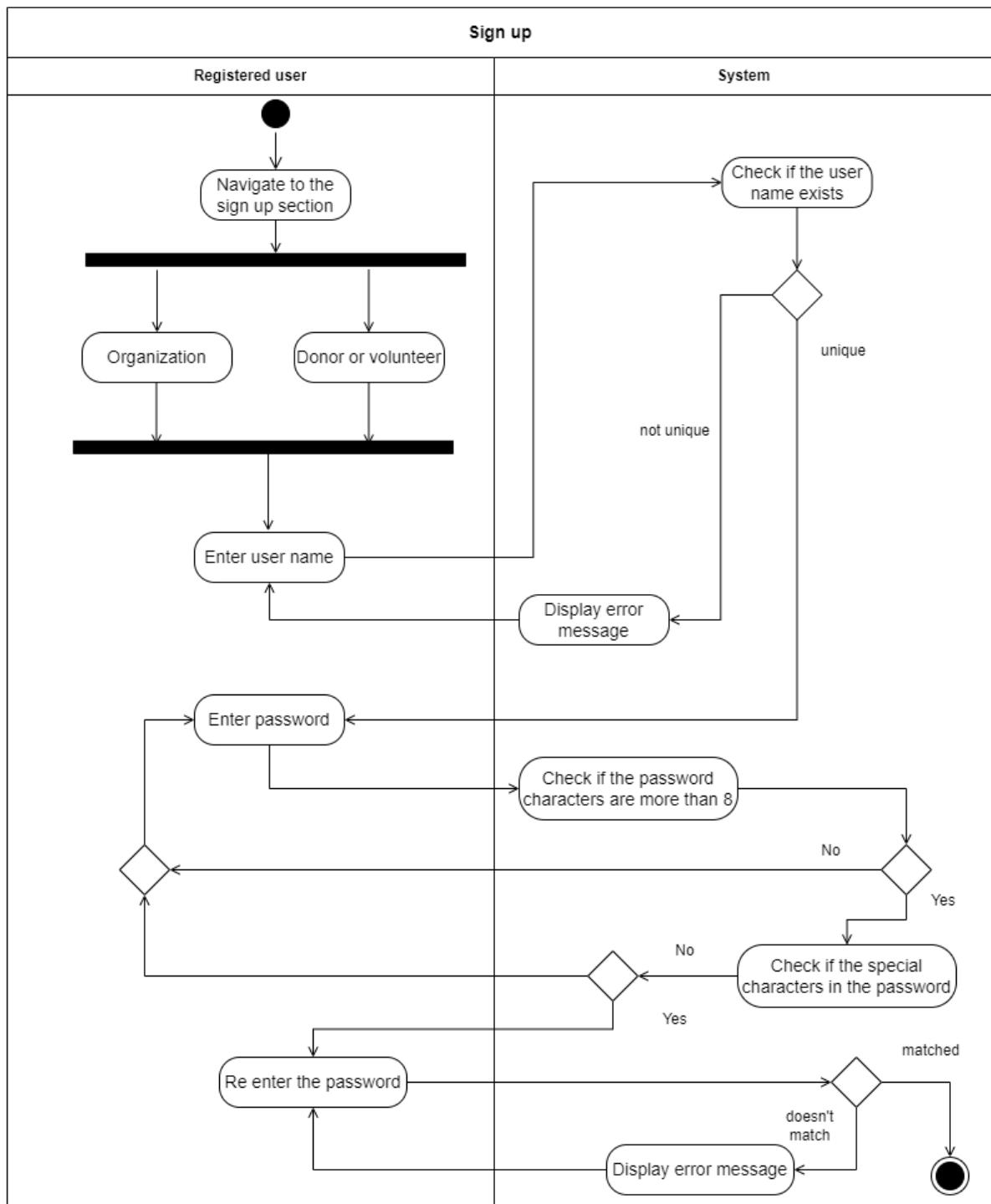
8.6.19 Activity diagram 19 - Send required family details to the organizations

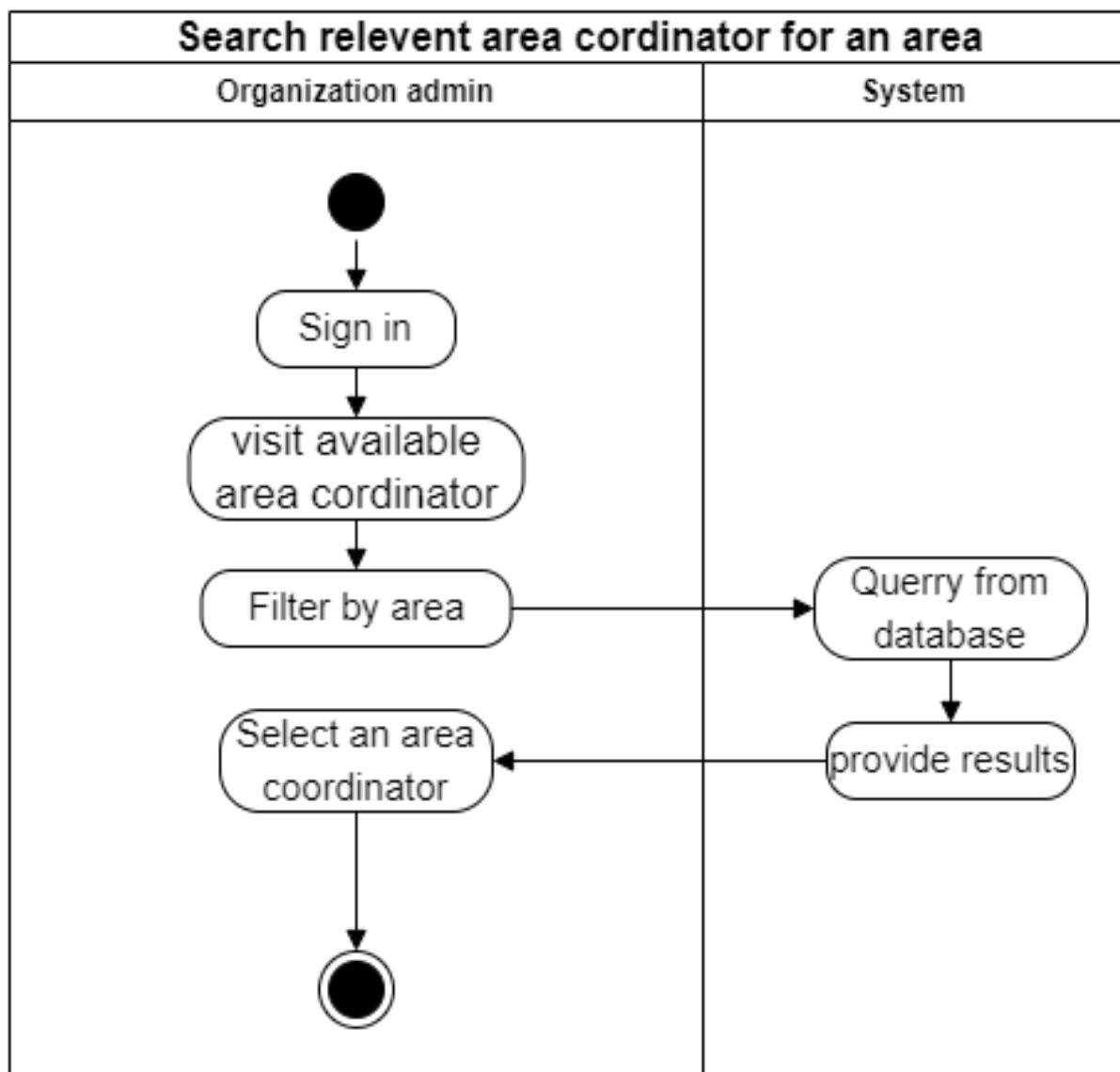


8.6.20 Activity diagram 20 - Maintain donation records

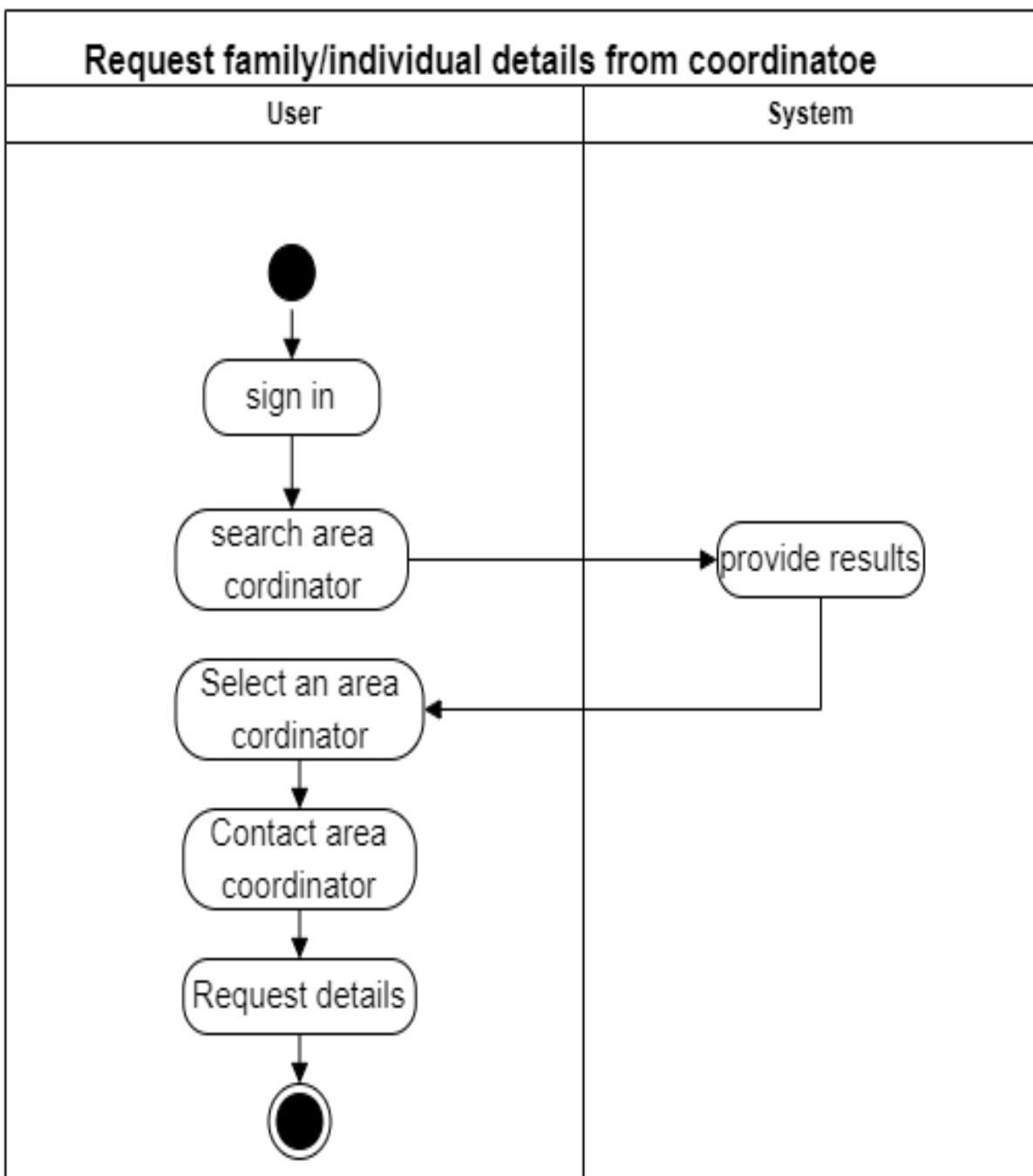


8.6.21 Activity diagram 21 - Sign up

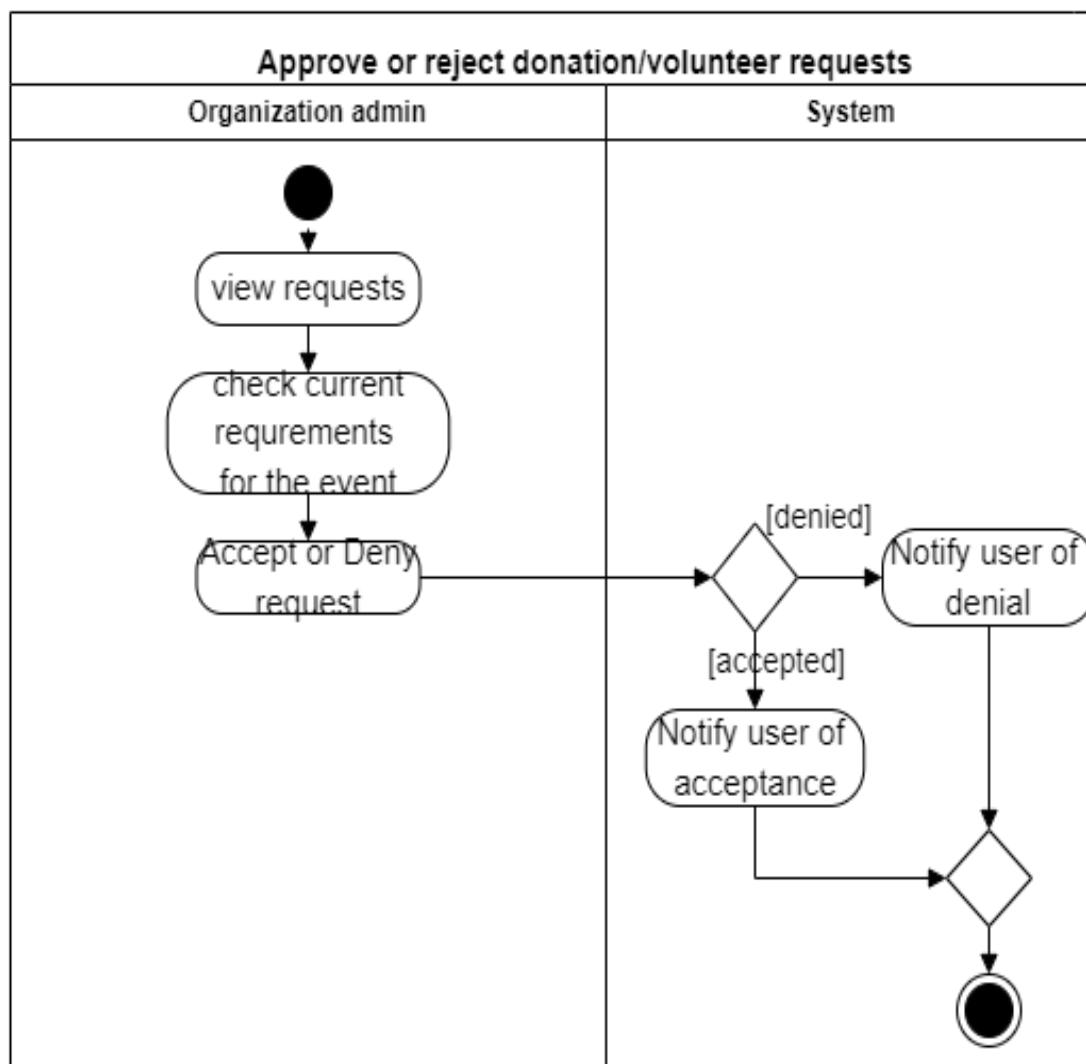


8.6.22Activity diagram 22 - Search relevant area coordinator for an area

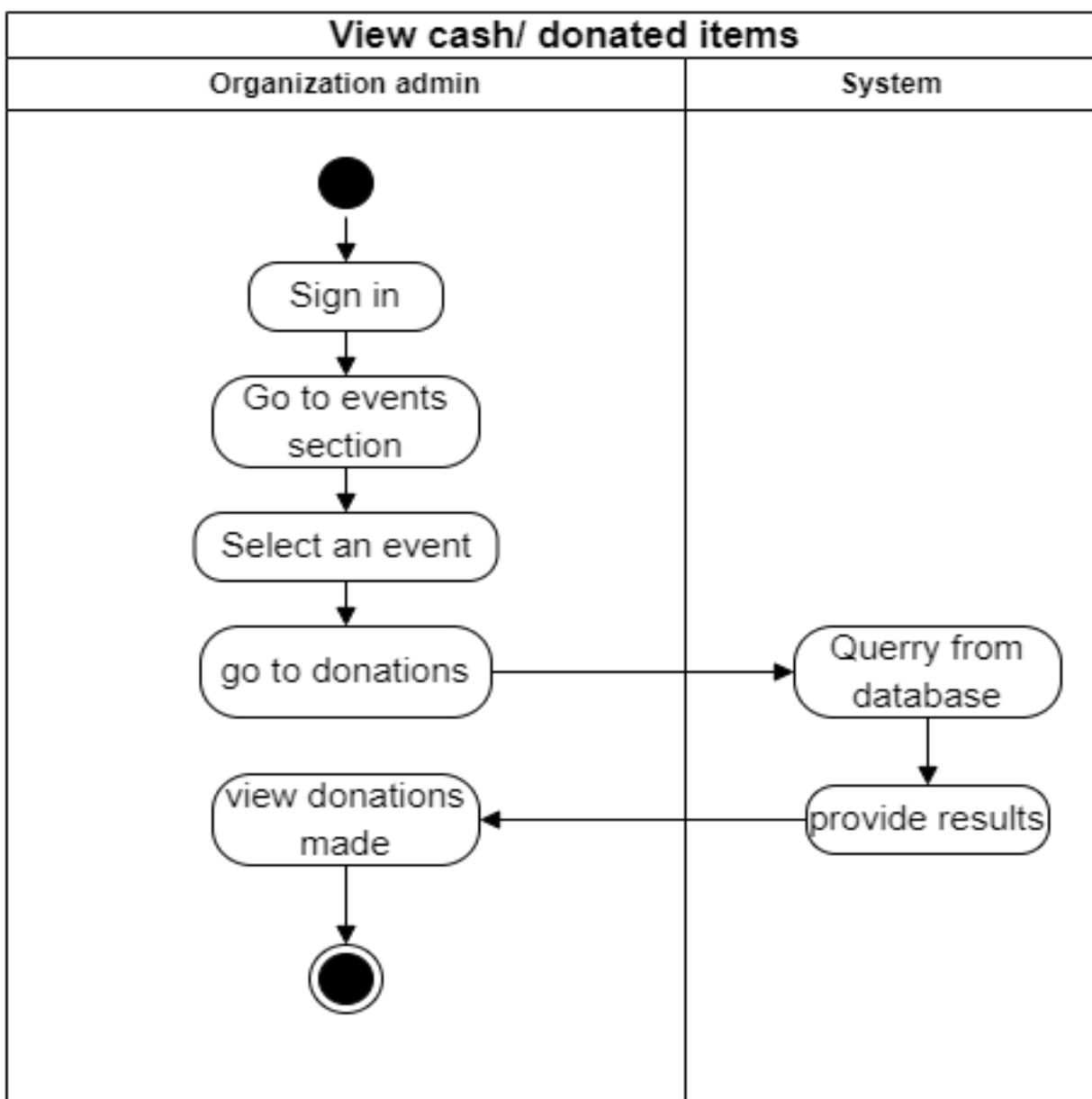
8.6.23 Activity diagram 23 - Request family/individual details from area coordinator



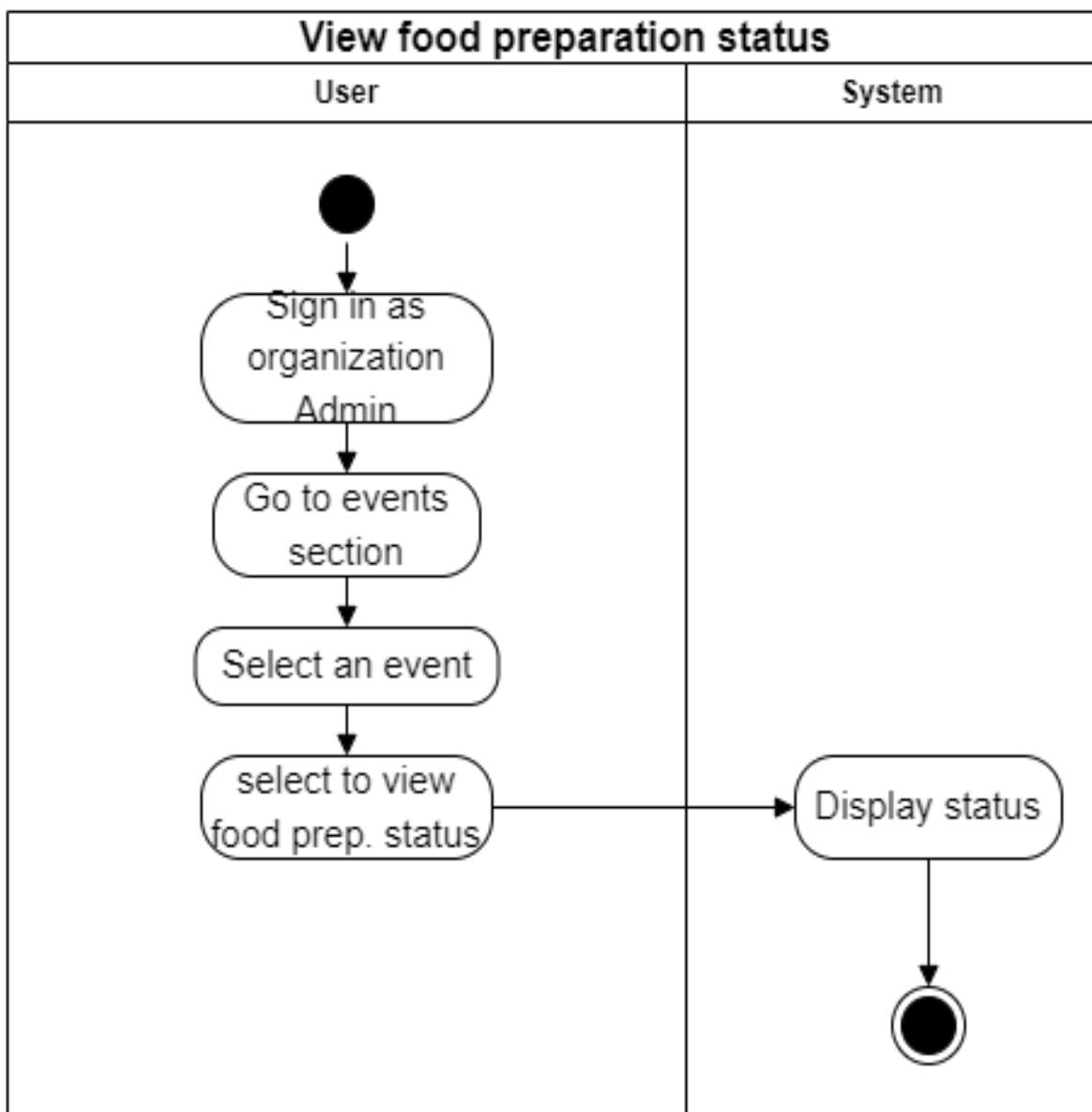
8.6.24 Activity diagram 24 - Approve or reject donor or volunteer requests



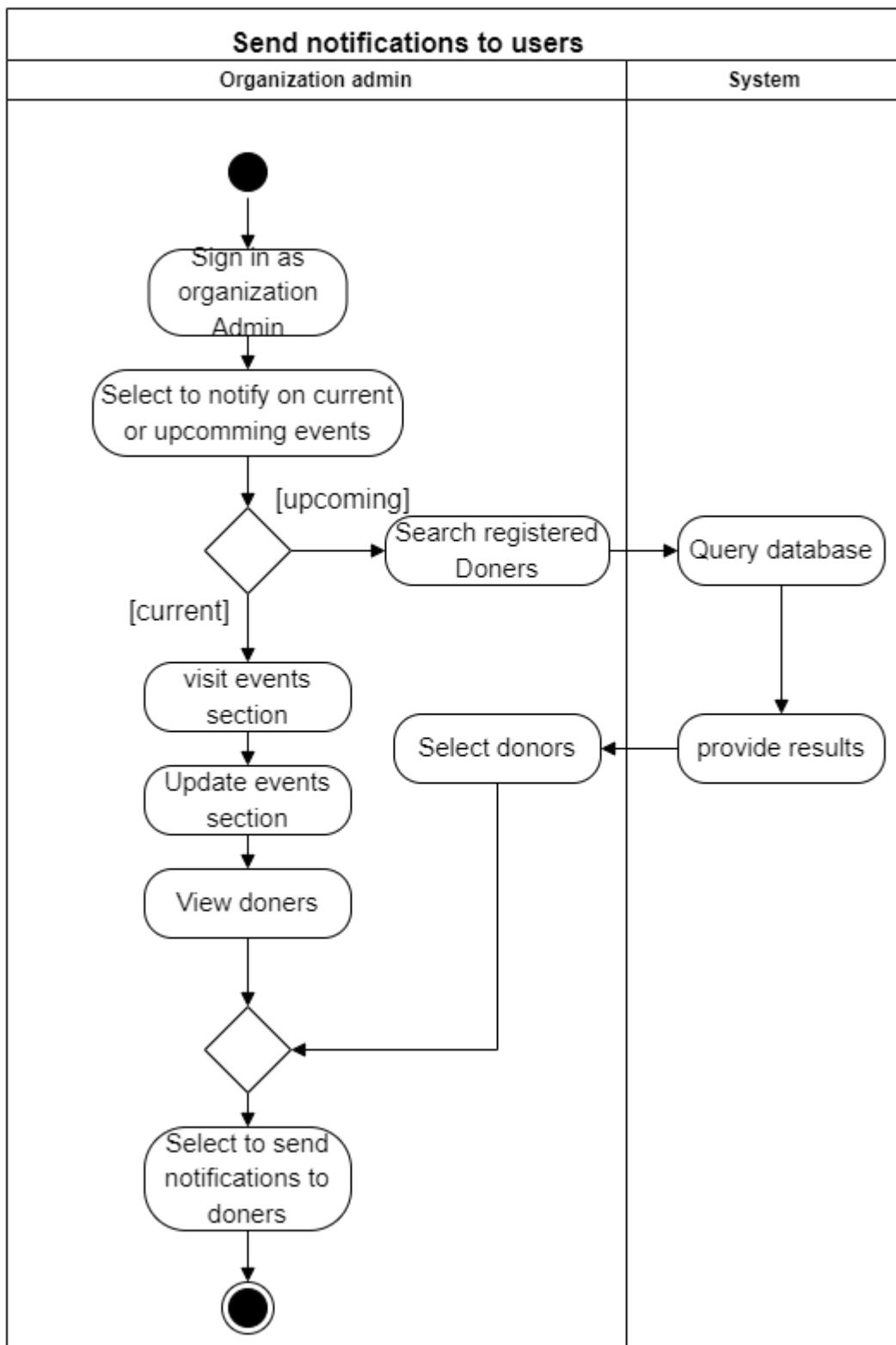
8.6.25 Activity diagram 25 - View cash / donated items



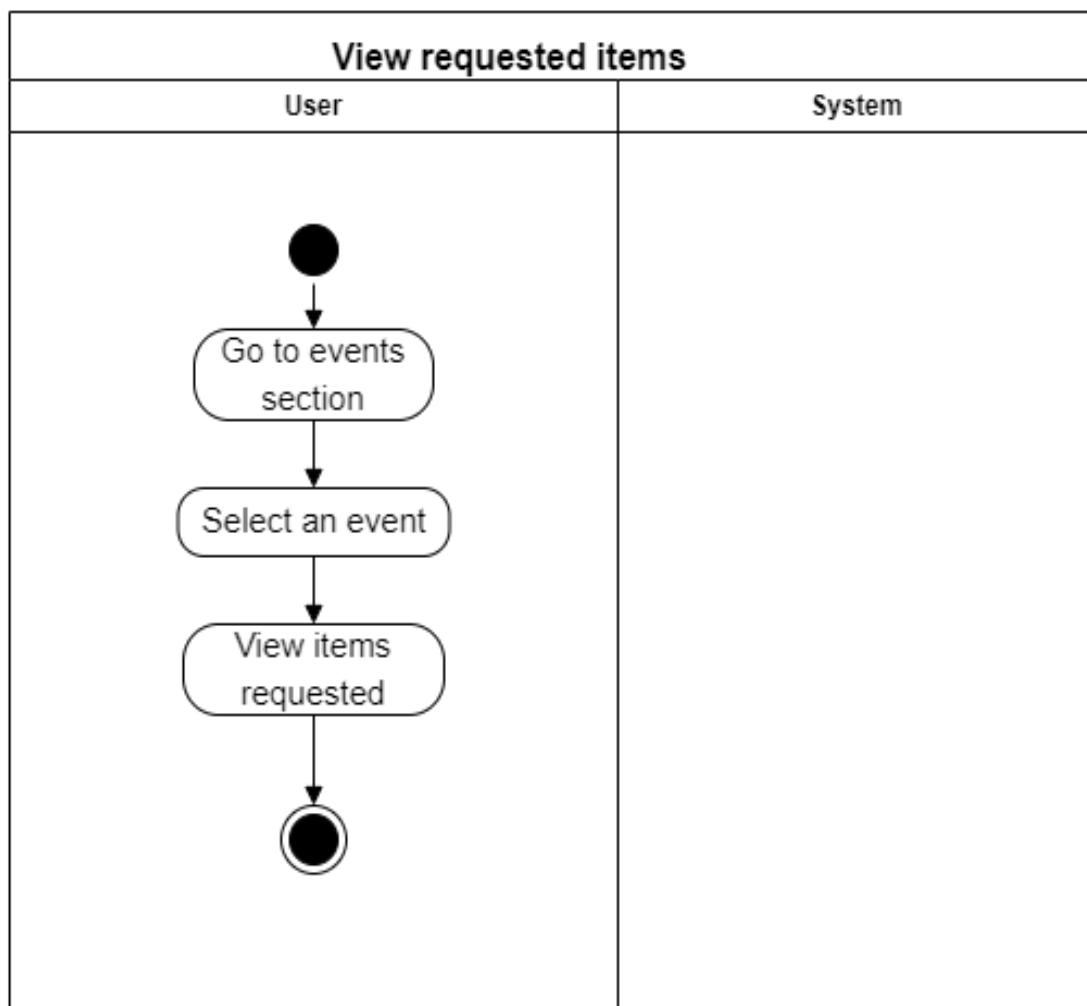
8.6.26 Activity diagram 26 - View food preparation status



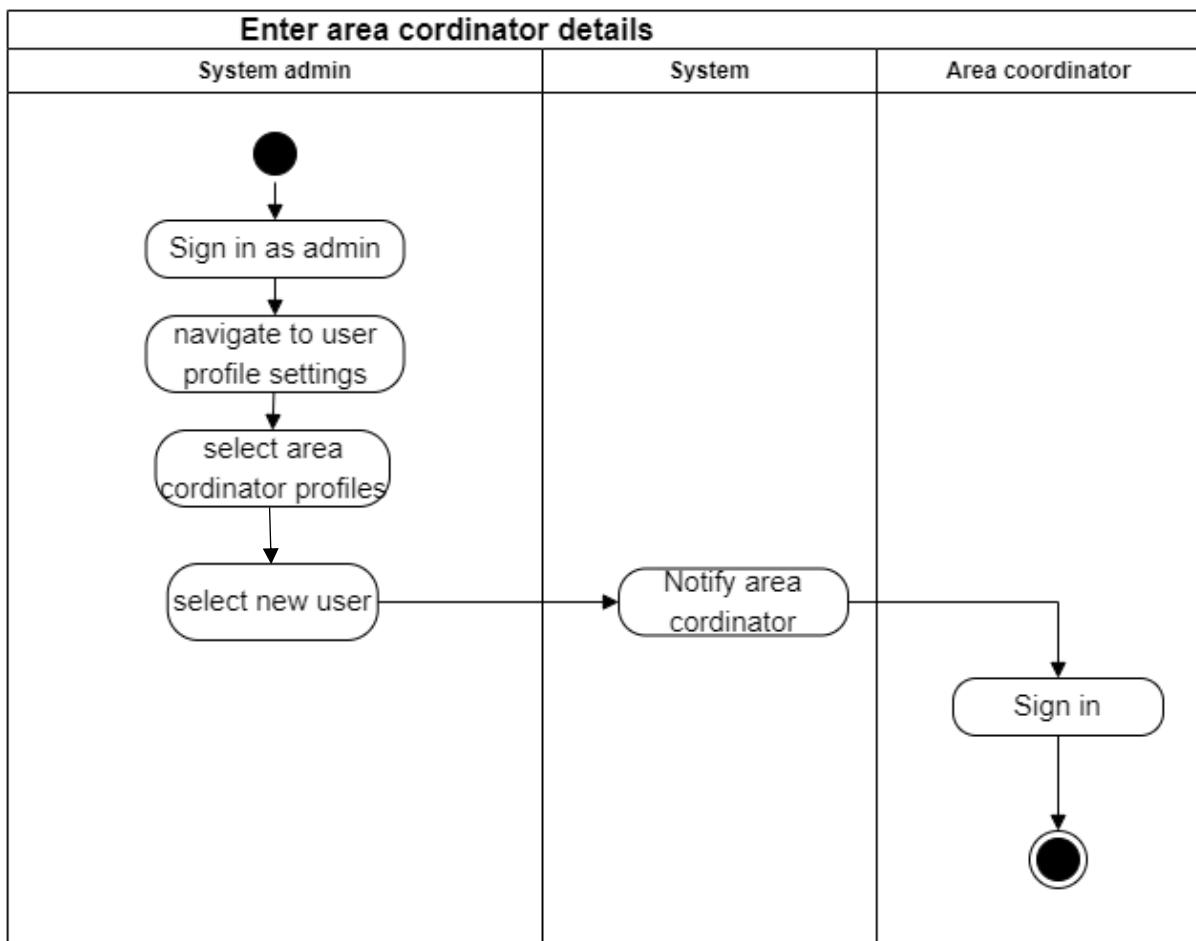
8.6.27 Activity diagram 27 - Send notifications to donors



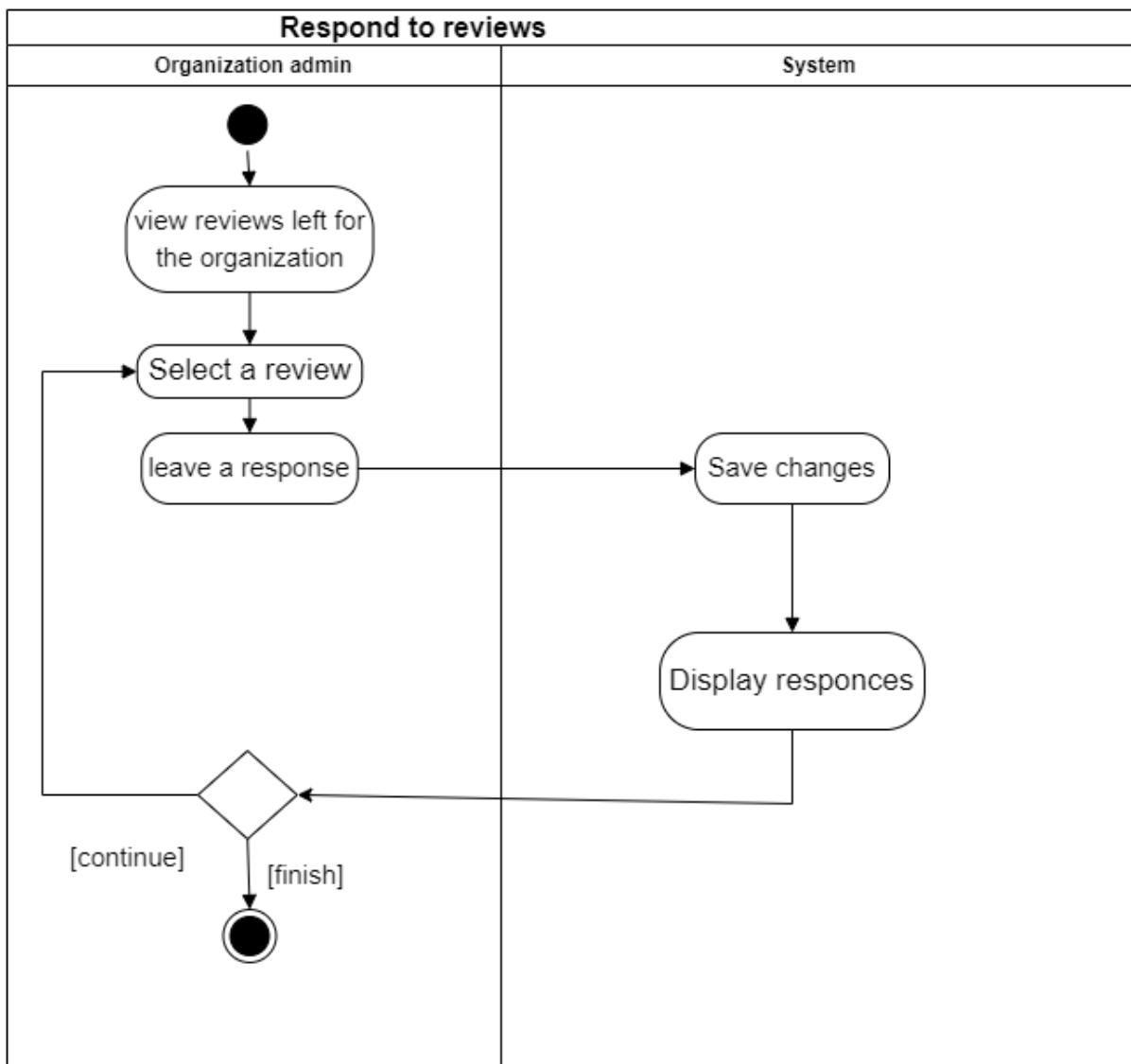
8.6.28 Activity diagram 28 - View items requested to be donated



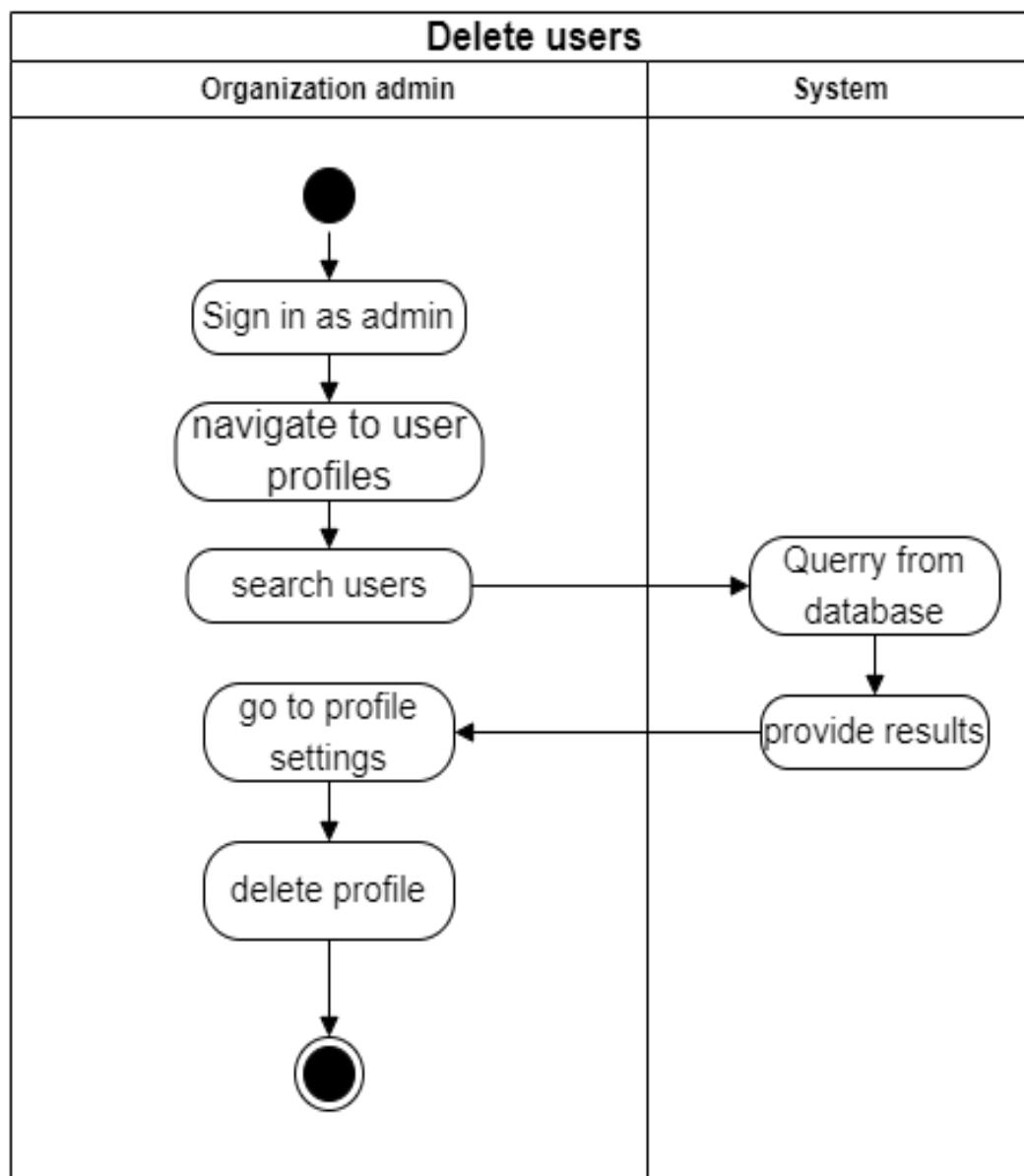
8.6.29 Activity diagram 29 - Enter area coordinator details



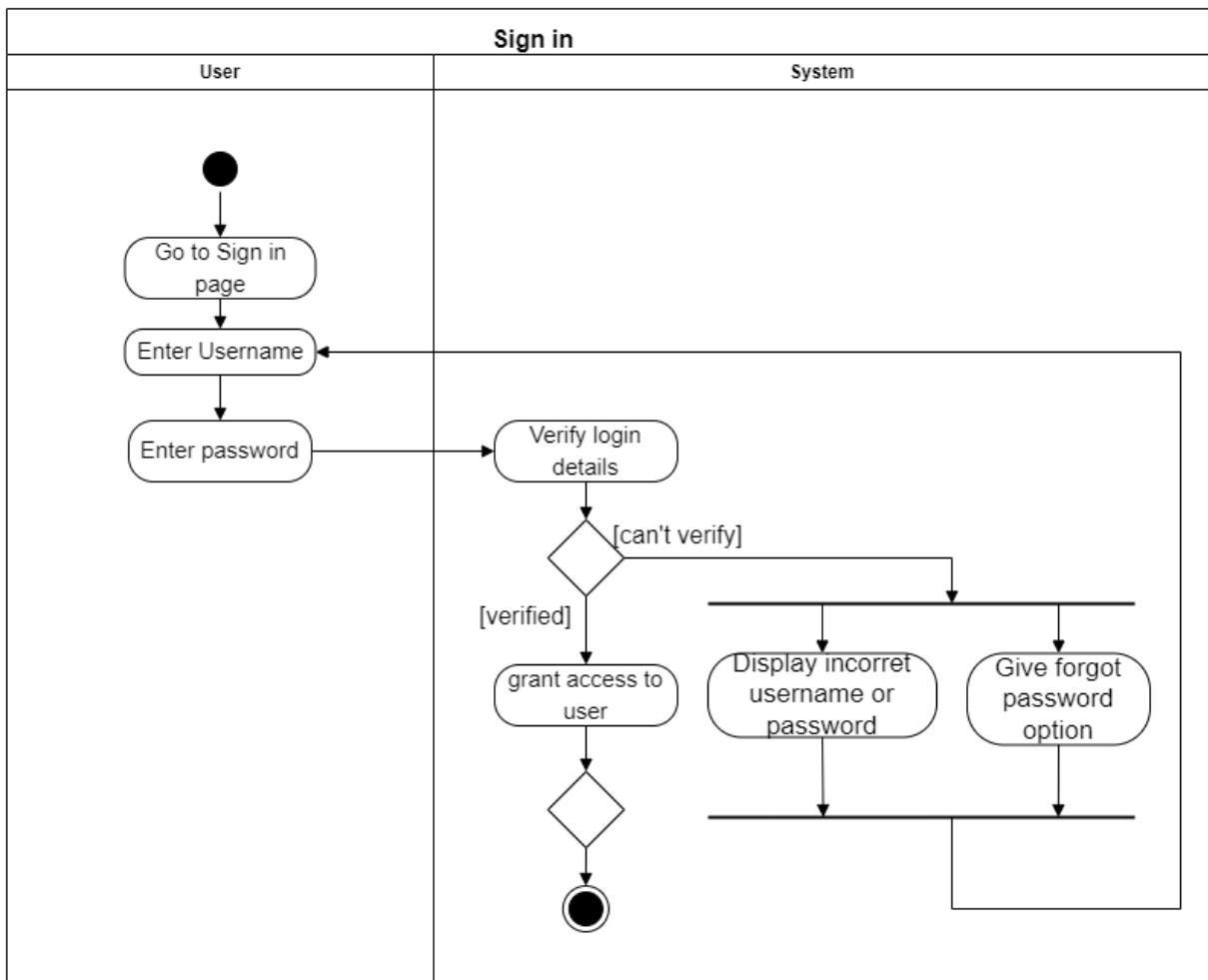
8.6.30 Activity diagram 30 - Respond to reviews



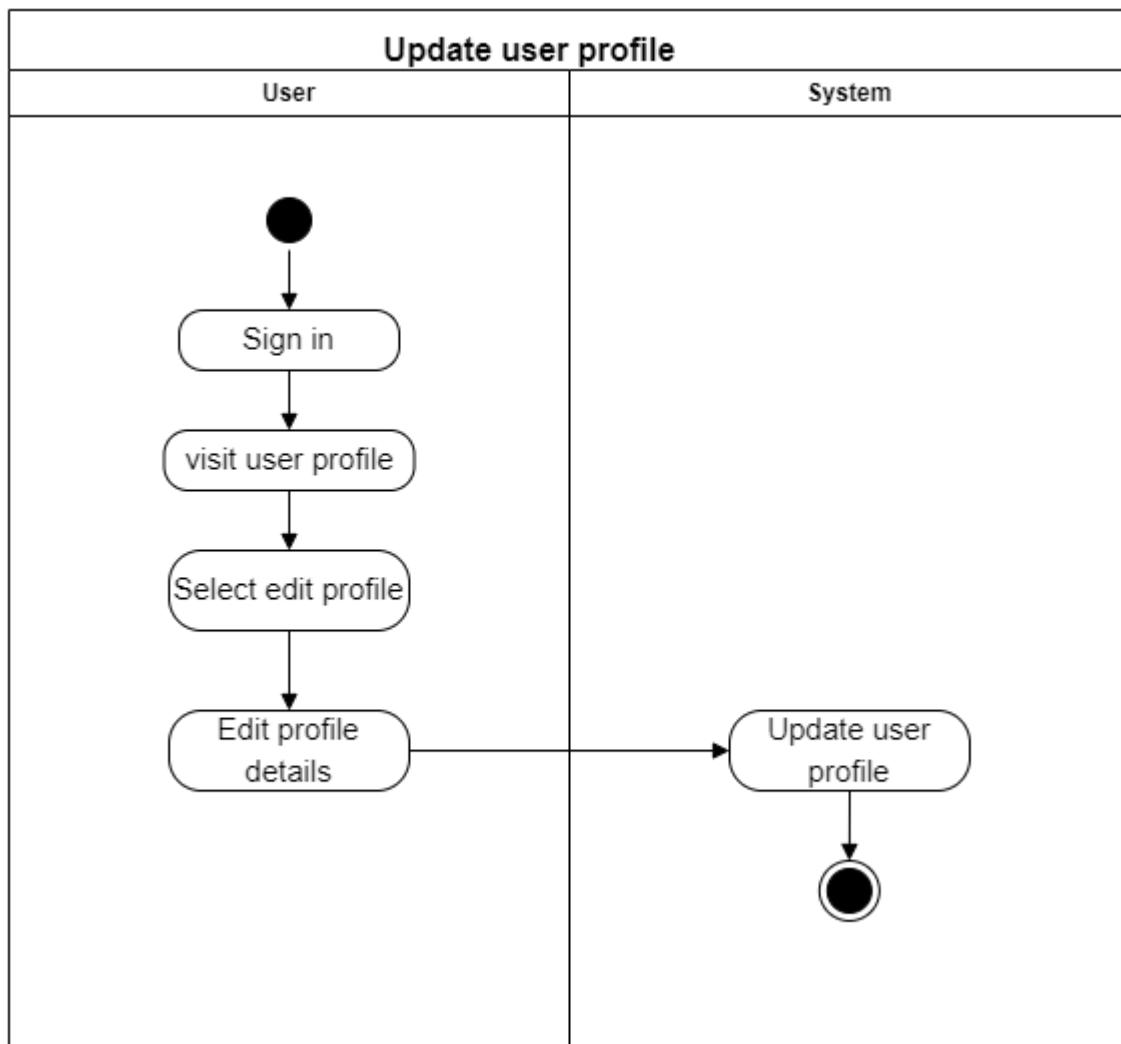
8.6.31 Activity diagram 31 - Delete users



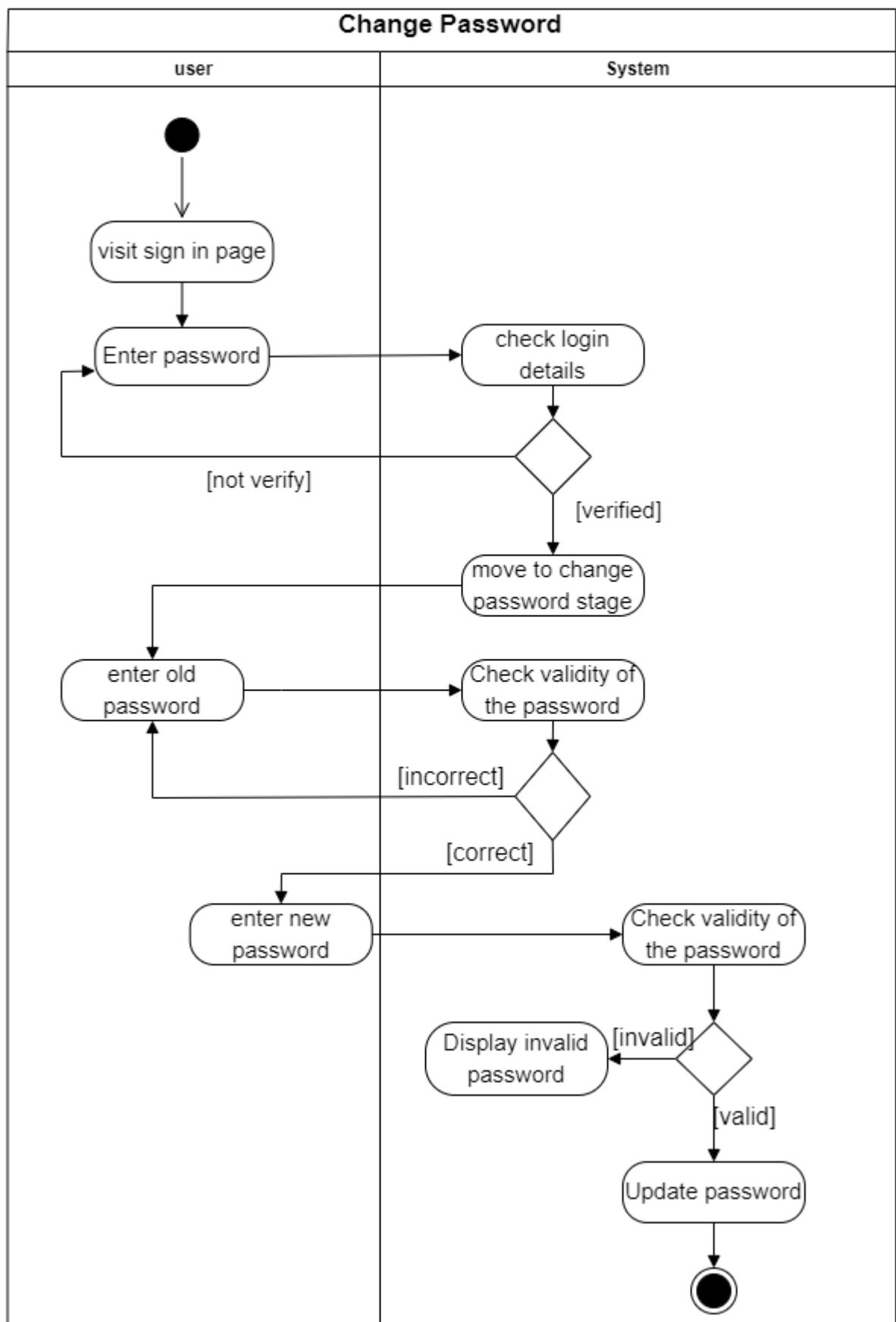
8.6.32 Activity diagram 32 - Sign in



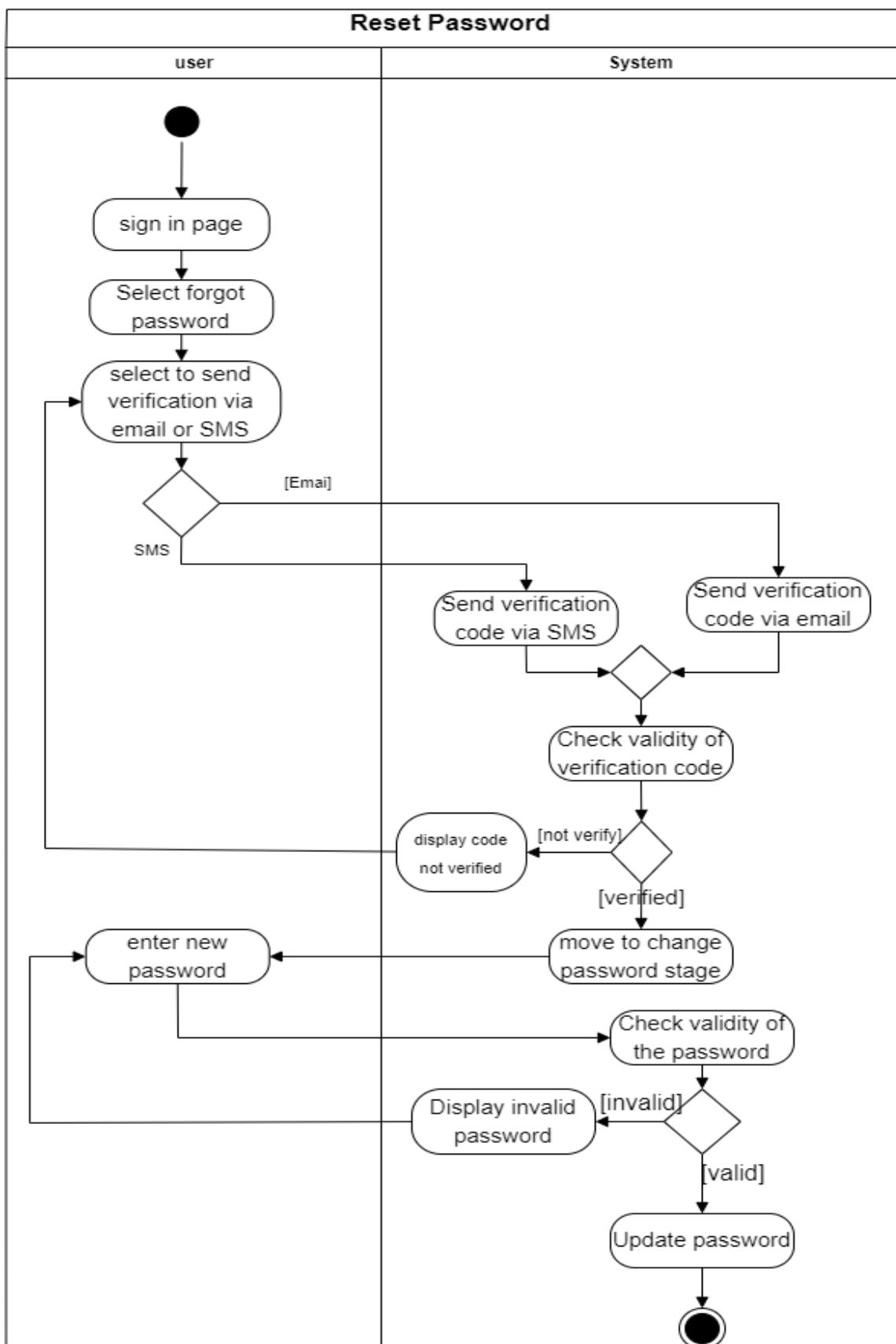
8.6.33 Activity diagram 33 -Update user profile



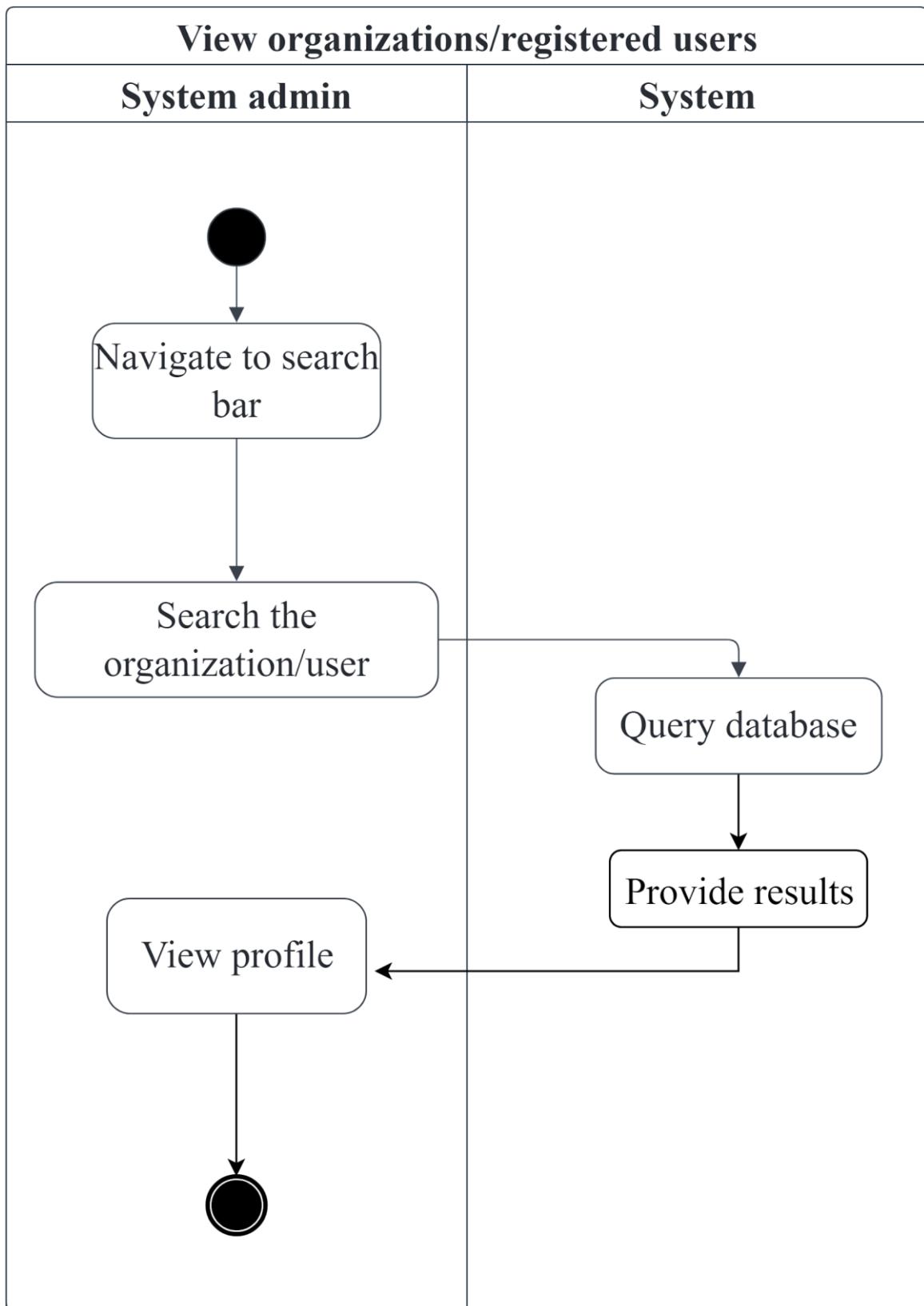
8.6.34 Activity diagram 34 - Change password



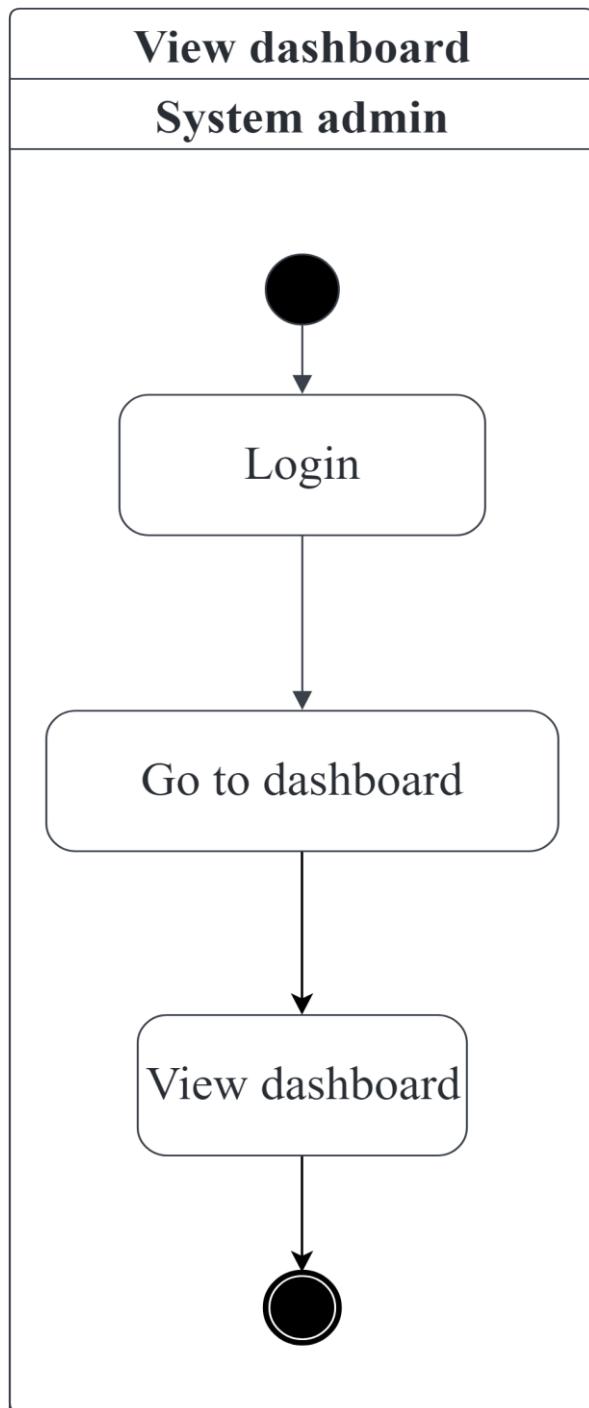
8.6.35 Activity diagram 35 - Reset password



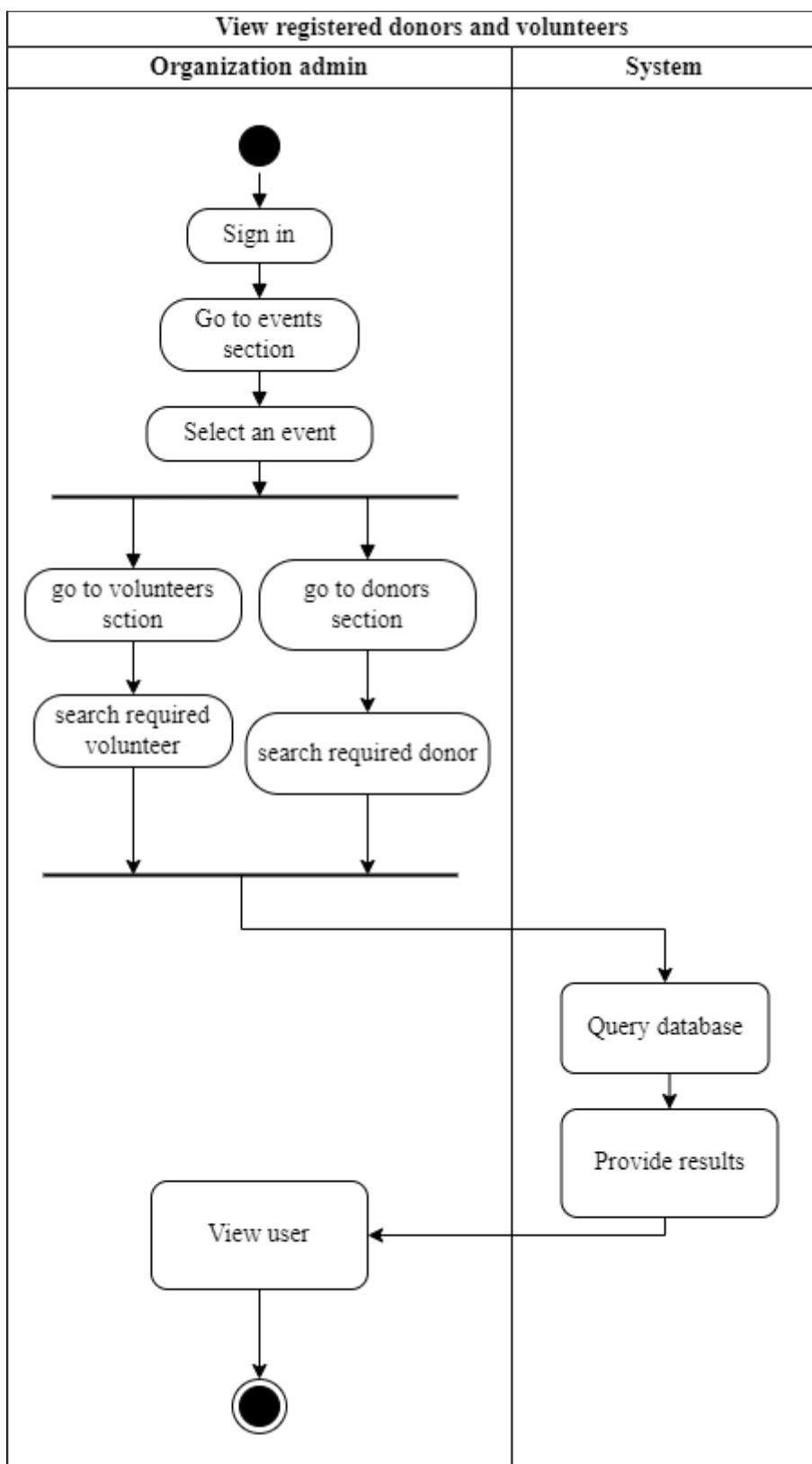
8.6.36 Activity diagram 36 - View organizations/registered users



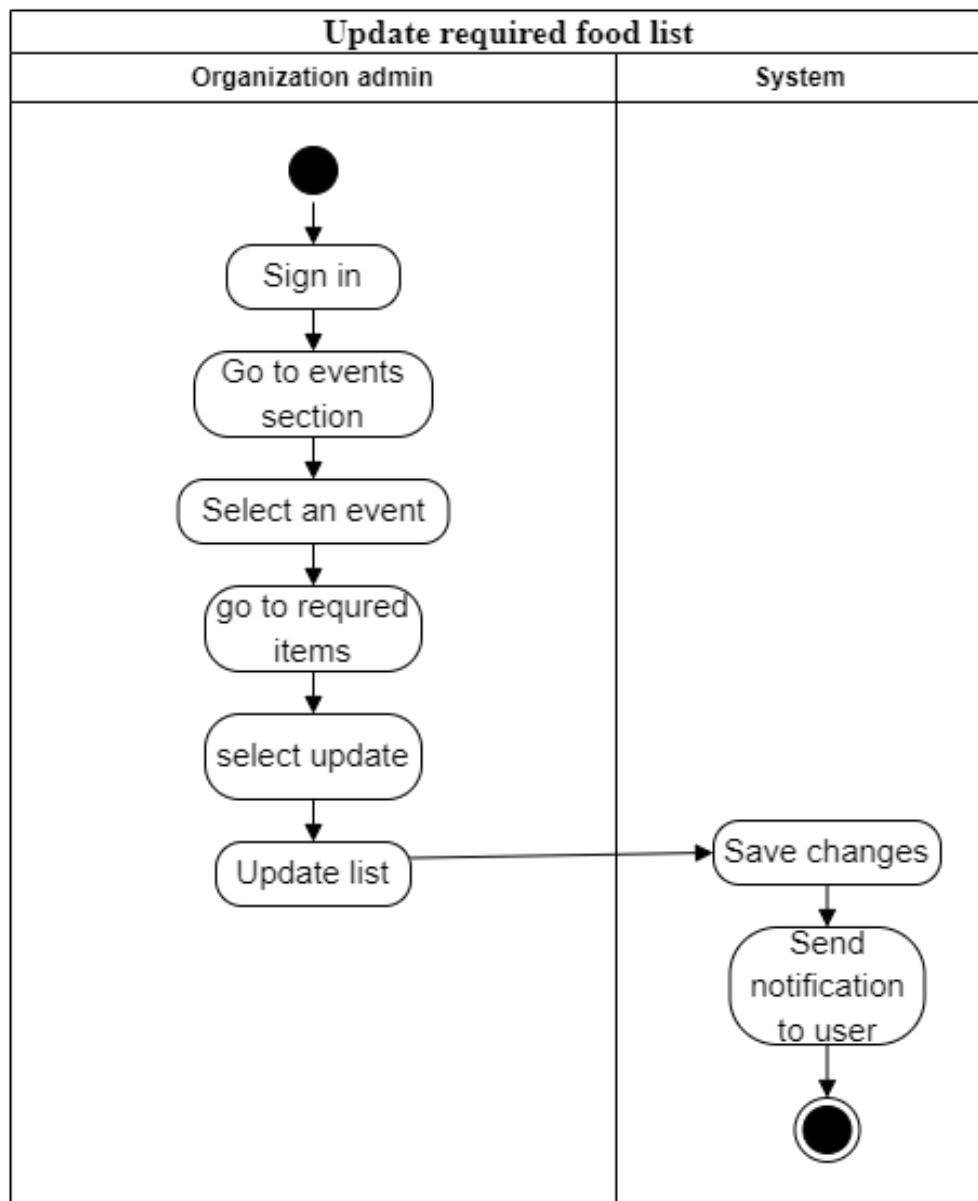
8.6.37 Activity diagram 37 - View dashboard



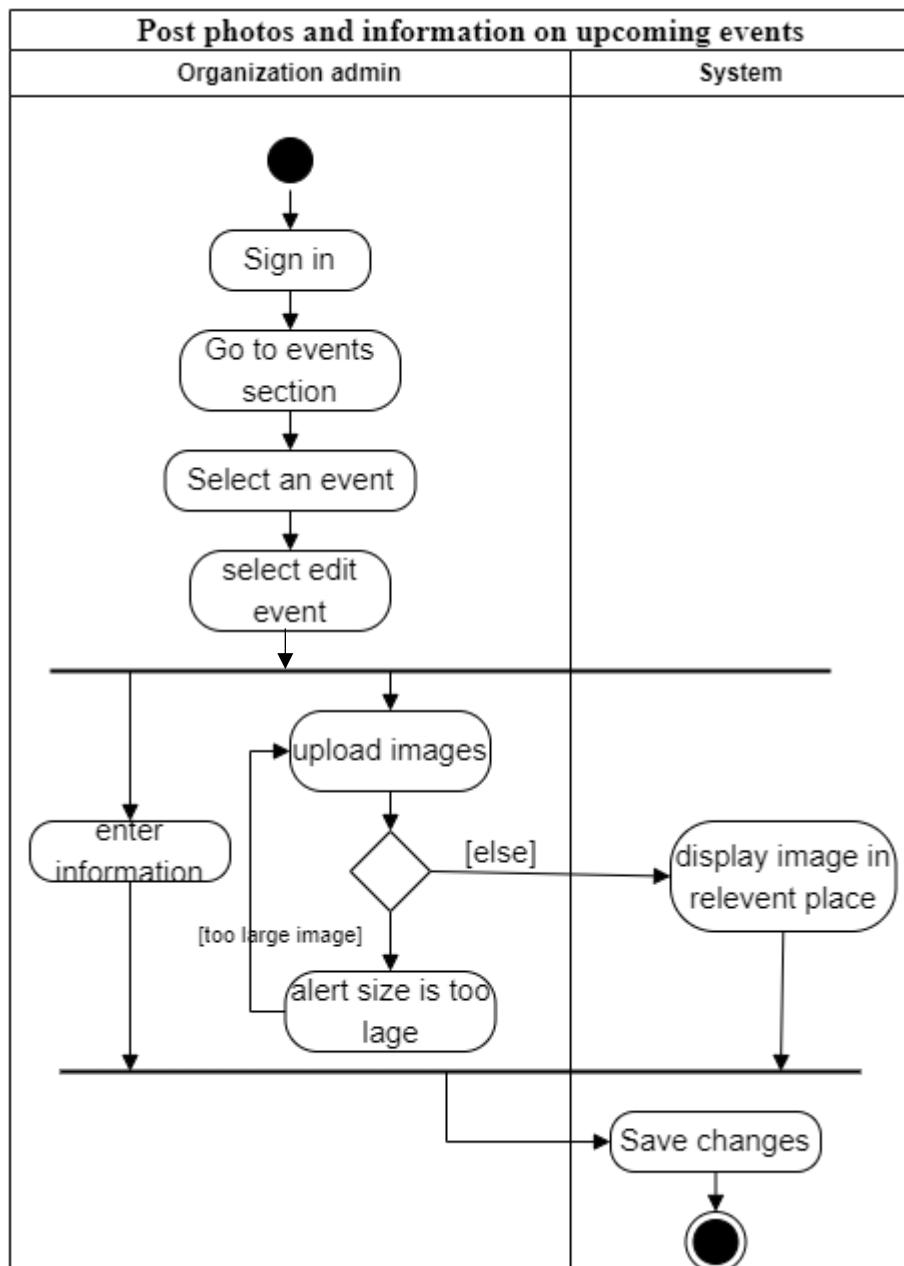
8.6.38 Activity diagram 38 - View registered donors and volunteers



8.6.39 Activity diagram 39 - Update required food list



8.6.40 Activity diagram 40 - Post photos and information on upcoming events



8.7 Quality Attributes Requirements

In order of decreasing priority, the requirements stated in this section are those that are architecturally significant and that will be used to gauge the system's performance.

8.7.1 Availability

Our primary output is a web application that is accessible all day long. Therefore, it is essential to ensure our application's optimum availability and uptime.

- In the event that a server fails, server replication can be used as a backup.
- In order to manage the range of possible situations, the system will be built to maximize its competence

8.7.2 Performance

- Response time for any request is 500 ms or less. A suitable progress indication must be present while an asynchronous task is being carried out.
- To improve concurrency and prevent the database from becoming inconsistent, each process that modifies data uses a single database transaction.
- The application's static content has the appropriate caching headers set.

8.7.3 Usability

Currently, very few charity organizations, volunteers, and donors use software to organize their activities and run their daily operations. The majority of these systems merely have a few basic features. Others plan events using social media of some kind.

Because the consumers are not highly technical individuals, the system must be **straightforward and user-friendly**. This problem should be solved with a straightforward, clean user interface that makes it simple to locate the necessary services. Since the operation of charitable organizations is more sophisticated than that of donors and volunteers, a user manual is made available to area coordinators and organization administrators.

8.7.4 Security

- Since monetary contributions are made via the system, this is made secure by using SSL to encrypt the customer's card information.
- Passwords are hashed before being stored in the database to protect user accounts.

8.7.5 Interoperability

- Front end and back end of the proposed web application should be able to communicate with 100% correctness.
- The client application is always a web browser. Which is platform-independent by itself.

8.7.6 Maintainability

Future system upgrades and maintenance should be simple to complete.

Therefore,

- The system is well-documented and includes developer comments.
- We adhere to good coding standards and best practices.
- The system has a sound system architecture and is suitably modularized.

8.7.7 Portability

The ease with which a program can be moved from one computer environment to another is referred to as portability and to ensure that,

- The web application will be developed as a responsive website
- The web application will be enhanced to provide the highest resolution on desktop and laptop screens.

9 Technologies to be used

Main technologies

Client-Side Scripting / Coding	HTML, CSS, Java Script
Server-Side Scripting / Coding	PHP
Database	MySQL

Other technologies

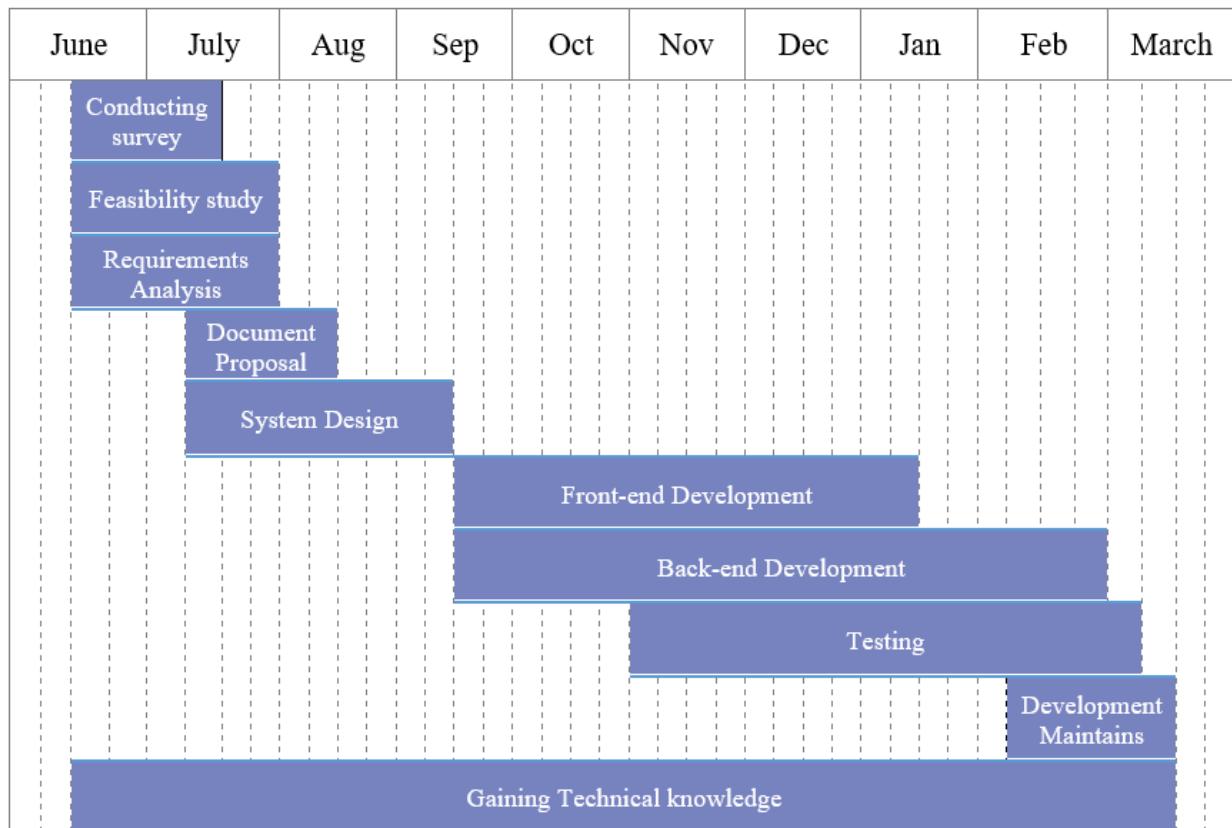
Web Server	Apache Web Server
Version control system	Git/GitHub
Documentation Maintaining	Google Drive
Designing Tools	Draw.io, Figma
Editors	Visual Studio Code

Additionally, third-party service connections are necessary for features like managing payments and sending SMS.

10 Project Timeline

The project transits a total duration of 9 months - till the completion of the academic year. We are modeling our development process of the project using the Iterative waterfall method. In this method, every phase contains a feedback path to its previous stage. Further, we can go back and make changes to be more aligned with the requirements and the goals of the project by using received feedback and insights.

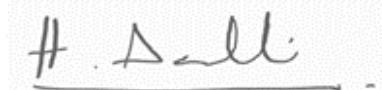
Using the requirements analysis and basic design of the system, we are confident that the project can be completed on time without any main changes in the schedule.



11 Declaration

We as members of the project titled “FoodForALL”, Certify that we will carry out this project according to the guidelines provided by the coordinators and supervisors of the course as well as we will not incorporate, without acknowledgement, any material previously submitted for a degree or diploma in any university. To the best of our knowledge and brief, the project work will not contain any material previously published or written by another person or ourselves except where due reference is made in the text of appropriate places.

Group members

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12 References

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