Goods Donation Facilitating System

Requirements Specification

Version 2.1

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1. Executive Summary

1.1 Project Overview

With the rise of attention to the discrepancies and shortcomings of our current economic system and its effects on the environment, consumers have become more critical of their role in this system and the global scene as a whole. This has been shown in their efforts in trying to distance themselves from waste production, campaigning and protesting for businesses to join in their efforts, and declining trust in charity organizations, particularly local ones, as corruption scandals give rise to donation hesitance.
In response to this, we have developed a web service that enables and encourages the growth of a circular economy by simplifying the distribution and donation of excess/leftover products between individuals, businesses, and charities.

Our program allows people and businesses to communicate with each other and charities by listing their surplus products and distributing them to interested users. Individuals can post a product picture alongside a pick-up location, and converse with others on the application to give away or receive for free an item that would have otherwise been wrongly thrown away from disuse.
Businesses are able to list the surplus stock they have (or expect to have in the case of food-related businesses) with a heavily discounted price, giving them the ability to profit from products that before would have been considered losses. This new reach of customers, coupled with the 8% of the revenue from sales being automatically donated to a random charity on our service, aids in building a broader customer base based on trust.
In addition to these donations, these entities can offer their products to charities, who can establish their presence and raise awareness towards their causes on our software. Charities can sort and manage these donations, and recruit users as volunteers. Like with donations, volunteer listings can be controlled and applications can be approved based on the user's volunteering history on the app.
Moreover, our service supports simple management operations (viewing, editing, deleting) regarding listings, donations, and business orders, profit visualization, and the generation of donation records for tax deduction purposes.

As the donation process is simplified and made safer through users' ratings and reportings of dangerous, harmful activity, our application allows individuals and businesses to reduce their waste and encourage sustainability as they assist each other and charities in a more hands-on approach that builds strong community relations.

1.2 Purpose and Scope of this Specification

The objective of this specification is to evaluate the product design as it stands right now and to record the development process based on research of our intended audience and design deliberations and constrictions.

This specification covers requirements regarding the application environment and its actors. As a result, in this scope, we address the following:

- Detailed documentation of the product's features
- Technical synopsis of system processes and perspectives
- User and system Requirements
- Components & functional/non-functional requirements
- Product usage explanation
- Dependences and restrictions

The following are some aspects that not included in this scope:

- The product's legislative requirements
- Product auditing and financial factors

2. Product/Service Description

Our web service aims to promote a circular economy; we want to connect the people with each other, local businesses, and charity organizations in order to fight hyperconsumerism and improve the overall condition of the community as a whole.

Each user will be able to list products that lack utility for them to give away or claim such products from other users in their vicinity. They will also be able to offer their products directly to charities.
Businesses can list the surplus stock they have with a noticeably discounted price. This would allow them to still collect a profit over items that would have otherwise been thrown away. A percentage of the price will be sold will also get donated to one of the charities available in our service.
Charities can raise awareness through our services but also manage donations and recruit users as volunteers.

2.1 Product Context

This service aims to enable communication between the community, its businesses, and charities in order to facilitate the process of “giving away” for everyone. Similar systems exist in the market, however their focus resides on capital accumulation, instead of the peer-to-peer charital aspect which we aim to follow.

The software simplifies the transactional process of in-kind donating by utilizing GIS software to boost awareness on a user’s offers and connect them with charities, incorporating a messaging gateway for individuals to achieve verbal coorporation efficiently, and utilizing payment gateways to further streamline the interaction with businesses in a way that is most familiar to the users. This accessibility-based approach aids in attracting and motivating participation in this simulation of a sharing economy.

2.2 User Characteristics

Individual

- Create/edit/delete a product listing
- Filter public listings based on product category
- Place a request on a product/volunteer listing

- Accept/reject a request on their listing
- Communicate with a listing's owner through in-app messaging
- Pay for a business order in the application
- Receive a digital receipt for an accepted order
- Offer a donation to a charity
- Generate donations record
- Report users

Business manager

- Create/edit/delete a product listing
- Temporarily cancel a listing
- Reject an order within a 2-hour timeframe
- Offer a donation to a charity
- Generate donations record
- Generate listing- or period-specific revenue statistics

Charity organization manager

- Approve/reject in-app donations
- Filter donations by pick-up or drop-off option
- Create/edit/delete a volunteer listing
- Access a volunteer applicant's in-app volunteering activity
- Filter volunteers by duty or job timeframe
- Rate volunteer

Platform administrator

- Handle user reports
- Moderate listings
- Regulate business operations and transparency
- Ban business-based users
- Approve charity accounts

2.3 Assumptions

- It is assumed that the users are familiar with the English language.
- The users are assumed to have a device with internet access in order to connect to the web service (laptop, PC, tablet, mobile phone, etc.).
- The users are assumed to have a basic knowledge of computer skills in order to access and use the web service.
- For moderation purposes, it is assumed that platform administrators have access to the data of businesses and individuals related to compliance reports.
- It is assumed that the rating system will be used to reward good work, and will also serve as a more accurate measurement of performance and trustworthiness.

- It is assumed that only administrators are able to add other administrators and can ban users based on their unbiased evaluation of user reports.

2.4 Constraints

- The user is required to be logged in the system to access the application.
- The individual is required to have location permissions turned on to access local public listings.
- The charity manager is required to submit their verification letter in order to sign up.
- The user must own a credit card supported by Paypal in order to perform monetary transactions.

2.5 Dependencies

- The individual's request on a listing must be accepted before they can leave a rating on the owner user.
- The individual cannot message another individual unless they've placed a request on their listing.
- A donation receipt cannot be generated until the donation is accepted by the charity.
- The charity's verification form must be approved by administrators before the manager can complete their registration.
- The charity manager cannot access a volunteer's email address without accepting their volunteering request.
- The charity manager can rate a volunteer only if their task timeframe has ended.
- Moderation-related actions that result in a ban require a written reason behind the activity from the responsible administrator.

3. Requirements

3.1 Functional Requirements

Req#	Requirement	Comments	Priority	Date reviewed	SME reviewed/approved
BR_01	The system should offer different interfaces for different user roles.	Based on the user role, the homepage and the personal listings view will change.	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_02	User should be able to create a product listing accompanied by a product photo, a	Attributes like expiration date should be disabled for non-food-based items.	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid

	description, listing timespan, pick-up location, and an expiration date.				Lleshaj, Servi Lila
BR_03	Business-based user should be able to create a product listing accompanied by a product photo, description, price, and pick-up timeframe.	If the business is food-centric, the listing should include a section regarding the ingredients and allergens present in the product.	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_04	Business-based user should be able to create a pantry box listing accompanied by the possible items the order can have, price, and a pick-up timeframe.	BR_03 extension. Some businesses, like restaurants and bakeries, experience fluctuating surplus that cannot be properly predicted.	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_05	Users should be able to edit and delete their listings.		1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_06	Individual-type users should be able to view all public listings, separated into different interfaces based on owner user type.	Listings are automatically filtered based on user location with a 35 km radius. The system will require location permission.	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_07	Individual-type users can filter public listings based on product category.	Categories include: clothing, food, miscellaneous items.	3	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_08	The system should provide a view for the requests placed on a user’s	Each request should be accompanied by the listing photo,	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi

	listings.	the message (if any) from the requester, and an accept button.			Parllaku, Henrid Lleshaj, Servi Lila
BR_09	User should be able to send a request to a product listing.	The system should also prompt the user to send a message with the request, although it's optional.	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_10	User should be able to send a request to a volunteer listing.	The system should automatically send the user's email to the charity's manager for further communication.	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_11	User should be able to message the owner of an individual's listing.	This allows for the listing's owner to reject/accept a request as they converse with the requester regarding the pick-up location and time.	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_12	User should be notified of their listing request resolution.	The user should be informed if a request has been accepted or rejected.	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_13	Individual-type user should be able to accept a request on their listing.	When a user accept a request, all remaining requests for that listing should be automatically deleted.	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_14	Individual-type user should be able to place an order on a business listing.		1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_15	Business-based user should be	This is to accommodate	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David

	able to reject an order within 2 hours.	businesses whose surplus stock fluctuates and products may not be available.			Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_16	Business-based user should be able to temporarily cancel a listing for a specified number of days.		1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_17	System should automatically reject orders of a cancelled listing.		1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_18	The system should generate a an OTP for an order, visible to both the business and the individual.	This is to maintain security for order pick-ups.	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_19	The system should perform the payment transaction of an order automatically when the pick-up time window begins.	The system will keep trak of a business listing’s pick-up beginning time.	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_20	The system should perform payment of 8% of an order payment to a randomly selected charity.		1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_21	Business-based user should be able to generate revenue statistics.	The system should show period- and listing-specific statistics.	2	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_22	Charity-based user should be able to	The form should include the	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David

	create a volunteer listing.	duty/task, description, number of people they are looking for, and the timeframe of the duty.			Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_23	The user's in-app volunteering history should be accessable by charity-based users.	The history should show the duty performed, and the rating received.	2	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_24	System should reject other requests when the volunteer number capacity is filled for a listing.		2	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_25	Charity-based user can filter accepted volunteers by timeframe.		3	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_26	Charity-based user should be able to rate accepted volunteers.	This applies to volunteers whose job timeframe has ended.	2	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_27	User should be able to offer a donation to charity profiles in the application.	The donation form includes a product photo, product category option, a choice between pick-up or drop-off.	1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_28	User should be able to delete a charity donation offer.		1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_29	User can choose to have their rejected charity	This option is highly likely to be selected by users,	3	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian

	donation automatically posted as a listing.	maintaining the circular economic model, and retaining their engagement in the application.			Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_30	System should save the donation information for record generation after it's accepted.		2	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_31	Charity-based user should be able to accept/reject a donation.		1	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_32	Charity-based user can filter donations by pick-up or drop-off.		3	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_33	Individual- and business-based users should be able to get the donation receipt of a selected accepted donation.	Donation records are offered as a user benefit for tax purposes, and they are used to incentivize engagement with the service.	2	24.03.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_34	Platform administrator should be able to view all listings.		1	27.03.2023	Viktoria Bashari, Kristian Gjinopulli, Lorna Gjidia, David Osoja, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_35	Administrator should be able to terminate listings and users.	Administrator has to provide a reason with the removal, which will be sent in an email to the offending user.	1	27.03.2023	Viktoria Bashari, Kristian Gjinopulli, Lorna Gjidia, David Osoja, Arbi Parllaku, Henrid Lleshaj, Servi Lila

BR_36	Individual-based user should be able to report a user or a listing.	User has to provide a reason for the report.	1	27.03.2023	Viktoria Bashari, Kristian Gjinopulli, Lorna Gjidia, David Osoja, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_37	Individual-based user should be able to rate a user after their listing request has been accepted.		2	1.04.2023	Viktoria Bashari, Kristian Gjinopulli, Lorna Gjidia, David Osoja, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_38	Administrator should be able to accept or reject user reports.	After 3 reports, the system bans the user.	1	27.03.2023	Viktoria Bashari, Kristian Gjinopulli, Lorna Gjidia, David Osoja, Arbi Parllaku, Henrid Llesha, Servi Lilaj
BR_39	Administrator should be able to view the business-users, their last compliance report check, and their total number of negative report results.	Compliance reports are to ensure business transparency & honesty regarding pricing and products listed.	1	27.03.2023	Viktoria Bashari, Kristian Gjinopulli, Lorna Gjidia, David Osoja, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_40	Administrator should be able to update reports by uploading the PDF of the latest report, and the resulting conclusion.	The result of the report is indicated through a positive or negative button.	1	1.04.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_41	Administrator should be able to ban a business-user.	The option to ban a business becomes available after three non-compliances.	1	1.04.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_42	The system should alert the		2	27.03.2023	Viktoria Bashari, Kristian Gjinopulli,

	administrator of compliance reports that were conducted 1 year.				Lorna Gjidia, David Osoja, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_43	The system highlights compliance reports that were conducted longer than 6 months ago.		3	27.03.2023	Viktoria Bashari, Kristian Gjinopulli, Lorna Gjidia, David Osoja, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_44	Administrator should be able to add a new administrator.	The administrator has to provide an email and a password.	1	27.03.2023	Viktoria Bashari, Kristian Gjinopulli, Lorna Gjidia, David Osoja, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_45	Administrator should be able to view all charity verification forms.	These are required during charity manager sign up.	1	28.03.2023	Viktoria Bashari, Kristian Gjinopulli, Lorna Gjidia, David Osoja, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_46	Administrator should be able to reject or accept a charity verification form.		1	28.03.2023	Viktoria Bashari, Kristian Gjinopulli, Lorna Gjidia, David Osoja, Arbi Parllaku, Henrid Lleshaj, Servi Lila
BR_47	System should keep track of the administrator’s operations.	For accountability purposes. Keeping track of the edits they commit, the bans they issue, the new administrators they enter, etc.	2	02.04.2023	Viktoria Bashari, Lorna Gjidia, David Osoja, Kristian Gjinopulli, Arbi Parllaku, Henrid Lleshaj, Servi Lila

4. Requirements

4.1 User scenarios

Individual

US_I_01: Individual registers on the platform

1. User clicks on “Sign up” button.
2. User clicks on “Personal use” option.
3. User writes in username, full name, email, password, and confirmation password.
4. User confirms the registration by clicking “Submit” button.
5. System validates the input and sends an account verification email.
6. User clicks link in verification email.
7. User is directed to homepage, and registration is completed.

US_I_02: Individual logs in

1. User clicks on “Sign in” button.
2. User writes in their email and password.
3. User clicks “OK” button.
4. System verifies credentials.
5. User is directed to the homepage.

US_I_03: Individual views available listings

1. User clicks on homepage button on navigation bar.
2. System presents an activity feed with “Personal”, “Businesses”, “Charities” as different perspectives for listings.
3. User can click on “All”, “Food”, “Clothes”, “Books”, “Miscellaneous” options to filter product listings, and select dates to filter volunteer listings by timeframe.

US_I_04: Individual sends a request to a product listing

1. User clicks on a listing.
2. System shows the listing’s photo, description, and other potential attributes.
3. User clicks on “Send request” button.
4. System shows a messaging interface between the user and the listing owner.
5. User can send message to listing owner.

US_I_05: Individual sends a request to a volunteer listing

1. User clicks on homepage.
2. User selects the “Charities” perspective.
3. User clicks on a listing.
4. System shows the listing’s information (duty to be performed, and timespan of the task).
5. User clicks “Send request” button.

US_I_06: Individual creates a product listing

1. User clicks on upload button on navigation bar.

2. User fills in form with inputs for product photo, title, description, listing timespan, and pick-up location.
3. User selects the product category
4. User clicks on “Submit” button.

US_I_07: Individual edits a product listing

1. User clicks on profile button on navigation bar.
2. User clicks on “My listings” option.
3. User clicks on a listing.
4. User clicks on “Edit” button.
5. System shows the listing creation form, with the fields auto-populated with the current data.
6. User changes data.
7. User clicks on “Submit” button.

US_I_08: Individual deletes a product listing

1. User clicks on profile button on navigation bar.
2. User clicks on “My listings” option.
3. User clicks on a listing.
4. User clicks on “Delete” button.
5. System shows an alert asking for confirmation through an “OK” button.
6. User presses “OK” button.

US_I_09: Individual gets a request on their listing

1. User clicks on requests button on navigation bar.
2. User selects the listings perspective.
3. User clicks on a message.
4. System shows messaging interface between requester and user.
5. System shows “Accept” and “Deny” buttons.

US_I_10: Individual sends donation offer to charity

1. User clicks on donate button on navigation bar.
2. User selects a charity.
3. User fills in form with inputs for product photo, title, description.
4. User selects between drop-off or pick-up.
    a. If drop-off is selected, user selects one of the charity’s drop-off locations.
    b. If pick-up is selected, user selects pick-up location.
5. User presses the “Submit” button.

US_I_11: Individual’s donation offer to a charity is rejected

1. User clicks on profile button on navigation bar.
2. User clicks on “Donations” option.
3. User clicks on donation with red dot.
4. System shows an alert asking if the user wants to list the product on the app.

5. If the user clicks “OK”, they’re taken to listing creation, with the form auto-populated with the existing information.
6. If the user clicks “Cancel”, the donation is removed.

US_I_12: Individual’s volunteer request is accepted

1. User receives a push notification with the name of the listing and the positive status.

US_I_13: Individual’s business order is rejected

1. User receives a push notification with the with the name of the product listing and its negative status.

US_I_14: Individual reports a user

1. User clicks on the profile picture of a user on a listing or message conversation.
2. System shows the other user’s profile.
3. User clicks on the flag button in the header.
4. User selects reporting reason.
5. User clicks “Submit” button.

US_I_15: Individual reports a listing

1. User clicks on a listing.
2. User clicks on the flag button in the header.
3. User selects reporting reason.
4. User clicks “Submit” button.

US_I_16: Individual rates a user

1. User clicks on the profile picture of a user on a listing or message conversation.
2. User leaves a rating based on a 5-star rating scale.

US_I_17: Individual gets a donation's receipt

1. User clicks on profile button on navigation bar.
2. User clicks on “Donations” option.
3. System shows the donations received by the user.
4. User clicks on the download button of a donation that’s been received.
5. System pushes a download of a PDF file of the donation receipts generated by each accepted donation.

Business manager

US_BM_01: Manager registers business in the app

1. Manager clicks on “Sign up” button.
2. Manager clicks on “Business” option.
3. Manager writes in their business name, phone number, email.
4. Manager confirms the registration by clicking “Submit” button.
5. System sends an account verification email.
6. Manager clicks link in verification email.

7. System directs manager to homepage, and prompts user to enter the business' location.
8. Manager fills in the information, and registration is completed.

US_BM_02: Manager logs in

1. Manager clicks on "Sign in" button.
2. Manager writes in their business email and password.
3. Manager clicks "OK" button.
4. System verifies credentials and sends an email with a temporary login code.
5. Manager enter the login code.
6. Manager is directed to the homepage.

US_BM_03: Manager creates a product listing

1. Manager clicks on upload button on navigation bar.
2. Manager fills in form with inputs for product photo, description, and pick-up timeframe.
3. If the product is food-based, manager checks the "Food" option, and fills in the ingredients and allergens.
4. Manager clicks on "Submit" button.

US_BM_05: Manager cancels a listing

1. Manager clicks on listing button on navigation bar.
2. Manager clicks on a listing.
3. Manager clicks the "Cancel" option.
4. Manager selects the number of days to temporarily disable listing.

US_BM_06: Manager receives an order

1. Manager clicks on the red bell button on the right of the header.
2. Manager clicks on new order notification.
3. Manager is directed to the "Requests" perspective of the listings section.
4. Manager sees new order with the listing name, and order OTP.

US_BM_07: Manager rejects an order

1. Manager clicks on listing button on navigation bar.
2. Manager selects requests perspective.
3. Manager clicks on an order.
4. System shows alert box, asking for rejection confirmation.
5. Manager clicks "Confirm".

US_BM_08: Manager sends donation offer to charity

1. Manager clicks on donate button on navigation bar.
2. Manager selects a charity.
3. Manager fills in form with inputs for product photo, title, description.
4. Manager selects between drop-off or pick-up.
    a. If drop-off is selected, manager selects one of the charity's drop-off locations.
    b. If pick-up is selected, manager selects pick-up location.

5. Manager presses the “Submit” button.

US_BM_09: Manager’s donation offer to a charity is rejected

1. Manager clicks on profile button on navigation bar.
2. Manager clicks on “Donations” option.
3. Manager clicks on donation with red dot.
4. System shows an alert asking if the manager wants to list the product on the app.
5. If the manager clicks “OK”, they’re taken to listing creation, with the form auto-populated with the existing information.
6. If the manager clicks “Cancel”, the donation is removed.

US_BM_10: Manager gets a donation's receipt

1. Manager clicks on profile button on navigation bar.
2. Manager clicks on “Donations” option.
3. System shows the donations received by the user.
4. Manager clicks on the download button of a donation that’s been received.
5. System pushes a download of a PDF file of the donation receipts generated by each accepted donation.

US_BM_11: Manager views revenue statistics

1. Manager clicks on homepage button on navigation bar.
2. System shows total revenue, and most popular listings.
3. Manager can select “Yearly” or “Monthly” filters to see revenue statistics.

Charity organization manager

US_COM_01: Manager creates an account

1. Manager clicks on “Sign up” button.
2. Manager clicks on “Charity” option.
3. Manager writes in their organization name, phone number, email, and organization verification form.
4. Manager confirms the registration by clicking “Submit” button.
5. System sends an account verification email.
6. Manager clicks link in verification email and is directed to a form.
7. Manager fills input for organization location, pick-up locations, and EIN number.
8. Manager clicks “Ok” button, is directed to homepage, and registration is completed.

US_COM_02: Manager logs in

1. Manager clicks on “Sign in” button.
2. Manager writes in their organization email and password.
3. Manager clicks “OK” button.
4. System verifies credentials and sends an email with a temporary login code.
5. Manager enter the login code.
6. Manager is directed to the homepage.

US_COM_03: Manager views donation offer

1. Manager clicks on donations button on navigation bar.
2. Manager can click on “Pick-up” or “Drop-off” options to filter donation offers.

US_COM_04: Manager accepts a donation offer

1. Manager clicks on donations button on navigation bar.
2. Manager clicks on a donation.
3. System shows the information of the product offered (photo and description), along with an “Accept” and “Reject” option.
4. Manager clicks “Accept”.

US_COM_05: Manager creates a volunteer listing

1. Manager clicks on listings button on navigation bar.
2. Manager clicks “Add” button.
3. Manager fills in form with inputs for duty title, description, timeframe, and number of people they are looking for.
4. Manager clicks “Ok”.

US_COM_06: Manager views volunteer requester’s in-app volunteering history

1. Manager clicks on volunteers button on navigation bar.
2. Manager selects “Requests” perspective.
3. Manager clicks on a request.
4. System shows requester’s username, email, past in-app volunteering experiences along with their individual rating

US_COM_07: Manager accepts volunteer request

1. Manager clicks on volunteers button on navigation bar.
2. Manager selects “Requests” perspective.
3. Manager clicks on a request.
4. Manager clicks “Accept” button.
5. Manager is directed to requester’s email address for further communications.

US_COM_08: Manager views in-app volunteers

1. Manager clicks on volunteers button on navigation bar.
2. Manager selects “Volunteers” perspective.
3. Manager can select “Ongoing” or “Finished” to filter results.

US_COM_09: Manager rates a volunteer (only ones that have finished)

1. Manager Manager clicks on volunteers button on navigation bar.
2. Manager selects “Volunteers” perspective.
3. Manager clicks on a volunteer whose marked as “Finished”.
4. Manager leaves a rating based on a 5-star rating scale.

Platform administrator

US_PA_01: Administrator logs in (describe the ui essentially, add totals of rev from shop sales)

1. Administrator clicks on “Sign in” button.
2. Administrator writes in their organization email and password.
3. Administrator clicks “OK” button.
4. System verifies credentials and sends an email with a temporary login code.
5. Administrator enter the login code.
6. Administrator is directed to the homepage.

US_PA_02: Administrator adds another administrative user.

1. Administrator clicks profile button on navigation bar.
2. Administrator selects “Add administrator” option.
3. System sends the user an OTP email, and prompts the user to enter their password and the OTP for confirmation.
4. Administrator fills the prompt and selects “Ok”.
5. System verifies the information and shows the user a form.
6. Administrator fills in form input for new user’s email and password.

US_PA_03: Administator evaluates a user report

1. Administrator clicks on moderation button on navigation bar.
2. Administrator selects the “Reports” perspective.
3. Administrator clicks on a report.
4. System shows the reporting user’s username, their reason for the report, and the offending user’s username.
5. Administrator can select “Accept” or “Reject”.

US_PA_04: Administrator moderates listings

1. Administrator clicks on moderation button on navigation bar.
2. Administrator selects the “Feed” perspective.
3. Administrator is shown the latest unmoderated listing.
4. Administrator selects “Accept” or “Reject”, and is shown a new listing.

US_PA_05: Administrator checks in a new compliance report

1. Administrator clicks on regulation button on navigation bar.
2. Administrator selects the “Business” perspective.
3. System shows the businesses registered on the app, the date of their last compliance report check, and their total number of negative report results.
    a. If the business’ number of negative report result is greater than 3, it displays a “Ban” option next to their name.
4. Administrator clicks a business.
5. System shows the business’ name, a link to their last compliance report, their total number of negative report results, and a form.
6. Administrator fills in form input for new report PDF file, enters date of report, and selects “Positive” or “Negative” depending on the result of the report.

7. Administrator clicks “Submit”.

US_PA_06: Administrator bans a business-based user

1. Administrator clicks on regulation button on navigation bar.
2. Administrator selects the “Business” perspective.
3. Administrator clicks the “Ban” option next to a business’ name.
4. System prompts the user to enter their password.
5. Administrator enters their password.
6. System verifies the input, and bans the business if the input is correct.

US_PA_07: Administrator approves a charity verification form

1. Administrator clicks on regulation button on navigation bar.
2. Administrator selects the “Charity” perspective.
3. Administrator clicks on one of the forms.
4. Administrator selects “Accept”.

4.2 Use cases

UC Name	*UC_I_01: Send request*
Summary	*Individuals can send requests to other individuals’ litings.*
Actors	***User**, System, Listing owner*
Preconditions	
Description of the Main Sequence	● *Step 1: User clicks on a listing.* ● *Step 2: System shows the full information of the listing.* ● *Step 3: User clicks “Send request”.* ● *Step 4: System opens messaging interface, and creates a channel between user and listing owner.*
Non functional requirements	*Messaging security*
Postconditions	*The user has placed their request for the listing.*

UC Name	*UC_I_02: Evaluate request*
Summary	*Individual can accept or reject requests on their listings.*
Actors	***Listing owner**, System, requester*
Preconditions	*The listing owner has at least one listing.*

	The listing has at least one request.
Description of the Main Sequence	● *Step 1: The listing owner selects a request.* ● *Step 2: System opens the messaging channel between the owner and the requester.* ● *Step 3: The listing owner selects "Accept".* ● *Step 4: System deletes the remaining requests to the same listing.* ● *Step 5: System notifies the requesters.* ● *Step 6: System deletes the listing.*
Description of the Alternative Sequence	● *Step 3: The listing owner selects "Reject".* ● *Step 4: System deletes the messaging channel and the request.* ● *Step 5: System sends notification to requester.* ● *Step 6: System redirect owner to requests.*
Non functional requirements	*Messaging security* *Time for database operations* *Time for sending notifications*
Postconditions	*Rejected requesters are notified.*

UC Name	*UC_I_03: Send order*
Summary	*Individuals can place orders on business listings.*
Actors	***Individual**, System, Business manager*
Preconditions	*The manager has at least one listing.*
Description of the Main Sequence	● *Step 1: Individual selects a listing.* ● *Step 2: System shows the full information of the listing.* ● *Step 3: Individual clicks "Send order".* ● *Step 4: Individual inputs their credit card information.* ● *Step 5: System stores the order data, and generates an OTP for it.* ● *Step 6: System waits until the pick-up timeframe begins to finalize payment.* ● *Step 7: System forwards 8% of the payment to a random charity.*

Non functional requirements	*Credit card security.* *Time for database operations.*
Postconditions	*The individual's order is created.*

Cancel listing	*UC_BM_01: Cancel listing*
Summary	*Business managers can temporarily cancel a listing of theirs.*
Actors	***Business manager**, System*
Preconditions	*The manager is logged in.* *The manager has created at least one listing.*
Description of the Main Sequence	● *Step 1: The manager clicks to the listings page.* ● *Step 2: The manager selects a listing.* ● *Step 3: System shows listing form, prefilled with the current data.* ● *Step 4: The manager clicks "Cancel".* ● *Step 5: System presents options for the number of days.* ● *Step 6: The manager selects an option.* ● *Step 7: The manager clicks "Save".* ● *Step 8: System updates the listing data.*
Non functional requirements	*Time for database update.*
Postconditions	*The listing is cancelled for the selected number of days.*

UC Name	*UC_BM_02: Reject order*
Summary	*Business managers can reject orders.*
Actors	***Business manager**, System, Individual (order owner)*
Preconditions	*The manager has created at least one listing.* *The listing has at least one order.*
Description of the Main	● *Step 1: The manager clicks to the requests page.* ● *Step 2: The manager clicks on an order.*

Sequence	● *Step 3: System verifies the pick-up timeframe has not begun.* ● *Step 4: System shows an alert box, asking if manager wants to reject order.* ● *Step 5: The manager confirms rejection.* ● *Step 6: System sends the order owner notification about the order cancellation with the order's title.* ● *Step 7: System deletes the order from the database.*
Description of the Alternative Sequence	● *Step 3: System finds the pick-up timeframe has begun.* ● *Step 4: System shows information box, relaying information.*
Non functional requirements	*Time for* *Time for database update.*
Postconditions	*The order is deleted from the database.*

UC Name	*UC_U_01: Turn rejected donation to listing*
Summary	*Individuals and business managers can turn their rejected donations into listings they can put up on the application.*
Dependency	
Actors	***User*** *(individual or business manager), System*
Preconditions	*The user has made at least one donation offer.* *The user's donation offer is rejected by the charity (denoted by red dot in the UI.*
Description of the Main Sequence	● *Step 1: User clicks on a rejected donation.* ● *Step 2: System shows an alert asking if the manager wants to list the product on the app.* ● *Step 3: User accepts.* ● *Step 4: System shows listing creation form, prefilled with donation's data.* ● *Step 5: User fills in additional information.* ● *Step 6: User submits form.* ● *Step 7: System stores listing data.* ● *Step 8: System deletes donation data.*

Description of the Alternative Sequence	● *Step 3: User rejects.* ● *Step 4: System deletes donation data.*
Non functional requirements	*Time for database operations*
Postconditions	*Donation is removed and listing is created.*

UC Name	*UC_COM_01: Charity registration*
Summary	*Charities can register on the application.*
Actors	***Charity manager**, System, Administrator*
Preconditions	
Description of the Main Sequence	● *Step 1: The manager clicks “Sign up”.* ● *Step 2: The manager selects “Charity” organization type.* ● *Step 3: The manager fills in form form with required details.* ● *Step 4: The manager adds organization verification form.* ● *Step 5: The manager submits form.* ● *Step 6: System stores the data.* ● *Step 7: Administrator receives the verification form.* ● *Step 8: Administrator approves the form.* ● *Step 9: System send organization email a verification email.* ● *Step 10: The manager clicks the link in the verification email.* ● *Step 11: System shows form for organization location and pick-up locations.* ● *Step 12: The manager submits form.* ● *Step 13: System updates the account data in the database.* ● *Step 14: The manager is redirected to the homepage.*
Description of	● *Step 9: Administrator rejects the form.*

the Alternative Sequence	● *Step 10: System sends the organization email an email about the rejection.* ● *Step 11: System deletes data from the database.*
Non functional requirements	*Organization information security* *Time for database operations* *Time for email delivery*
Postconditions	*The charity account is created and saved in the application.*

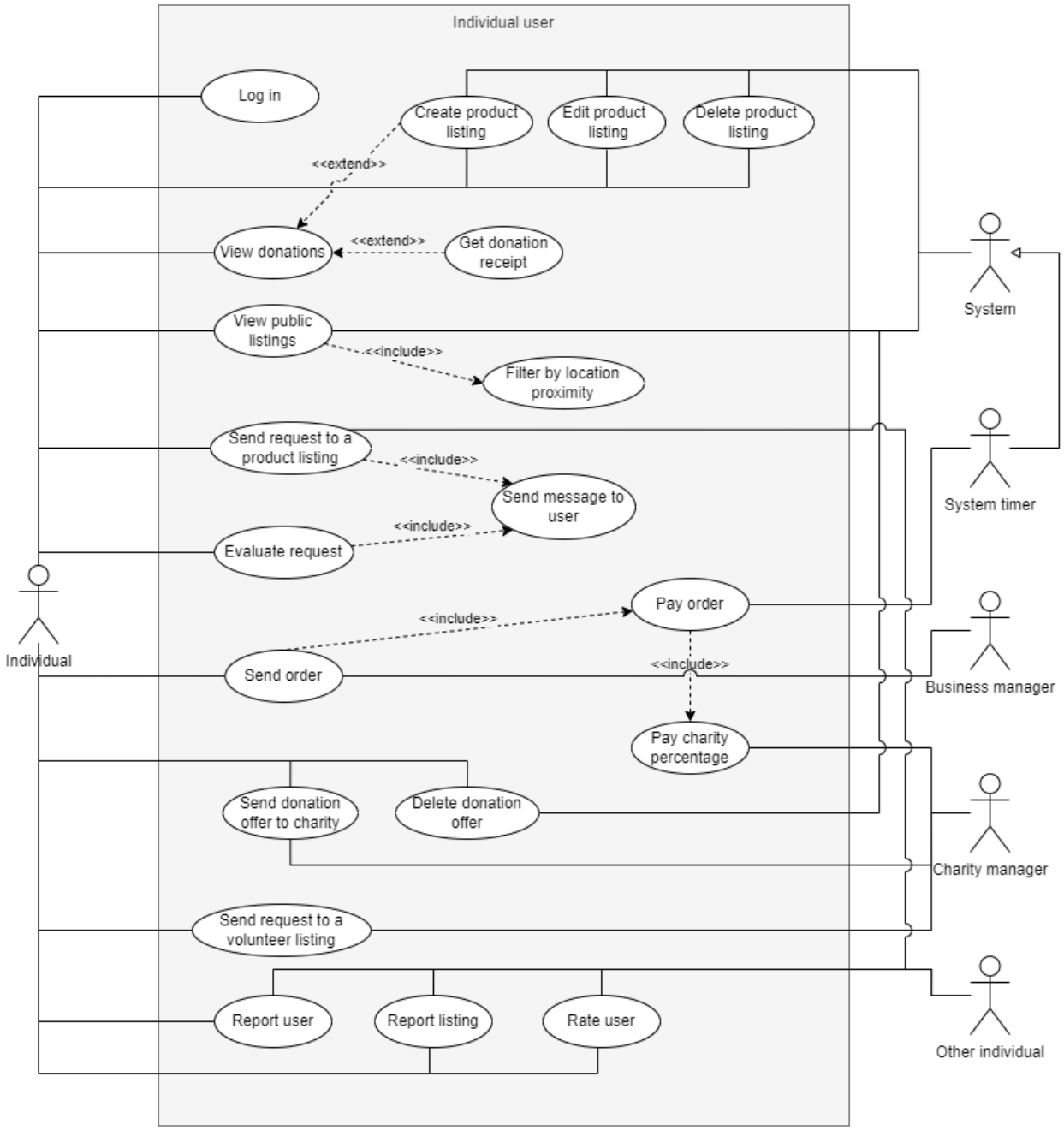
UC Name	*UC_COM_02: Evaluate volunteer request*
Summary	*Charity managers can accept or reject volunteers.*
Actors	***Charity manager**, System, Volunteer*
Preconditions	*Manager has at least one volunteer listing created.* *Listing has at least one request.*
Description of the Main Sequence	● *Step 1: Manager selects a volunteering request.* ● *Step 2: System shows volunteer's username, email, and past volunteering experiences on the app.* ● *Step 3: Manager accepts request.* ● *Step 4: System updates volunteer data.* ● *Step 5: System sends notification to volunteer about approval.* ● *Step 5: System directs manager to volunteer's email address.*
Description of the Alternative Sequence	● *Step 3: Manager rejects request.* ● *Step 4: System sends notification to volunteer about rejection.* ● *Step 5: System deletes volunteer data.*
Non functional requirements	*Time for database operations*
Postconditions	*Volunteer's data is correctly updated.*

UC Name	*UC_PA_01: Evaluate user report*

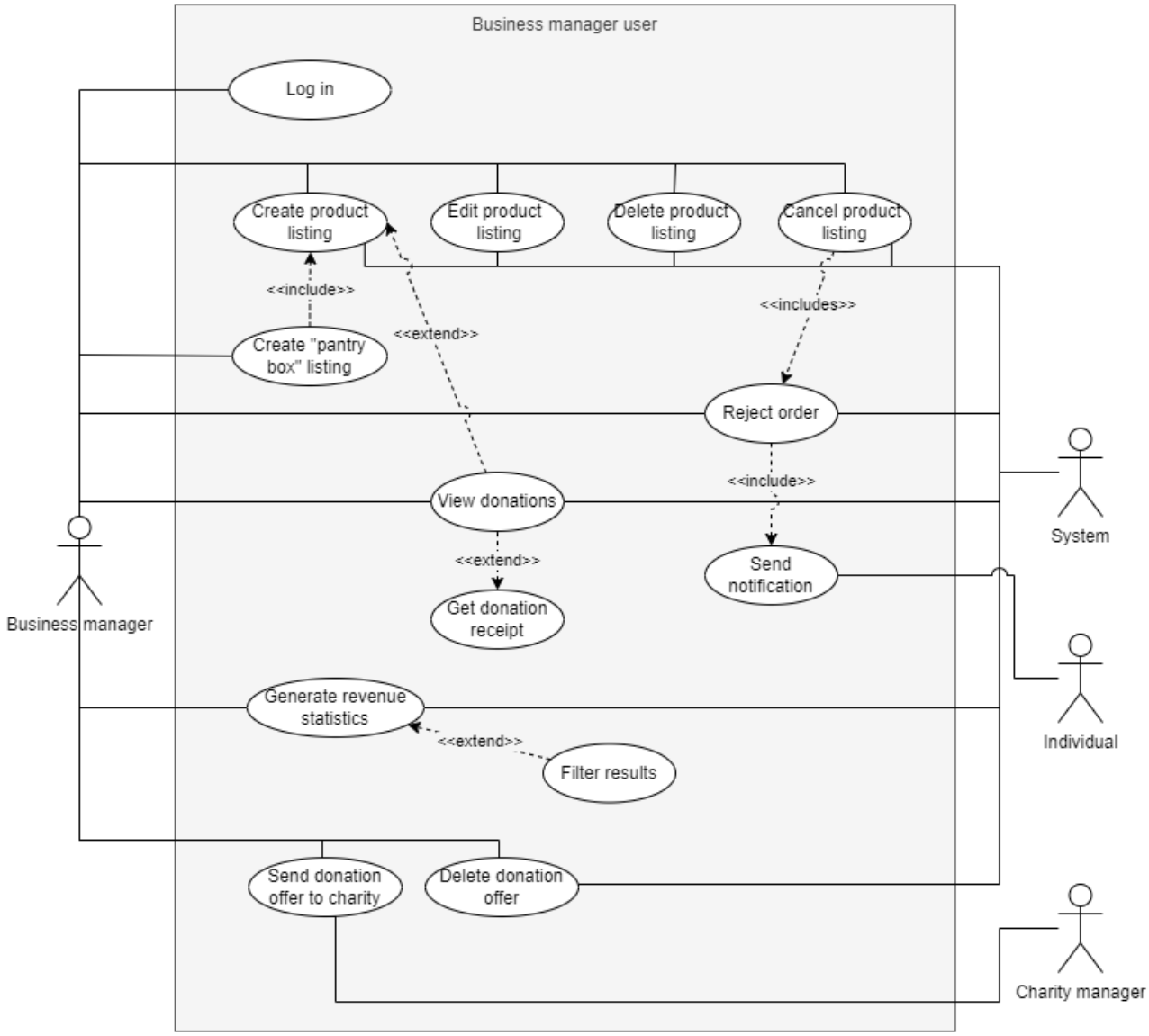
Summary	*Administrators can accept or reject user reports on listings or other users.*
Actors	***Administrator**, System, Reported user*
Preconditions	*A report has been made by an individual.*
Description of the Main Sequence	● *Step 1: Administrator selects a report.* ● *Step 2: System shows the reported user's and the reports information.* ● *Step 3: Administrator verifies the report.* ● *Step 4: System checks number of existing verified reports on reported user.* ● *Step 5: System sends reported user an email about ban.* ● *Step 6: System deletes the reported user.* ● *Step 7: System deletes the report.*
Description of the Alternative Sequence	● *Step 3: Administrator rejects report.* ● *Step 4: System deletes the report.*
Non functional requirements	*Time for database operations*
Postconditions	*Report is evaluated and removed from the database.*

4.3 Use case diagrams

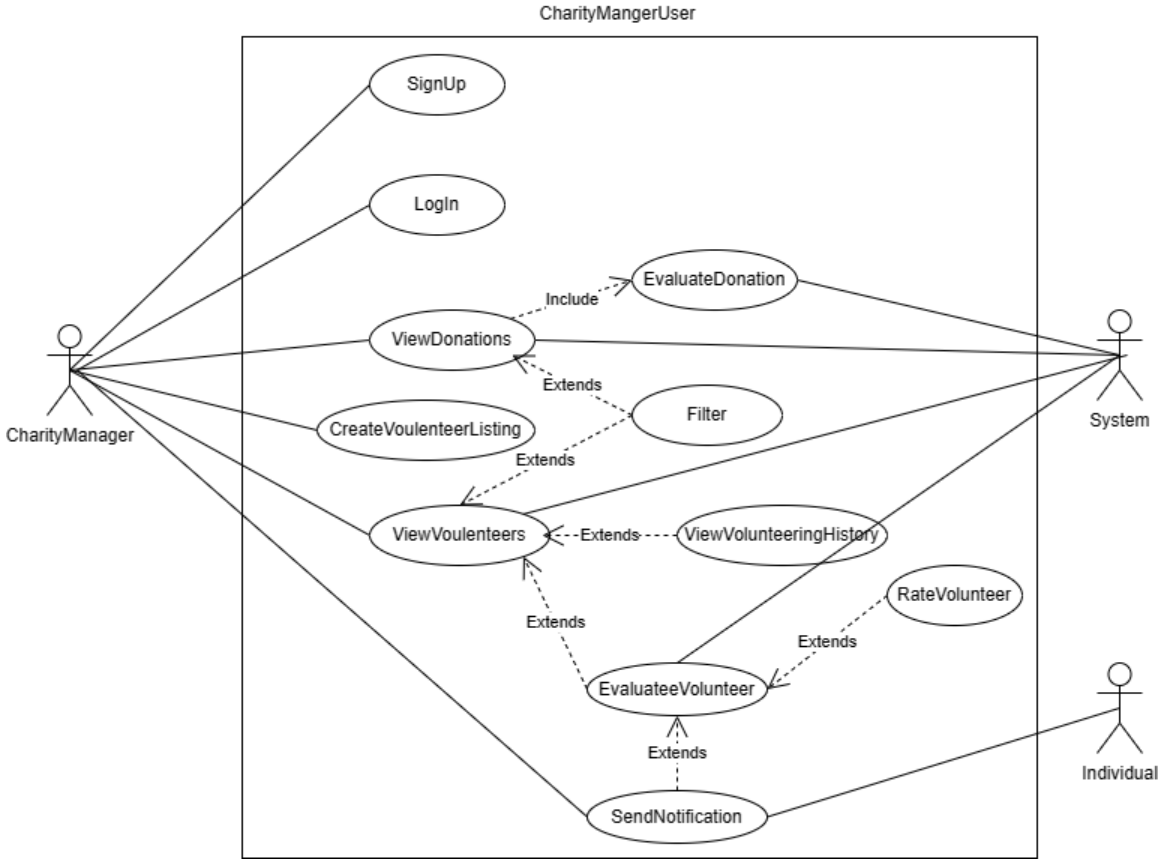
Individual user



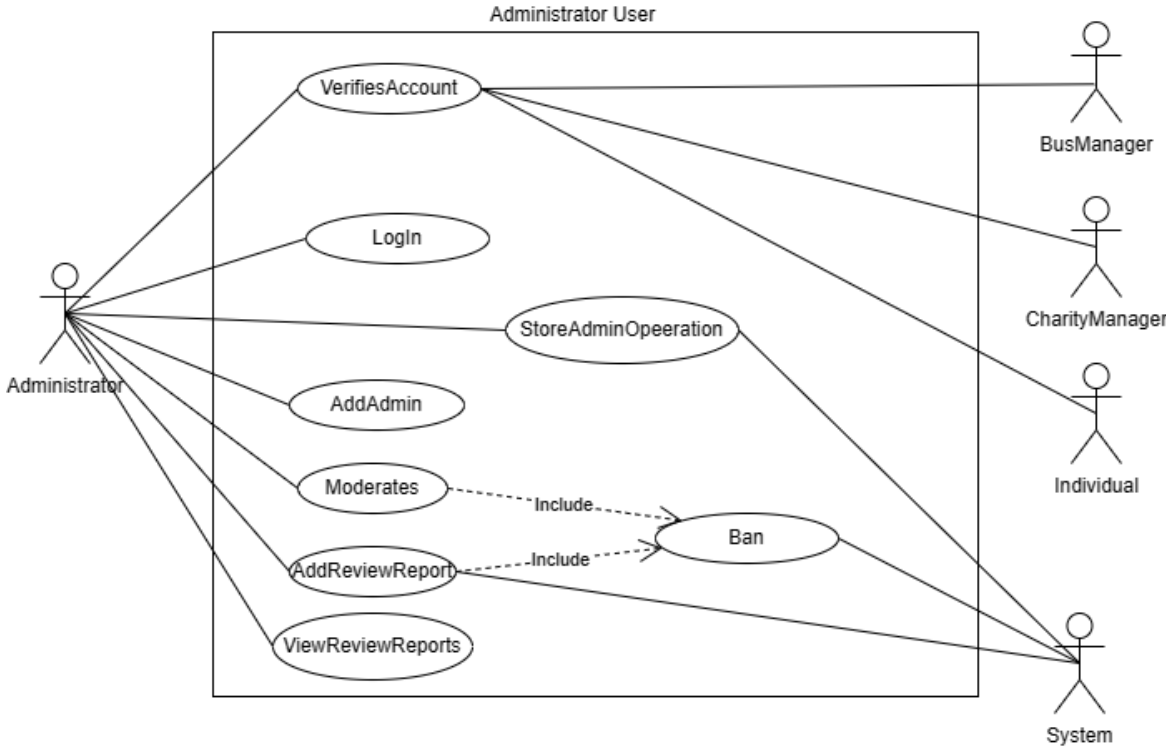
Business manager user



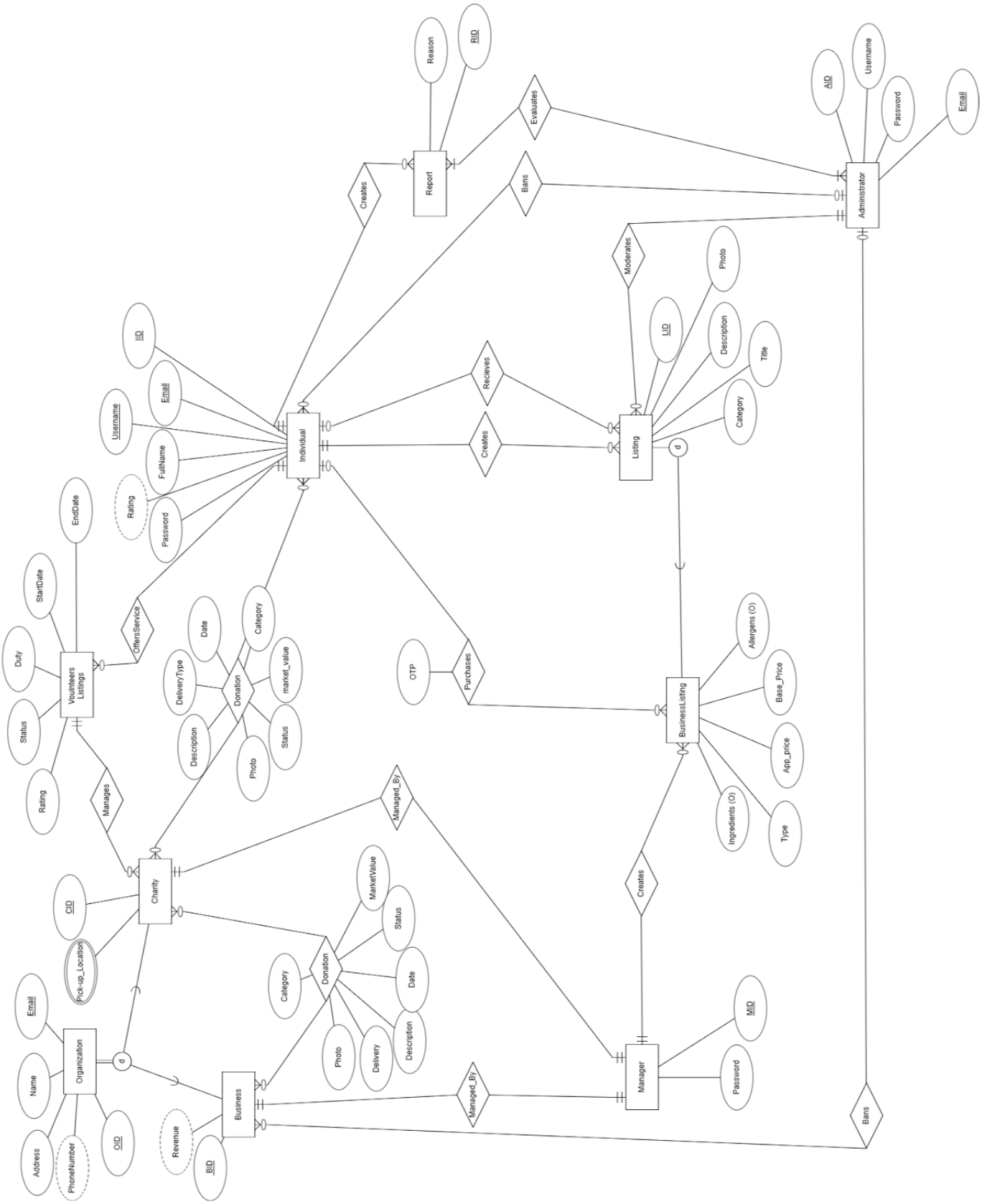
Charity manager user



Administrator user

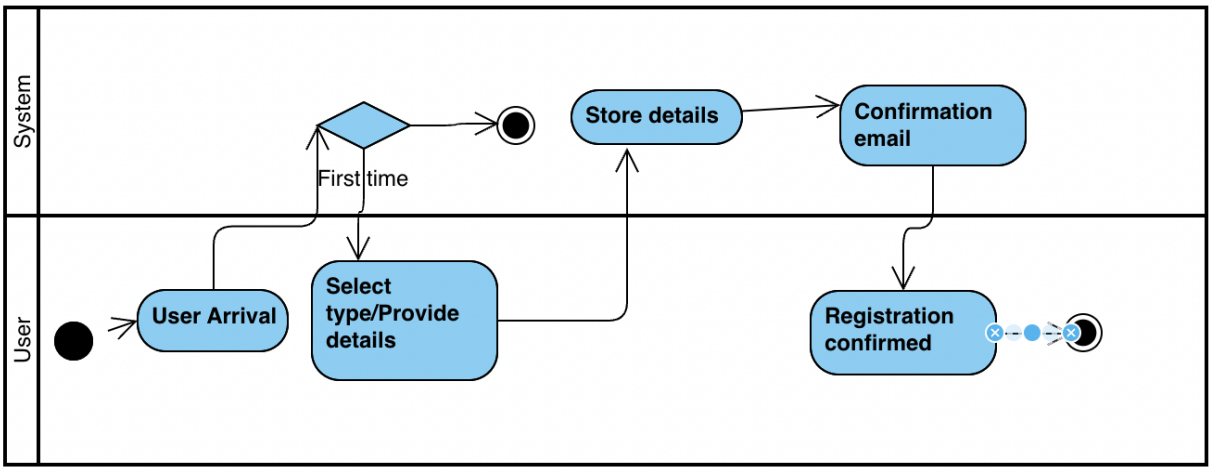


4.4 ERD diagram

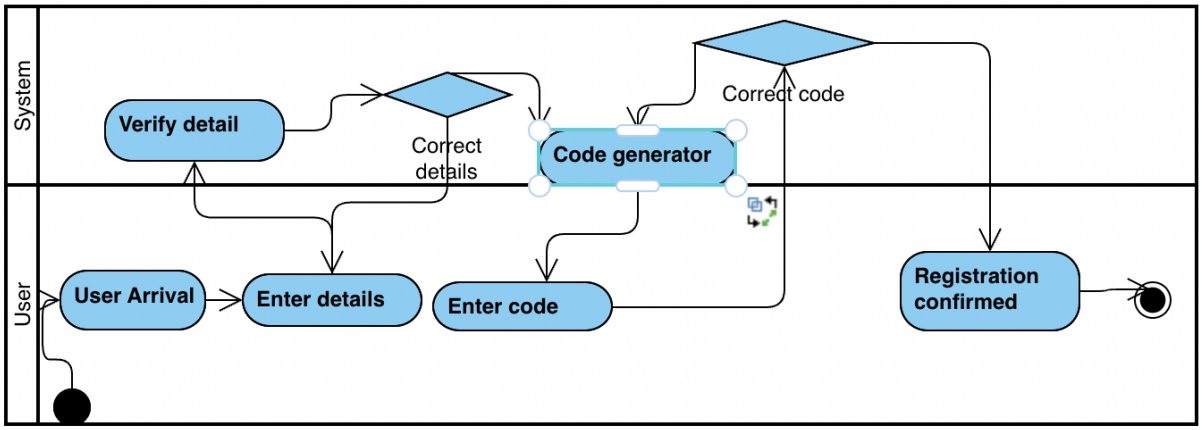


4.5 Activity diagrams

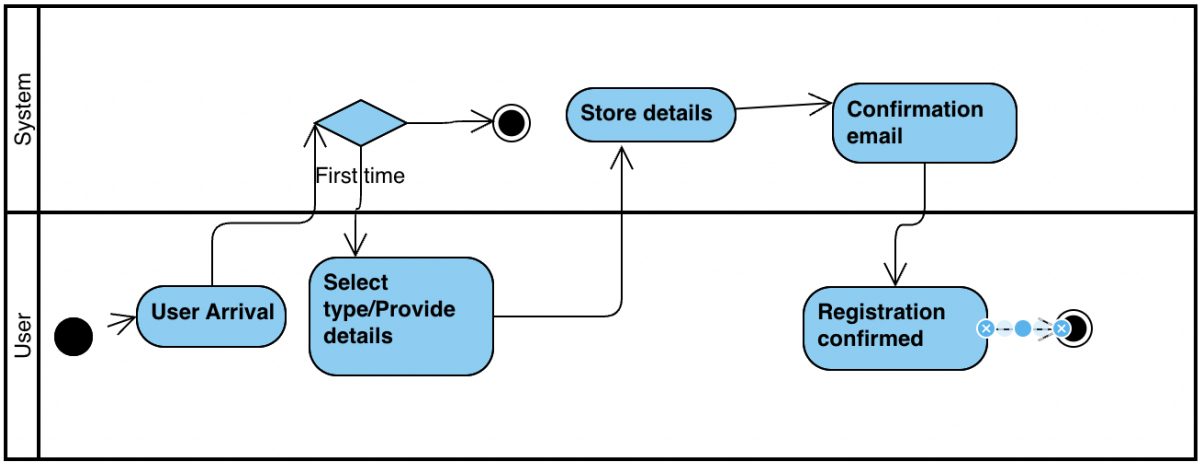
AC_01: User signs up



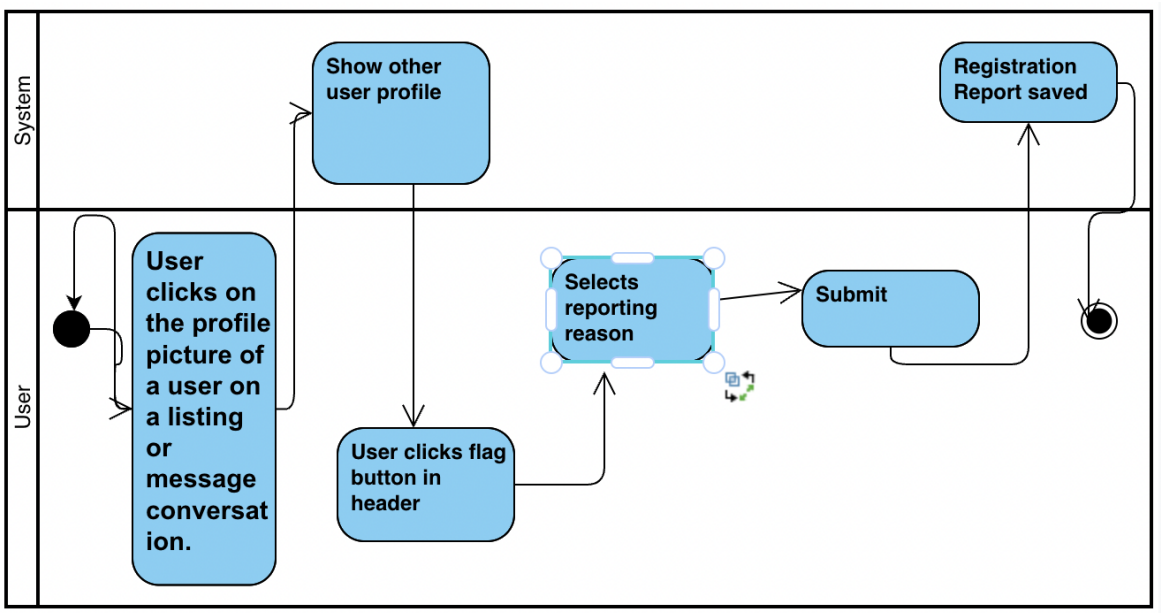
AC_02: User logs in



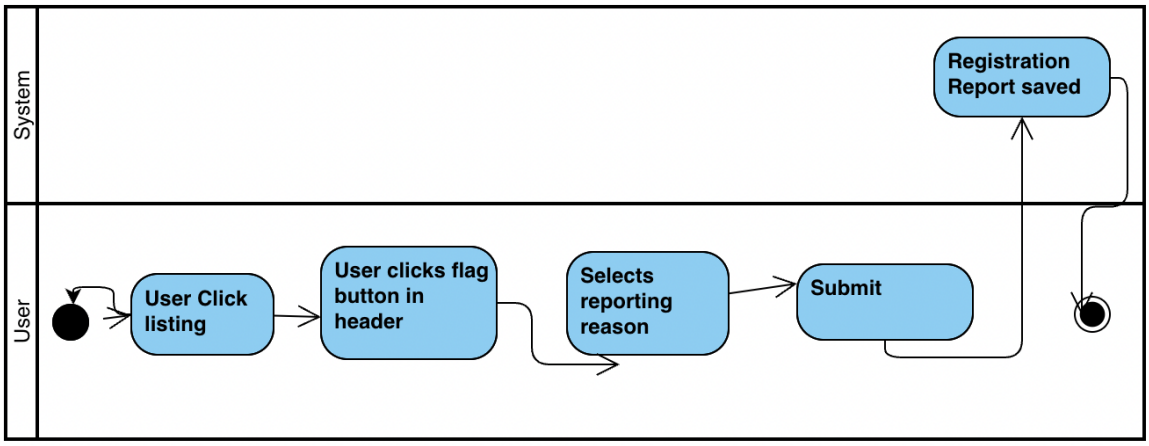
AC_03: Organization logs in



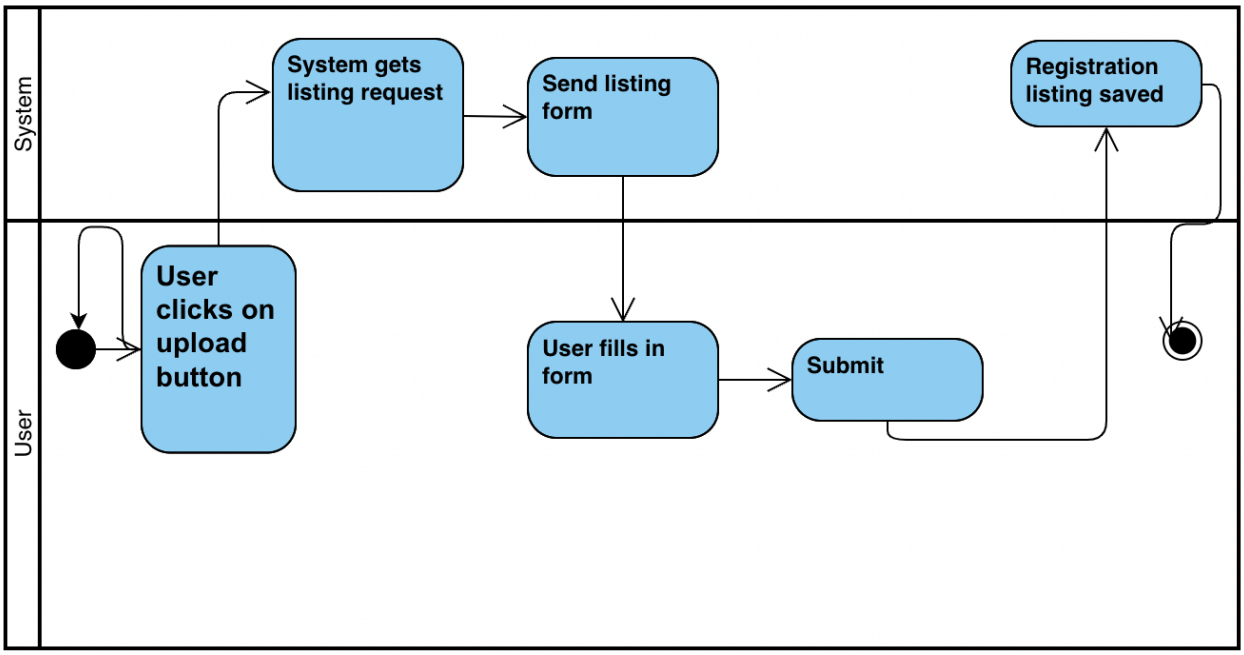
AC_04: Individual reports user



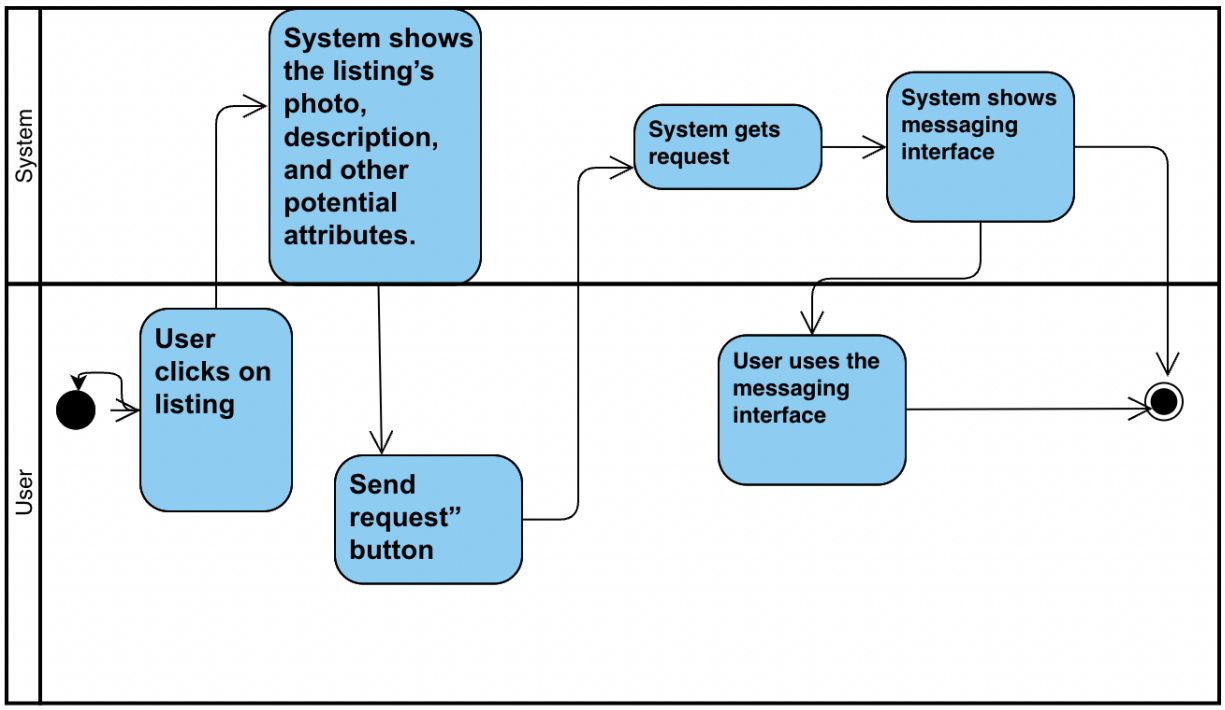
AC_05: Individual reports listing



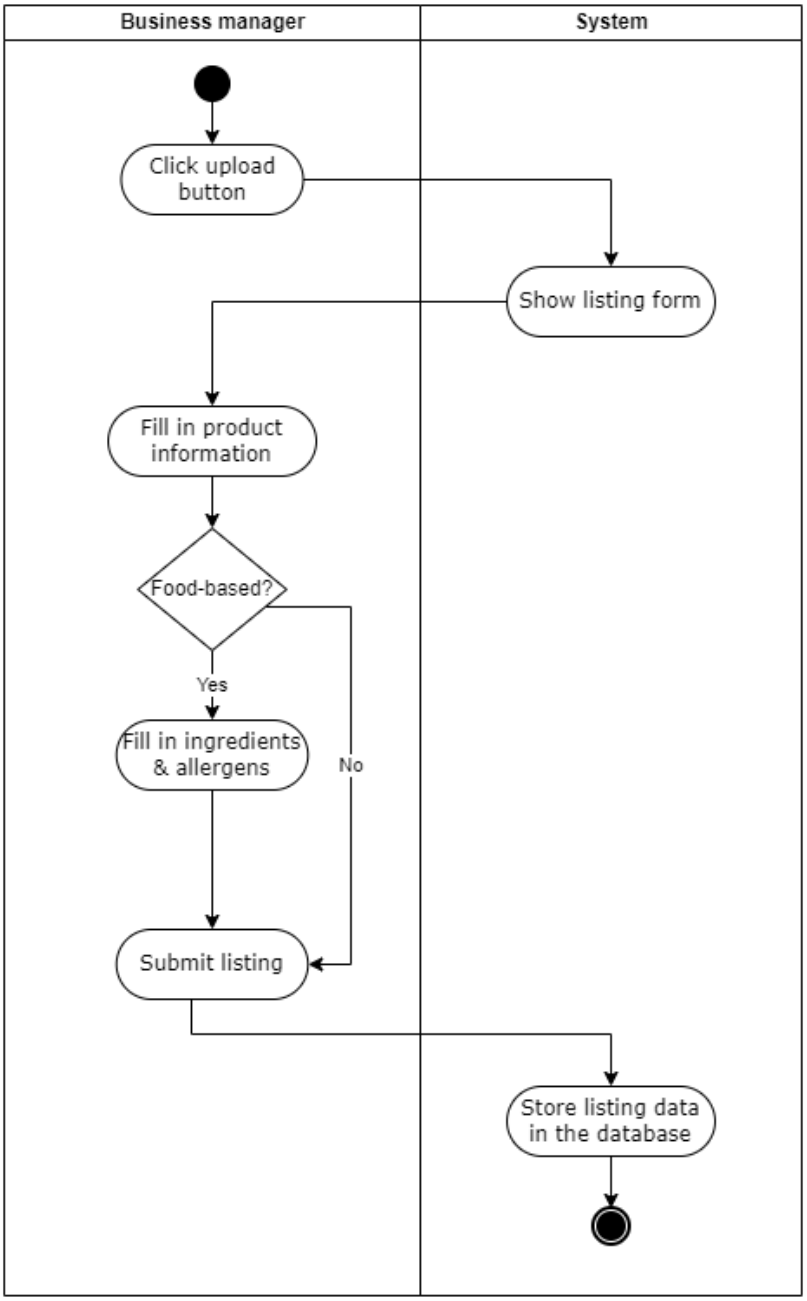
AC_06: Individual creates a listing



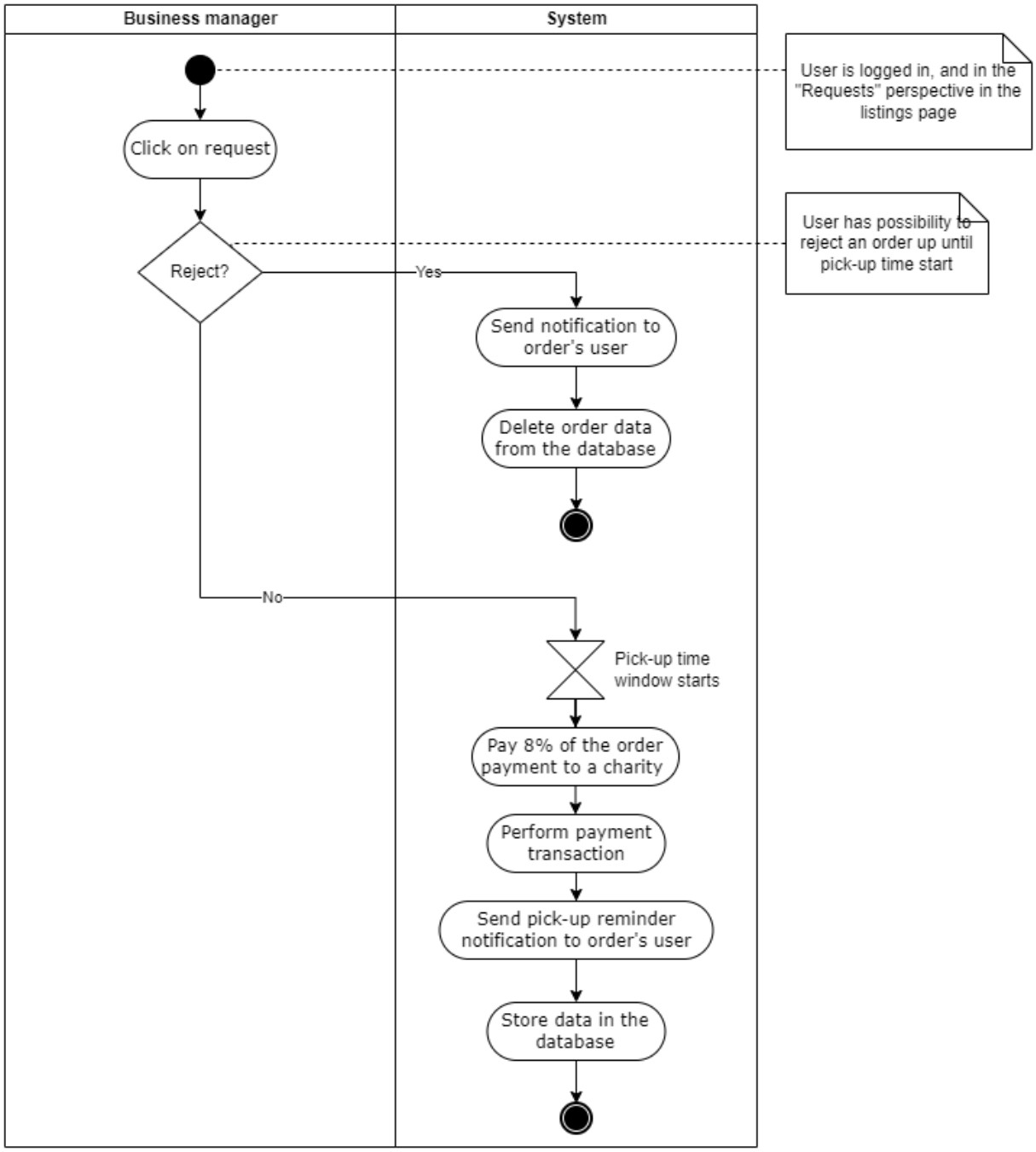
AC_07: Individual sends request to product listing



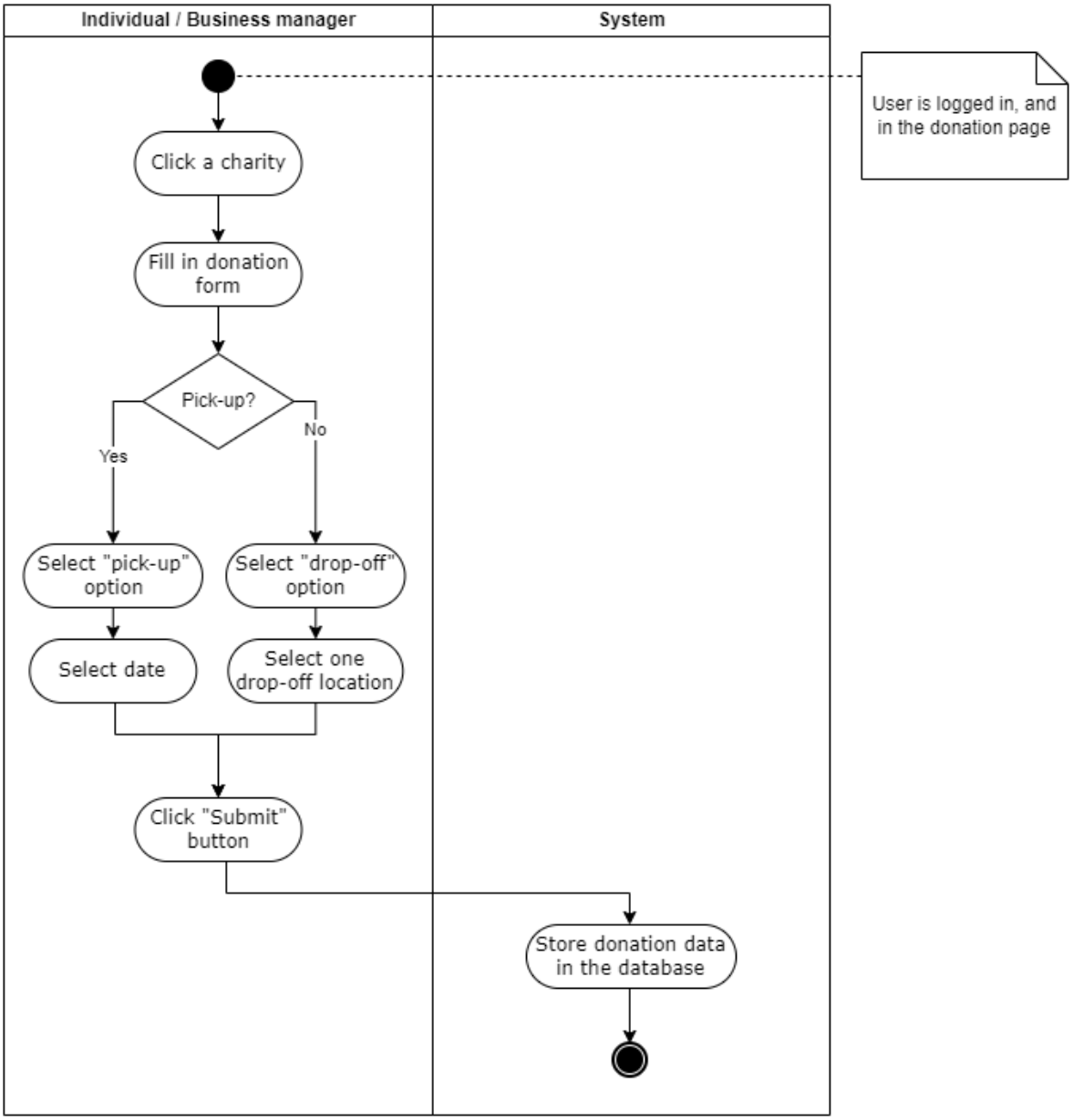
AC_08: Business manager creates a listing



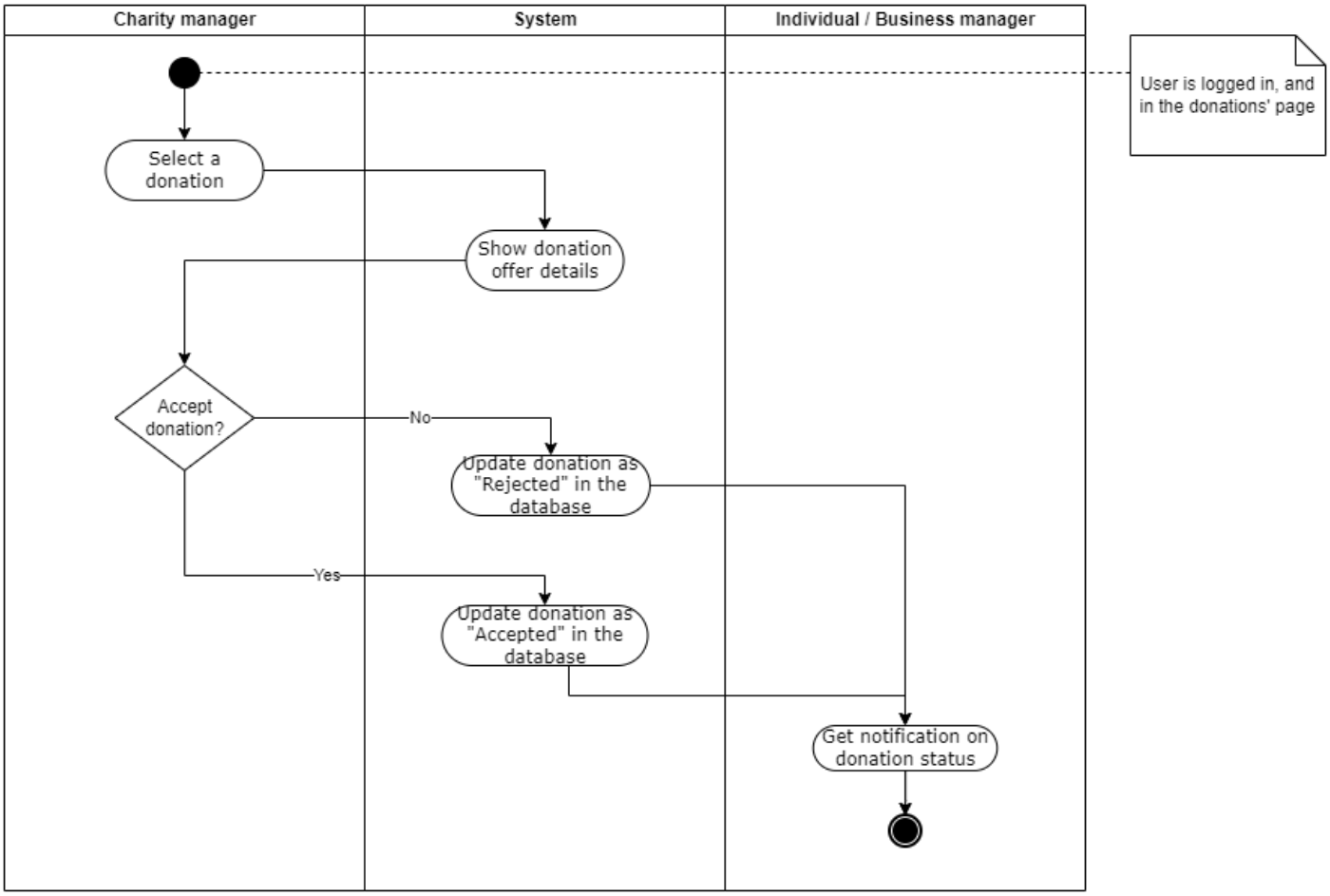
AC_09: Business manager evaluates order



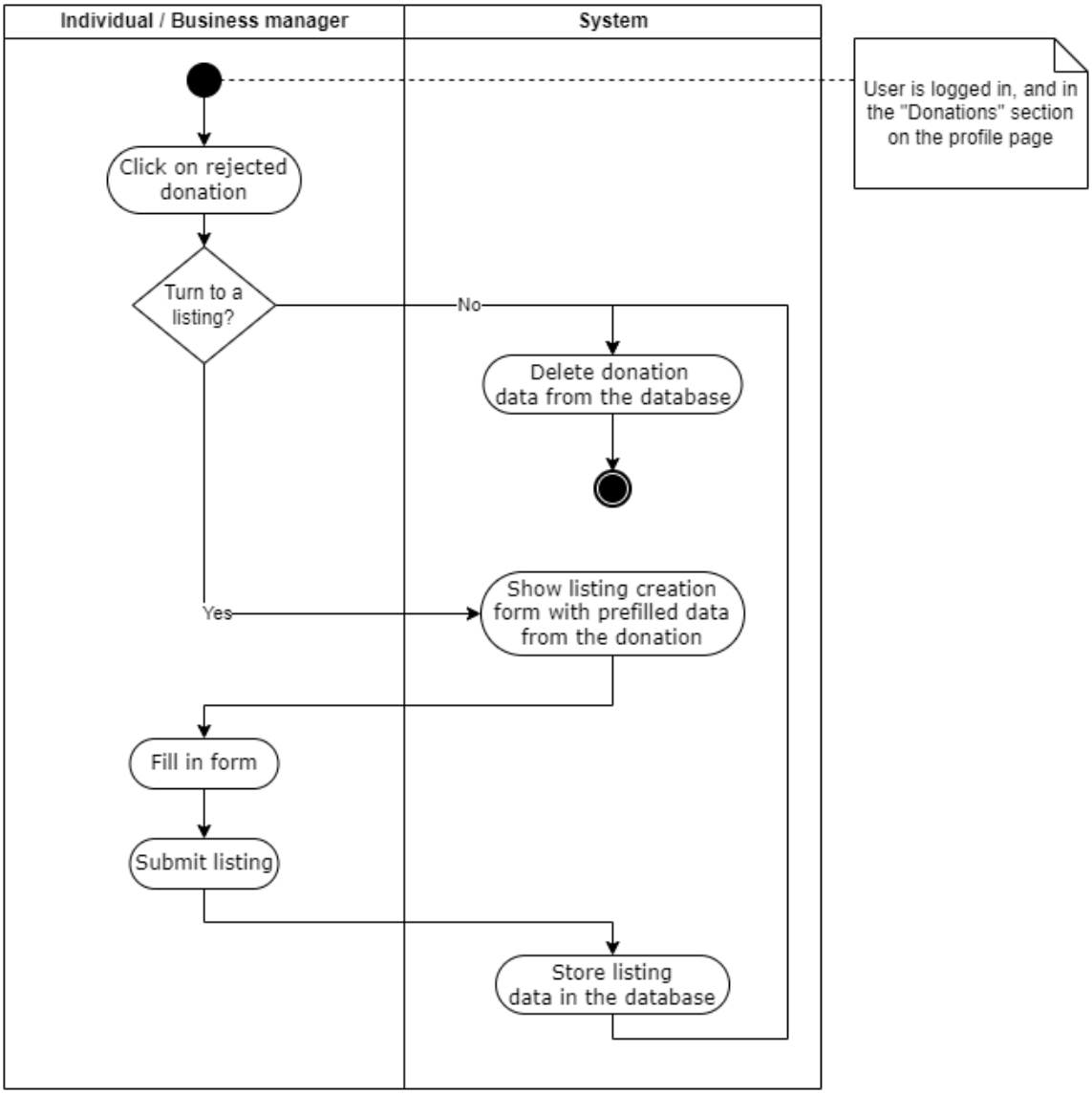
AC_10: User sends a donation offer to a charity



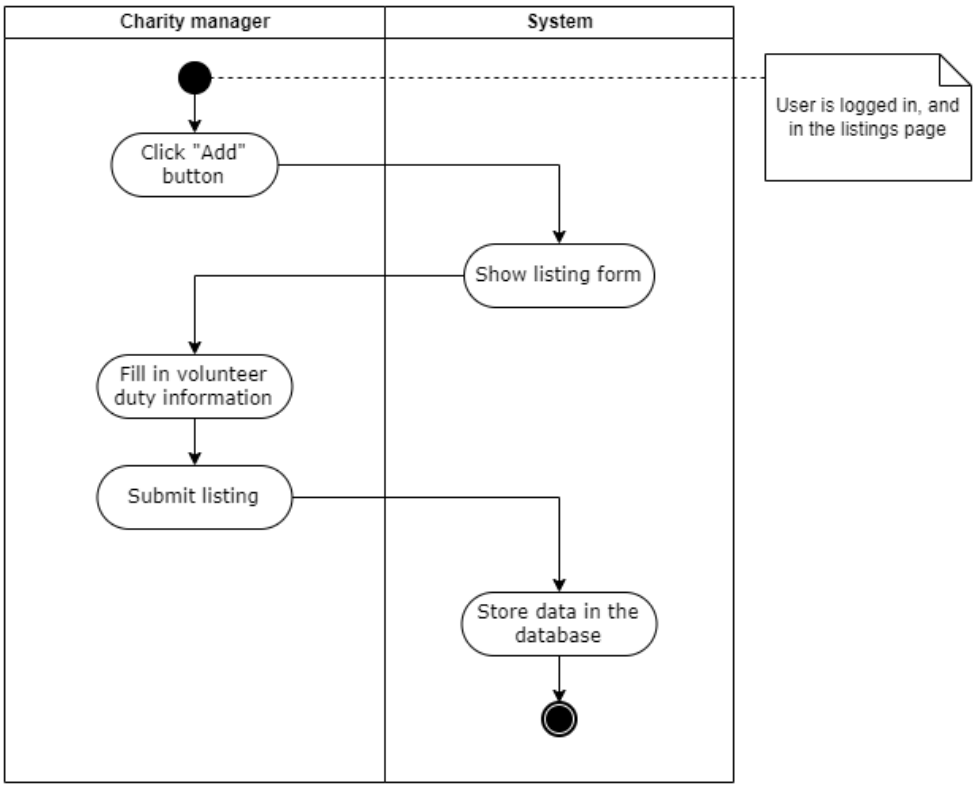
AC_11: Charity manager evaluates a donation offer



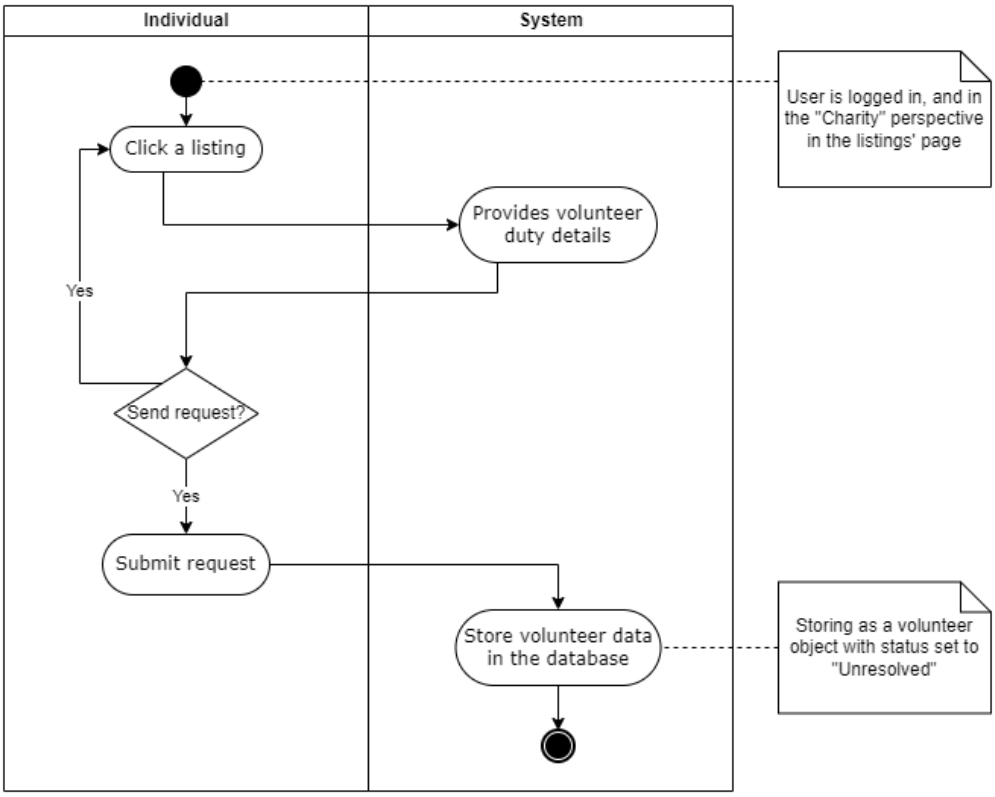
AC_12: User's donation offer is rejected



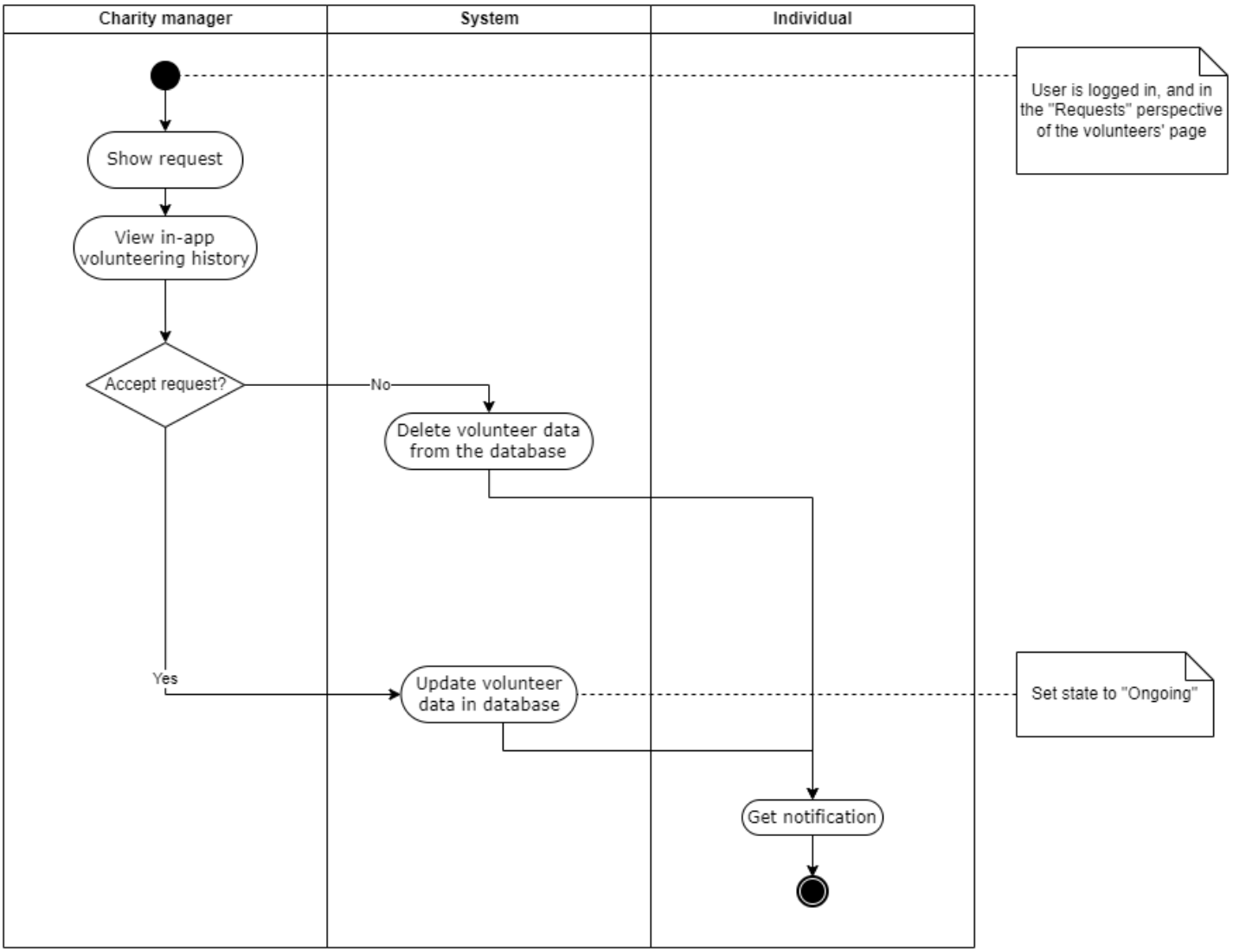
AC_13: Charity manager creates volunteer listing



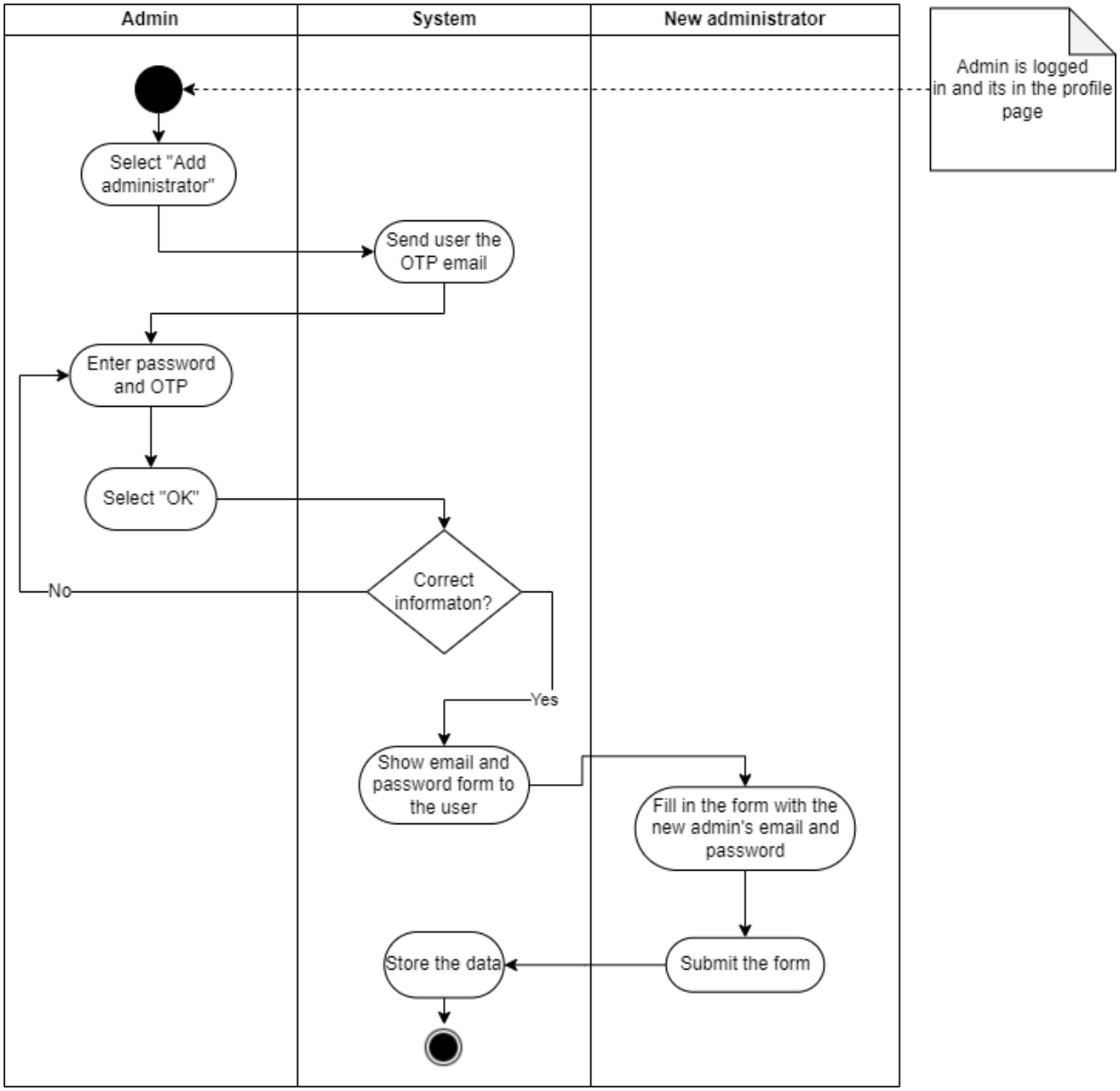
AC_14: Individual sends volunteer request



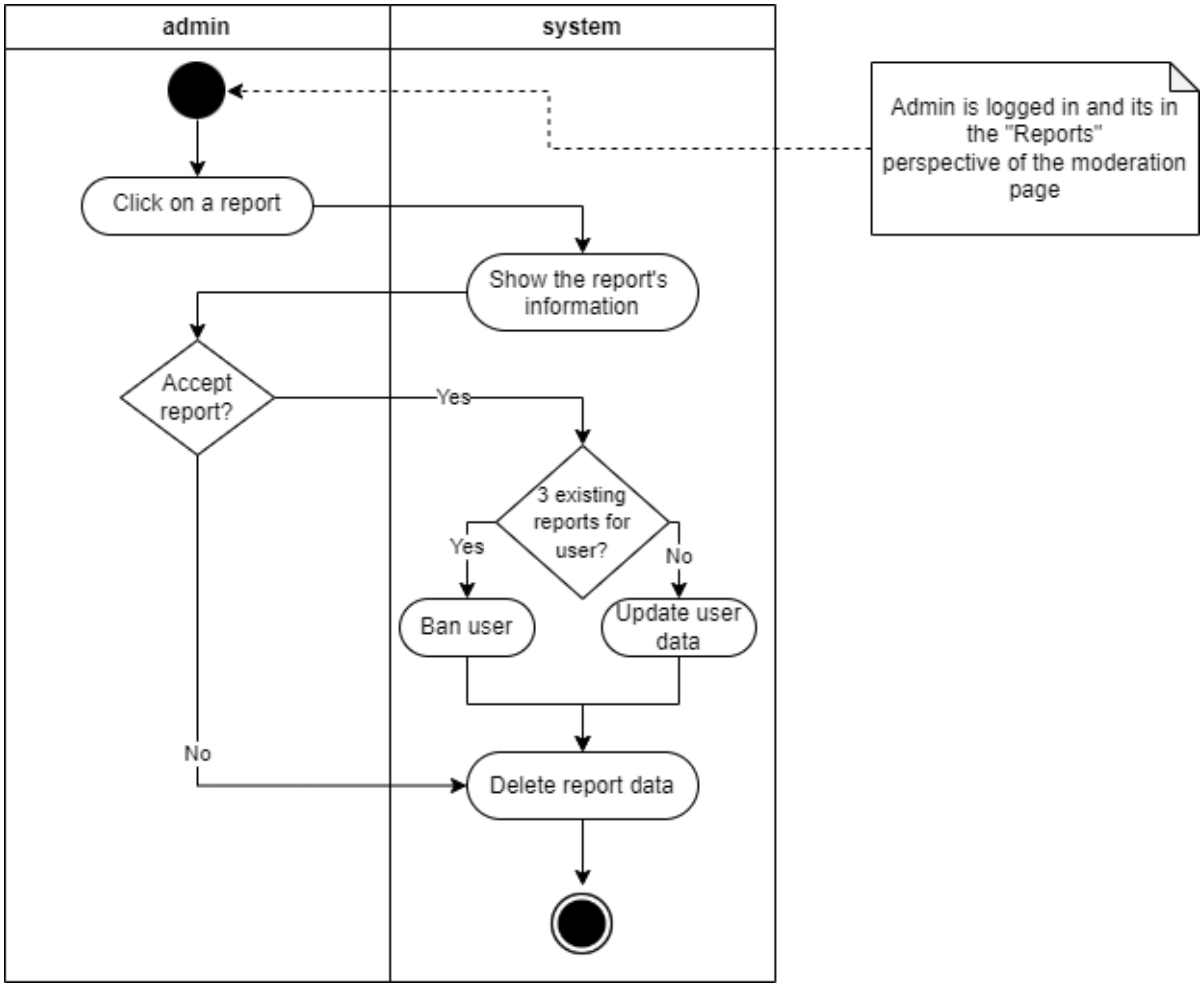
AC_15: Charity manager evaluates a volunteer request



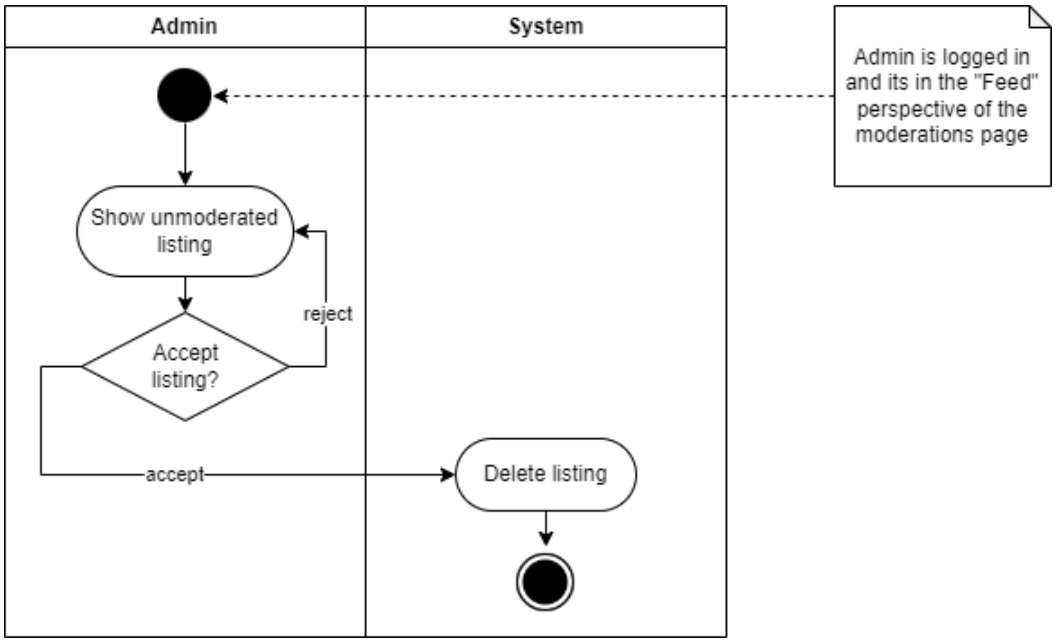
AC_16: Admin adds another admin



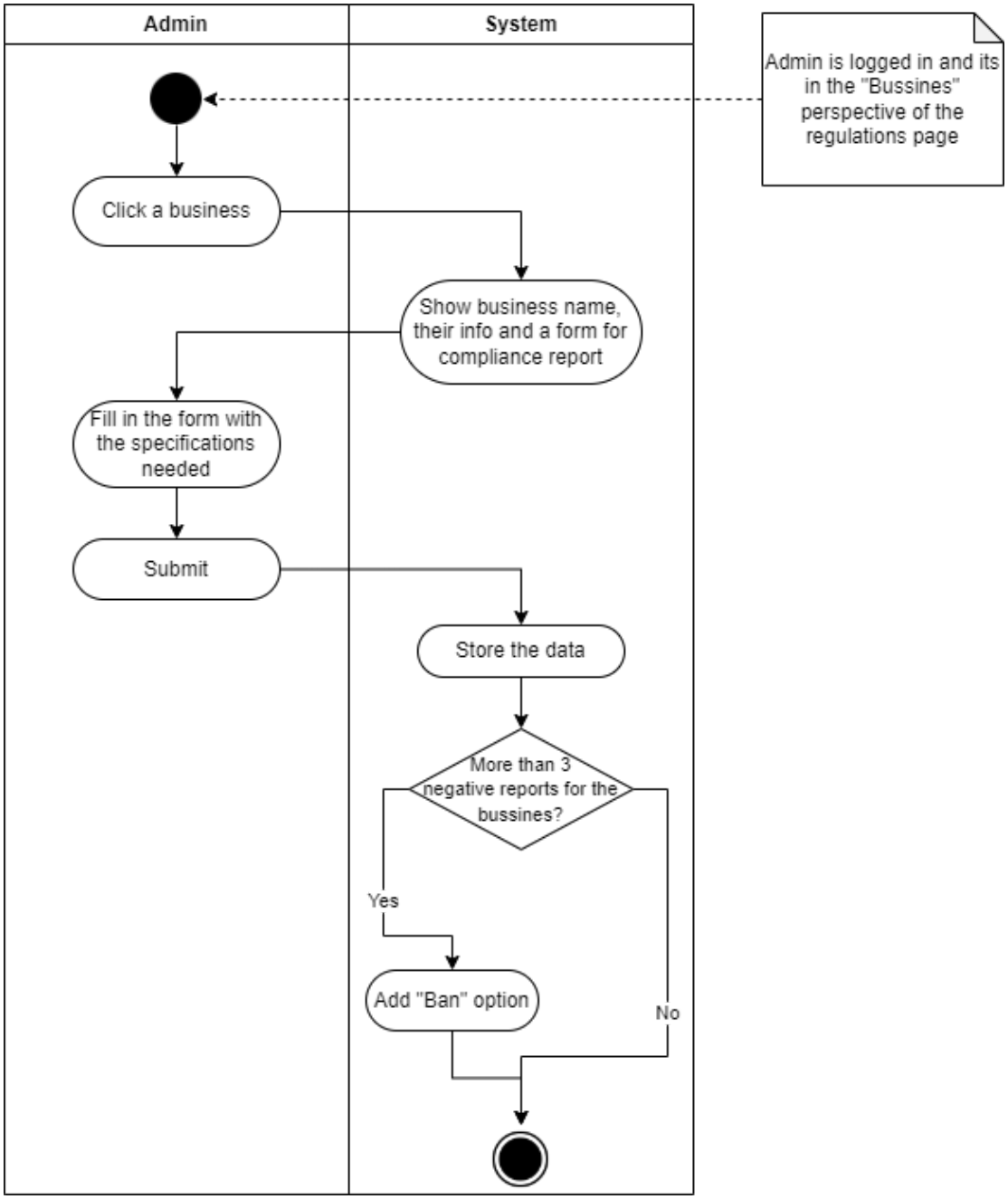
AC_17: Admin evaluates user report



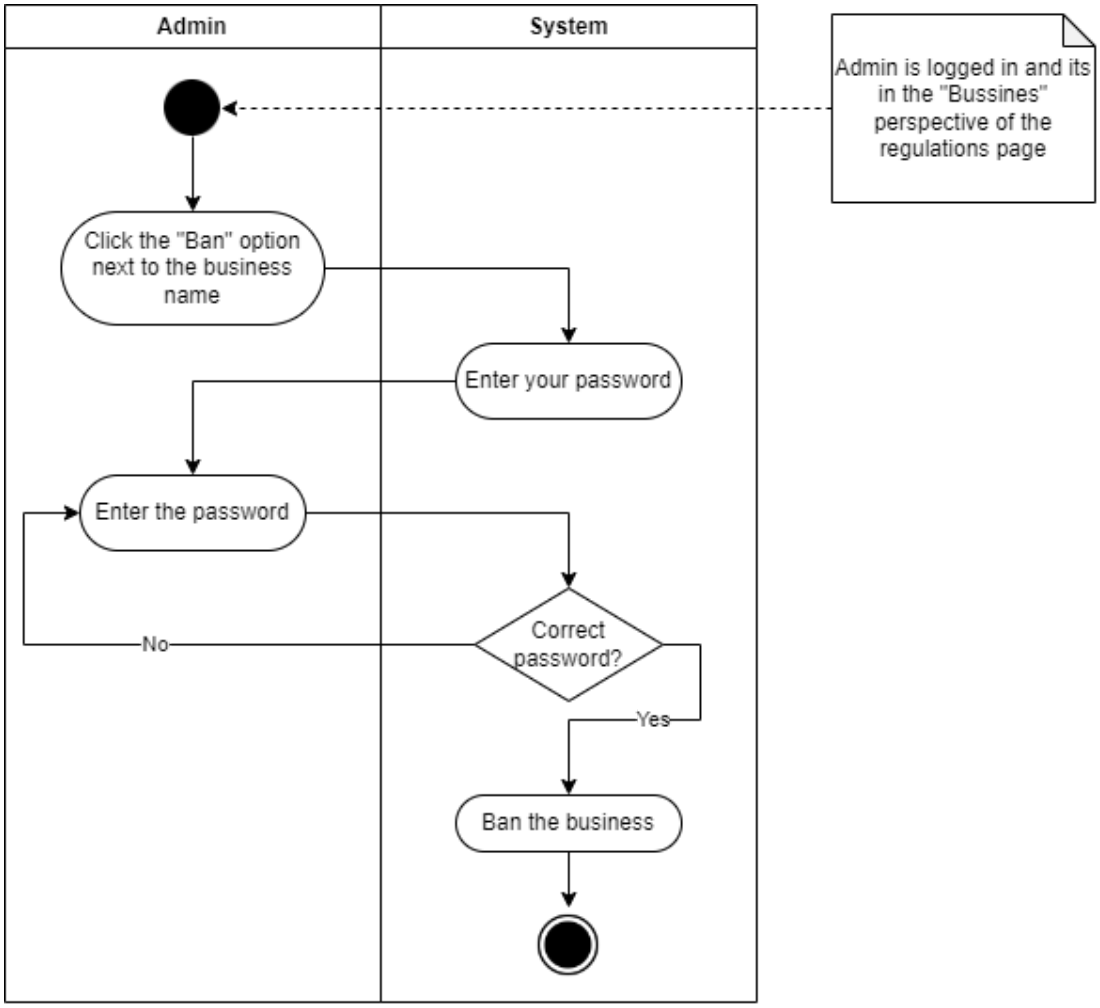
AC_18: Admin moderates listing



AC_19: Admin checks in a new compliance report

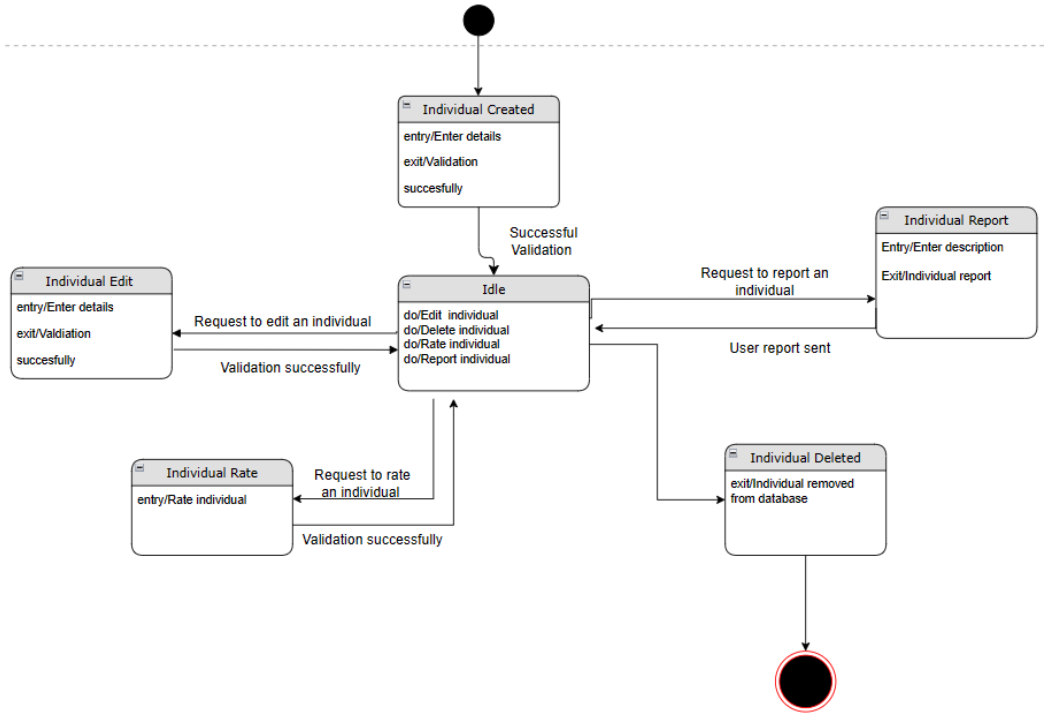


AC_20: Admin bans a business

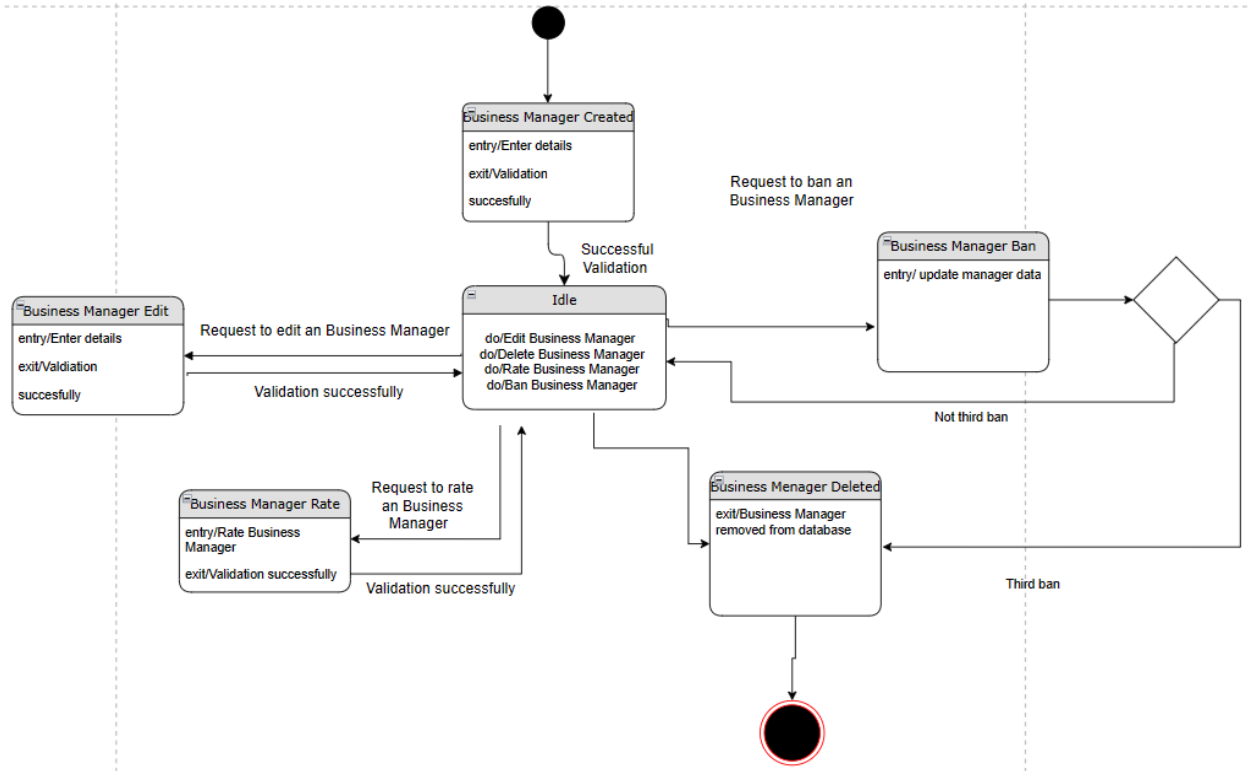


4.6 State diagrams

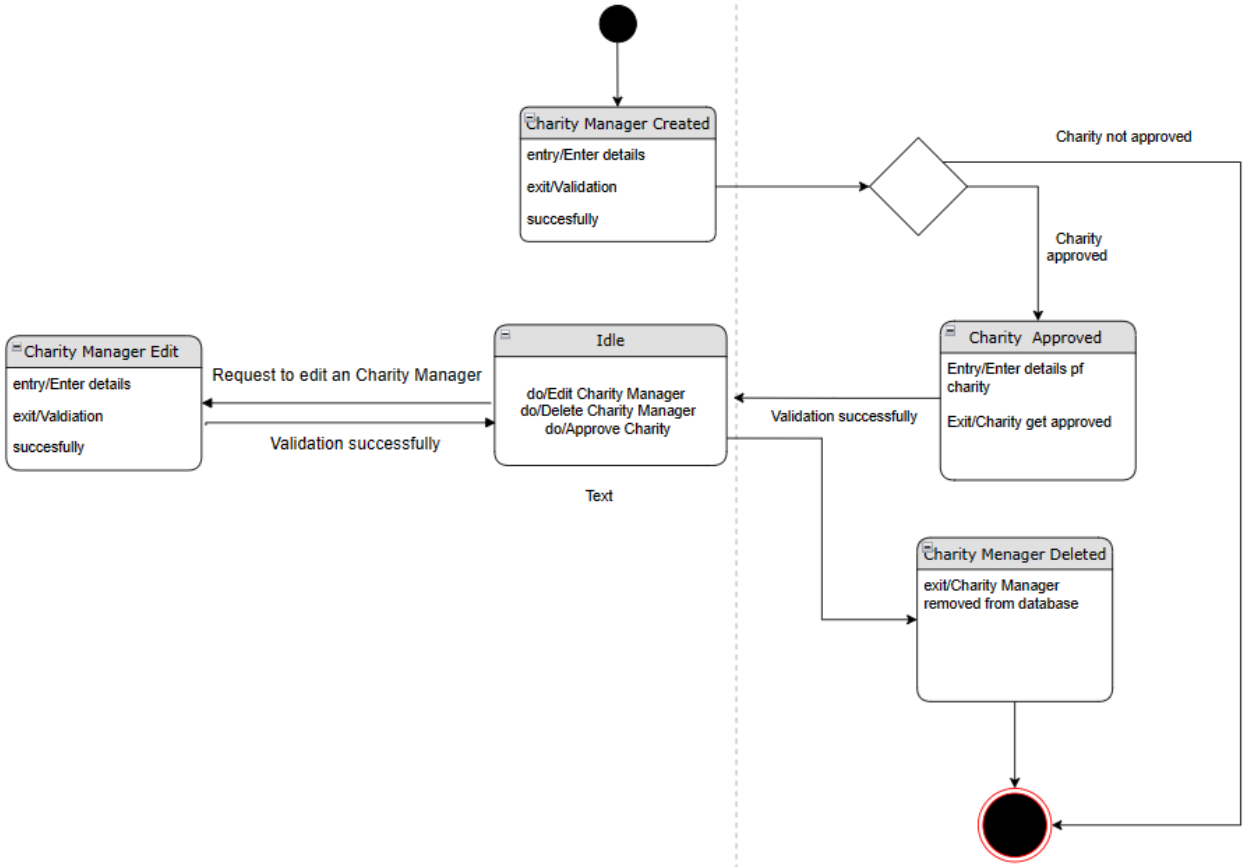
Individual state diagram



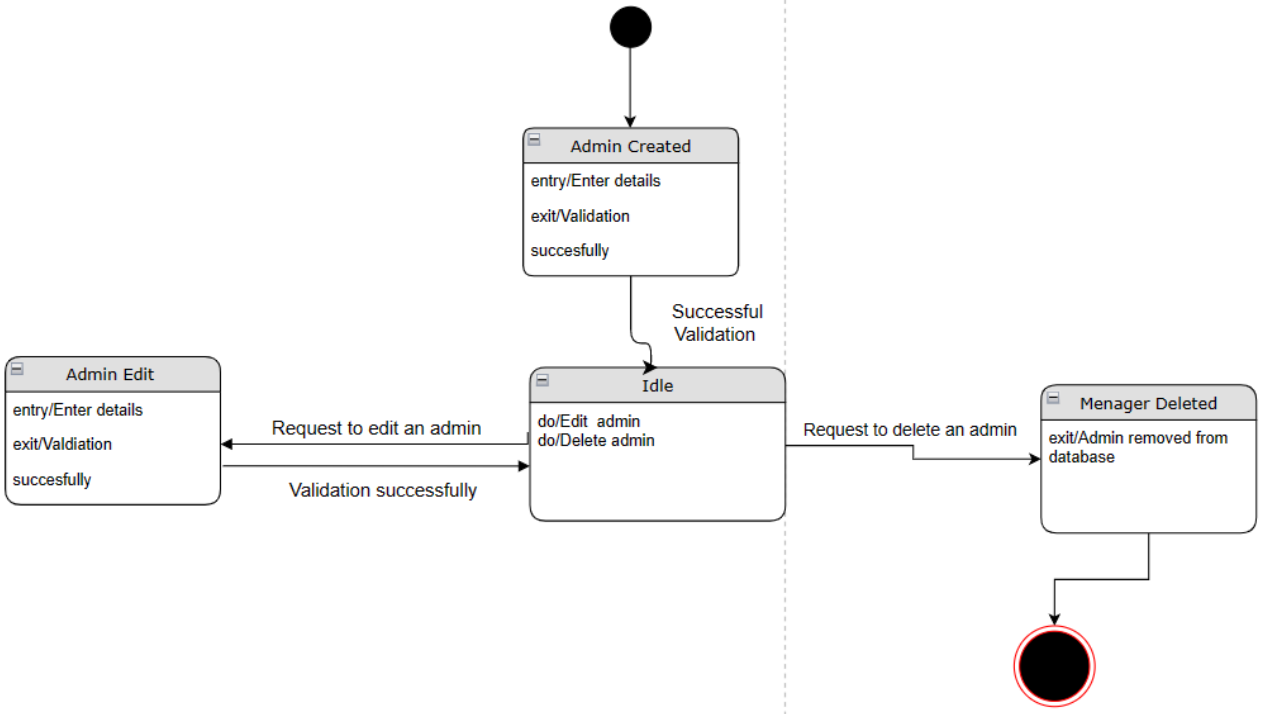
Business Manager state diagram



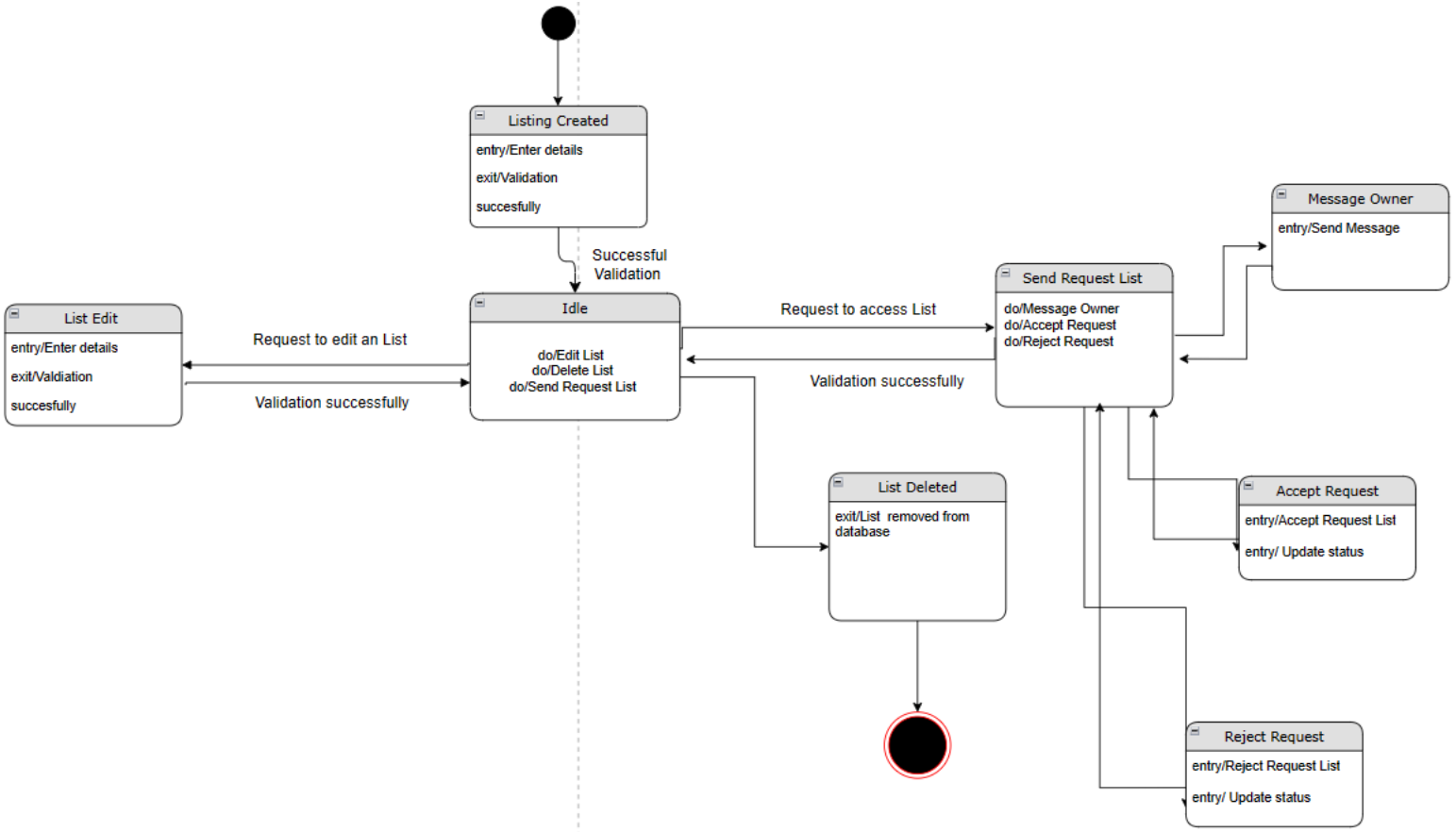
Charity Manager state diagram



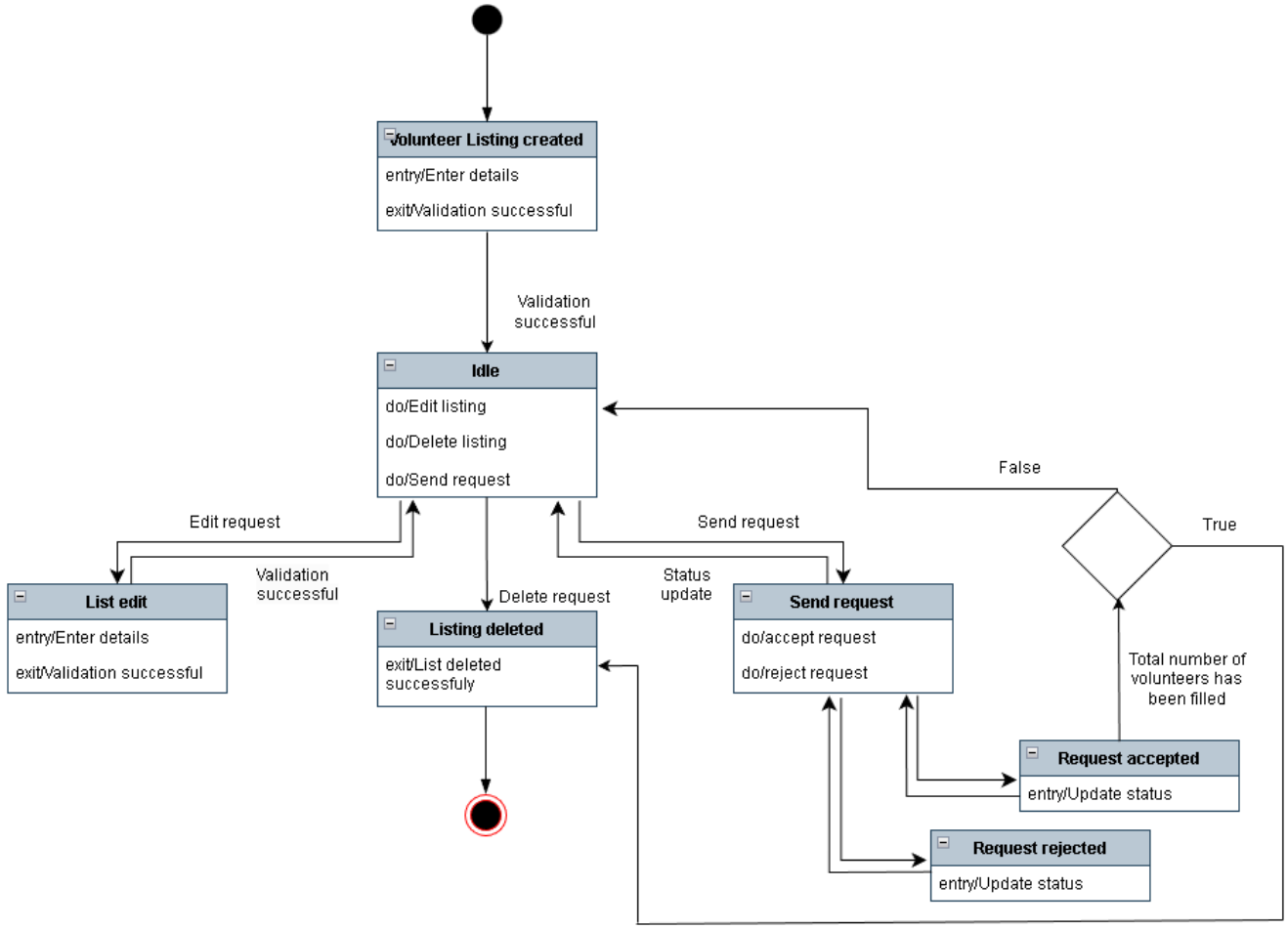
Admin state diagram



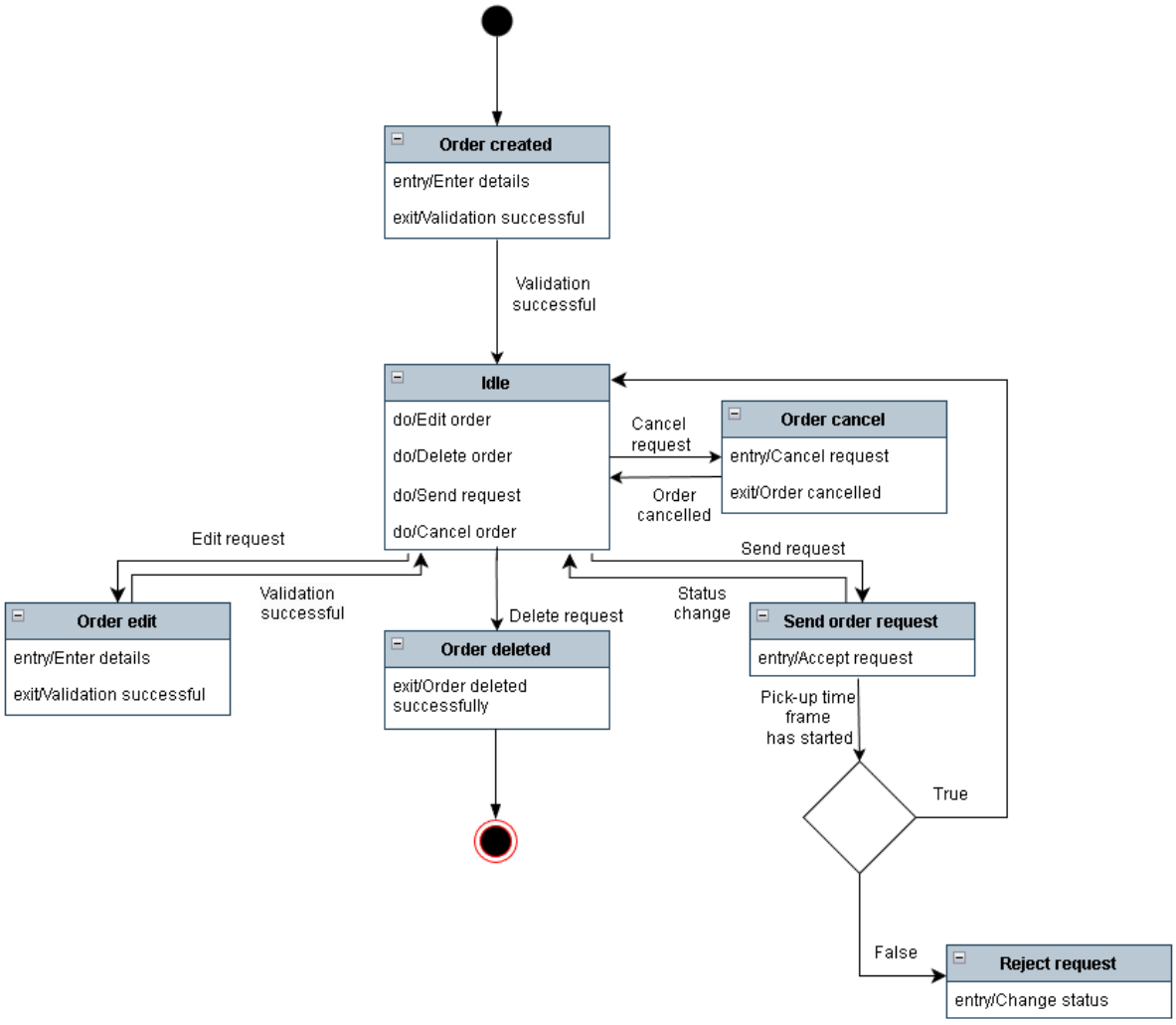
List state diagram



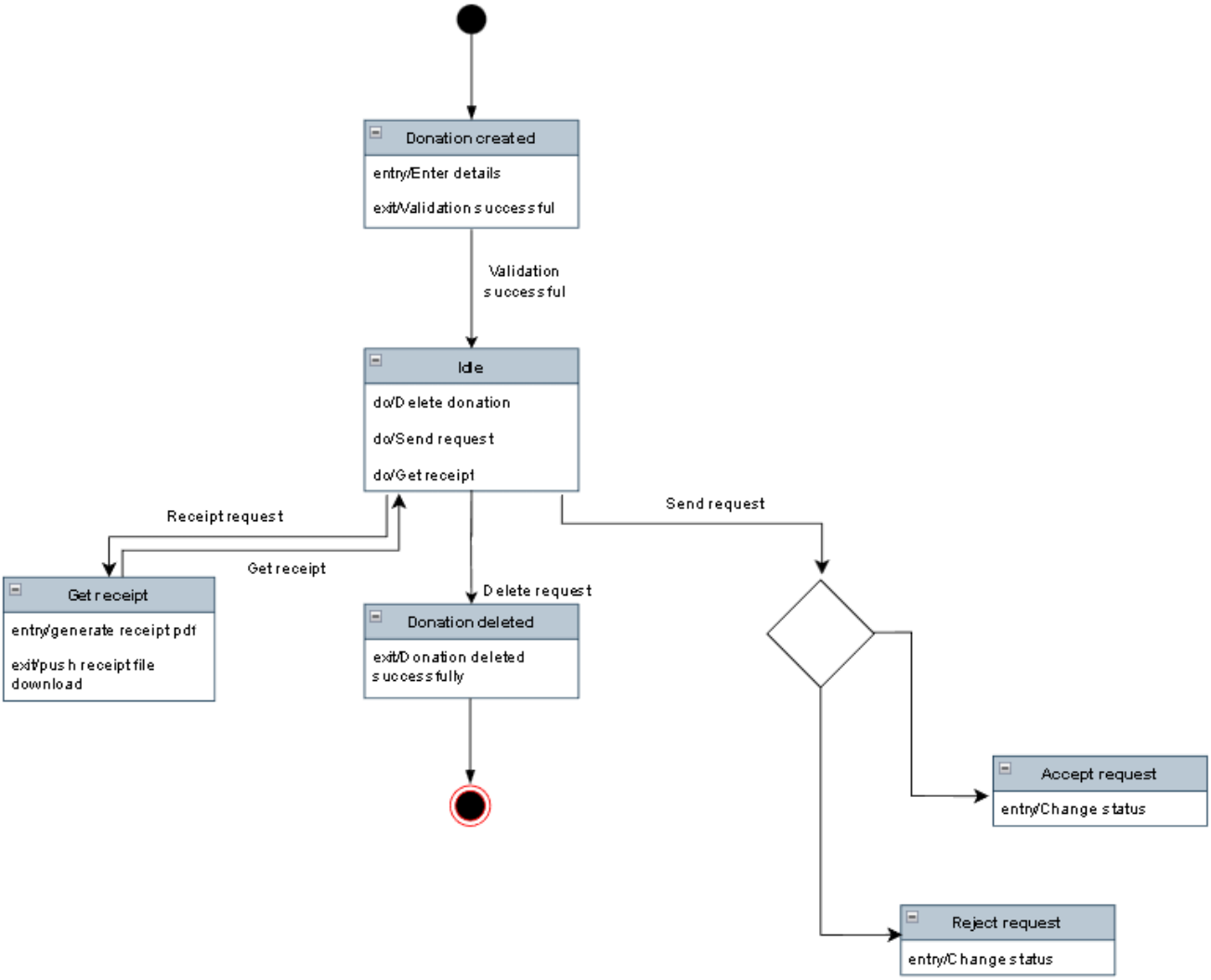
Volunteer listing state diagram



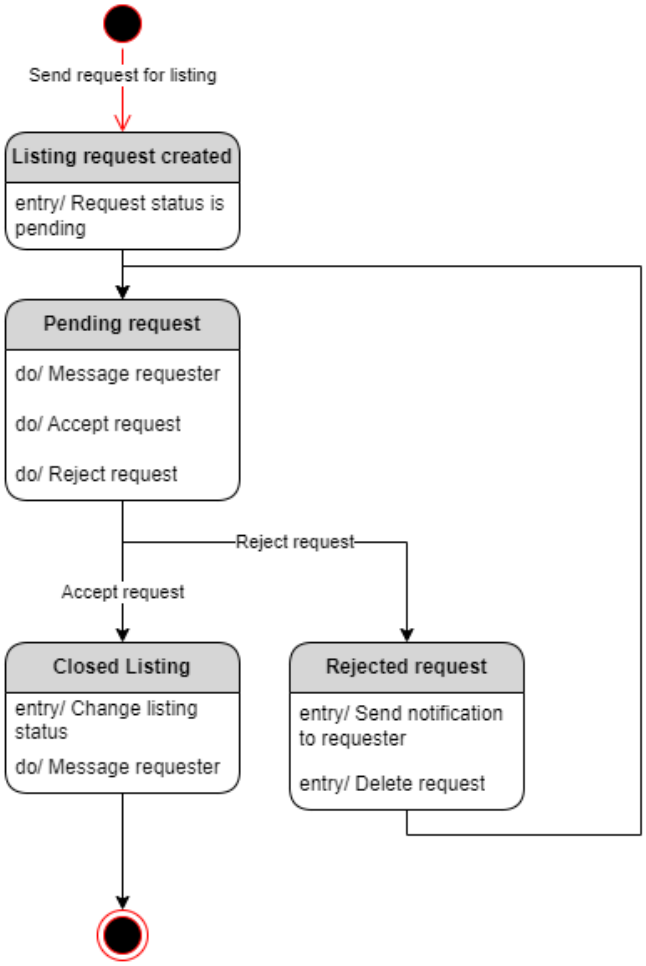
Order state diagram



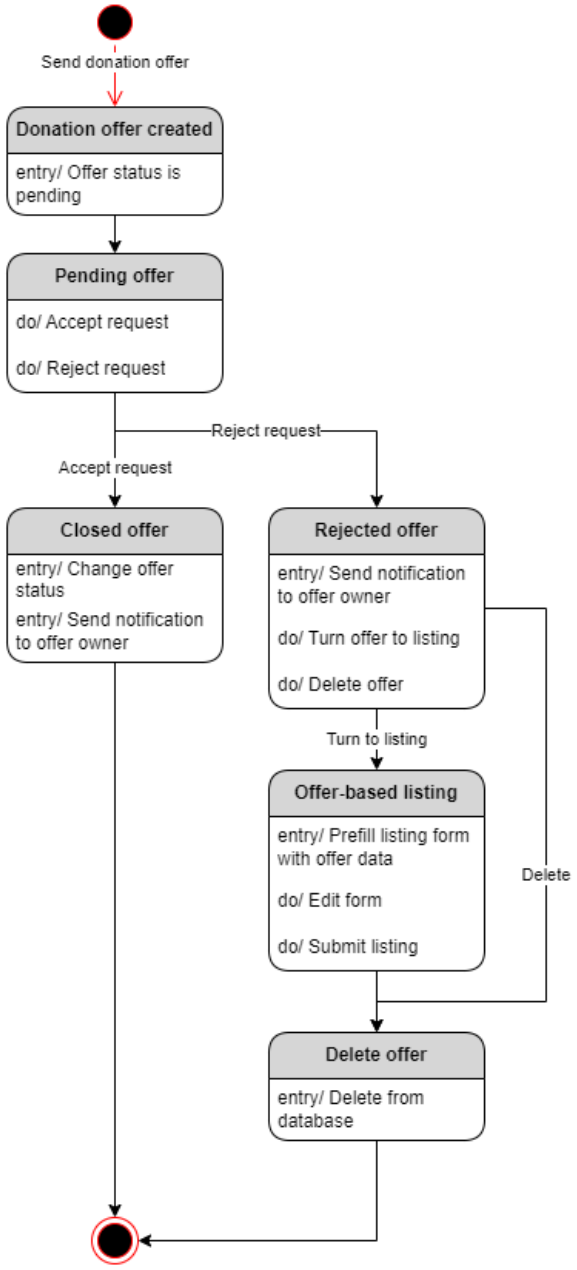
Donation state diagram



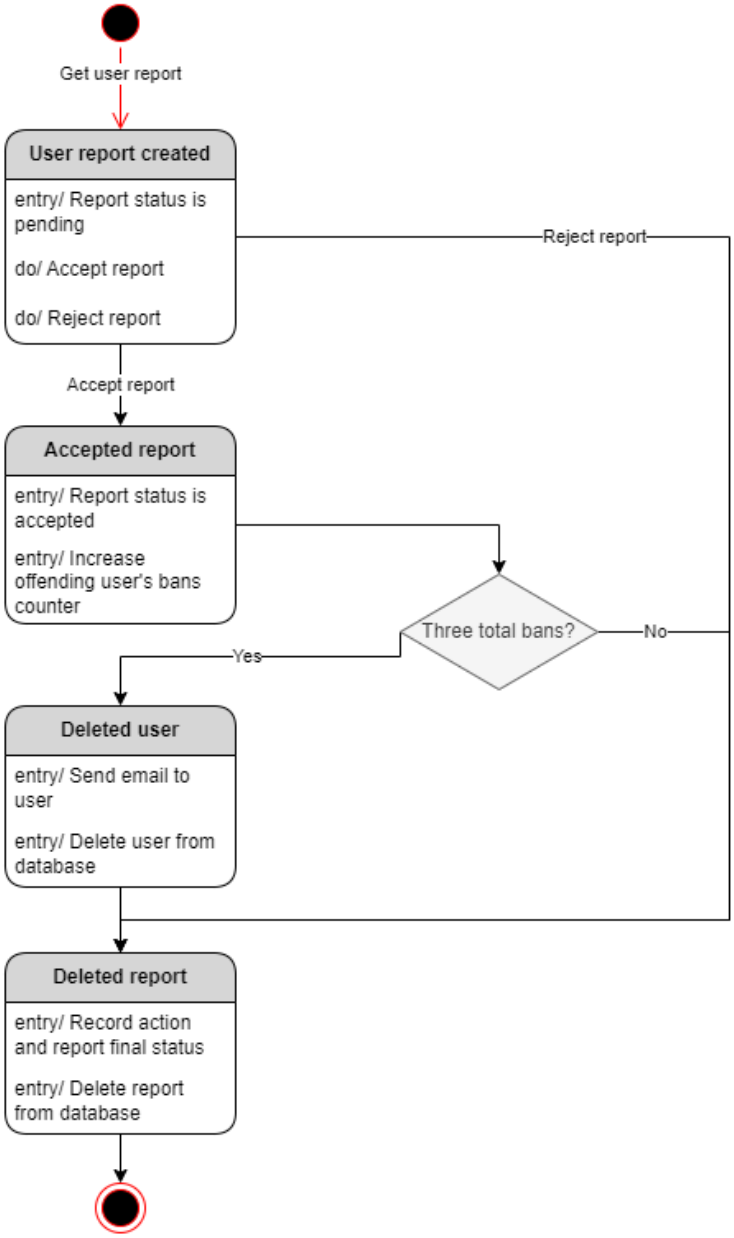
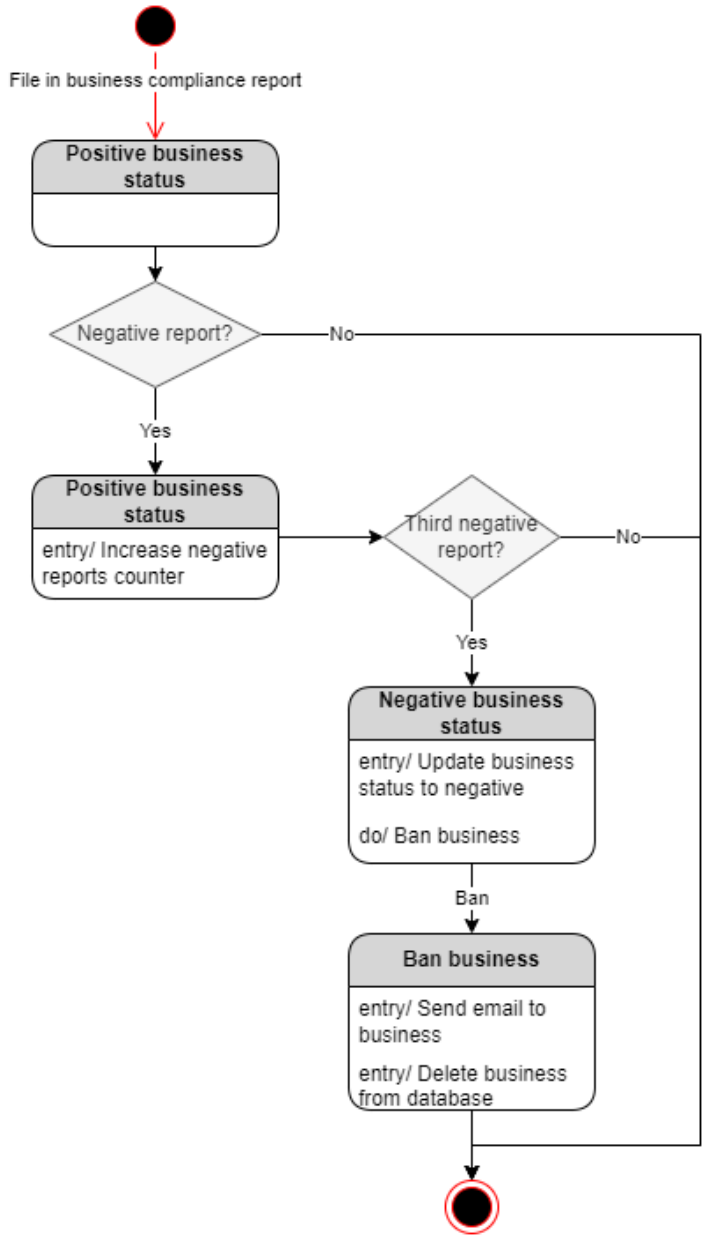
Listing request (expanded state diagram)



Donation offer (expanded state diagram)



User report (expanded state diagram)



Business compliance report (expanded state diagram)