DONATELK SOFTWARE REQUIREMENT SPECIFICATION

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1. Introduction

This section will provide an outline of this document; its purpose, scope acronyms and definitions used as well as a brief overview.

1.1. Purpose

The purpose of this document is to present a detailed description of the Donate.lk website and database management system. It will explain the purpose and features of the system based on its functional and non-functional requirements, the interfaces, the behavior, the constraints under which it must operate and its interactions with external applications. This document is intended for both the stakeholders and the developers of the system and will be proposed to the instructors for evaluation.

1.2. Scope

Donate.lk is a web-based market place which is designed to support consumer to consumer donations. Individuals who would like to donate (Donors) as well as those who are looking for donations (Recipients) can create donor and recipient accounts respectively. After verification from the administration those individuals can then send and receive items through Donate.lk warehouse without any compromise of privacy as explained below.

Donors and recipients can register as users to the system. A recipient must provide a short summary about himself/herself in addition to details about his/her job, salary and financial information. A recipient account is first initiated into a waiting state. An admin must review the recipient's account and verify that the short summery is true, before making the recipient account active. The details and summery of a recipient are only visible to an admin, while only the short summery is shown to a donor.

A donor can place information about his/her item in the system. A recipient can find items through a search feature and request up to five items. Multiple recipients can request one item. A donor can view all the items he/she has donated and the requests that have arrived to his/her items. By considering the summery of each recipient, the donor confirms one request out of many, per item. This marks the item as 'confirmed by donor'

Then the donor is given with a unique request ID, which can be used as a transaction ID. The donor can attach this ID and send the item to the administrator by mail. Then the admin marks his item's status as 'sent by donor'.

Items sent by donor are shown to the admin in admin's database. The admin then receives the item and marks it as 'received by admin'. Then he/she sends it to the recipient, marking the item as 'sent by admin'. The recipient can track the status of the item through recipient home page. When recipient receives the item, he/she marks it as 'received by recipient' and that ends a transaction.

This system ensures the privacy of information of both donors and recipients. The only communication is through their transaction ID, issued by the system anonymously.

Furthermore, the system can be used by the administration to view the status of all items in transit as well as the review, terminate or suspend all user accounts.

1.3. Definitions, Acronyms, and Abbreviations

Admin	The administration of Donate.lk usually refers to employees
Donor	Person who is willing to donate a specific item and has created a donor account.
Recipient	Person who is in need of donation and has created a recipient account. A recipient account can have one for following statuses 1. Awaiting approval by admin (W) 2. Active (A) 3. Reported by a donor (R)
Item	The object that is being donated by donor and received by recipient
IDE	Integrated development Environment
Request	A request is made by a recipient, asking for a specific item. Many recipients can request one item. The donor of the item will confirm one of these requests, deciding on whom to send the item. One recipient can request only up to 5 items at once.

Transaction	A Transaction is the process of sending an item by donor to a requester through the admin. Each transaction is given a unique transaction number (request ID)
Item status	The status of the item can be as follows, 1. Confirmed by donor 2. Sent by donor 3. Received by warehouse 4. Sent by warehouse 5. Received by recipient
Warehouse	The company facility which acts as an intermediary hub for items when going from donor to recipient.
UI	User Interface

1.4. References

1. IEEE Recommended Practice for Software Requirements Specifications," in *IEEE Std 830-1998* , vol., no., pp.1-40, Oct. 20 1998

2. http://www.cs.fsu.edu/~baker/swe1/restricted/templates/SRSTemplate.html - SRS template, Florida State university.

1.5. Overview

This Software requirement specification report includes details of the system that is going to be implemented from different perspectives. An overall description of the product is given in the next section and it goes on to explain the product perspective, its functions, characteristics, constraints, assumptions and dependencies in detail. In the section following, the requirements of the system are separately discussed as functional and nonfunctional (while also providing the UI requirements). In addition, it goes on to give a description on design constraints, assumptions taken and technologies used when analyzing and implementing the proposed system. The system architecture is also discussed using UML diagrams such as class, ER and sequence.

2. Overall Description

This section provides an outline of the system as a whole. The system is explained in terms of how it interacts with other systems and stakeholders in order to fulfil basic functionality. The stakeholders as well as the functionality associated to them is described along with the constraints and assumptions for the system.

2.1. Product perspective

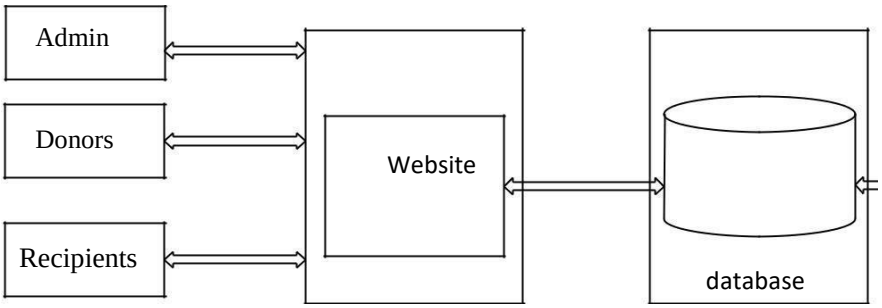


Figure 1

The Donate.lk is an online system which consists of a website and a database. The main users of this system are the Donors and Recipients (customers) as well as the admin who will access the system through the website.

As the entire system is data-centric, a database is used to store data. It is password protected to ensure safety. All the stakeholders will access the database through the website to enter and retrieve data. Unique transaction ids for each donation will be generated automatically. All of the database communication will go over the Internet.

The whole system and the components connected are shown in Figure1.

2.2. Product functions

The basic functions of this product are as follows,

- All stakeholders, Admin, Donors and Recipient shall have the ability to create respective accounts. For Recipient accounts to have access to donations their accounts should first be verified by the admin.
- Donors shall have the ability to advertise any item that they wish to donate after entering an item description so that all recipients with valid accounts are able to see the item through the built-in search function.

- Donors shall also have the ability to accept or reject incoming requests for their advertised items, after reading relevant recipient summery made by various recipients (and confirmed by admin).
- Donors can report a recipient account if they detect a suspicious activity. Such reports will be reviewed by the admins.
- Recipient shall have the ability to search and request for items that are advertised by donors after they have got their account verified. If they see an item that they are interested in and have not already requested more than 5 items they shall be able to request that.
- Admin of Donate.lk shall be able to review and accept recipient accounts. They shall also have the ability to review and suspend any recipient accounts if they were reported by a donor. Admin should be able to update status of items in transit so that both Donors and recipients can see.
- The system shall update the status of all the items in the database so that all relevant parties are updated instantly. These functions are described thoroughly in section 3 using use-case logic.

2.3. User characteristics

As shown in Figure-1, the system will be used by three types of users; Donors, Recipients and the admin. In addition, developers and senior management can be given special access.
The system will make it easier for employees as they only have to rely on this single integrated system to update and obtain all the information they require to send and receive items to the correct destination. The job of senior management and account review staff shall also be made easier as this system provides all the information they require about customers and their items (advertised, delivered and in transit).

The other main user of the system, the customers shall use the system to track their own donations or requested items.

2.4. Constraints

2.4.1. Time limitation

This system is supposed to be developed and deployed within one month. Since the all the members of the project were new to web-development and related software languages & platforms, time limitation was a major issue for the development phase.

2.4.2. Limited human resource

The development team was limited to five members. Therefore, the knowledge, capacity and technical know-how was limited to a certain extent.

2.4.3. No financial support

No financial support is provided in implementing this system which forced the developers to use only open source developing tools which limits certain functionalities which would otherwise benefit the system.

2.4.4. Issues in testing

Big data simulation was required for the final validity testing of this software and the developers lacked the financial support required to perform such testing.

2.5. Assumptions and Dependencies

2.5.1. Basic user capabilities

It was assumed that the public and the staff possess the basic knowledge required to operate such a web-based system.

2.5.2. No change in administration

Since the requirements are set by Administration we assumed that the administration would not change during the development period as it could lead to changes in core requirements and functionality.

3. Specific Requirements

This section describes the requirements of the system. It gives a detailed description of the system and all its features.

3.1. Functional requirements

This section describes the functional requirements of the system using use-case scenarios. They are categorized by the users/actors.

3.1.1.Trivial/simple requirements

The following requirements do not require in depth analysis using use-case logic.

1. Users (Admin, Donor, Recipient) shall login
2. Admin can download and view submitted documents by recipients (for account creation)
3. Recipient shall submit necessary personal documents for account verification
4. Recipient can request only up to five items at a time
5. System shall generate unique request id for each new request

3.1.2. User class 1 – Admin (Employee)

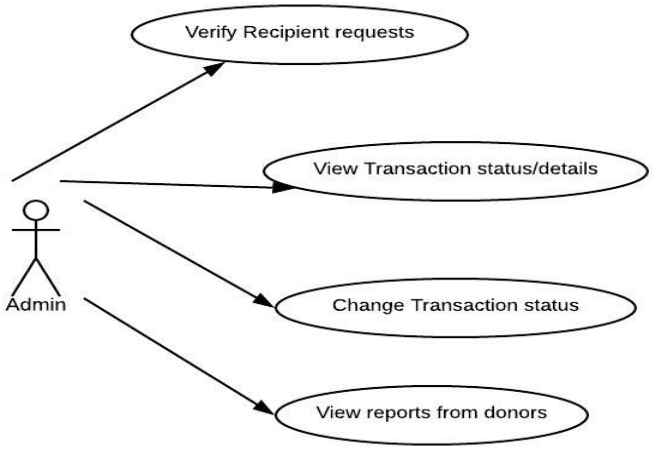


Figure 2 – Use Case of Employee

3.1.2.1. Verify Recipient requests

Use Case Name	Admin shall verify recipient requests	
Scenario	For recipient accounts to be created it should be first verified by the admin	
Triggering Event	New recipient submits all the required documents and fills in the recipient sign up form.	
Brief Description	When the customer submits all the required documents, a new recipient account will be created after the admin checks and approves the creation. This can be done using an admin account	
Actors	Admin(Employee)	
Related Use Cases	Recipient creates a user account	
Stakeholders	Recipient	
Preconditions	Recipient should have requested for a new account	
	Recipient should have submitted all the necessary documents.	
Post Conditions	Recipient account should be activated OR Recipient account will be cancelled	
Flow of Events	**Actors**	**System**
	Requester creates an account	Account status is set to waiting. All such accounts are notified to admin
	Admin requests to see account details	Account details are shown
	Admin requests to see customer request documents	Open documents
	Admin approves Recipient account creation	Create new Recipient account and notify customer
	Admin rejects request of customer.	Account is deleted
Exception Conditions		

3.1.2.2. View Transaction status/details

Use Case Name	Admin can view transaction status and details	
Scenario	Employee can check whether an item has been sent by the donor, received by the warehouse, sent by the warehouse or received by the recipient. In addition, employee can check the donors and recipients linked to the transaction as well as the relevant item details including delivery address.	
Triggering Event	a. Management requires item status/details	
Brief Description	If management requires the status/details of the item an employee can check using an employee account.	
Actors	Admin (Employee)	
Related Use Cases	Donor can confirm a request Donor can mark an item as sent	
Stakeholders		
Preconditions	a. Item should exist (Valid item no.) b. Transaction should exist (Valid transaction no.)	
Post Conditions		
Flow of Events	**Actors**	**System**
	Employee requests to view confirmed transactions	Display all transaction information
Exception Conditions	a. If no transactions are present Show “No transactions are present”	

3.1.2.3. Change Transaction status

Use Case Name	Admin can change transaction status
Scenario	Employees can change the transaction status from ‘sent by donor’ to ‘received by admin’ and further to ‘sent by admin’.
Triggering Event	Warehouse receives or sends item
Brief Description	When the warehouse receives an item with the transaction no (request id) attached to it, an employee can change the status of that transaction from sent by Donor to receive by admin. When the warehouse is sending out the item after attaching the Recipient address the employee can change transaction status again to send by admin.
Actors	Admin(Employee)
Related Use Cases	Admin can view transaction status/details

Stakeholders	Recipients, Donors	
Preconditions	Transaction no. should be valid	
Post Conditions	The relevant status update should be changed	
Flow of Events	**Actors**	**System**
	Employee will set the status of transaction to 'received by warehouse'	Update relevant status
	Employee will set the status of transaction to 'sent by warehouse'	Update relevant status
Exception Conditions	Entered transaction no. is invalid, a. Notify that transaction does not exist.	

3.1.2.4. View recipients reported by donors

Use Case Name	Admin shall view reports from donors	
Scenario	Employees are notified about reports of suspicious recipient account made by donors.	
Triggering Event	Donors report suspicious recipient accounts.	
Brief Description	Donor have the ability to report recipient account. The admin shall have access to all such reports	
Actors	Admin(Employee)	
Related Use Cases	Admin can cancel customer accounts.	
Stakeholders	Donors, Recipients	
Preconditions	A donor should have reported an account	
Post Conditions	Cancel report or suspend relevant recipient account.	
Flow of Events	**Actors**	**System**
	Employee Chooses a particular report	Relevant recipient information
Exception Conditions	If the provided reasons are not valid, a. report should be rejected. b. Recipient account is made active again	

3.1.3. User Class 2 – Donor

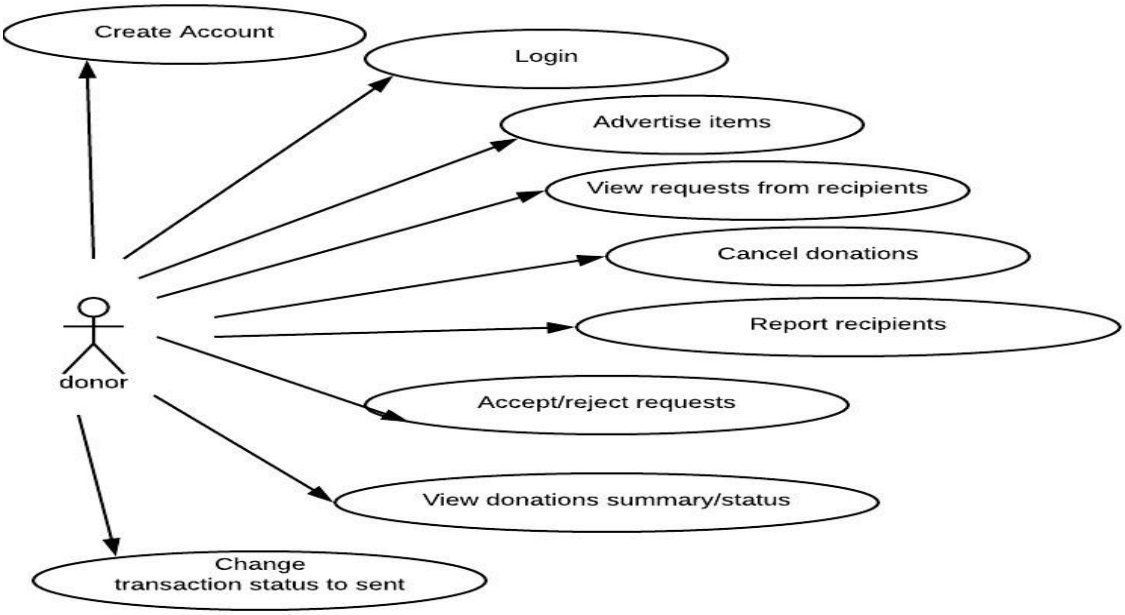


Figure 3 – Use Case of Donor

3.1.3.1. Create Account

Use Case Name	Donor shall create a user account
Scenario	Donor creates a private user account
Triggering Event	New Customer requires donor account
Brief Description	New Customer will require donor account if they have items that they are willing to donate.
Actors	Donor
Related Use Cases	
Stakeholders	
Preconditions	Username should not already exist Donor (same NIC) should not have different pre-existing account
Post Conditions	An account should be created
	Saves the donor with user name and password.

Flow of Events	**Actors**	**System**
	Customer presses donor signup button	Open donor signup form
	Fills donor sign up form.	Saves username and password. And logs in new donor to donor home page.
Exception Conditions	If login information is incomplete Notify the user of incomplete criteria	
	If login information is invalid under the following conditions, notify the user. • Name longer than 20 characters (database limit) • Email does not have "." and @ signs • Address has apostrophe (database limitation) • NIC is too short or too long • Phone number is not integer, too short or too long • Repeated password does not match	
	If an online account already exists with: • Same username OR • Same NIC Inform that multiple accounts cannot be created with the same username or same NIC	

3.1.3.2. Advertise items

Use Case Name	Donors shall advertise items
Scenario	Donors should have the ability to advertise items that they are willing to donate.
Triggering Event	Donor has new item that he wishes to donate
Brief Description	When the donor wishes to donate an item, he can do so by pressing add item on his donations homepage. The relevant item details and digital image should be uploaded so that recipients can find sufficient details about the item.
Actors	Donor
Related Use Cases	
Stakeholders	Recipients
Preconditions	Donor must have valid donor account
Post Conditions	New item is advertised and is available for recipients to view

Flow of Events	**Actors**	**System**
	Customer presses add new item	Open item description page
	Donor submits item description	New item is added in Donors homepage and is displayed for searching recipients.
Exception Conditions	• Invalid item description • Photo size is greater than 2 MB • Submitted document is not a photo a. Inform donor of invalid details b. Take donor back to item description page	

3.1.3.3. View requests from recipients

Use Case Name	Donor can view requests from recipients.	
Scenario	The donor should be notified if any recipients are interested in his advertised items.	
Triggering Event	Recipients requests an item from the donor	
Brief Description	Recipients can search through advertised items and request items that they're interested in after entering a request statement. This request along with recipient's summery is provided to the donor through the requests table in their homepage.	
Actors	Donor	
Related Use Cases	Recipient can request advertised items	
Stakeholders	Recipient	
Preconditions	Valid donor account should exist, Recipient should request for item	
Post Conditions	No personal details (except the short summery) of recipient is shown to the donor	
Flow of Events	**Actors**	**System**
	Donor selects a particular request from his requests table	Open and display relevant requested item and request statement
Exception Conditions		

3.1.3.4. Accept/reject requests

Use Case Name	Donor can accept or reject item requests.	
Scenario	Donors should have the ability to accept or reject any request for their advertised items after reading the request statement.	
Triggering Event	Viewing items request	
Brief Description	When faced with an item request made by a particular recipient the donor should be able to respond by pressing accept or reject buttons on his requests table after reading the request statement made by the recipient.	
Actors	Donor	
Related Use Cases	Donor can view requests from recipients	
Stakeholders	Recipients	
Preconditions	Valid donor account needs to exist, Recipient should request for item	
Post Conditions	The recipient will get notified whether his request was accepted or rejected by the donor.	
Flow of Events	**Actors**	**Actors**
	Donor presses accept	Changes the item status into confirmed and binds the item to the recipient. Unique request id is given to both donor and recipient. Transaction is displayed on recipient, donor and admin pages and status is set as accepted by donor.
	Donor presses reject	Request is cancelled
Exception Conditions	If the donor has accepted the request before or sent the item, Donor is notified that he/she cannot cancel it.	

3.1.3.5. View donations summary/status

Use Case Name	Donor can view donation list
Scenario	A donor has the ability to view the list of his/her existing donations.
Triggering Event	
Brief Description	A donor can check the status and details of advertised items and transactions using the table on his donor homepage.

Actors	Donor	
Related Use Cases	Donor can advertise items	
Stakeholders		
Preconditions	A valid donor account should exist, Donated items should exist.	
Post Conditions		
Flow of Events	**Actors**	**System**
	Donor goes to donor's homepage	Displays donations summary table
Exception Conditions		

3.1.3.6. Change transaction status to sent

Use Case Name	Donor can change transaction status to sent	
Scenario	A donor has the ability to change the item status to 'sent by donor' after posting the item to the Donate.lk warehouse address after attaching the request id generated by the system	
Triggering Event	Donor accepts recipient request	
Brief Description	After accepting the recipient request, item will be bound to the recipient ID and request ID will be given to the donor and recipient. Initially the item status will be changed to confirmed. Once the donor posts the item to the Donate.lk warehouse he can press the sent button on his donations summary table to change transaction status to 'sent by donor'.	
Actors	Donor	
Related Use Cases	Donor can view donations summary	
Stakeholders	Admin	
Preconditions	Accepted transaction should exist	
Post Conditions		
Flow of Events	**Actors**	**System**
	Donor presses sent button	Change item status to 'sent by donor' on the relevant tables in donor, recipient and admin accounts
Exception Conditions		

3.1.3.7. Cancel donations

Use Case Name	Donor can cancel donations	
Scenario	The donor has the ability to cancel his advertised donation before accepting any requests from recipients.	
Triggering Event		
Brief Description	The donor can use the cancel button (made available for advertised items before acceptance) in the donations summary table to cancel the advertisement.	
Actors	Donor	
Related Use Cases	Donor can advertise items	
Stakeholders	Recipient	
Preconditions	Advertised items should exist.	
Post Conditions	Advertised item should be removed from database so that it won't be displayed to recipients	
Flow of Events	**Actors**	**System**
	Donor presses cancel donation button	Donation is removed from system.
Exception Conditions	If donation has been confirmed by donor – notify that donor cannot cancel a confirmed donation	

3.1.3.8. Report recipients

Use Case Name	Donor can report recipients	
Scenario	The donor has the ability to report suspicious recipients	
Triggering Event		
Brief Description	The donor can use the report button to report recipients that he finds suspicious. If reported it will be updated in the admin account and the relevant account will be reviewed by the admin.	
Actors	Donor	
Related Use Cases	Admin can review accounts	
Stakeholders	Recipient, Admin	
Preconditions	Relevant recipient account should exist	
Post Conditions	Admin accounts will be notified of report	
Flow of Events	**Actors**	**System**
	Donor presses report button	Update reports table in admin account.
Exception Conditions		

3.1.4. User Class 3 – Recipient

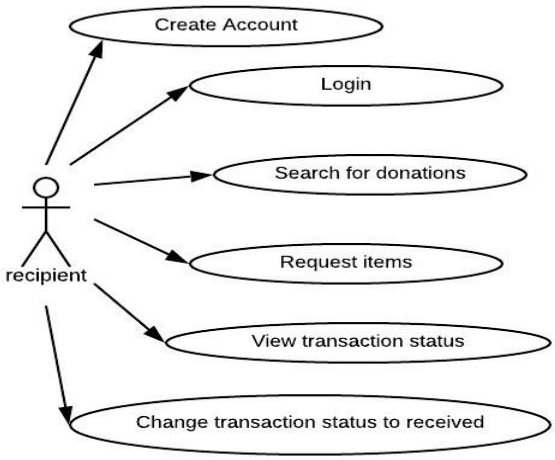


Figure 4 – Use Case of Recipient

3.1.4.1. Create Account

Use Case Name	Recipient shall create a user account	
Scenario	Recipient creates a private user account	
Triggering Event	New Customer requires recipient account	
Brief Description	New Customer will require recipient account if they require the donation of a particular item. However, for recipient accounts to be created it should be verified by an admin account.	
Actors	Recipient	
Related Use Cases		
Stakeholders		
Preconditions	Username should not already exist, Recipients should not have different pre-existing account,	
Post Conditions	An account should be created in ‘waiting for confirmation mode’	
	Saves the recipient user name and password.	
Flow of Events	**Actors**	**System**

	Customer presses recipient signup button	Open recipient signup form
	Recipient fills recipient sign up form.	Send relevant details and documents to be verified by admin
	Admin verifies and approves account creation	New recipient account is created.
Exception Conditions	If login information is incomplete a. Notify the user of incomplete criteria	
	If login information is invalid under the following conditions, notify the user. • Name longer than 20 characters (database limit) • Email does not have "." and @ signs • Address, place of work, occupation has apostrophe (database limitation) • NIC is too short or too long • Phone number is not integer, too short or too long • Repeated password does not match • Uploaded file is bigger than 2 MB • Salary is not a number	

3.1.4.2. Search for donations

Use Case Name	Recipients shall search for donations	
Scenario	Recipient should be able to search for items advertised by donors.	
Triggering Event	Recipients requires a particular item	
Brief Description	Recipients can search through advertised items by first selecting category and then typing keywords. Then all requested items of that category and matching keywords are displayed in the recipient search table.	
Actors	Recipient	
Related Use Cases		
Stakeholders		
Preconditions	Valid recipient account should exist Donated items should exist	
Post Conditions	Items under searched condition should be displayed.	
Flow of Events	**Actors**	**System**
	Recipient selects a category in his search page	Display advertised items belonging to that category

Exception Conditions	

3.1.4.3. Request items

Use Case Name	Recipient shall request items	
Scenario	Recipients should have the ability to request items that they need.	
Triggering Event	Recipient sees new item that he wishes to request	
Brief Description	When the recipient wishes to request an item, he can do so by pressing request item on his search for donations page. The relevant item details and digital image is presented to him in a table after he chooses a particular item-category. A recipient is able to request up to five items at a time.	
Actors	Recipient	
Related Use Cases	Recipients shall search for donations.	
Stakeholders	Donors	
Preconditions	Recipient must have valid recipient account	
Post Conditions	Relevant item is requested and the donor is notified to approve or reject the request.	
Flow of Events	**Actors**	**System**
	Recipient presses request button	Item is requested
Exception Conditions	Recipient has already requested five items Notify the recipient that he/she cannot request more items	

3.1.3.4. View transaction status

Use Case Name	Recipient can view transaction status
Scenario	A Recipient has the ability to view the status of his requests and transactions
Triggering Event	Recipient requires updates of his current transactions
Brief Description	Initially the recipient has the ability to check whether his request has been accepted or rejected. After being accepted by the donor he can check the status of the transaction as accepted, sent by donor, received by admin, sent by admin or received by recipient. This information is displayed in the recipient transactions/donations table
Actors	Recipient
Related Use Cases	
Stakeholders	Admin, Donors
Preconditions	A valid transaction or request should exist to check status.

Post Conditions		
Flow of Events	**Actors**	**System**
	Recipient goes to requested items page	Displays relevant status and other information

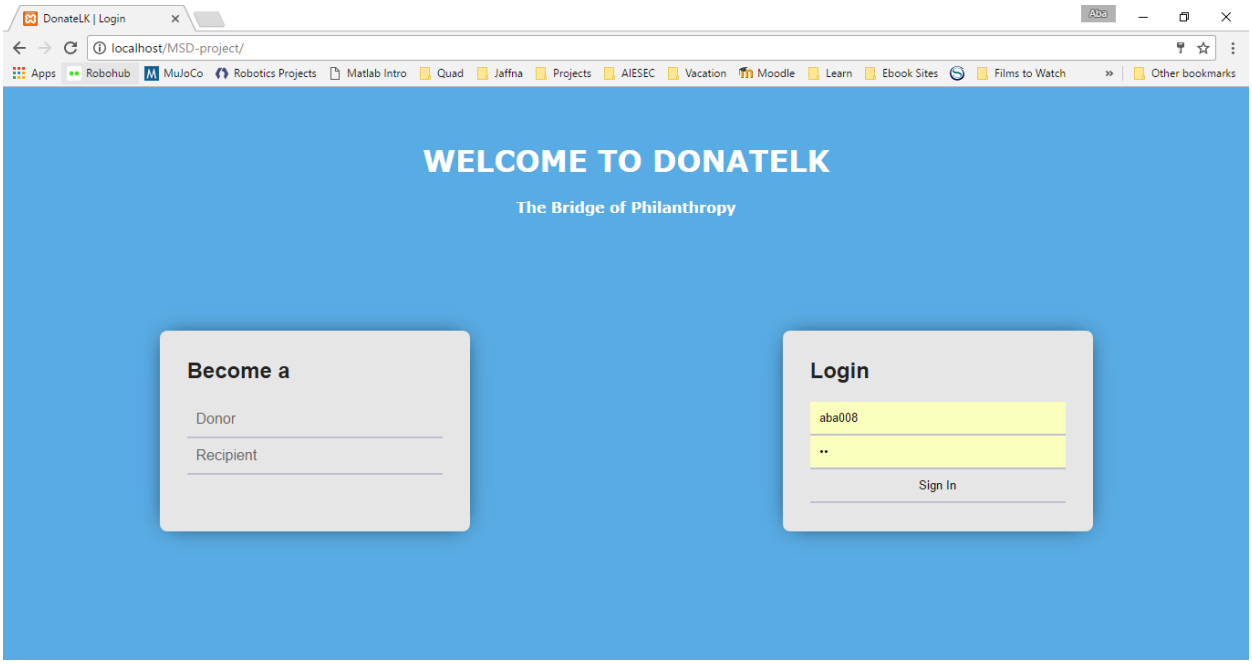
3.1.4.5. Change transaction status to received

Use Case Name	Recipients can change transaction status to ‘received’.	
Scenario	A recipient has the ability to change the transaction status to ‘received’ after receiving the item at the specified home address.	
Triggering Event	Item is sent to recipient from warehouse	
Brief Description	After accepting the recipient request, a transaction will be generated within the transaction database with an automatically generated transaction number. After the warehouse employees sends the item to the final recipient transaction status will be ‘sent from admin’. Therefore, once the recipient receives the item he can press the received button in the transaction table so that admin and donor are notified.	
Actors	Recipient	
Related Use Cases	Recipient can view transaction status	
Stakeholders	Admin, Donor	
Preconditions	Transaction with status ‘sent from warehouse’ should exist.	
Post Conditions	Change transaction status to ‘received by recipient’	
Flow of Events	**Actors**	**System**
	Recipient presses received button	Change transaction status to ‘received by recipient’ on the relevant tables in donor, recipient and admin accounts
Exception Conditions		

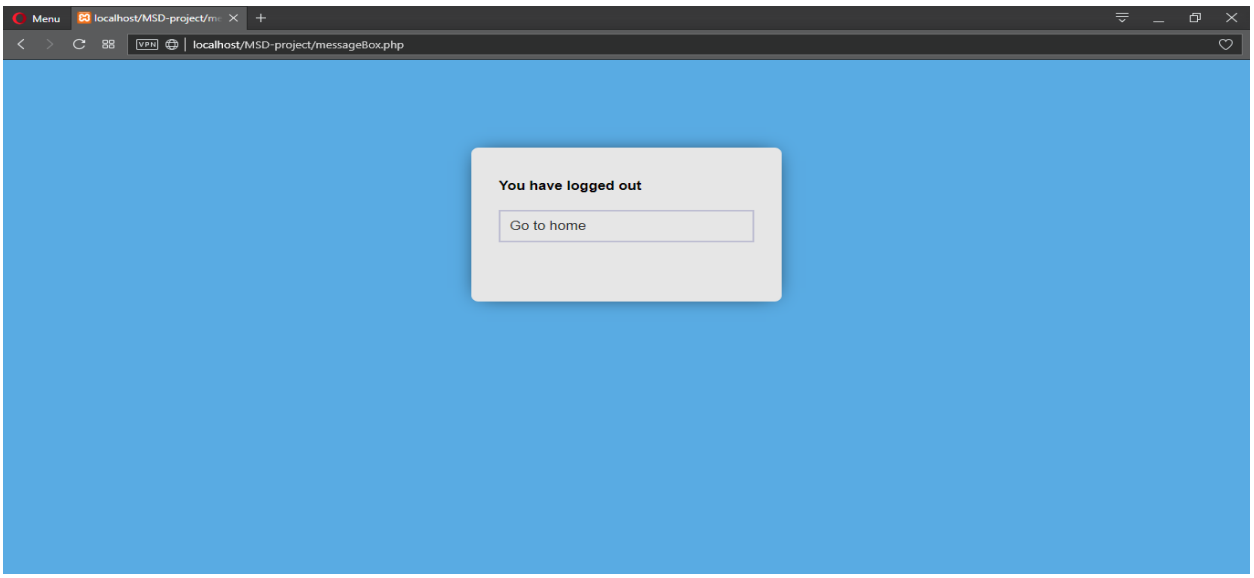
3.2. External Interface Requirements

3.2.1. User Interfaces

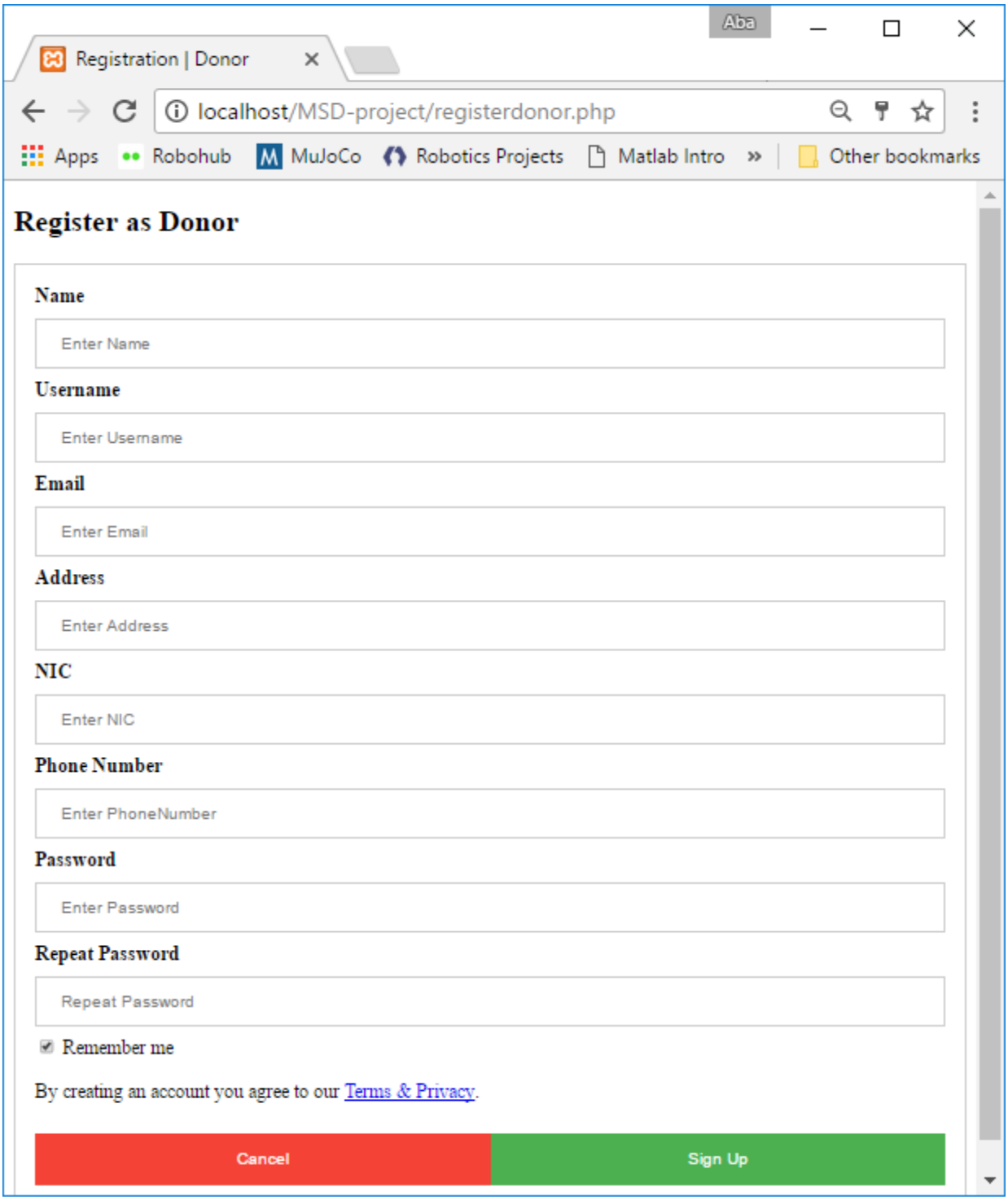
3.2.1.1. Homepage



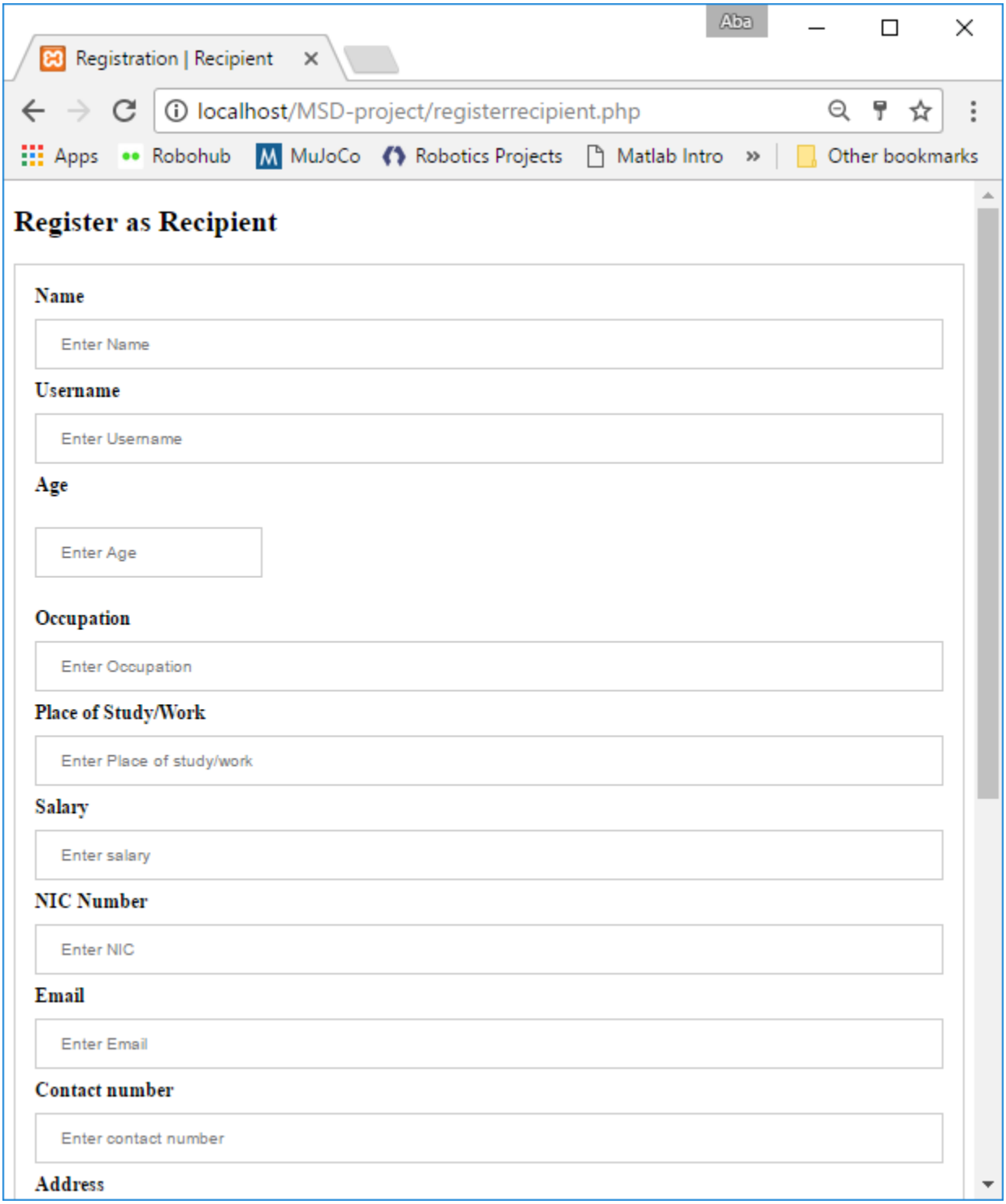
3.2.1.2. Logout



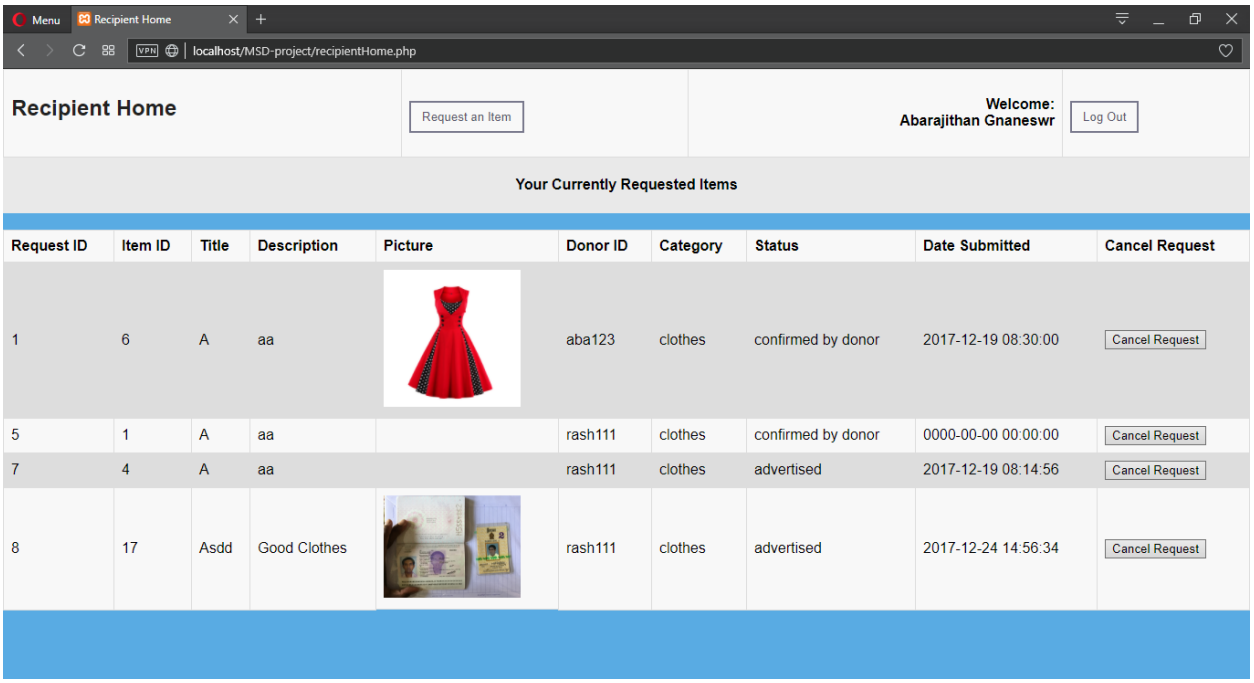
3.2.1.3. Donor Registration page



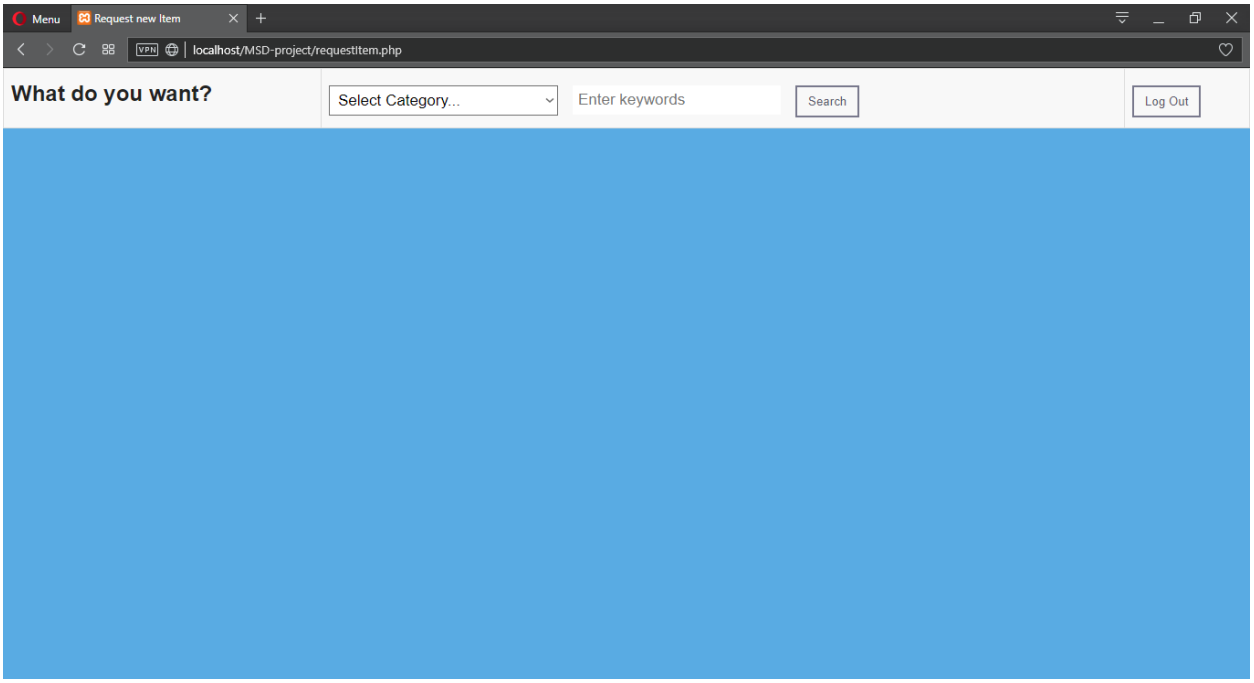
3.2.1.4. Recipient registration page



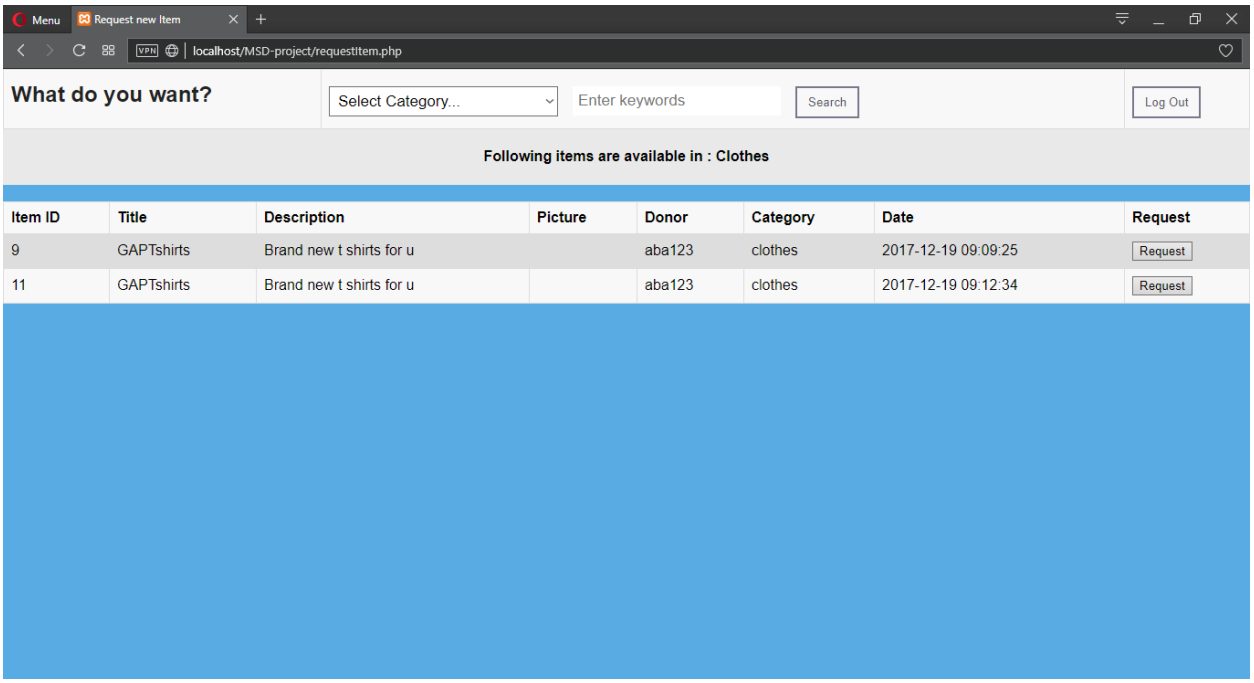
3.2.1.5. Recipient homepage



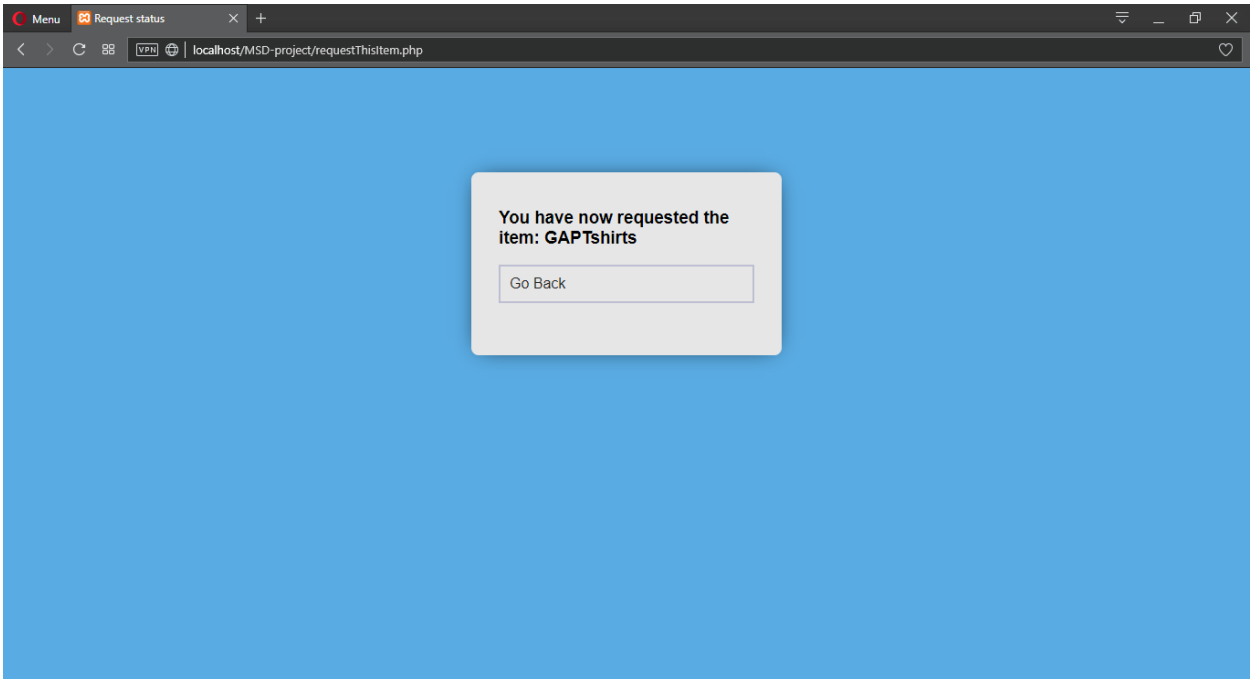
3.2.1.6. Recipient after clicking request



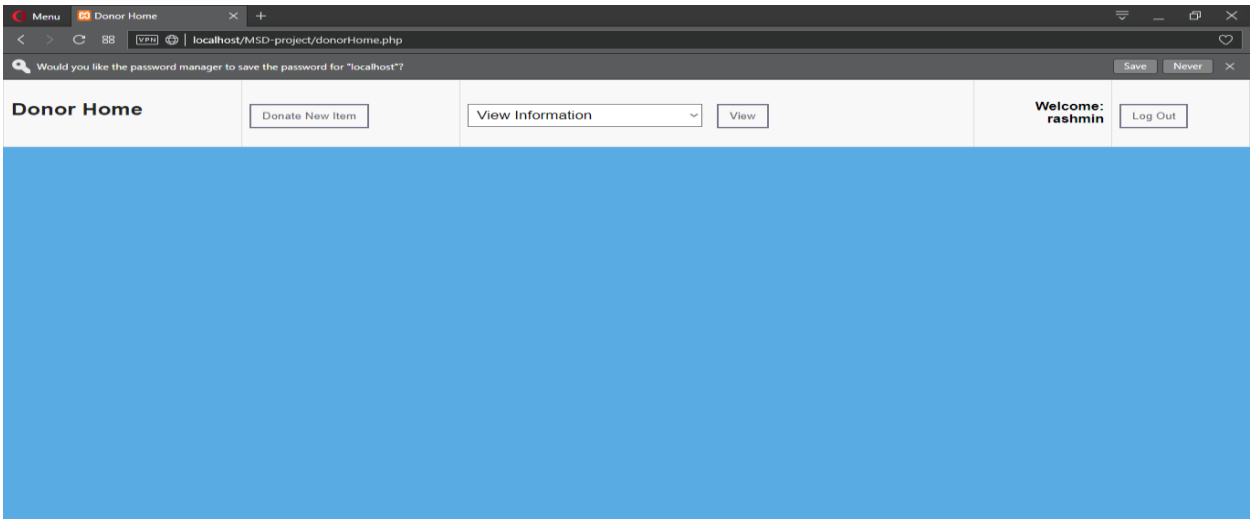
3.2.1.7. Recipient after searching



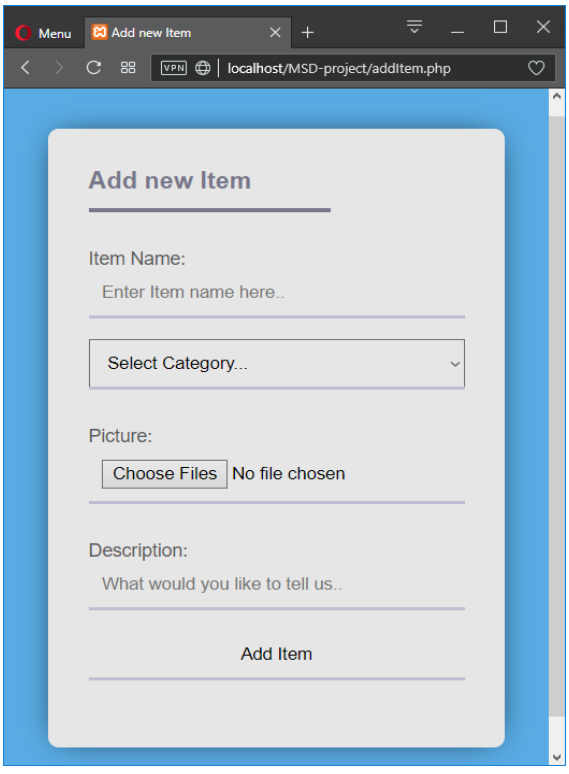
3.2.1.8. Recipient request success



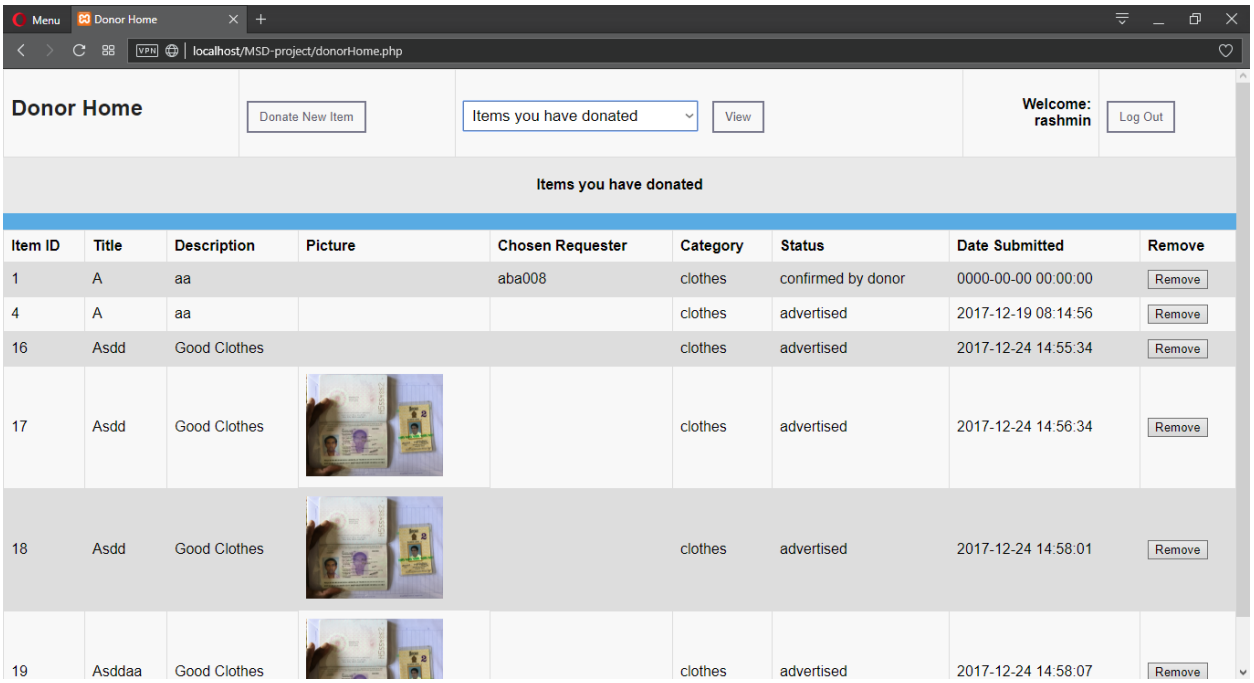
3.2.1.9. Donor homepage



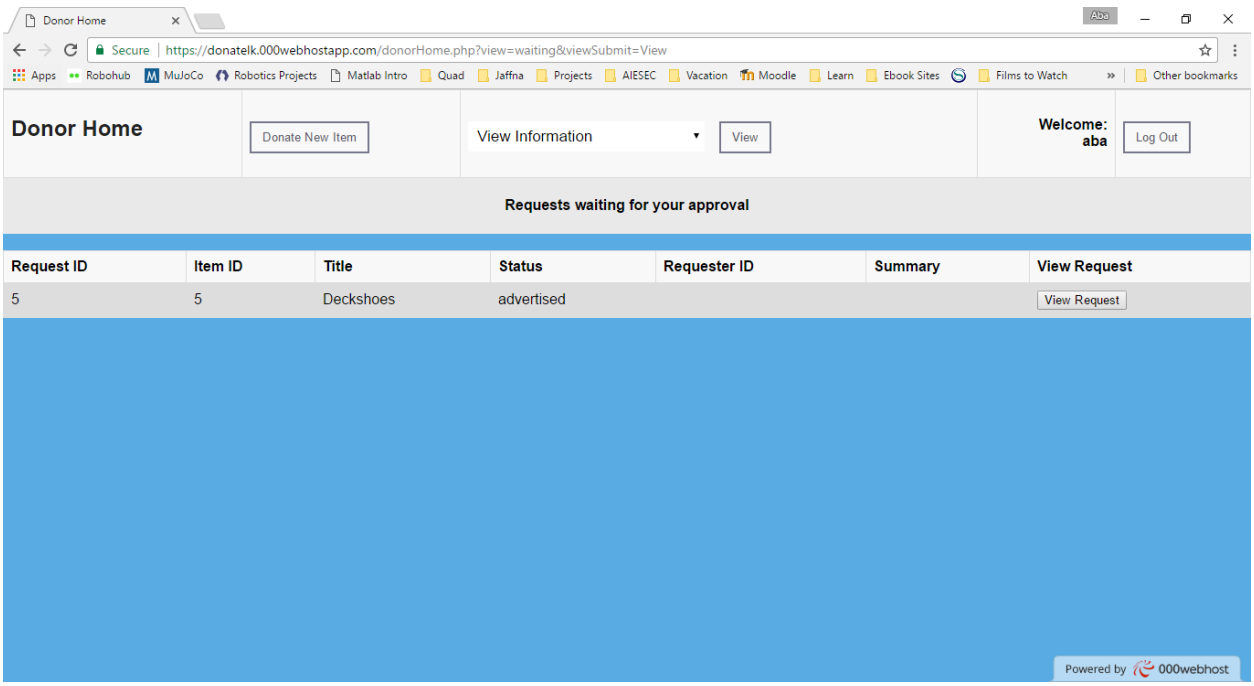
3.2.1.10. Donor add item



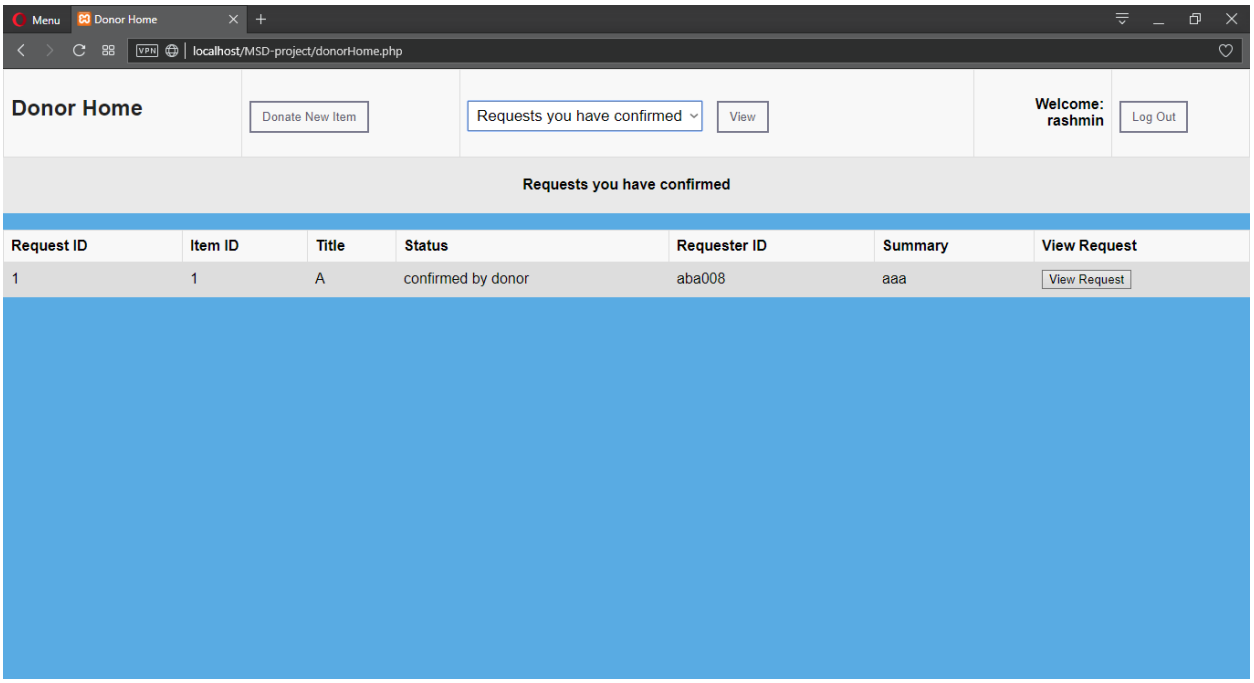
3.2.1.11. Donor donations list



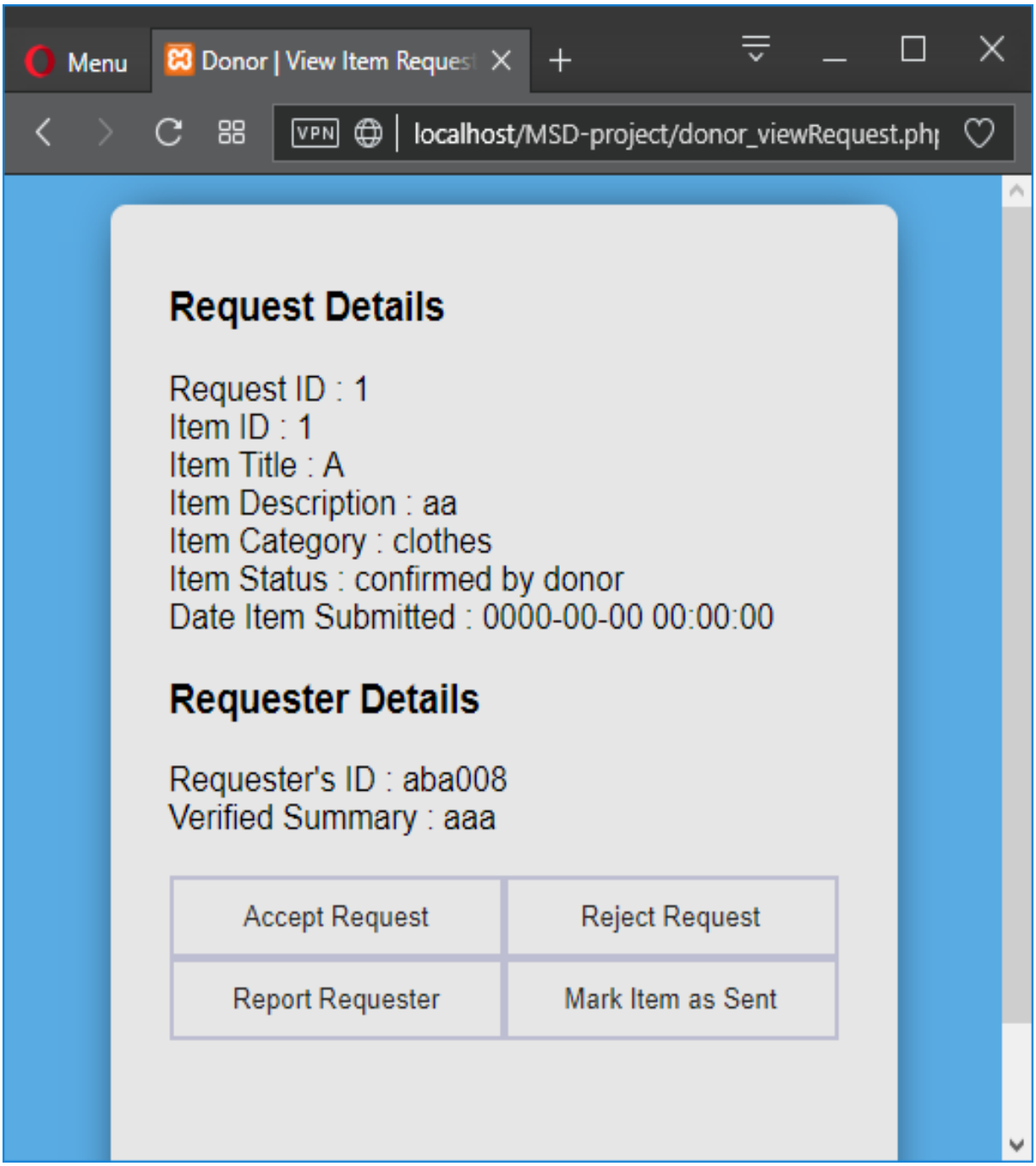
3.2.1.12. Donor requests table



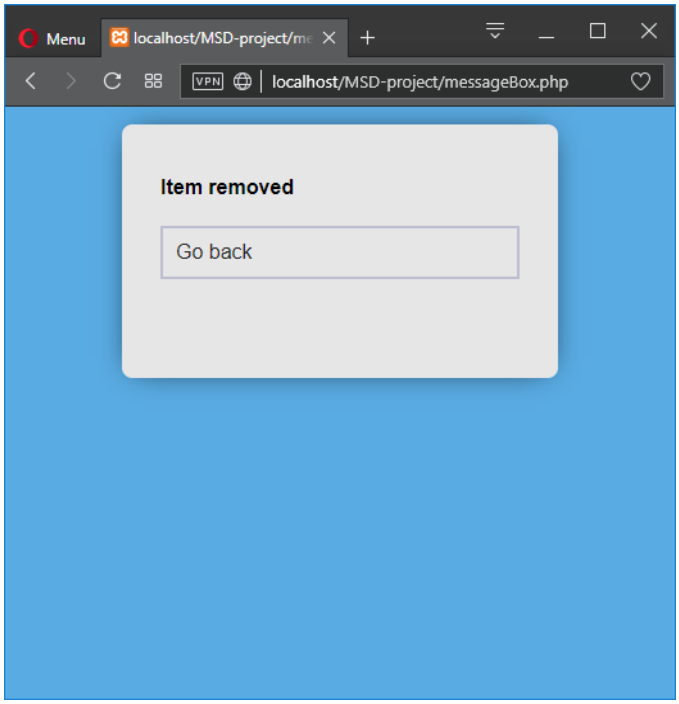
3.2.1.13. Donor accepted request(transactions)list



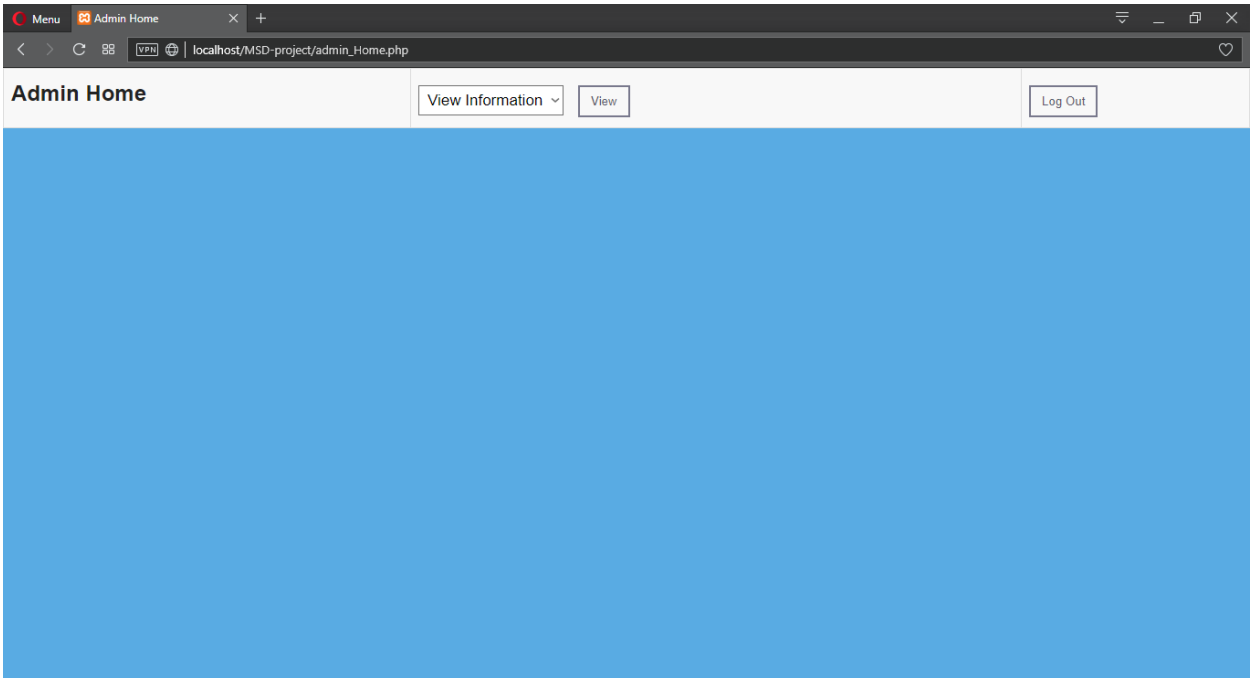
3.2.1.14. Donor viewing a request



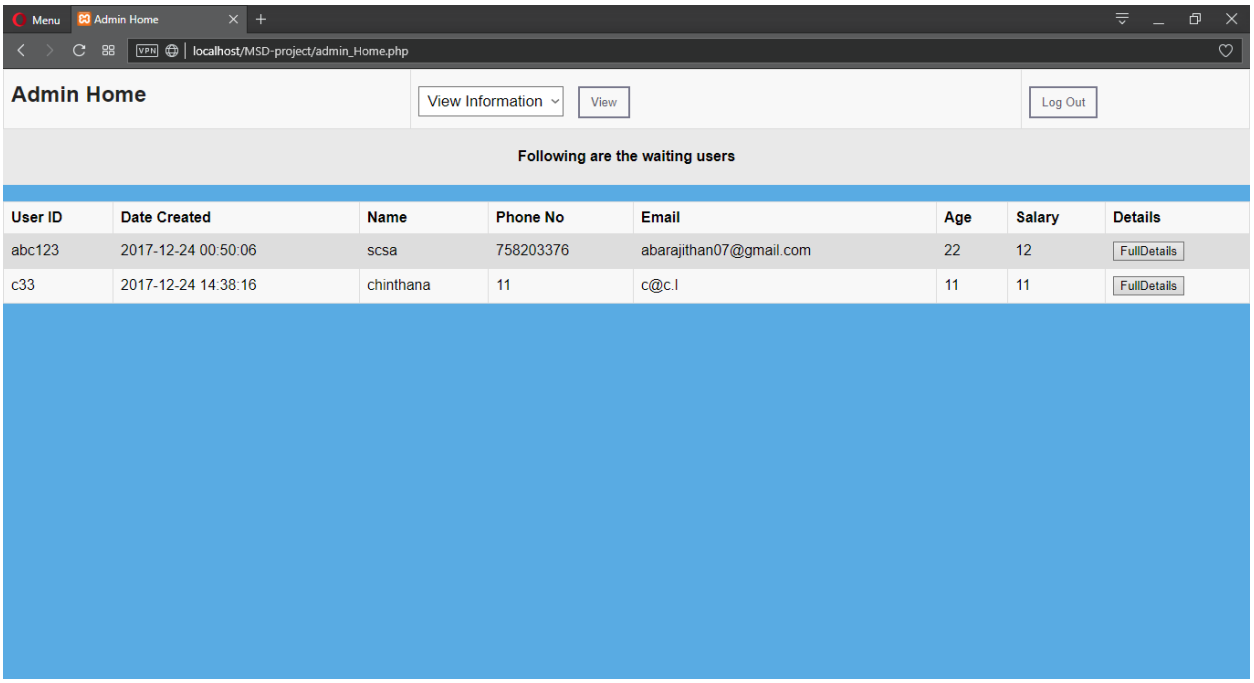
3.2.1.15. Donor removing an item



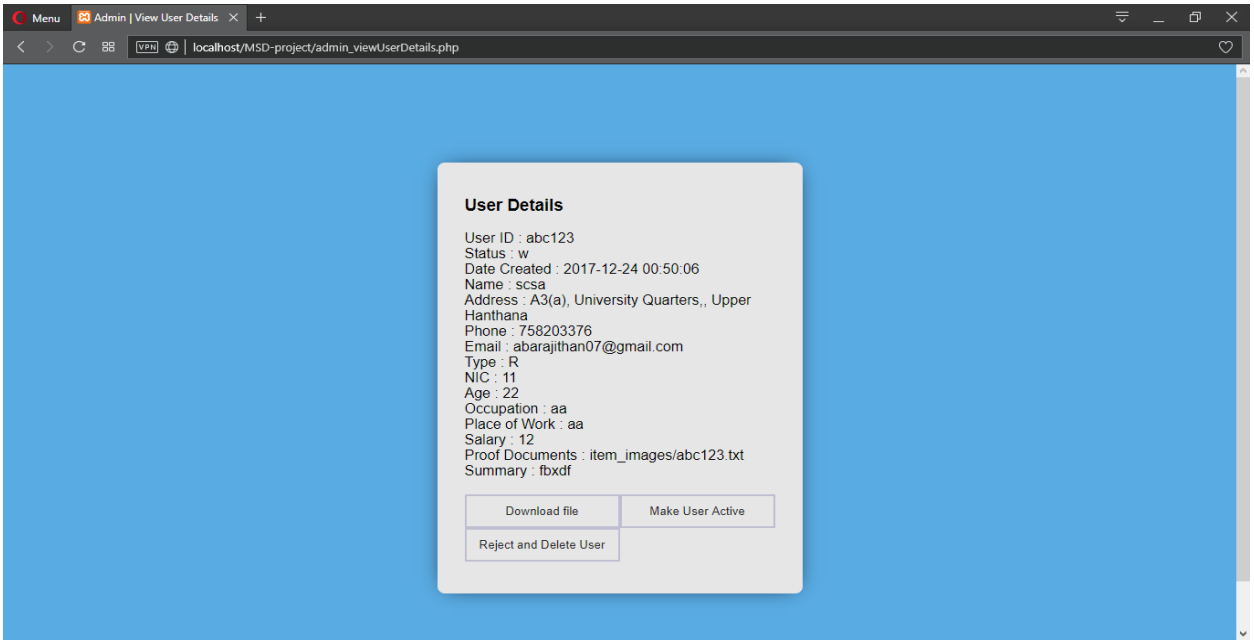
3.2.1.16. Admin homepage



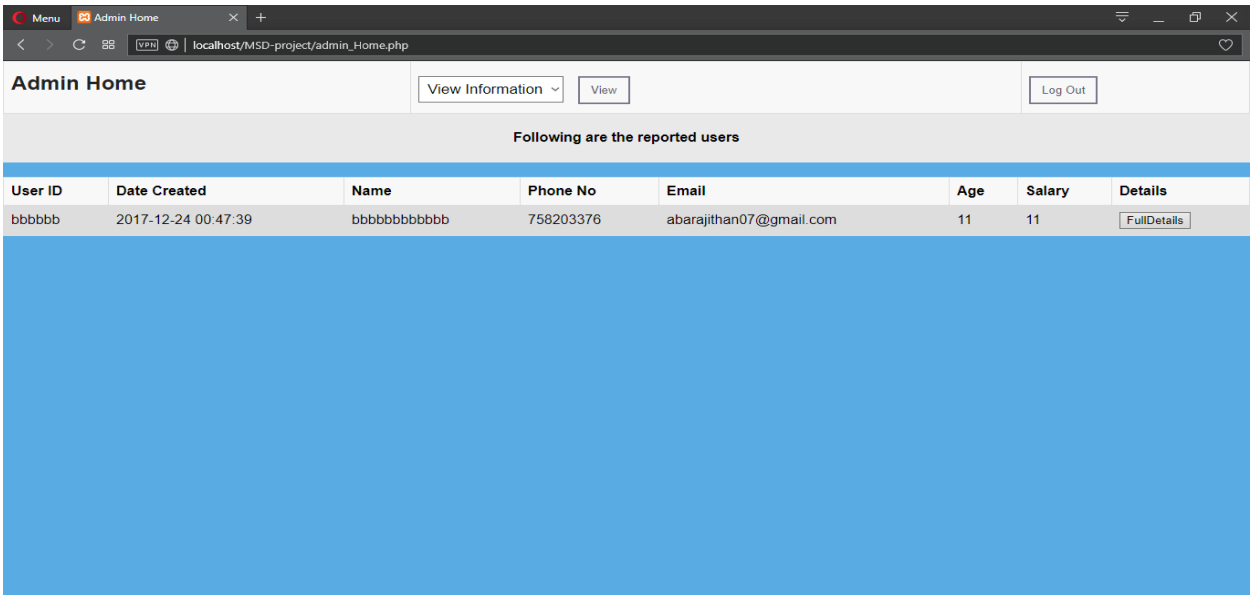
3.2.1.17. Admin customer details table



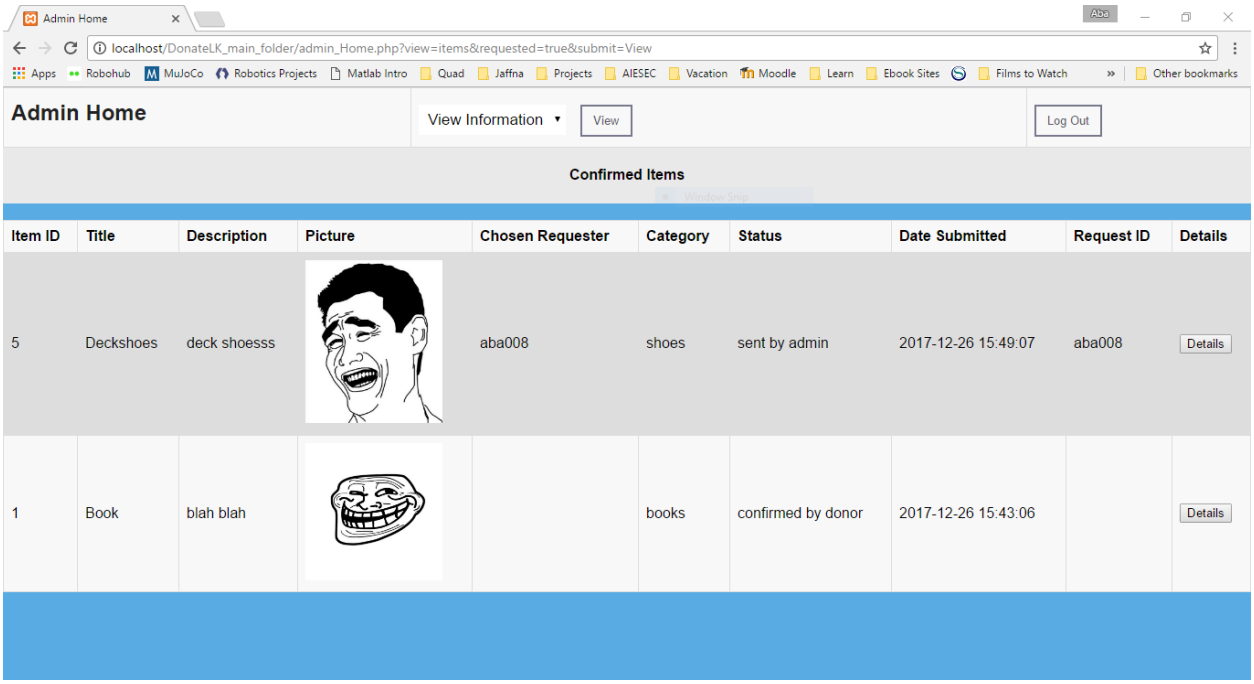
3.2.1.18. Admin view customer details



3.2.1.19. Admin reported recipients



3.2.1.20. Admin transactions table



3.3. Non-Functional Requirements

3.3.1. Performance

- The system would display update status changes and new advertisements in near real-time as otherwise it would lead to customers missing new advertisements.

- When user submits a query to search any info it won't take more than 1 second to provide the correct results

- Load time of application merely depends on the network bandwidth and has no dependence on hardware.
- 10,000 users should be able to access the system concurrently

3.3.2. Security

- Database is password protected.
- Account passwords will be saved in the database after going through an encryption algorithm which won't allow any person to get access to restricted data

- User always has to login to the system through a username and a password to view the respected data.

- System will not give away any personal data to unauthorized person without user permission
- Any user trying to access pages corresponding to other users through URL (eg: a recipient trying to access a donor home page or admin page) will be redirected to their own home page.

3.3.3. Reliability

- System will be up and running 24 X 7 except for the circumstances like system updates or any server failures

- Such situations will be informed in advance to the users if possible

3.3.4. Portability

- The application need to be light weighted for it to run in computers with low internet connection as well as to run in any platform without an additional effort, front end should be optimized for mobile platforms as well.

3.4. Design Constraints

This section indicates any design constraints on the system being built. Design constraints represent design decisions that have been mandated and must be adhered to.

- System should work in all operating systems and all browsers.
- The database should have a capacity enough to record the continuous usage data from all the connections
- Since there is no financial aid, professional licensed IDE would not be possible to use for design purposes (PhpStorm trial edition was used to build the application)
- All HTML code should conform to the HTML 5.0 standard

3.5. Assumptions

- With time, people will tend to use the online based system rather than the conventional method.
- The general public will have the basic knowledge to access the online system.
- The number of users accessing the system at the same time is less likely to exceed beyond the average value so that the system and the server will function ideally without falling regularly.
- No change in the administration will cause major changes in the online system.

3.6. Technologies

- MySQL was used to design and maintain the database
- PHP 7.1 was used to code the backend of the system
- HTML and CSS were used for UI design

- PhpStorm 30 day Trial edition was used as IDE
- XAMPP was used for the localhost webserver
- The application was hosted online using the free hosting service: www.000webhosting.com

- The number of users accessing the system at the same time is less likely to exceed beyond the average value so that the system and the server will function ideally without falling regularly.

4. System Architecture

This section provides a high-level overview of the system architecture using class and entity relationship diagrams. It shows the fundamental object/classes that must be modeled with the system to satisfy its requirements. The class and database structures were designed at the very first step of project development.

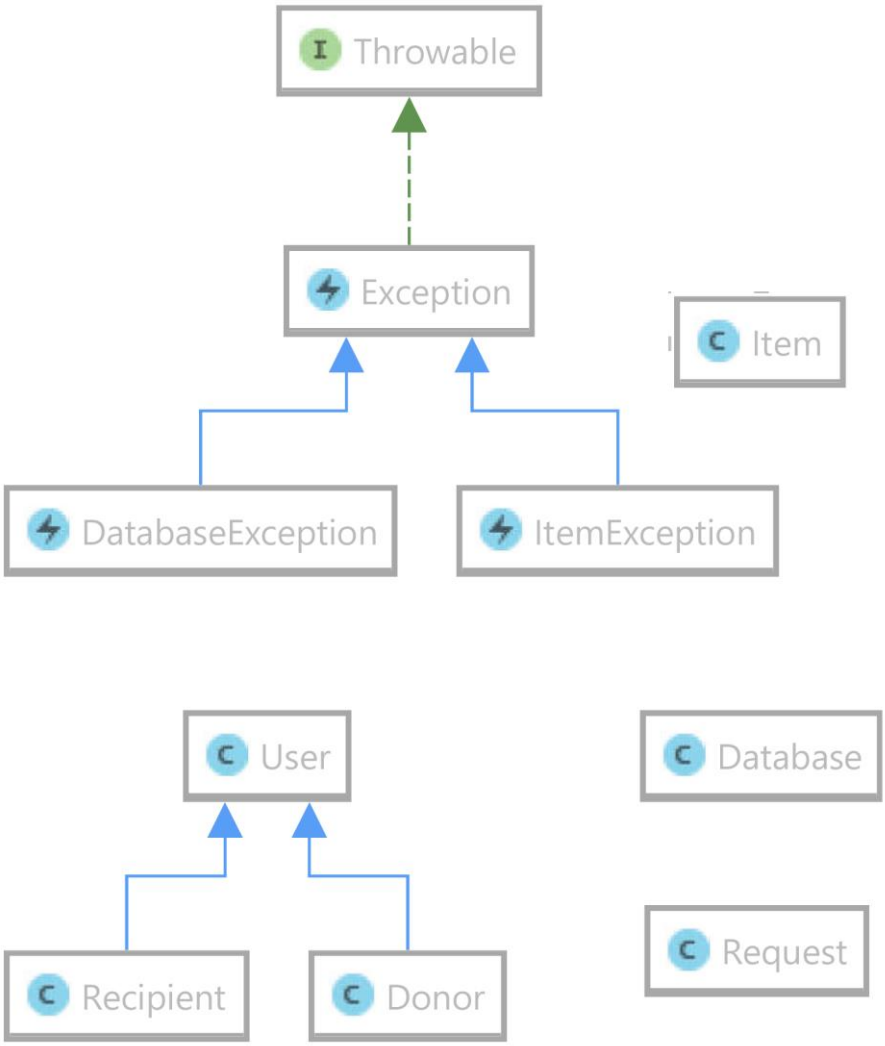
- Class attributes as well as inter-class relationships are clearly shown. Note that these final diagrams were automatically generated using the same software packages used for programming(development)

- PhpStorm was used to generate the class diagrams while SQL workbench was used to generate the ER diagrams.

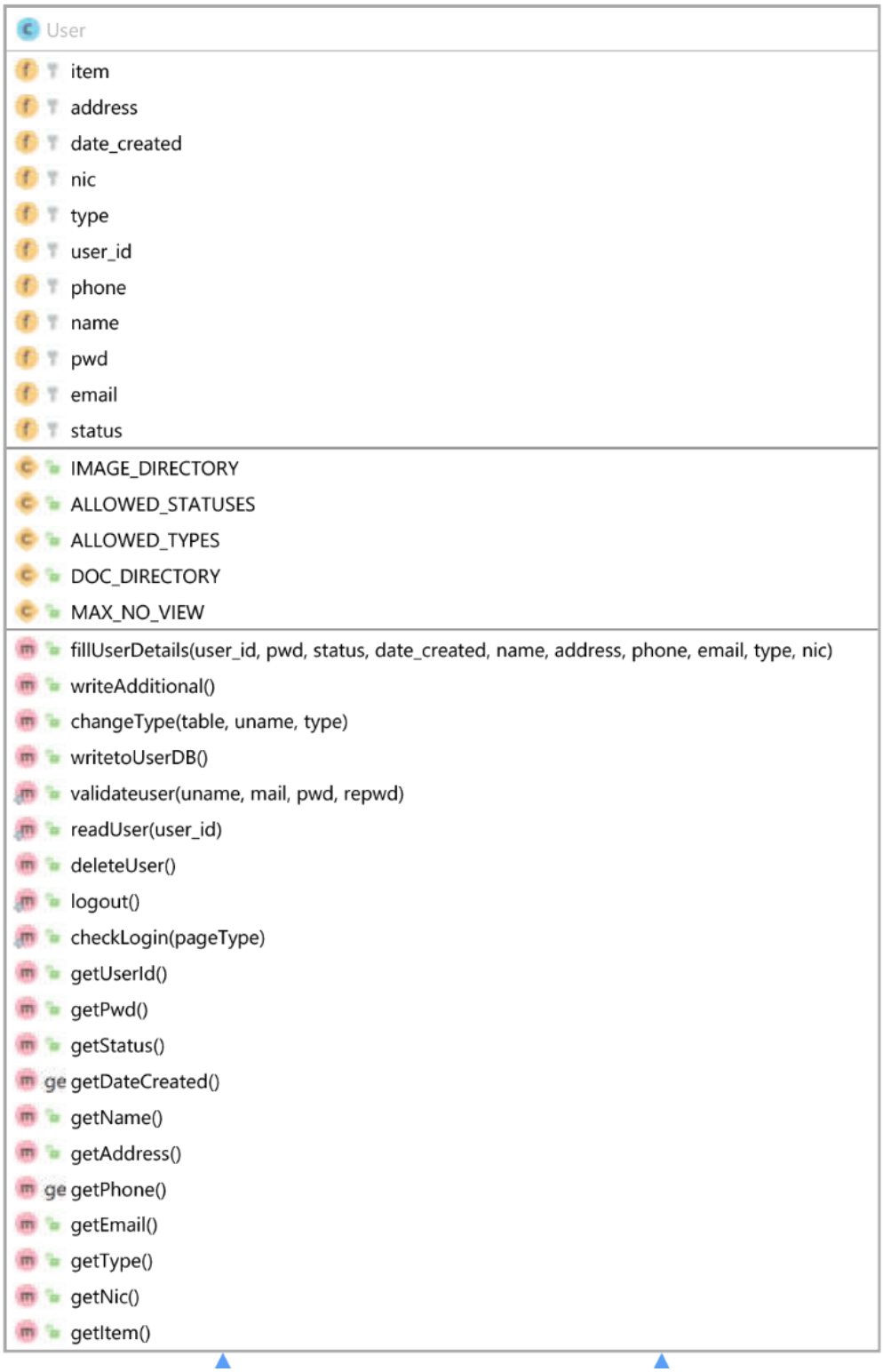
The sequence diagrams for the basic functional processes of the system are also included for better understanding of the actor involvement.

4.1. Class diagrams

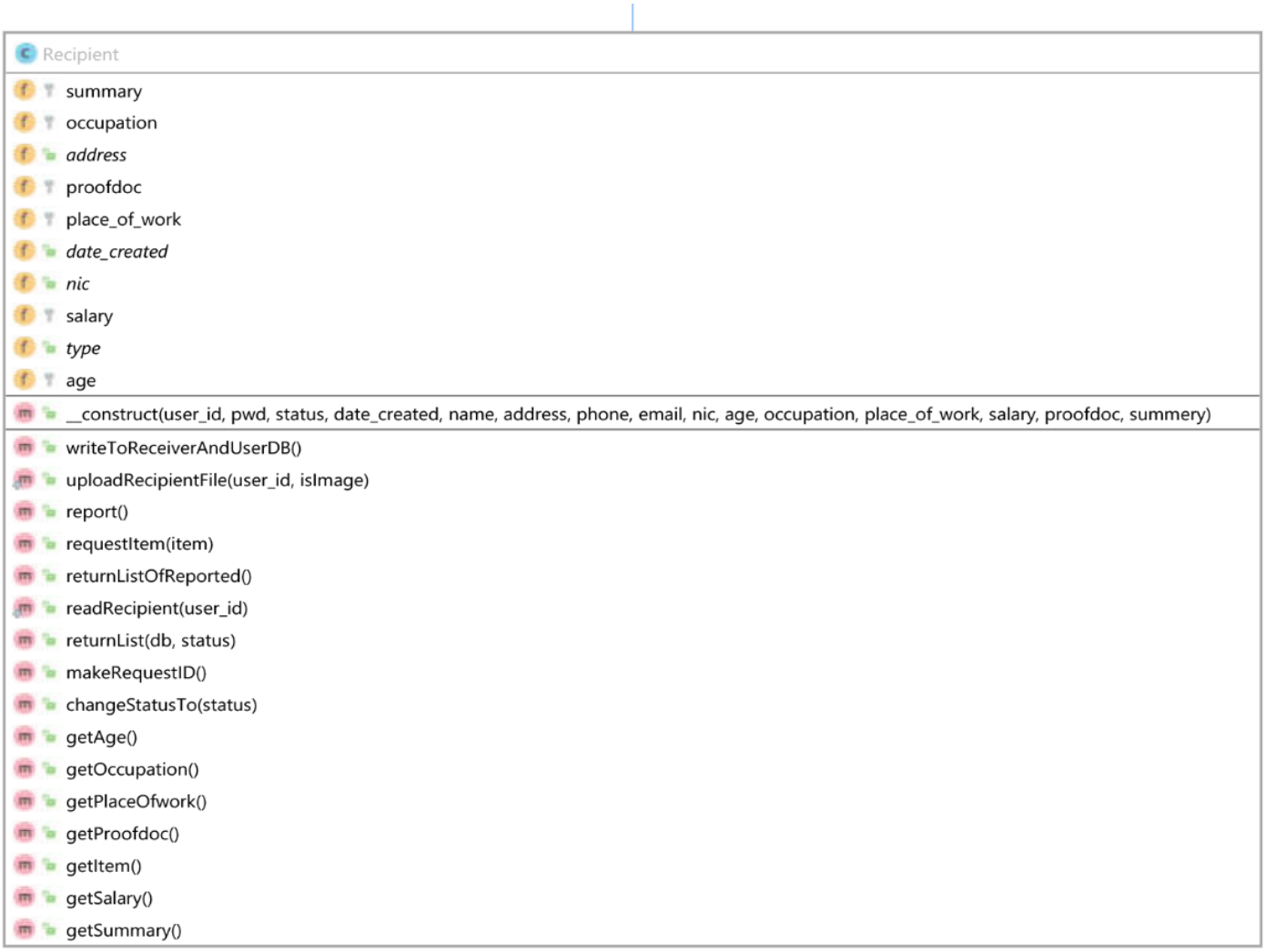
4.1.1. Class hierarchy



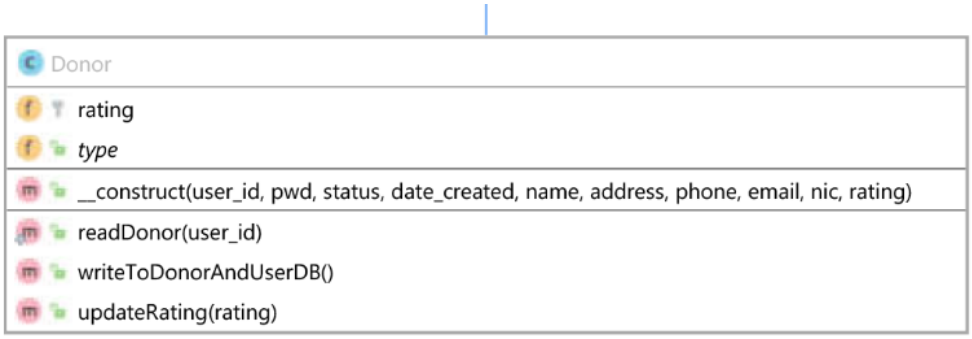
4.1.2. User class



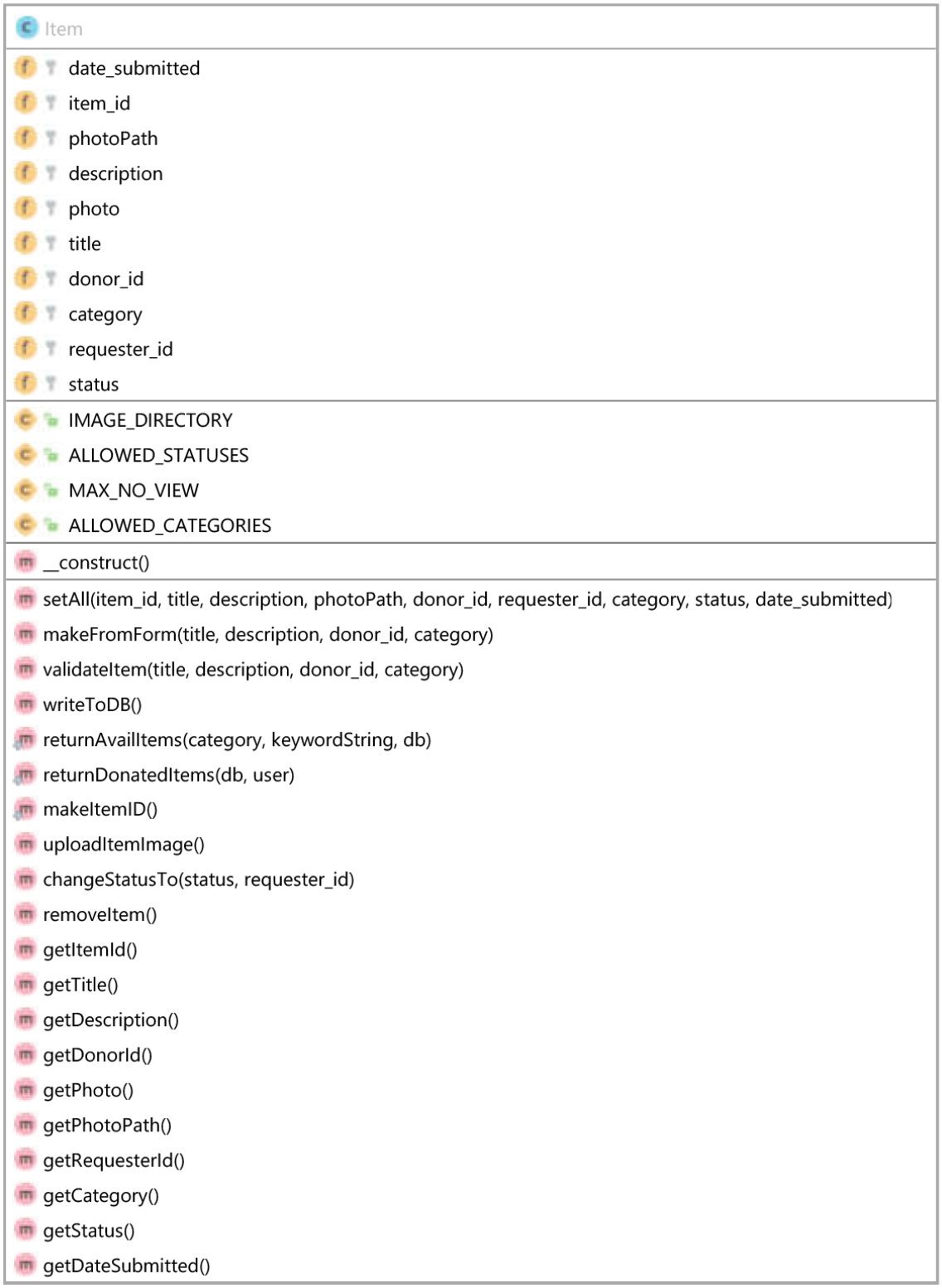
4.1.3. Recipient class



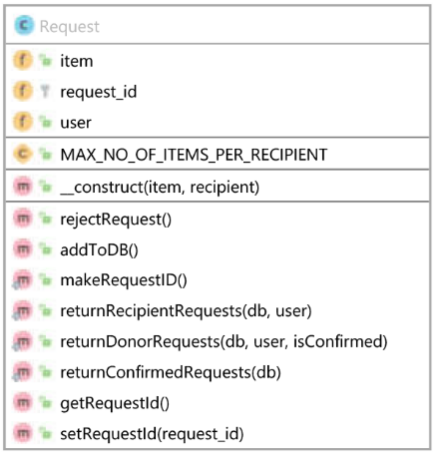
4.1.4. Donor class



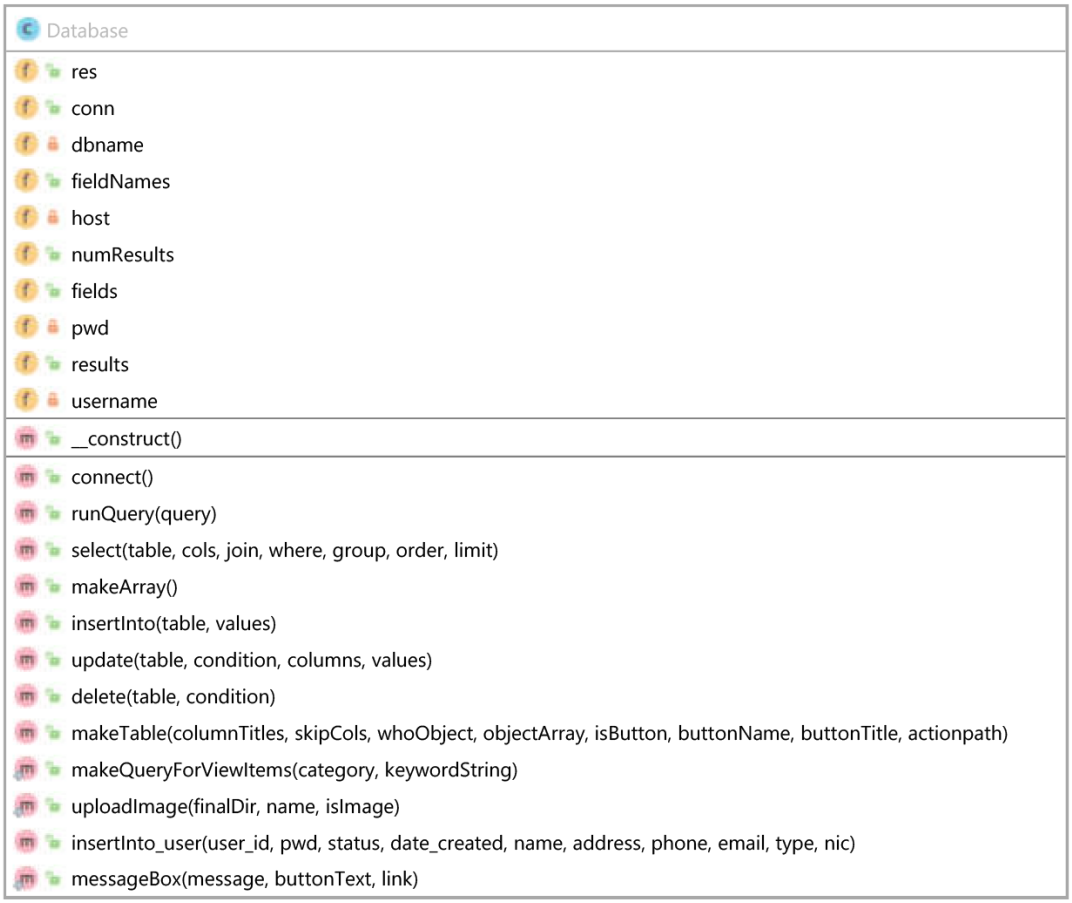
4.1.5. Item class



4.1.6. Request class

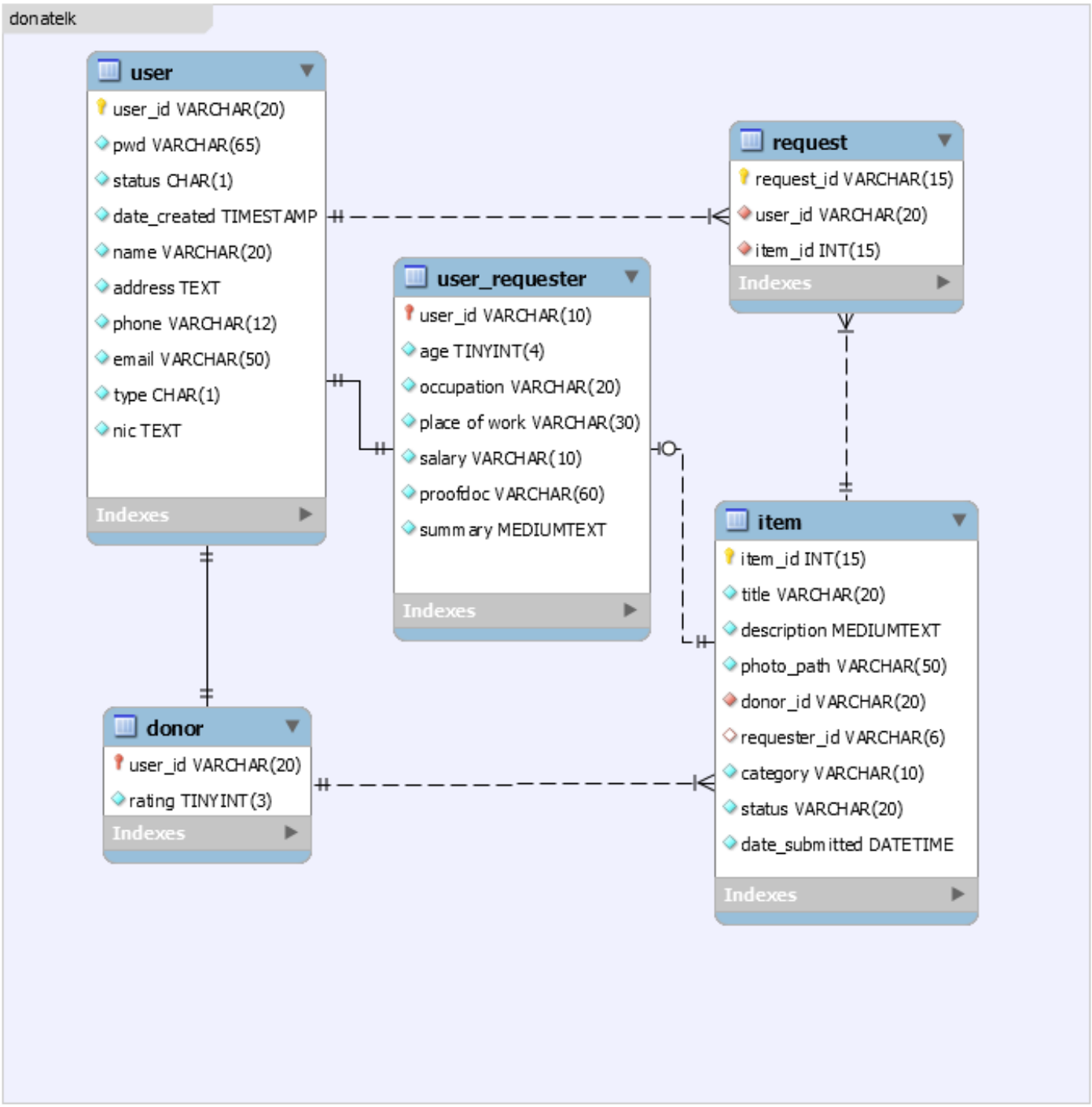


4.1.7. Database class



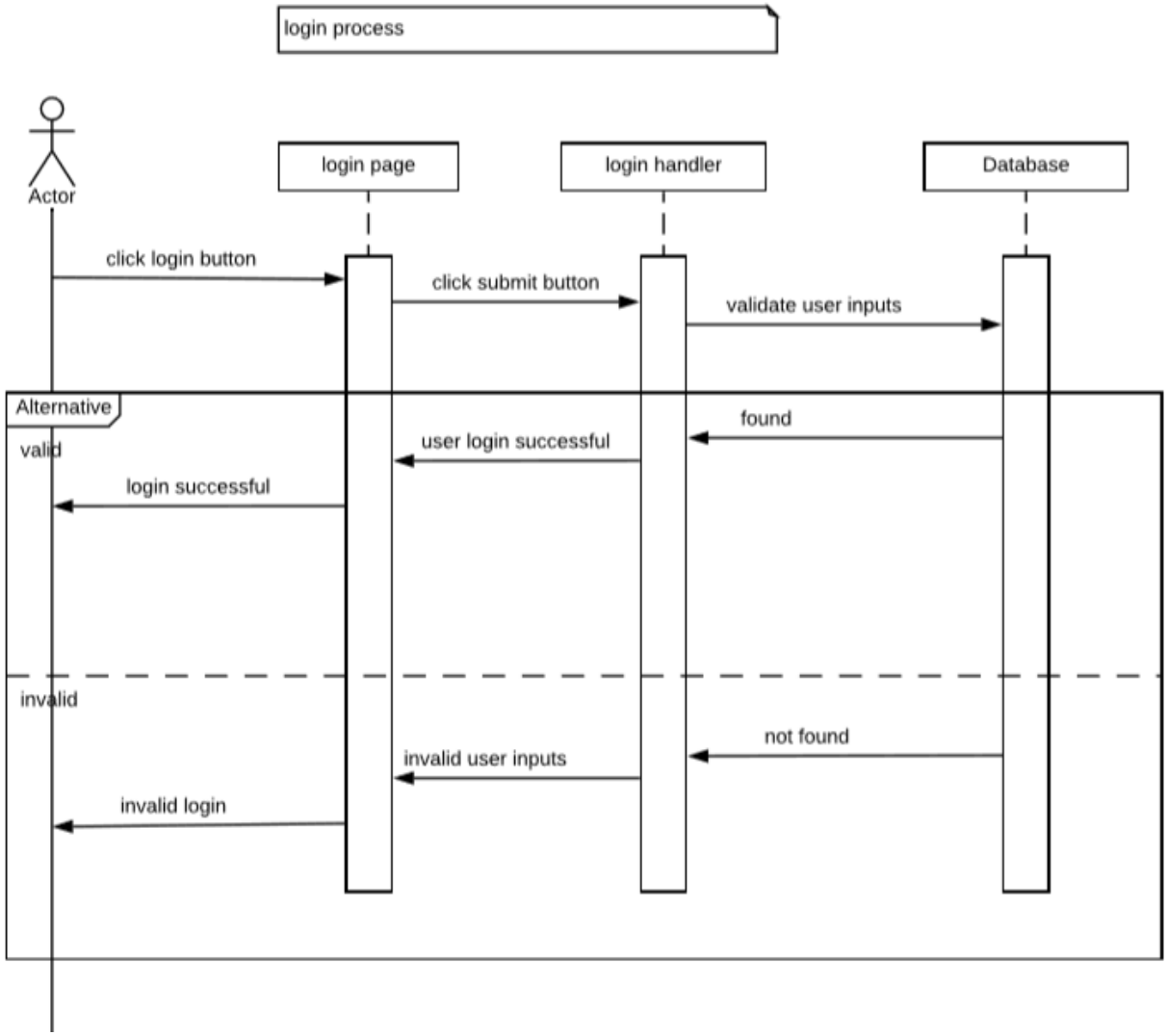
4.1.8. Exception class

4.2. Entity relationship diagram

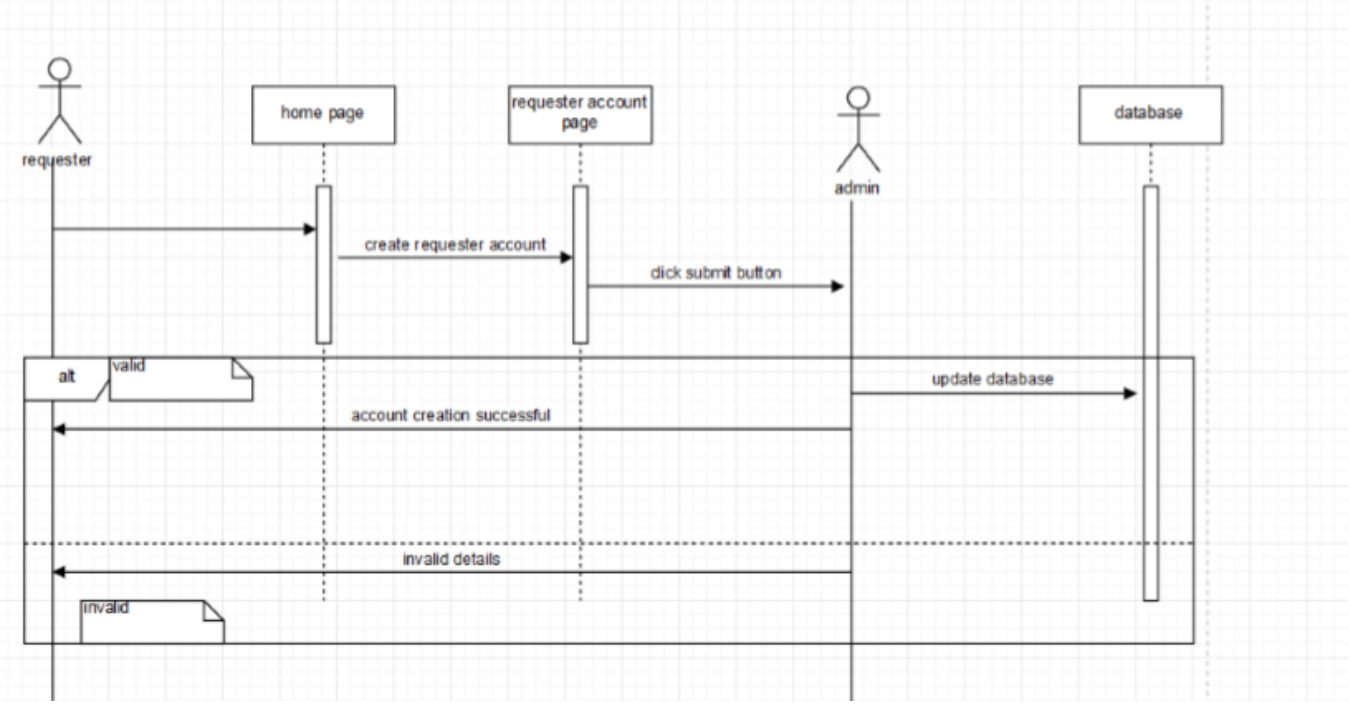


4.3. Sequence diagrams

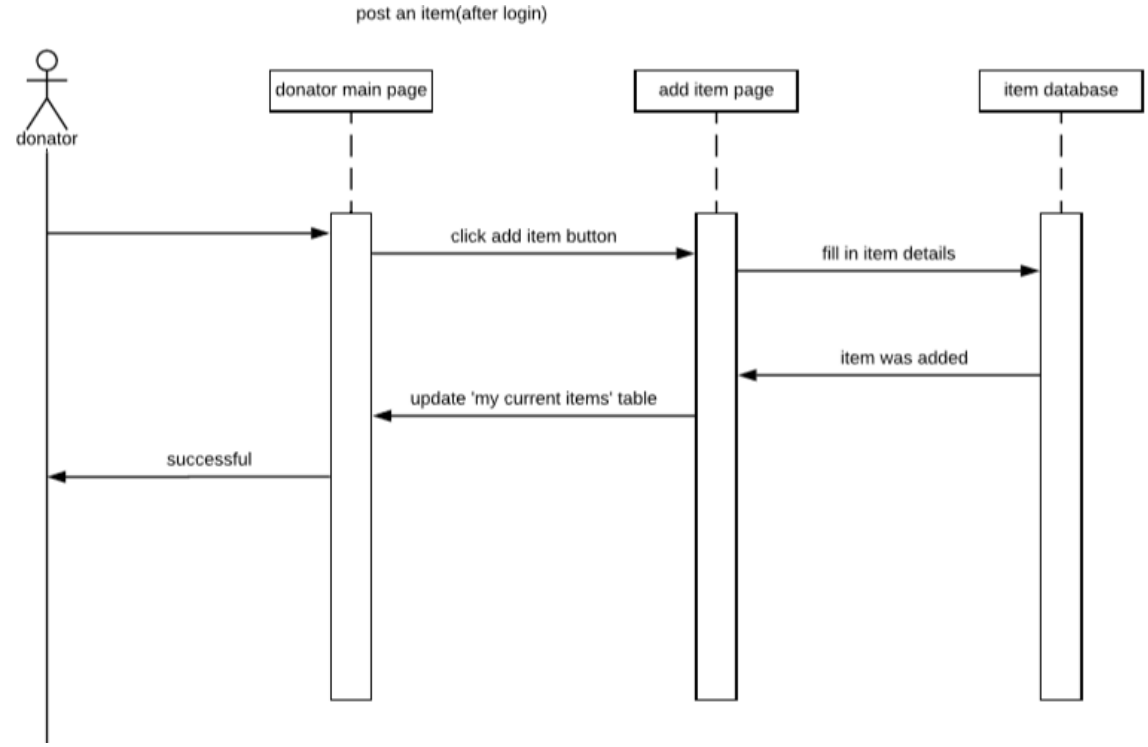
4.3.1. login



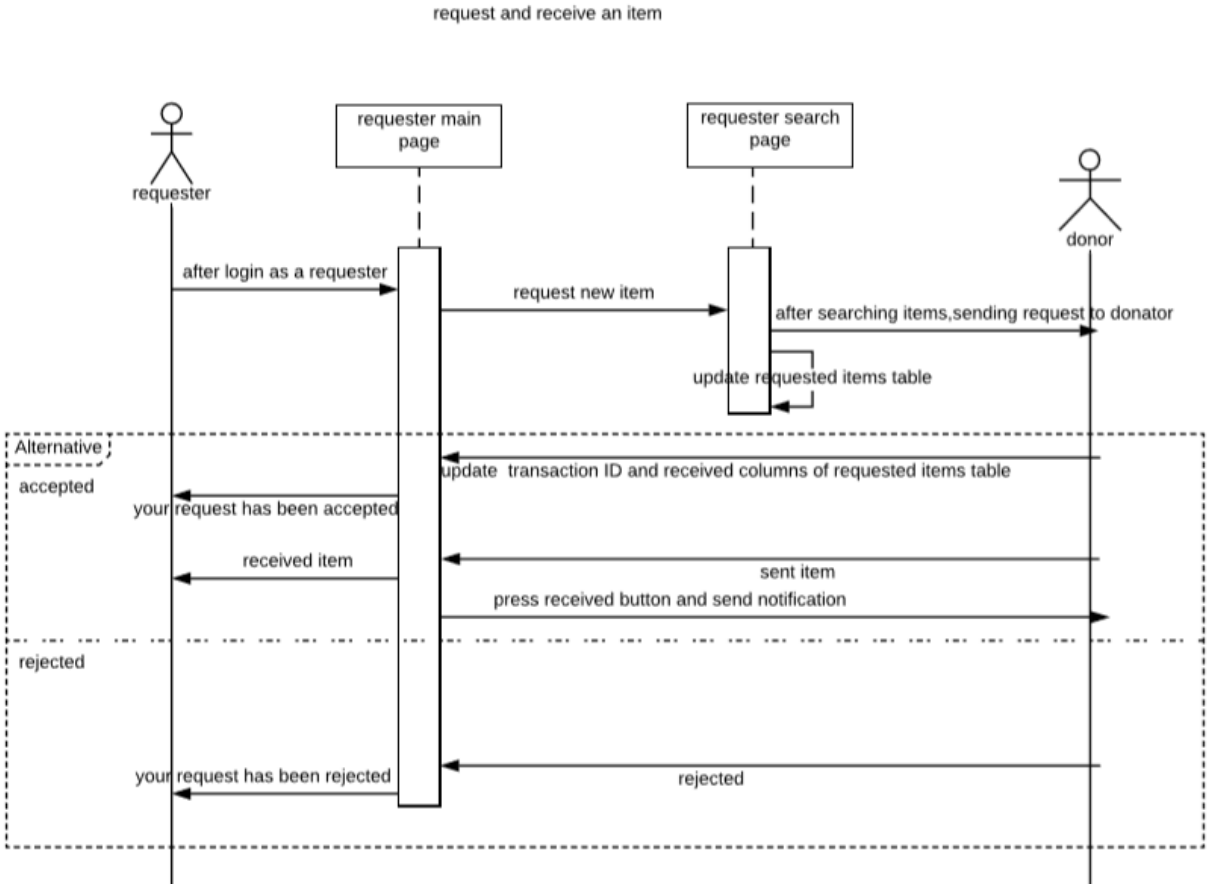
4.3.2. Recipient account verification



4.3.3. Advertise item



4.3.4. Request and receive an item



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End of SRS