The Online Management System for The Bank of Clothes in

The Hashemite University

**Faculty of Prince Al-Hussein Bin Abdallah II
for Information Technology**

The Hashemite University

Presented to:

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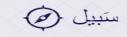Bashar Mahmoud Ali AlAmoush   Group   : 8

Anfal Abdallah Ali AlDraidi

May 2021

Table of Contents

1. **Preface:**

This project is about developing an online system for the bank of clothes in the Hashemite University (HU), to manage clothes and money donations and their distributions.

 Project:

 • Mobile Application (**Sabeel**)

This project will be prepared by the following four students:

1- Mahmoud Ibrahim Mahmoud Abu Aqel 1936150
2- Mohammad Hisham Saadat Al Kayali   1932562
3- Bashar Mahmoud Ali AlAmoush   1938983
4- Anfal Abdallah Ali AlDraidi   1932950

To present this system in an easy clear mode, we decided to divide the work based on the functions of the system according to actors' roles. Therefore, the system is composed of four users. Each student is responsible for executing all the demanded UML models for one user. Also, we used in this project the **DrawIO UML Tool** in modeling most of the requested diagrams except converting the Class Diagram to Database tables, we used **Microsoft Office Excel.** (All the requested UML Models are Attached with this document).

As for the tasks among the students, they were distributed as follows:

   ✚ **Mahmoud Ibrahim Mahmoud Abu Aqel, 1936150:**

1- Write and design the System's documentation.
2- Determine the name and the type of the system - Mobile Application (**Sabeel**).
3- Writing and drawing all the scripts and use cases which related to **the Donor,** plus the login script and use case.
4- Combine all the actors' use cases and draw the Use Case Diagram of the Bank of Clothes System.
5- The Class Diagram of the Donor.
6- Combine all the classes of the system, refine, coordinate them and draw the Class Diagram of the Bank of Clothes System.
7- The sequence Diagram for Make Clothes Donation Use Case.
8- The CRC Index Card for the Donor Class.
9- Mapping the Class Diagram to a Relational Database Tables (**the Donor**).

Mohammad Hisham Saadat Al Kayali, 1932562

1- Writing and drawing all the scripts and use cases which related to **System Administrator.**
2- The Class Diagram of the System Administrator.
3- The Sequence Diagram of Manage the clothes sorting Use Case.
4- The CRC Index Card for the System Administrator Class.
5- Mapping the Class Diagram to a Relational Database Tables **(System Administrator)**.

Bashar Mahmoud Ali AlAmoush, 1938983

1- Writing and drawing all the scripts and use cases which related to **the Volunteer.**
2- The Class Diagram of the Volunteer.
3- The sequence Diagram for View beneficiary information Use Case.
4- The CRC Index Card for beneficiary information Class.
5- Mapping the Class Diagram to a Relational Database Tables (**the Volunteer**).

Anfal Abdallah Ali AlDraidi, 1932950

1- Writing and drawing all the scripts and use cases which related to **the Beneficiary.**
2- The Class Diagram of the Beneficiary.
3- The Sequence Diagram of View the information of volunteer Use Case.
4- The CRC Index Card for the Beneficiary Class.
5- Mapping the Class Diagram to a Relational Database Tables (**the Beneficiary**).

2. <u>System Architecture:</u>

The system is designed to have two key components;
- Mobile Application (**Sabeel**)
- 4 Users:

  o Donors   (Done by Mahmoud Ibrahim Mahmoud Abu Aqel / 1936150)
  o System Administrator (Done by Mohammad Hisham Saadat Al Kayali / 1932562)
  o Volunteers   (Done by Bashar Mahmoud Ali AlAmoush / 1938983)
  o Beneficiaries   (Done by Anfal Abdallah Ali AlDraidi / 1932950)

3. The Use Case Model (Script & Diagram)

In this section we will describe in details the use case diagram of the bank of clothes system which represents the functionality of the system from the user's point of view, and we will divide the functions of the system according to actors' roles. First, we will start with the Donor's functions, then Admin's responsibilities, after that Volunteer's functions and finally with Beneficiary's functions.

3.1 The Donor

Use case name	Login
Actors	**Donor** , System Administrator, Volunteer, Beneficiary .
Pre-Condition	System must be connected to the network
Basic flow	1- Inter username 2- Inter password 3- Validate username and password 4- Allow access to system
Alternative flow	[Invalid name/password] At step 3 if the user name/ password is incorrect, the system shows an error message, The actor can choose to either return to the begginig of the basic flow or cancel the login at which point the use case ends.
Special requirments	None
Post-Condition	If the use case was successfull, the actor is now logged into the system, if not the system state is unchanged.

Use case name	Make Money Donation
Actors	**Donor**
Pre-Condition	Actor must be connected to the network
Basic flow	1- Include (Login) 2- Actor click donation form tab 3- System shows new page with lots of details to be filled. Includ (Fill out donation form) 4- Once the actor provides the requested information, He/she shall click at money donation tab, 5- Include (make payment) 6- Once the donar has made his/her donation successfully a confirmation email will be sent to him/her.
Alternative flow	None
Special requirments	None
Post-Condition	If the use case was succesful, the donation of money is submitted , otherwise its cancelled.

Use case name	**(Make Payment)**
Actors	**Donor**
Pre-Condition	The actor has choosen money donation
Basic flow	1- The actor has to make a payment
	2- There are two options for payment,either the actor selects a credit card payment method or paypal payment method
	3- If he/she selects credit card payment,
	4- Include (Insert credit card info)
	5- Otherwise he/she can select paypal payment method.
	6- The actor shall be able to confirm the payment by clicking the confirm button.
	7- Once the donar has made his/her donation successfully a confirmation email will be sent to him/her.
Alternative flow	[Cancel/Refund money] at step 4,5,6 or 7, while or after the doner has made the payment, but he/she changed his/her mind for any reason and wants to cancel/refund his/her money, he/she shall communicate with the bank of clothes either by email or by phone and requesting refund, the system shall transfer the money to his/her bank account during 3-7 working days.
Special requirments	None
Post-Condition	If the use case was succesful, the money donation is deposited at the bank of clothes bank account, otherwise no changes happened.

Use case name	**Fill out Donation Form**
Actors	**Donor**
Pre-Condition	Actor shall be logged in.
Basic flow	1- System shows new page with lots of details to be filled.
	2- Actor shall inter his/her forename and family name
	3- Actor shall inter his/her email and contact no.
	4- Actor shall inter his/her full address, city/state/street/postal code
	5- Actor press on OK button.
Alternative flow	None
Special requirments	None
Post-Condition	If the use case was succesful, the donor will choose the type of donation.

Use case name	**(Insert Credit Card Info)**
Actors	**Donor**
Pre-Condition	The actor selects credit card payment
Basic flow	1- The actor has to inter the type of the credit card 2- The actor shall inter the written name at the credit card. 3- The actor shall inter the NO. of the credit card. 4- The actor shall inter the expiration date of the card. 5- The actor shall inter the CVV no. Of the card.
Alternative flow	None
Special requirments	None
Post-Condition	The actor confirm the payment by clicking the confirm button.
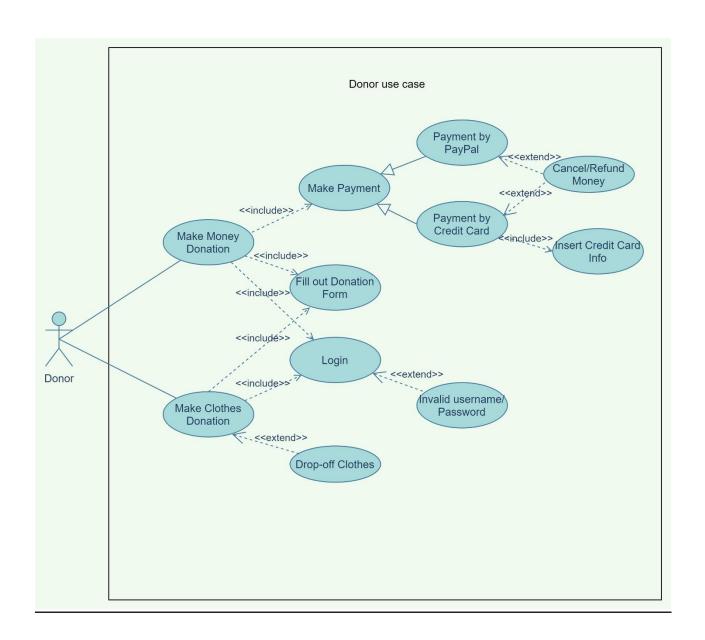
Use case name	**Make Clothes Donation**
Actors	Initiated by **Donor,** Communicated with Volunteer
Pre-Condition	Actor must be connected to the network
Basic flow	1- Include (Login) 2- Actor click donation form tab 3- System shows new page with lots of details to be filled. Includ (Fill out donation form) 4- Once the actor provides the requested information, He/she shall click at clothes donation tab, 5- The actor click clothes discription button to specify the type, the gender and the number of the provided pecies. 6- The actor click scheduling a pick-up button and inter the location,date and the time of picking-up. 7- Otherwise he/she can drop-off donations to the bank location.
Alternative flow	[Drop-off donations] At step 7 the donor can drop-off his/her donations to the bank location at any time he or she prefers with the cooperating with the volunteer instead of scheduling a pick-up, and the Volunteer will communicate with the donor as soon as he/she choose his/her type of donation .
Special requirments	None
Post-Condition	the volenteer will communicate with the donor to detrmin when and where can he/she pick-up the donations.

Donor use case

3.2 The System Administrator

Use case name	**Manage Bank Account**
Actors	**System Administrator**
Pre-Condition	Actor must go to the bank
Basic flow	1. The System administrator gives the bank employee the clothing bank bank card and the card information 2. The System administrator can transfers money to a clothing factory 3. The System administrator can withdrow funds if needed
Alternative flow	(Use bank account) At step 2 System Administrator can use bank account app, he\she will 1- Login using user name and password 2- Choose make transfer then he\she will fill the form of transfer money. 3-The system will send Confirmation message showing some information about money transfer process
Special requirments	None
Post-Condition	If the use case was successful, A change occurs in the bank account (An increase in the case of deposit, a decrease in the case of transfer to factories)

Use case name	**View users information**
Actors	**System Administrator**
Pre-Condition	Actor must be connected to the network
Basic flow	1. Include (Login) 2. Actor Choose View users information 3. System will open new page that show the users information (Beneficiaries, The Donor and the volunteer)
Alternative flow	(Modify users information) In step 2 If there is an error in the information about the users the System Administrator can modify their information
Special requirments	None
Post-Condition	If the use case was succesful,The Administrator can show the information about all users.

<u>Use case name</u>	**<u>Communicate with volunteers and Beneficiaries</u>**
Actors	**System Administrator**
Pre-Condition	Actor must be connected to the network
Basic flow	1. Include (Login) 2. Actor will write the name for who want to Communicate with him and 3. The system will open new page to chat with that user (like microsoft team chat) 4. Then the Administrator write his message and click on send button
Alternative flow	None
Special requirments	None
Post-Condition	If the use case was successful, the message will arrive to the user

<u>Use case name</u>	**<u>Manage the clothes sorting</u>**
Actors	**System Administrator**
Pre-Condition	Actor must be connected to the network
Basic flow	1. Include (Login) 2. Actor Chose take a look at clothes sorting. 3. The system open new page this page will show the type of the clothes and the number of each type.
Alternative flow	(Add a new clothes type) If someone donated with new type of clothes (Type not found in the system)
Special requirments	None
Post-Condition	If the use case was successful,The Administrator can show the sorting of all type of clothes in the system

<u>Use case name</u>	**<u>Dealing with factories</u>**
Actors	**System Administrator**
Pre-Condition	Actor must be connected to the network and open his email
Basic flow	1. Include (Insert bank clothes email) 2. Actor write to who will send the email(factory) 3. Actor will write the massege and click on send button
Alternative flow	None
Special requirments	None
Post-Condition	If the use case was successful,The message will arrive to the factory
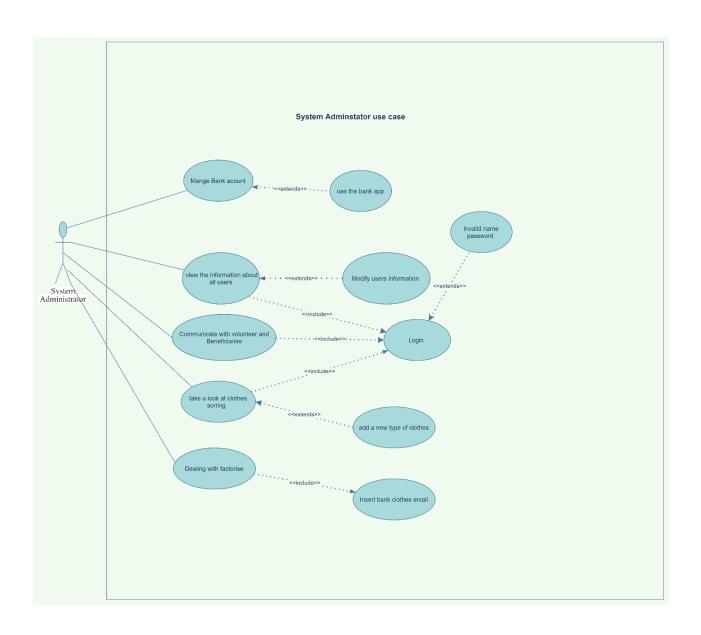
System Adminstator use case

System Administrator

Mange Bank acount

use the bank app

········<<extends>>········

view the information about all users

Modify users information

Invalid name password

········<<extends>>········

········<<extends>>········

Communicate with volunteer and Beneficiaries

Login

········<<include>>········

········<<include>>········

take a look at clothes sorting

········<<include>>········

add a new type of clothes

········<<extends>>········

Dealing with factorise

Insert bank clothes email

········<<include>>········

11

3.3 The Volunteer

Use case name : Sort the clothes

Actors :   the volunteer

Pre-Condition :   should the volunteer be in the place where sort clothes .

Basic flow :   1- the Volunteer sort the clothes depending on the type of clothes

2- the volunteer sort the clothes depending if it new or used .

3- if it new he/she shall not wash it.

4- if it used include (wash usable clothes)

5-after wash the clothes put into packages.

Alternative flow : [get rid of faulty clothes] at step 1, After volunteer, sort the clothes , he/she classify the clothes whether they are useful or useless for the beneficiary , in that case the volunteer shall get rid of the useless or faulty clothes or recycle it .

Special requirements : None

Post conditions : the volunteer end from sort clothes when there is no clothes to sort.

Use case name :   view donors information

Actors :   the volunteer

Pre-Condition :   the volunteer should connect with internet**.**

Basic flow :   1- include [login to the system]

2- click view ,to view the information of donor (location and phone number).

3- go to the donor location to collect the clothes .

4- back to place -where sort clothes - and put clothes to sort it .

Alternative flow :   None

Special requirements : None

Post condition :   after put clothes on place of sort clothes , the volunteer click done to view on the system the clothes had collected from donor.

Use case name :   view beneficiary information

Actors :   the volunteer

Pre-Condition :   the volunteer should connect with internet**.**

Basic flow : 1- include [login to the system]

2- click view ,to view the information of beneficiary (location and phone number).

3- put the package in the car and go to the place where beneficiary live .

4-the volunteer Deliver the package to the beneficiary.

Alternative flow :　　　None

Special requirements : None

Post condition :　　　after delivery the package , the volunteer click done to view on the system the package had delivery.

Use case name :　　　**fill volunteer form**
Actors :　　　　　**the volunteer**
Pre-Condition :　　　the volunteer should connect with internet**.**

Basic flow : 1- include [login to the system]

2- click fill form volunteer ,to show the form .

3- the volunteer enter his /her information (like number phone and free

time to volunteer)

4- the system send verification code to phone number to confirm the form of

volunteer.

5- enter verification code and click confirm.

Alternative flow : at step 3[incorrect information], when the volunteer enter his / her information may be there's info not incorrect or not be like specific form, the system shown massage "the phone number incorrect" or any type of info.

Special requirements : None

exit conditions :　　　show to the volunteer his/her profile in the system.

Use case name :　　　**put the clothes in package**
 Actors :　　　　　**the volunteer**
Pre-Condition :　　　should the volunteer be in the place where clothes packaging   .

Basic flow :　　1- the volunteer have the empty package

2- [**include]** the volunteer see what the beneficiaries want on the system.
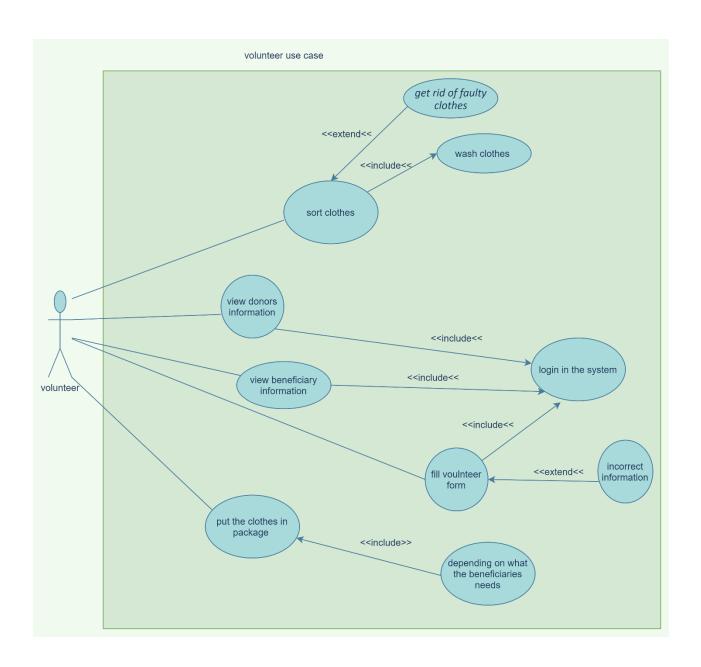
3- the volunteer put the clothes in package depending what beneficiaries wants .

4- close the package and take the package on place to shipping it to needy .

Alternative flow :　　　None

Special requirements : None

Post conditions :　　　when the time is end or there is no clothes to package it.

volunteer use case

get rid of faulty clothes

<<extend<<

<<include<<

wash clothes

sort clothes

view donors information

<<include<<

view beneficiary information

<<include<<

login in the system

<<include<<

volunteer

fill voulnteer form

<<extend<<

incorrect information

put the clothes in package

<<include>>

depending on what the beneficiaries needs

3.4 The Beneficiary

Use case name	**Fill Beneficiaries Form**
Actors	**Beneficiaries**
Pre-Condition	Actor shall be logged in .
Basic flow	1. clicks fill beneficiaries form
	2. Actor inter the forename and family name
	3. Actor inter the email and contact no.
	4. Actor inter the full address, city/state/street address
	5. Actor press on ok button.
Alternative flow	[Saved data] At step 5 if the actor fill the form before , the system shows a message " you fill the form before , "The actor click in cancel .
Special requirments	None
Post-Condition	If the use case was succesful, the Beneficiaries info will be saved .

Use case name	**View the information of volumteer**
Actors	**Beneficiaries**
Pre-Condition	Actor must be connected to the network .
Basic flow	1. Include(login)
	2. Include(fill the form)
	3. Click on show details
	4. System show volunteer details (name , contact number , and the address) .
	5. Actor looking in the detail
	6. Actor can connect with the volunteer if he/she wonders about the package
Alternative flow	[Nothing to receive] At 1 2 3 or 4 if the actor does not have any package to receive he/she can fill the form include fill out beneficiaries.
Special requirments	none
Post-Condition	The actor will communicate with the volunteer to determine receipt details.

Use case name	**Send back the clothes**
Actors	**Beneficiaries**
Pre-Condition	Actor shall be receive the package .
Basic flow	1. Actor choice send back clothes
	2. Include [View info of volumteer]
	3. Actor communicate with the volunteer
	4. Volunteer make the necessary measures
	5. Actor receive the clothes to the volunteer
Alternative flow	[Not exposed details]
	At 2 or 3 If the actor couldn't communicate with the volunteer, he/she can donate the clothes for anther people who need by the system or for people who know.
Special requirments	None
Post-Condition	The actor will send back the clothes that he/she does not needed.
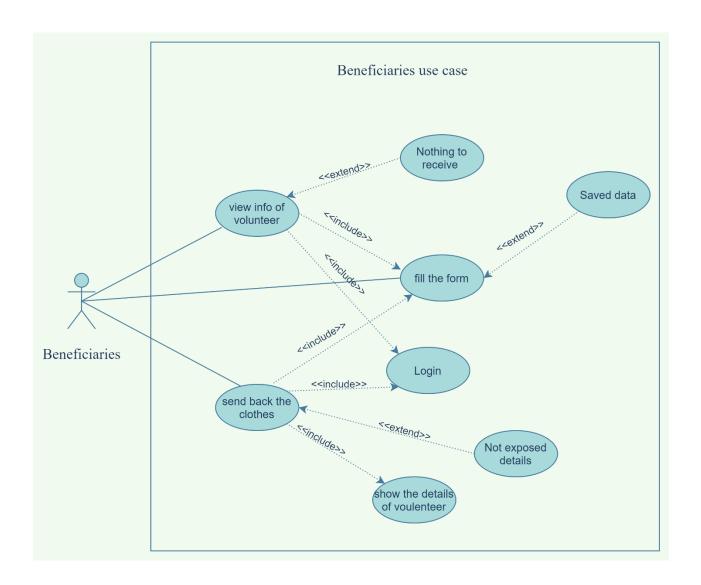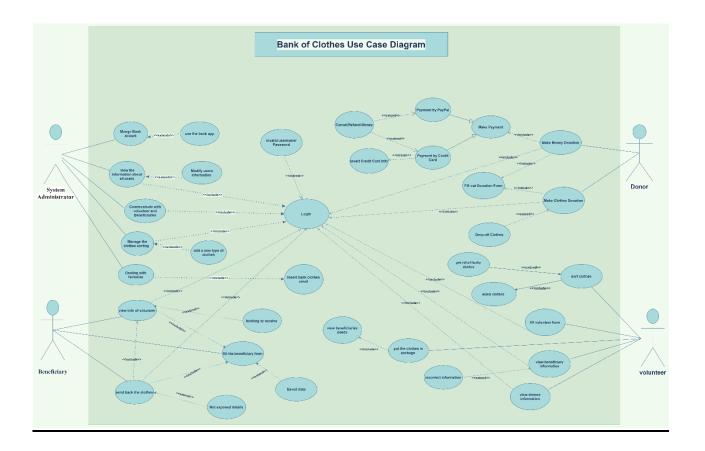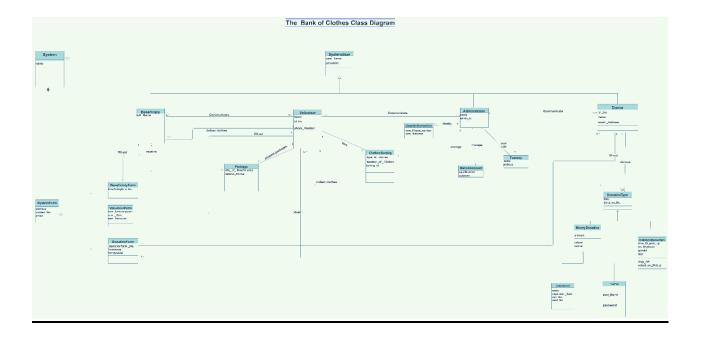
Beneficiaries use case

❖ <u>The Use Case Diagram of the Bank of Clothes System</u>

Bank of Clothes Use Case Diagram

4. The Class Diagram of the Bank of Clothes System
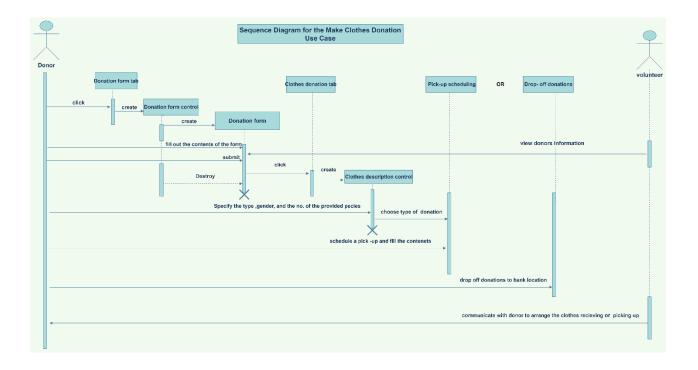
The Bank of Clothes Class Diagram
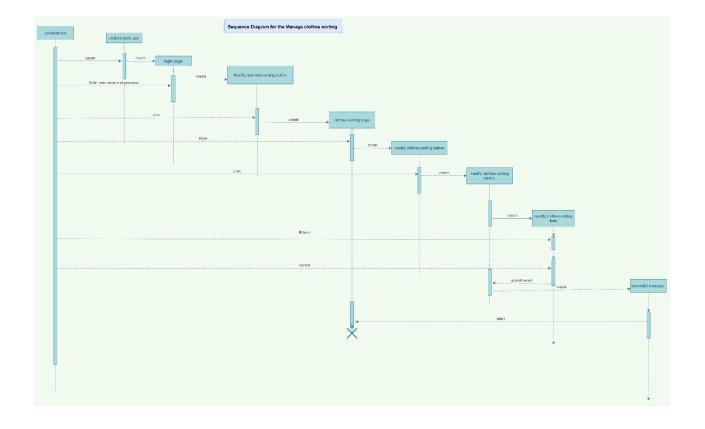
5. The Sequence Diagram of the Bank of Clothes System
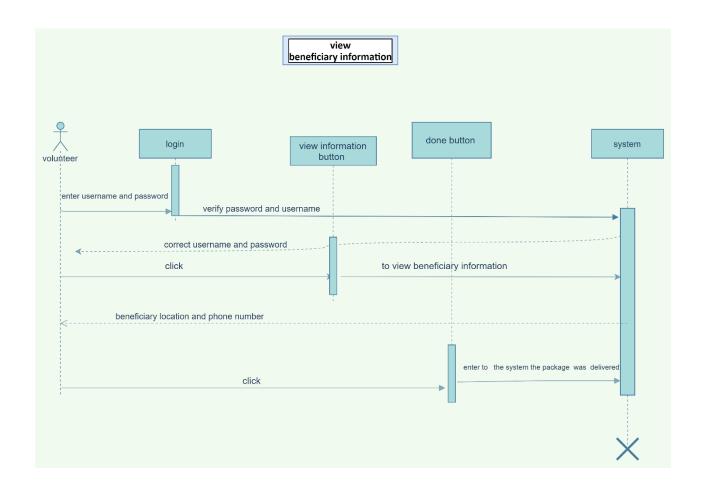
5.1 The Donor (Make Clothes Donation Use Case)

Sequence Diagram for the Make Clothes Donation Use Case
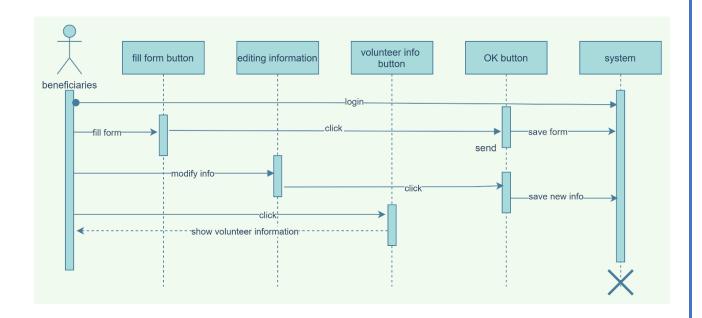
5.2 The System Administrator (Manage the clothes sorting Use Case)

Sequence Diagram for the Manage clothes sorting

5.3 <u>The Volunteer</u> (View beneficiary information Use Case)

5.4 **The Beneficiary** (View the information of volunteer)

6. Class - Responsibility - Collaborator (CRC Model)

6.1 CRC Index Card for the Donor Class

Donor	
Knows name & e-mail	
Knows address	
Fill out the donation form	Donation form
Drop-off donations	
Scheduale a pick-up	Volunteer
Knows credit card details	
Selects type of payment	
Cancel the payment	System
Make payment	System

6.2 CRC Index Card for the System Administrator Class

System Adminstrator	
knows the info about users	
take a look at clothes sorting	
communicate with users	
mange bank acount	bank

6.3 CRC Index Card for <u>the beneficiary information class</u>

beneficiary information	
-name beneficiary -phone number beneficiary -location beneficiary -call the beneficiary	-system

6.4 CRC Index Card for <u>the Beneficiary</u>

Beneficiary	
Contact no Full name Address Volunteer information resnd clothes	System

7. Mapping the Class Diagram to a Relational Database Tables

7.1 The Donor Database Tables

Donor Table *

Donor ID	Name	Email Address
11111	Mahmood	mahmoud@yahoo.com
11112	Ahmed	2001@hotmail.com
11113	Ali	….
11114	Yousef	….

1 Volunteer Table

Volunteer ID	Name	Phone No.
22222	Alaa	799454783
22223	Yazan	…..
22224	Yara	…..
22225	Dana	…..

One - to - Many associations

Donor Table

Volunteer ID (FK)	Donor ID	Name	Email Address
22222	11111	Mahmood	….
22223	11112	Ahmed	….
22224	11113	Ali	….
22225	11114	Yousef	….

Donor Table 1

Donor ID	Name	Email Address
11111	Mahmood	mahmoud@yahoo.com
11112	Ahmed	2001@hotmail.com
11113	Ali	….
11114	Yousef	….

* Donation Form Table

Donation Form No.	Forename	Family name
22222	Mahmood	Ibrahim
22223	Ahmed	Nasser
22224	Ali	…..
22225	Yousef	…..

One - to - Many associations

Donation Form Table

Donor ID (FK)	Donation Form No.	Forename	Family name
11111	22222	Mahmood	Nasser
11112	22223	Ahmed	…..
11113	22224	Ali	…..
11114	22225	Yousef	…..

Donation Type Table

Donation No.	Date
1	1/1/2021
2	1/1/2021
3	1/1/2021
4	1/1/2021

Horizontal mapping (Inheritance)

Money Donation Table

Donation No.	Date	Amount
1	1/1/2021	50 JD
2	1/1/2021	10 JD
3	1/1/2021	3 JD
4	1/1/2021	100 JD

Clothes Donation Table

Donation No.	Date	Gender	Size	No. of pieces	Time of pickup
1	1/1/2021	male	L	3	6:00 PM
2	1/1/2021	female	XL	10	11:00 AM
3	1/1/2021	male	S	6	4:30 PM
4	1/1/2021	female	M	12	9:00 AM

Money Donation Table

Amount
50 JD
10 JD
3 JD
100 JD

Horizontal mapping (Inheritance)

Credit Card Table

Amount	Card No.	Name	CVV No.	Expiration Date
50 JD	1	Mahmood	50 JD	1/1/2021
10 JD	2	Ahmed	10 JD	1/2/2021
3 JD	3	Ali	3 JD	30/1/2021
100 JD	4	Yousef	100 JD	31/5/2021

PayPal Table

Amount	User Name	Password
50 JD	1	Dddd8678*
10 JD	2	.....
3 JD	3	.....
100 JD	4	.....

Donar Table *

Donar ID	Name	Email Address
11111	Mahmood	mahmoud@yahoo.com
11112	Ahmed	2001@hotmail.com
11113	Ali	….
11114	Yousef	….

1 Administrator Table

Name	Admin ID
Kayali	1
Kayali	1
Kayali	1
Kayali	1

One - to - Many associations

Donar Table

Admin ID (FK)	Donar ID (PK)	Name	Email Address
1	11111	Mahmood	mahmoud@yahoo.com
1	11112	Ahmed	2001@hotmail.com
1	11113	Ali	….
1	11114	Yousef	….

7.2 The Administrator Database Tables

Users Information Table <mark>*</mark>

New phone No.	New Address
792222222	Zarqa
782345678	Amman
778866565	Amman
795656553	Zarqa

<mark>1</mark> Administrator Table

Admin ID	Name
1	Kayali
….	……
….	……
….	……

One - to - Many associations

Users Information Table

Admin ID (FK)	New phone No.	New Address
1	792222222	Zarqa
….	782345678	Amman
….	778866565	Amman
….	795656553	Zarqa

Volunteer Table <mark>*</mark>

Volunteer ID	Name	Phone No.
22222	Alaa	799454783
22223	Yazan	…..
22224	Yara	…..
22225	Dana	…..

<mark>1</mark> Administrator Table

Admin ID	Name
1	Kayali
….	Kayali
….	Kayali
….	Kayali

One - to - Many associations

Volunteer Table

Admin ID	Volunteer ID	Name	Phone No.
1	22222	Alaa	799454783
….	22223	Yazan	…..
….	22224	Yara	…..
….	22225	Dana	…..

Donar Table <mark>*</mark>

Donar ID	Name	Email Address
11111	Mahmood	mahmoud@yahoo.com
11112	Ahmed	2001@hotmail.com
11113	Ali	….
11114	Yousef	….

<mark>1</mark> Administrator Table

Name	Admin ID
Kayali	1
….	….
….	….
….	….

One - to - Many associations

Donar Table

Admin ID (FK)	Donar ID	Name	Email Address
1	11111	Mahmood	mahmoud@yahoo.com
….	11112	Ahmed	2001@hotmail.com
….	11113	Ali	….
….	11114	Yousef	….

Clothes Sorting Table <mark>*</mark>

Sorting ID	Type of clothes	No of clothes
0001	Shirt	123
0002	Trousers	542
0003	Bouses	300
0004	Shorts	1000

<mark>1</mark> Administrator Table

Name	Admin ID
Kayali	1
….	….
….	….
….	….

One - to - Many associations

Clothes Sorting Table

Admin ID	Sorting ID	Type of clothes	No of clothes
1	0001	Shirt	123
….	0002	Trousers	542
….	0003	Bouses	300
….	0004	Shorts	1000

Factory *

Name	Address
Alkopra	Zarqa
….	Amman
….	Marka
….	Zarqa

1 Administrator Table

Name	Admin ID
Kayali	1
….	….
….	….
….	….

One - to - Many associations

Factory

Admin ID	Name	Address
1	Alkopra	Zarqa
….	….	Amman
….	….	Marka
….	….	Zarqa

Bank Account Table 1

Card No.	Password
2222	1122
3333	2233
4444	….
5555	….

1 Administrator Table

Name	Admin ID
Kayali	1
….	….
….	….
….	….

One - to - one association

Bank Account Table

Admin ID	Card No.	Password
1	2222	1122
….	3333	2233
….	4444	….
….	5555	….

7.3 The Volunteer Database Tables

Volunteer table

Volunteer ID : int	Name :string	Phone no : int
1	Bashar	123456789
2	Mahmoud	456983217
3	Ali	789321456

Beneficiary table

Beneficiary no : int	Full name : string
111	Bashar
222	Mahmoud

Many to many association

Volunteer id :int	Beneficiary no : int
1	111
2	222

Volunteer table

Volunteer id: int	Name :string	Phone no : int
1	Bashar	123456789
2	Mahmoud	456983217
3	Ali	789321456

Beneficiary table

Beneficiary no : int	Full name : string
111	Bashar
222	Mahmoud

One to many association

Volunteer id : int	Beneficiary no int	Full name : string
1	111	Bashar
2	222	Mahmoud

Volunteer table

Volunteer id : int	Name :string	Phone no : int
1	Bashar	123456789
2	Mahmoud	456983217
3	Ali	789321456

Volunteer Form table

New volunteer no	New name	New password	New phone no
11	bashar	Basar qqq	123456778
22			

One to one association

New volunteer no	New name	New password	New phone no	Volunteer no (fk)
11	Bashar	Bashar qqq	12345678	1
22				

Volunteer table

Volunteer id : int	Name :string	Phone no : int
1	Bashar	123456789
2	Mahmoud	456983217
3	Ali	789321456

Package table

Info of beneficiary	No of clothes
Bashar 267351	8

One to many association

Volunteer id (fk)		Info of beneficiary	No of clothes
1		Bashar 12783	8

Volunteer table

Volunteer id : int	Name :string	Password : string	Phone no : int
1	Bashar	Bashar zzz	123456789
2	Mahmoud	Mahmoud qq	456983217
3	Ali	Ali mmm	789321456

Donation Form table

Donation form no	First name	Family name
123	bashar	omoush

One to many association

Volunteer id(fk)	Donation form no	First name	Family name

Volunteer table

Volunteer id : int	Name :string	Phone no : int
1	Bashar	123456789
2	Mahmoud	456983217
3	Ali	789321456

Donor table

Donar ID	Name	Email Address
11111	Mahmood	….
11112	Ahmed	….
11113	Ali	….
11114	Yousef	….

One to many association

Volunteer id (pk)	Donor id	Name	Email address
1	11111	Mahmoud	…
2	11112	Ahmad	…
3	11113	Bashar	…

Volunteer table

Volunteer id : int	Name :string	Phone no : int
1	Bashar	123456789
2	Mahmoud	456983217
3	Ali	789321456

Clothes Sorting

Sorting Id	Type of clothes	Number of clothes
0001	Shirt	123
0002	Trousers	542

One to many association

Volunteer id(pk)	Type of clothes	Number of clothes	Place of sort clothes
1	Shirt	123	…..
2	trousers	542	…..

Volunteer table

Volunteer no id : int	Name :string	Phone no : int
1	Bashar	123456789
2	Mahmoud	456983217
3	Ali	789321456

Administrator

Name	Admin ID
Kayali	1

One to many association

Admin ID	Volunteer id (pk)
1	1

7.4 The beneficiary Database Tables

Beneficiary table

Full-name

Beneficiary form table

Form no	Phone no .	ID	Full name

Mapping Beneficiary many to many Beneficiary form

Beneficiary form table

Form no	Phone no .	ID	Full name

Package

Number of package

Mapping beneficiary form many to many package

Beneficiary table

Full-name

Volunteer table

Name	Password	Phone number

Mapping beneficiary many to many volunteer

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