Software Requirements Specification

Version 1.0

May

Hand By Hand charities application

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Of the requirements of

CS 310 Software Engineering

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1.0. Introduction

1.1. Purpose:

The purpose of this document is to present a detailed description of the Hand By Hand charities application. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. This document is intended for both the stakeholders and the developers of the system and will be proposed to the Regional Historical Society for its approval.

1.2. Scope of Project

This system is directed at charities that raise proposals to help the poor and needy it is also directed at people who wish to donate, as they are aware of the proposals sent by associations and leave them free to choose the assistance they wish to provide. It is also directed to all people who need financial assistance, food, or surgery ... as their information is registered with the associations in which they participated in order to provide them with the necessary assistance by these associations after receiving support from donors.

More specifically, this system is designed to allow a charity to communicate with donors and people, the software

will facilitate this communication. The system contains a database containing a list of Donors, proposal and Member.

1.3. Glossary

Member	People who need money, food, or surgery help
	and they send a help request to the charity
Donor	People who provide support to charities,
	whether it is with money, food, or anything else
charity	The organization that manage donations and
	communication with donors and members
Join to	This is the process in which the member join
charity	the association so that he can then interact
	with the active proposals
Active	It is the document that the system manages
proposal	and moves in, and the charity controls it,
	members and donors interact with it
Atlas cloud	It is a database on Atlas Server Cloud that
database	contains data of the association, members and
	donors
Software	A document that completely describes all of the
Requirements	functions of a proposed system and the
Specification	constraints under which it must operate. For
	example, this document.
User	Donor , Member or Charity
Stakeholder	Any person with an interest in the project who is
	not a developer.

Follow	This is the process in which the Donor Follow
	the Charity so that he can then interact with the
	active proposals and see all the proposals from
	all charity that follow its.

1.4. References

IEEE. IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications. IEEE Computer Society, 1998.

Terrastruct:

https://app.terrastruct.com/diagrams/446321296/edit.

SRSExample-webapp.pdf

Software Engineering, Global Edition

1.5. Overview of Document:

The next chapter, the Overall Description section, of this document gives an overview of the functionality of the product. It describes the informal requirements and is used to establish a context for the technical requirements specification in the next chapter. The third chapter, Requirements Specification section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product. Both sections of the document describe the same software product in its entirety, but are intended for different audiences and thus use different language.

2.0. Overall Description

2.1 System Environment

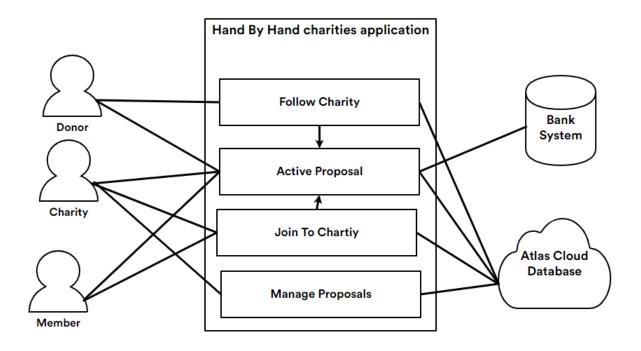


Figure 1 - System Environment

The Hand By Hand charities communication

System has three active actors and one cooperating system. The Charity, Donors, Member, A cloud Atlas database and Bank System.

Charity manage the proposer and upload it to the internet after that can Members who join to charity and Donor who follow this charity to interact with active proposer. Any Donor or Member communication with the system is through email or username.

The Charity accesses the entire system directly. There is a link to the cloud Atlas database.

2.2 Functional Requirements Specification

This section outlines the use cases for each of Charity separately. The Donors, and the Member.

2.2.1 Charity Use Case

Use case: Manage Account

Diagram

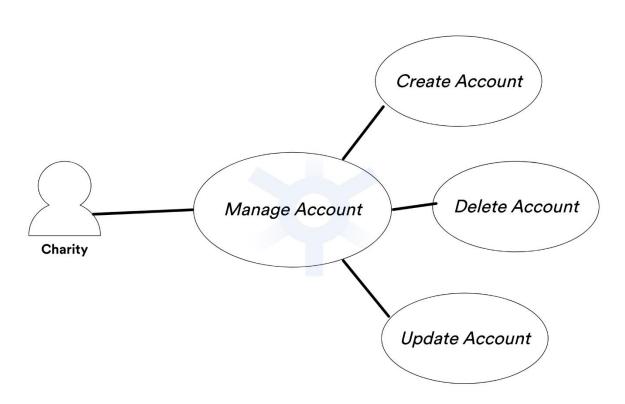


Figure 2 - Charity Manage Account

Use case: Create Account

Diagram

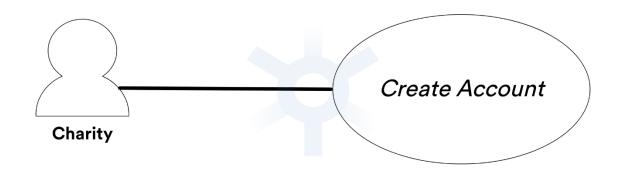


Figure 3 - Charity Create Account

Brief Description

The charity add information to register in the application

Initial Step-By-Step Description

- 1. The user select register as a charity
- 2. The user add personal information
- 3. The user click on add.
- 4. The system verifies the information.
- 5. The system add the authentication information to database

Xref: Section 3.2.1, Manage Account charity, create Account

Use case: Delete Account

Diagram

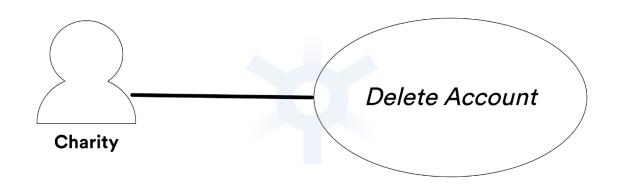


Figure 4 - Charity Delete Account

Brief Description

The charity can delete their account on the database by system

Initial Step-By-Step Description

Before this use case the charity has already accessed the main page of the application.

- 1. The charity click on tap profile
- 2. The charity click on delete bottom.
- 3. The charity input email address and password
- 4. The system check valid information

5. The system delete account and all information about this charity from database.

Xref: Section 3.2.1, Manage Account charity, delete Account

Use case: Update Account

Diagram

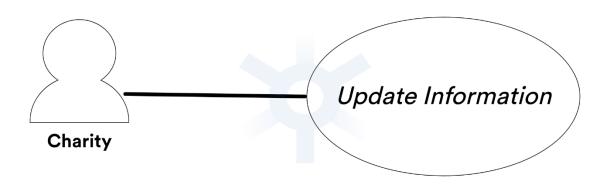


Figure 5 - Charity update Account

Brief Description

The charity can add or update information about current charity.

Initial Step-By-Step Description

Before this use case the charity has already accessed the main page of the application.

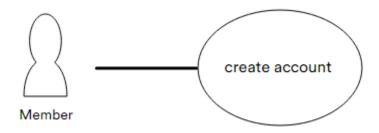
- 1. The charity click on tap profile.
- 2. Update the information that want to update it.
- 3. The charity click on the save bottom.
- 4. The system verifies the information.
- 5. The system update this information on database.

Xref: Section 3.2.1, Manage Account charity, update Account

2.2.2 Member Use Case

Use case: create account

Diagram:



Brief Description:

The member creates an account on the application after installing this application on his device in order to be able to interact with the services provided by this application

Initial step-by-step description:

Before starting this use case, the member has previously installed the application on his mobile phone or accessed the

website via the Internet.

1. The member chooses to register an account in the

application as a member.

2. The system poses several questions for the member to

answer.

3. Then the system saves the member's information.

4. The system displays the member's home page, where there

are several tabs that enable the user to view his profile, view

charities, or modify his information.

5. The member is allowed freedom of movement between

tabs.

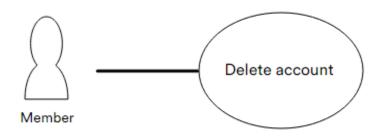
Xref: Section 3.2.2 Manage Account Member, Create member

account.

Use case: Delete member account

Diagram:

13



Brief Description:

A member can completely delete his account from the system **Initial step-by-step description:**

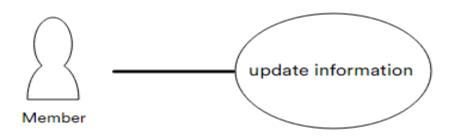
The condition for the member to use the deletion feature is that he already has an account

- 1- The member chooses to delete his account from the settings.
- 2. Then the system deletes all information related to this member
- 3. If the member wants to log in again, he must create a new account

Xref: Section 3.2.1, Manage Account Member, Delete Account.

Use case: update member information

Diagram:



Brief Description:

A member can modify the information that he entered during the creation of his account

Initial step-by-step description:

The member must be logged in from the account that he previously created

- 1- The member chooses to modify his information from the settings.
- 2. Then the system displays all its information and allows it to be modified
- 3. After modification and pressing the Save changes button, the system saves the new information

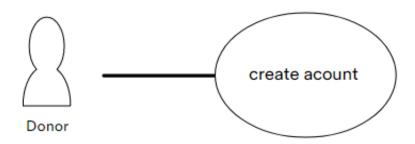
Instead of the old one

Xref: Section 3.2.1, Manage Account Member, Delete member account.

2.2.3 Donor Use Case

Use case: create account

Diagram:



Brief Description:

The donor creates an account on the application after installing this application or through the web page so that he can donate to charity through it.

Initial step-by-step description:

Before starting this use case, the donor had previously installed the app on their mobile phone or accessed their website online.

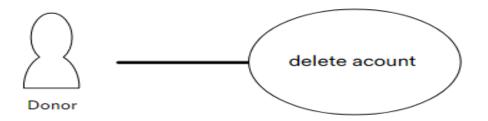
- 1- The donor chooses to register an account in the application as a donor.
- 2. The system poses several questions for the donor to answer.
- 3. Then the system saves the donor information.
- 4. The system displays the main page of the donor, where there are several tabs that enable the user to view his profile, view charities, or modify his information (settings).

5. The donor is allowed to move freely between tabs.

Xref: Section 3.2.3, Manage Donor's Account, Create Donor's account.

Use case: Delete donor account

Diagram:



Brief Description:

A donor can completely delete his account from the system.

Initial step-by-step description:

A requirement for the donor to use the delete feature is that they already have an account

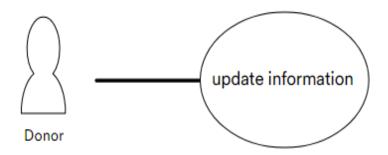
- 1- The donor chooses to delete his account from the settings.
- 2. Then the system deletes all information related to this donor

3. If the donor wants to log in again, they must create a new account

Xref: Section 3.2.3, Manage Donor's Account, Delete Donor's account.

Use case: update donor information

Diagram:



Brief Description:

A donor can modify the information that he entered during the creation of his account

Initial step-by-step description:

The donor must be logged in from the account that previously created it

1- The donor chooses to edit his information from the settings.

- 2. Then the system displays all its information and allows modification
- 3. After modifying and pressing the Save Changes button, the system saves the new information Instead of the old one

Xref: Section 3.2.3, Manage Donor's Account, Update Donor's Information.

2.3 User Characteristics

The charity is expected to be Internet literate and to be able to use email with attachments, and manage their bank account.

It is expected that both the member and the donor will be familiar with the Internet and able to interact with mobile applications or websites.

The company is expected to have a bank account and identify an employee who is able to work with the application or the website and who is very well versed in the Internet. The donor is expected to have a bank account.

The detailed look of these pages is discussed in section 3.2 below.

2.4 Non-Functional Requirements

The system will be on Google Server Cloud. For connect to the system they need to access to the Internet.

To connect the system with Atlas Cloud Database must use mongoose tool.

The system will be able to communicate to the Bank System.

The System concerned with security statement limiting access to authorized donors or members.

The System the need to include user authentication facilities in the system.

The system will support both Arabic and English, and the user will be able to select the language he wants.

All users can search for associations by location by clicking on the place they want to search on the map, or specifying that through options within the application that contain the names of the regions. The system will be available at all times 24/7 for all users, except for maintenance hours.

The system can be used at any time except during maintenance times and from anywhere.

The response speed will not exceed 200ms in the worst case.

3.0. Requirements Specification

3.1 External Interface Requirements

The links to an external systems are the link to the Atlas Cloud Database to verify the members and donors information or to add a new member's documentation or donor's documentation. Charity is imposing to the member to add a specific information to add them to the Database, and is imposing to the donor to add an email and bank account to add them to the database. The charity system send an ID for both member and donor to check them out to allow them to active with proposer.

The second link is to communicate with the bank system. The charity send (a donor's bank account) to the bank system to check them out.

3.2 Functional Requirements

3.2.1 Manage charity's Account charity

Create Account:

Use Case Name	Create Account
XRef	Section 2.2.1, update Account
Trigger	The charity add account to the database as a
	charity
Precondition	The person select register as charity
Basic Path	1. The system display some information they
	needed to add it.
	2. The charity add this information.
	3. The system check if the information is valid.
	4. The system add this information to the Atlas
	database
Alternative	1. In step 2, if the charity does not answer all the
Paths	questions asked and fills in all the data required
	to be entered, the charity cannot send the
	information he entered into the system.

	2. The system puts warning messages in the fields that the charity did not enter, stating that these fields are required to be entered 3. The user enters the data that the system requested and continues the implementation progress, as in steps 3, 4 and 5 4. Step 3 In the event that the data entered by the charity exists before, the system will show her an error message stating that he already has the account that he must log in It will not succeed to create the account again He will not be allowed to use the application until he logs in
Postcondition	The charity has been added to the database.
Exception	The charity may abandon the operation at any
Paths	time.
Other	The charity information charity's name, password, email, phone, location, publication number, publication date, established date, bank account and logo.

Delete Account:

Use Case Name	Delete Account
XRef	Section 2.2.1, Delete Account

Trigger	The charity delete their account to the database
	as a charity
Precondition	Previously, log in to the system (after creating an account as a member)
Basic Path	 After the charity chooses to delete his account by entering the settings and then choose the delete account button. The charity enter the email or charity name and password. The system check out the information if it is valid the system displays a message confirming the deletion If the charity answers yes, the system deletes the charity data completely and securely. After deleting the account, it is no longer possible for the charity to log in from it
Alternative	If their information is un valid the system display
Paths	message to rewrite a right information.
Postcondition	The charity has been deleted from the database.
Exception	The charity may abandon the operation at any
Paths	time.
Other	The charity information (charity's name or email)
	and password.

Update Account:

Use Case Name	update Account
XRef	Section 2.2.1, Update Account
Trigger	The charity Update their account to the database
	as a charity
Precondition	Previously, log in to the system (after creating an
	account as a member)
Basic Path	 After the charity choose to update her information by entering the settings and then pressing the edit information button. The system displays all the data related to the charity that he previously entered upon creating the account with the ability to overwrite it (i.e. modify it) When you click on the save changes button, the system saves the new changes in the database
Alternative	If their information is un valid the system display
Paths	message to rewrite a right information.
Postcondition	The charity has been updated her information in
	to the database.
Exception	The charity may abandon the operation at any
Paths	time.
Other	The charity information charity's name,
	password, email, phone, location, publication

number, publication date, established date, bank account and logo.

3.2.2 Manage Account Member

Create Member's Account:

Use Case Name	Create member's account
XRef	Section 2.2.2, Manage Account, Create Member's
	account
Trigger	The member creates an account in the
	application or on the website
Precondition	installing this application on his device or
	accessing the website through the browser
	online
Basic Path	 After the member chooses to create an account as a member, the system asks questions to the member and it asks for data that he must enter If the member answers all the questions as necessary, the member can send the information he entered into the system The system checks the entered data, in case it was not previously present, then the member accepts as a user of the system and his information is saved in the database

	 4. after the creation of an account is successful, the system creates a profile for this member 5. The member enters his private profile and is now allowed to use the application and see the available charities
Alternative Paths	1. In step 2, if the member does not answer all the questions asked and fills in all the data required to be entered, the member cannot send the information he entered into the system. 2. The system puts warning messages in the fields that the member did not enter, stating that these fields are required to be entered 3. The user enters the data that the system requested and continues the implementation progress, as in steps 3, 4 and 5 4. Step 3 In the event that the data entered by the member exists before, the system will show him an error message stating that he already has the account that he must log in It will not succeed to create the account again He will not be allowed to use the application until he logs in
Postcondition	Create an account for the member and enter it with this account to the home page of the application or the website.

Exception	Create an account for the member and enter it
Paths	with this account to the home page of the
	application or the website.
Other	Information required by the system in order to create an account for a member: username, password, phone, first name, last name, age, national number, healthy status, if he has a work: {work type and salary} if his father a live {father's Name, and if his father have a work: {his work type, salary}, healthy status for his father} if his mother a live: mother's Information {Name
	,if she has a work: {work type, salary}, healthy status for mother} if there are overage in home: overage's Information {Name, Old, healthy status} If he is married and he is a man, he must enter the number of wives and information on each wife
	{Name, if she has a work {type of work, salary}, her health status} As for if she is a married woman, she enters the same information only once for her husband's sake. if he didn't have children he enters this information for each child {Name, Age and if this child has a work {work type, salary}, healthy status for child}, and information about his home {ownership, ventilated, sunny}

Delete Member's Account:

Use Case Name	Delete member account
XRef	Section 2.2.2, Manage Account, Delete Member
	Account
Trigger	The member Delete an account from the
	application or the website
	And it will be completely deleted from database
Precondition	Previously, log in to the system (after creating an
	account as a member)
Basic Path	1.After the member chooses to delete his
	account by entering the settings and then
	pressing the delete account button, the
	system displays a message confirming the
	deletion
	2. If the member answers yes, the system
	deletes the member's data completely and
	securely, meaning that it deletes everything
	related to it from database, even requests
	for joining and membership in charities and
	requests for assistance that it has raised.
	3. After deleting the account, it is no longer
	possible for the member to log in from it

Alternative Paths	In step 2, if the member answered no, nothing happens, and the user returns to his previous state before choosing the Delete Account button
Postcondition	The member is deleted from the database and logged out from the application and website
Exception	A member can only retract the deletion before
Paths	confirming it.
Other	The required information (member's user name or email) and password.

Update Member's information:

Use Case Name	Update Member's information:			
XRef	Section 2.2.2, Manage Member's Account,			
	Update Member's information			
Trigger	The member modifies his information in the			
	system They will be modified in the database			
Precondition	Previously, log in to the system (after creating an			
	account as a member)			
Basic Path	1. After the member chooses to amend his			
	information by entering the settings and			
	then pressing the edit information button,			
	2. The system displays all the data related to			
	the member that he previously entered			
	upon creating the account with the ability to			
	overwrite it (i.e. modify it)			

	3 . The member modifies his data as he wants the existing one and presses the button to save modifications 4. When he click on the Save changes button, the system saves the new changes in the database
Alternative Paths	If their information is un valid the system display message to rewrite a right information.
Postcondition	New changes are saved in the system and dealings with the member are based on it
Exception Paths	A member can undo the saving of changes by pressing the back button before clicking on the save changes button
Other	The member can update all information he entered

3.2.3 Manage Donor's Account

Create Donor's Account:

Use Case Name	Create Donors's account		
XRef	Section 2.2.3, Manage Donor's Account, Create		
	Donor's account		

Trigger	The donor creates an account in the application				
	or on the website				
Precondition	installing this application on his device or				
	accessing the website through the browser				
	online				
Basic Path	1- After the donor chooses to create an				
	account as a donor, the system poses				
	questions to him and asks him to enter				
	some data				
	2. If the donor answers all the required				
	questions, he can send the information he				
	entered into the system				
	3. The system checks the entered data in				
	the event that it is not there before, so the				
	donor is accepted as a user of the system				
	and his information is saved in the database.				
	4. After successful account creation, the				
	system creates a profile for this donor				
	5. The donor enters his personal file and is				
	now allowed to interact with the system.				
Alternative	1. In Step 2, if the donor does not answer all the				
Paths	questions asked and fills in all the data required				
	to be entered, the donor will not be able to send				
	the information he entered into the system.				
	2. The system puts warning messages in the				
	fields that the donor did not enter, stating that				
	these fields are required to be entered				

	3. The donor enters the data requested by the system and continues the progress of implementation, as in steps 3, 4 and 5 4- Step 3 If there is the data entered by the donor before, the system will show him an error message stating that he already has the account that he should log in to The account will not be created again He will not be allowed to use the app until he logs in
Postcondition	A donor account is created and this account is entered into the main page of the application or website.
Exception Paths	A donor may leave the account registration process at any time, so that he does not save his data.
Other	Information required by the system in order to create an account for a donor: Donor name, phone, password, E-mail, And he chooses his capacity as a temporary or permanent donor

Delete Donor's Account:

Use Case Name	Delete Donor's account			
XRef	Section 2.2.3, Manage Donor's Account, Delete			
	Donor's Account			
Trigger	The donor Delete an account from the			
	application or the website			
	And it will be completely deleted from database			
Precondition	Previously, log in to the system (after creating an			
	account as a donor)			
Basic Path	1- After the donor chooses to delete his account			
	by entering the settings and then pressing the			
	Delete Account button, the system displays a			
	message confirming the deletion			
	2. If the donor answers yes, the system deletes			
	the donor's data completely.			
	3. After deleting the account, the member can no			
	longer log in from it			
Alternative	In step 2, if the donor answered no, nothing			
Paths	happens, and the user returns to his previous			
	state before choosing the Delete Account button			
Postcondition	The donor is deleted from the database and			
	logged out from the application and website			
Exception	A donor can only retract the deletion before			
Paths	confirming it.			
Other	The required information (donor's name or			
	email) and password.			

Update Donor's information:

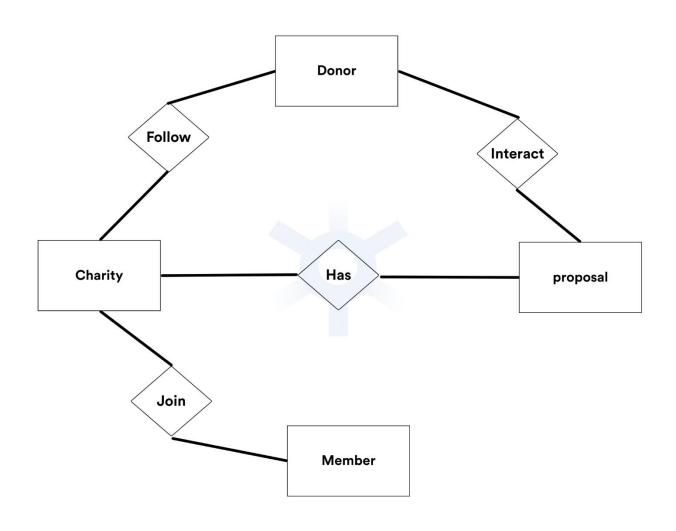
Use Case Name	Update Donor's information:				
XRef	Section 2.2.3, Manage Donor's Account, Update				
	Donor's information The denor modifies his information in the system.				
Trigger	The donor modifies his information in the system				
	They will be modified in the database				
Precondition	Previously, log in to the system (after creating an				
	account as a donor)				
Basic Path	1. After the donor chooses to amend his				
	information by entering the settings and then				
	pressing the edit information button,				
	2. The system displays all the data related to the				
	donor that he previously entered upon creating				
	the account with the ability to overwrite it (i.e.				
	modify it)				
	3 . The donor modifies his data as he wants the				
	existing one and presses the button to save				
	modifications				
	4. When donor click on the Save changes button,				
	the system saves the new changes in the				
	database				
Alternative	If their information is un valid the system display				
Paths	message to rewrite a right information.				
Postcondition	New changes are saved in the system and				
	dealings with the donor are based on it				
Exception	A donor can undo the saving of changes by				
Paths	pressing the back button before clicking on the				
	save changes button				
	-				

Other	The donor can update all information he entered

3.3 Detailed Non-Functional Requirements

3.3.1 Logical Structure of the Data

The logical structure of the data to be stored in the application database is given below.



The data descriptions of each of these data entities is as follows:

Charity Data Entity:

Data Item	type	Description	comment
Name	Text	Name of	
		charity	
Password	Text	Password of	
		the Charity	
Email	Text	Email of the	
		charity	
Phone	Text	Phone of the	
		charity	
Location	Text	Location of	May contain a
		the charity	city, street
			and note
Publication	Text	Publication	
Number		Number of	
		charity	
Publication	Date	Publication	
Date		Date of	
		charity	

Established	Date	Established	
date		date of	
		charity	
Bank Account	Text	Bank Account	
		of charity	
Logo	Image	Logo of	
		charity	

Donor Data Entity:

Data Item	type	Description	comment
Name	Text	Name of	
		Donor	
Password	Text	Password of	
		the Donor	
Email	Text	Email of the	
		Donor	
Phone	Text	Phone of the	
		Donor	
Permanence	Boolean	Permanence	
		of Donor	

Member Data Entity:

Data Item	type	Description	comment
User Name	Text	User Name of	
		Member	
Password	Text	Password of	
		the Member	

Email	Text	Email of the	
Eman	TEXE	Member	
Phone	Text	Phone of the	
Phone	Text		
F:	- .	Member	
First Name	Text	First Name of	
		Member	
Last Name	Text	Last Name of	
		Member	
Age	Text	Age of	
		Member	
Healthy	Text	Healthy Status	
Status		of Member	
Work	Text	Work of	
		Member	
National	Text	National	
Number		Number of	
		Member	
Married	List of map	Husband of	May be empty
		Member	or more than
			one
Father	Мар	Father of	
		Member	
Mother	Мар	Mother of	
	•	Member	
Overage	List of map	Overage of	May be empty
		Member	or more than
			one

Children	List of map	Children of	May be empty
		Member	or more than
			one
House	Boolean	House	
Property		Property of	
		Member	
House	Boolean	House	
ventilated		ventilated of	
		Member	
House Sunny	Boolean	House Sunny	
		of Member	

Proposal Data Entity:

Data Item	type	Description	comment
Proposal Type	Text	Type of	May be more
		proposal	than one
proposal	Integer	Amount of	
Amount		help	
Number of	Integer	Number of	
Beneficiaries		people who	
		Benefits from	
		proposal	
Number of	Integer	Number of	
Donor		donor who	
		Donates to	
		proposal	

3.3.2 Security:

The server on which the application resides will have its own security to prevent unauthorized. The use an Email and password for Charity and Donor to login, and user name or phone and password for member to login.

The database will be on the Atlas Cloud Database that have its own security to store, delete and query to database.