Software Requirements Specification Document (SRS)

Project Title:

Community administration

Name of the Group Components:

Albacete, Year 2023

List of Changes

Date	Version	Description	Author
26/9	1.0.A		Carmen & Javier
30/9	1.0.A		Javier & Carmen
1/10	1.0.A		Carmen & Javier
3/10	1.0.A		Javier & Carmen
17/10	1.0.A		Carmen & Javier
26/10	1.0.A		Javier & Carmen
27/10	1.0.A		Carmen & Javier
10/12	2.0.A		Javier & Carmen

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1   Introduction

The aim of this project is to improve the communication between the households, the administration, the maintenance technicians and other members of a neighbourhood. Also we want to improve the accessibility to all of the community to make things more easier and faster than they used to be.

2   Participants

Developers:

       Developer1: Carmen

       Developer2: Javier

Users:

       Administrator of AdmiCom Ltd: Jack

       Maintenance technicians: Peter

       Administrative assistant at the business: Sophie

       Community President and Member: Susan

       Member of a neighbourhood community: Sarah

3   Description of the System

After reading the document, we identified the main objectives we want this app to have. Firstly, starting with the administrator, we saw that he wanted an automation of the requests, so we would add a space for him to check their current states, we would add some type of questionnaire so the requests would "organise themselves" depending on which type of request they are and finally we would improve the communication(between administrators, maintenance people and neighbours) as he wanted by tracking the request and sending the receipts to concrete persons, since sending it to the community as a whole might cause some problems to people with multiples flats.

Secondly, we talked with the administration and we saw a problem with the text corrector. So we thought about including a menu/questionnaire with all the possible options so the typos won't cause the system to crash.

Thirdly, we wanted to see what the other side wanted, so we talked with a neighbour. We found that most of the apps aren't accessible enough and people with some disabilities, older people…found them really hard to use. So we would add an accessible mode for disabled people, we would launch it in different languages and we would add different payment methods. Continuing with the neighbours' problems, we saw that there were lots of empty spaces that neighbours could rent for any activity they would like, so we thought about including a renting space in our app. And also, a website option.

And finally, looking for the most technical part, we saw that the way repairs were arranged was quite messy. In order to fix this, we thought of including an option for the neighbours to display their request and another one for the technicians to fill a report with all the changes they made and to fill the invoice digitally.

4. System Goals

Objective 01. Request Management

OBJ-01	Request Management
Version	1.0.A (beta version)
Authors	Carmen & Javier
Sources	Jack,Sophie,Susan, Peter and Sara
Description	Our system automatizes the requests creation and also everything that these involve.
Subgoals	Being able to check the request state any time.
Importance	High level
Urgency	High
State	Beta version
Stability	High level
Comments	-

Objective 02. Payment Management

OBJ-02	Payment Management
Version	1.0.A
Authors	Carmen & Javier
Sources	Sophie, Jack and Susan
Description	In this new software application the way of payments are going to be done in a different way. The householders will now be able to see the payments divided property by property, being more accessible from mobile phones.
Subgoals	Change the way of payment to make it more easier to understand and more efficient.
Importance	Most important
Urgency	Very urgent
State	In beta version
Stability	—
Comments	—

Objective 03. Room reservation

OBJ-03	Room Reservation
Version	1.0.A (beta version)
Authors	Javier & Carmen
Sources	Sarah and more neighbours
Description	The application will have a window in the bottom of the screen with a house logo. The neighbours will be able to choose from a menu the size of the room and the schedule they need for their activity.
Subgoals	Make the room reservation more accessible for everybody so the neighbourhood would be more sociable.
Importance	Very important
Urgency	Very urgent
State	Almost finished
Stability	—
Comments	—

Objective 04. Neighbourhood community Management

OBJ-04	Neighbourhoud community management
Version	1.0.A (beta version)
Authors	Carmen & Javier
Sources	Susan,Sarah
Description	This app will help administrators to manage their neighbourhood communities in an efficient way, offering the automatization of reservation of rooms, generation of receipts…
Subgoals	Management of the status of requests, receipts generation, requests expert evaluation.
Importance	High
Urgency	
State	Beta
Stability	–
Comments	Click here to write the text

OBJ-05	User management
Version	1.0.A (beta version)
Authors	Carmen & Javier
Sources	Susan
Description	With this objective we are in the need to improve the user accessibility to the application. The main goal is to make it accessible for everybody, with new features, new HUD and new configuration.
Subgoals	Have more than one language in the application (French, English…), help the users with the profiles, modify old features such as the payment page or the room reservation page.
Importance	Medium-level
Urgency	Medium-level
State	Click here to write the text
Stability	–
Comments	–

4 Catalogue of System Requirements

4.1 Information Requirements

IR-01	Room
Version	1.0.A
Authors	Carmen & Javier
Sources	Stakeholders
Related Goals	OBJ 1, OBJ 2, OBJ 3
Related Requirements	FR-1, FR-3,
Description	The system should store the information corresponding to rooms.
Specific Data	-Room ID -Room type -Room location -Room capacity -Room utilities -Room price
Time Frame	Past,present and future
Importance	Medium
Urgency	Medium
State	Early stages
Stability	Medium level
Comments	–

Information Requirement 02. Data from neighbours

IR-02	Data from neighbours
Version	1.0.A
Authors	Carmen & Javier
Sources	Stakeholders
Related Goals	OBJ 1, OBJ 3, OBJ 4, OBJ 5
Related Requirements	FR-1, FR-4
Description	The system should store the information corresponding to rooms and treat it.
Specific Data	-User ID -User name -User house -User number -User mail -User password -User personal data
Time Frame	Past, present and future
Importance	Very important
Urgency	Urgent
State	Nearly done
Stability	-
Comments	–

Information Requirement 03. Payment Information

IR-03	Payment information
Version	1.0.A
Authors	Carmen & Javier
Sources	Stakeholders
Related Goals	OBJ 1, OBJ 2, OBJ 4
Related Requirements	FR-1, FR-2
Description	The system should store the information corresponding to the payments of the householders.
Specific Data	-House ID -User ID -Prices -House location
Time Frame	Past, present and future
Importance	Very important
Urgency	Very urgent
State	Early stage
Stability	
Comments	–

Information Requirement 04. Requests

IR-04	Requests
Version	1.0.A
Authors	Javier & Carmen
Sources	Stakeholders
Related Goals	OBJ 1, OBJ 3, OBJ 4
Related Requirements	FR-1, FR-2, FR-3
Description	The system should store the information corresponding to the requests provided by the neighbours, giving a reason for the requests, what would they need…
Specific Data	-Request ID -User ID -Date -Utilities
Time Frame	Past, present and future
Importance	VERY important
Urgency	Urgent
State	Done
Stability	Medium level
Comments	–

Information Requirement 05. Room Reservation

IR-05	Room reservation
Version	1.0.A
Authors	Carmen & Javier
Sources	Stakeholders
Related Goals	OBJ 3, OBJ 4, OBJ 5
Related Requirements	FR-1, FR-2, FR-3
Description	The system should store the information corresponding to the reservation of the room, to distinguish each reservation from other one.
Specific Data	-Room ID -Date -Time Usage -Type -Usage -Place - User ID
Time Frame	Past, present and future
Importance	High
Urgency	Not urgent
State	Finished
Stability	Medium level
Comments	–

Information Requirement 06. Technical Inform

IR-06	Technical inform
Version	1.0.A
Authors	Javier & Carmen
Sources	Stakeholders
Related Goals	OBJ 1, OBJ 4
Related Requirements	FR-1, FR-2
Description	The system should store the information corresponding to the information provided by the maintenance technicians.
Specific Data	-TechId -RequestId
Time Frame	Past, present and future
Importance	High
Urgency	Urgent
State	Regularly updated
Stability	Medium level
Comments	–

Information Requirement 07. Technician

IR-07	Technician
Version	1.0.A
Authors	Javier & Carmen
Sources	Stakeholders
Related Goals	OBJ 1, OBJ 4
Related Requirements	FR-1, FR-2
Description	The system should store the information corresponding to technician.
Specific Data	-Tech ID -Technical inform ID
Time Frame	Past
Importance	Important
Urgency	Not urgent
State	Nearly done
Stability	Medium level
Comments	–

Information Requirement 08. Community Neighbour

IR-08	Community Neighbour
Version	1.0.A
Authors	Carmen & Javier
Sources	Stakeholders
Related Goals	OBJ 4, OBJ 5
Related Requirements	FR-1, FR-2, FR-3, FR-4
Description	The system should store the information corresponding to all the people that defines the community and the community itself, in order to make things more efficient.
Specific Data	-Name of the community -Number of neighbours -Neighbours ID -Location
Time Frame	Past, present and future
Importance	Very important
Urgency	–
State	Regularly updated
Stability	Medium level
Comments	–

4.2   Functional Requirements

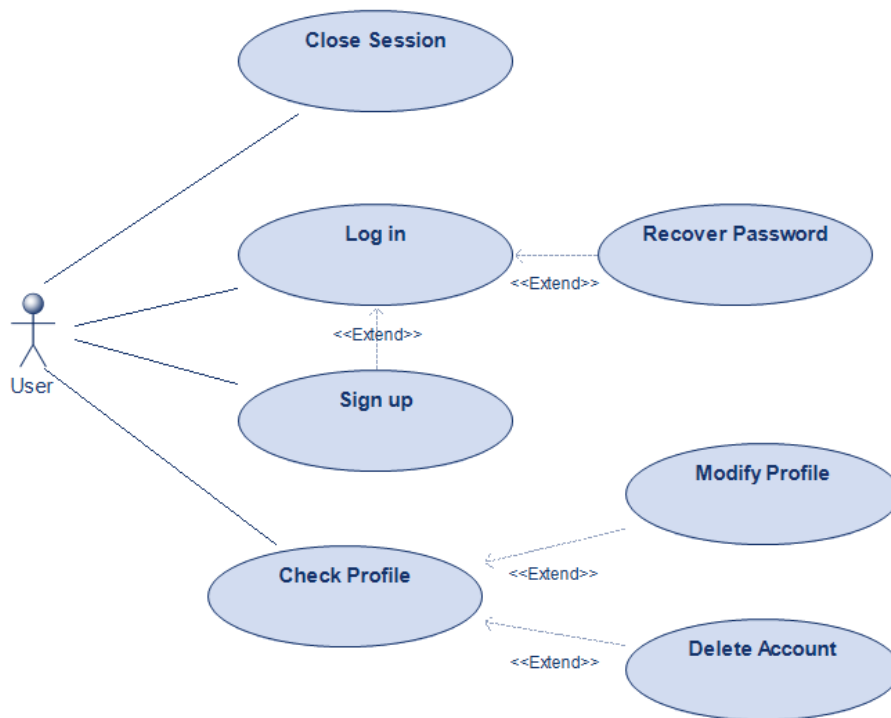### 4.2.1   Use Case Diagrams

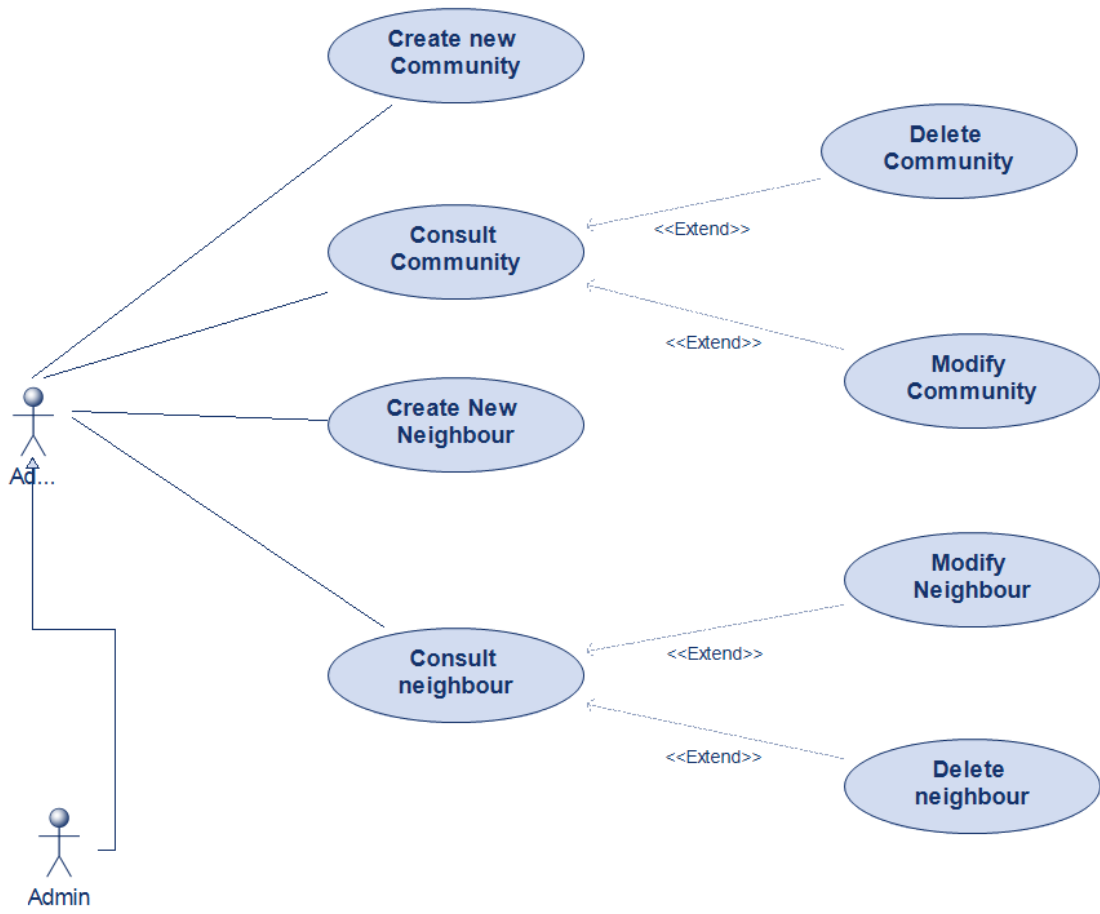

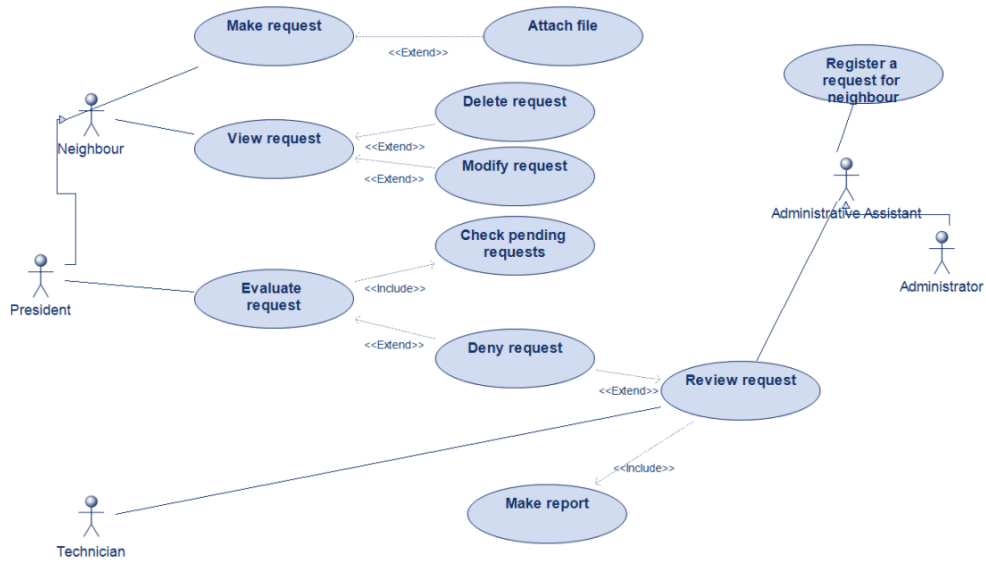*Figure 1. User management*

Figure 2. Community management

Figure 3. Request management
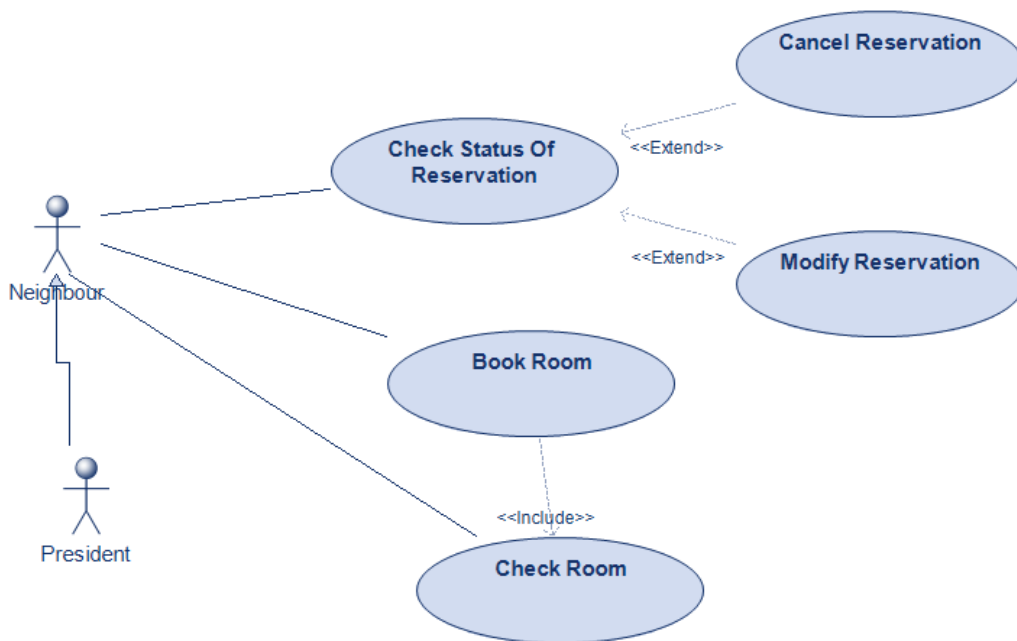
Figure 4. Room reservation

4.2.2   Definition of Actors

Actor 01. Administrator

ACT–1	Administrator
Version	1.0.A
Authors	Javier & Carmen
Sources	Neighbourhood community
Description	The actor is a conscientious community leader skilled in multitasking, utilising technology to enhance communication and efficiently manage requests.
Comments	–

Actor 02. Administrative

ACT-2	Administrative
Version	1.0.A
Authors	Javier & Carmen
Sources	Neighbourhood community
Description	She is in charge of the administration of the communities. She has found some problems with the software administration, that's why she asks for a reform.
Comments	–

Actor 03. Member of neighbourhood community

ACT-3	Member of neighbourhood community
Version	1.0.A
Authors	Javier & Carmen
Sources	Neighbourhood community
Description	She is just an impatient neighbour of a community. She does not use the computer normally. She has more than one property, giving that some problems when payments.
Comments	–

Actor 04. President

ACT–4	President
Version	1.0.A
Authors	Javier & Carmen
Sources	Neighbourhood community
Description	The president of a neighbourhood. She doesn't want new software. She says that some neighbours want a new way for payments and implement a room reservation window in the new Web.
Comments	She is the one that transfers the problems from the community to the administrator.

Actor 05. Technician

ACT-5	Technician
Version	1.0.A
Authors	Javier & Carmen
Sources	Neighbourhood community
Description	One of the maintenance technicians. His work is very chaotic because of the malfunction of the functionality of 'repairs' and the report of issues.
Comments	He wants to improve communication skills too.

4.2.3 Specification of Use Cases 4

Functional Requirement 01. LOG IN

FR-01	LOG IN
Version	1.0
Authors	Carmen and Javier
Sources	Stakeholders
Related Goals	OBJ-5
Related Requirements	IR-1, IR-2, IR-5, IR-8
Description	The system should allow users to log in to the system using their valid credentials.
Precondition	-The user must have created an account. -The user must have the correct username and password.
Normal Scenario	1.The user enters their username and password on the login page 2.The system verifies the user's credentials. 3.If the credentials are valid, the system logs the user in and redirects them to the appropriate page.
Postcondition	If the login is successful they will be able to get into the system.
Alternative Scenario	2.If the credentials are not valid, the system displays a recovery password option. 4.If the credentials are not in the system, the register option displays. 5.The user then has the opportunity to change their data.
Performance	High
Expected Frequency	High
Importance	Very important
Urgency	Very urgent
State	Early stages of development
Stability	High level
Comments	Click here to write the text

Functional Requirement 02. Evaluate Request

FR-02	Evaluate request
Version	1.0.A
Authors	Carmen & Javier
Sources	Stakeholders
Related Goals	OBJ 1
Related Requirements	IR-4, IR-6, IR-7, IR-8
Description	The system should allow the administrator to calculate the budget for a request.
Precondition	The administrator must be logged. A request must be made.
Normal Scenario	1.The administrator selects the request from the list of pending requests. 2.The system displays the budget form for the request. 3.The administrator enters the estimated cost of materials and labour of the request. 4.The system calculates the total budget for the request. 5.The administrator reviews the budget and approves the request.
Postcondition	The administrator should give feedback to the stakeholders,either positive or negative feedback.
Alternative Scenario	5.The administrator reviews the budget and denies the request. 6.The system changes the request status to cancelled.
Performance	Frequently
Expected Frequency	Very frequent
Importance	Very important
Urgency	Urgent
State	Early stages of development
Stability	Expected to be stable
Comments	-

Functional Requirement 03. Book Room

FR-03	Book room
Version	1.0.A
Authors	Javier & Carmen
Sources	Stakeholders
Related Goals	OBJ-03
Related Requirements	IR-1, IR-5, IR-8
Description	The systems should behave as described in this use case, it should allow neighbours to book rooms.
Precondition	The user is a person from the neighbourhood that has previously been logged into the system.
Normal Scenario	1.The user clicks on the "Book Room" button. 2.The system displays the possible options. 3.The user selects the date range, room type, and other options for their reservation. 4.The system receives that information and makes the reservation. 5.The user reviews the reservation details in case he has introduced anything wrong or just to check. 6. The system displays the reservation data.
Postcondition	A reservation has been made for that specific user with specific data.
Alternative Scenario	5.The user cancels the reservation instead of just modifying or checking it. 6.The system erases the reservation.
Performance	High
Expected Frequency	Very frequent
Importance	High
Urgency	High
State	Beta version
Stability	Expected to have a high stability
Comments	-

Functional Requirement 04. Check Profile

FR-04	Check profile
Version	1.0.A
Authors	Javier & Carmen
Sources	Stakeholders
Related Goals	OBJ-5
Related Requirements	IR-2, IR-4, IR-8
Description	The systems should let the user check their profile, including options for modifying their profile or deleting their account.
Precondition	The user must have logged in previously.
Normal Scenario	1.The user clicks on "check profile". 2.The system checks the info introduced and lets the user see the option of check profile. 3. The user clicks on "modify profile" to edit their data as they wish. 4.The system displays their info and the option to edit it. 5.The user modifies the info and saves data. 6.The system stores the new data.
Postcondition	The data from the profile must be updated
Alternative Scenario	3. The user clicks afterwards on "delete account". 6.The system deletes the account.
Performance	High performance
Expected Frequency	The system should be able to handle up to 50 check profile requests per second.
Importance	High
Urgency	Really urgent since its compulsory to have these in any system.
State	Beta
Stability	Unstable still
Comments	This use case needs to be implemented before the system can be released.

4.3 Non-Functional Requirements

Non-Functional Requirement 01. Backup

NFR-01	Backup
Version	1.0
Authors	Carmen and Javier
Sources	Stakeholders
Related Goals	OBJ-1, OBJ-2,OBJ-3,OBJ-4,OBJ-5
Related Requirements	IR-01, IR-02, IR-03, IR-04, IR-05, IR-06, IR-07, IR-08, FR -01, FR-02, FR-03, FR-04
Description	The system should be able to keep all the information related to requests, users, room reservations and other data.
Importance	Highest importance
Urgency	High
State	On trial
Stability	High
Comments	It ensures that the system's data is protected in case of a failure.

Non-Functional Requirement 02. Accessibility

NFR-02	Accessibility
Version	1.0
Authors	Carmen and Javier
Sources	Stakeholders
Related Goals	OBJ-05,OBJ-03,OBJ-02,OBJ-01
Related Requirements	IR-01, IR-02, IR-03, IR-04, IR-05, IR-06, IR-07, IR-08, FR -01, FR-02, FR-03, FR-04
Description	The system should be accessible to all users, including those with disabilities. This includes providing alternative text for images, transcripts for videos, and keyboard-only navigation.
Importance	High, it ensures that all users can access and use the system, regardless of their abilities.
Urgency	High
State	-
Stability	High
Comments	-

Non-Functional Requirement 03. Multilingual

NFR-03	Multilingual
Version	1.0
Authors	Carmen and Javier
Sources	Stakeholders
Related Goals	OBJ-4,OBJ-5
Related Requirements	IR-01, IR-02, IR-03, IR-04, IR-05, IR-06, IR-07, IR-08, FR -01, FR-02, FR-03, FR-04
Description	The system should be accessible in different languages such as French, Spanish and English.
Importance	High
Urgency	High
State	New
Stability	High
Comments	-

Non-Functional Requirement 04. Multiplatform

NFR-04	Multiplatform
Version	1.0
Authors	Carmen and Javier
Sources	Stakeholders
Related Goals	OBJ-4,OBJ-5
Related Requirements	IR-01, IR-02, IR-03, IR-04, IR-05, IR-06, IR-07, IR-08, FR -01, FR-02, FR-03, FR-04
Description	As some users don't want to install a software, or some users will use their phones or computers, the solution will be a multiplatform interface.
Importance	High
Urgency	High
State	-
Stability	High
Comments	-

NFR-05	Security
Version	1.0
Authors	Carmen and Javier
Sources	Stakeholders
Related Goals	OBJ-1, OBJ-2, OBJ-3, OBJ-4, OBJ-5
Related Requirements	FR-01, FR-04, IR-02, IR-03, IR-07, IR-08
Description	The system will have implemented authentication so only authorised people will have access to crucial information, encrypt methods and also will regularly be scanned in order to check for their flaws, weaknesses or possible attacks.
Importance	High
Urgency	High
State	-
Stability	High
Comments	-

5   Traceability Matrix

1. *OBJ-IR*

	IR-01	IR-02	IR-03	IR-04	IR-05	IR-06	IR-07	IR-08
OBJ-01	X	X	X	X		X	X	
OBJ-02	X		X					
OBJ-03	X	X		X	X		X	
OBJ-04		X	X	X	X	X	X	X
OBJ-05		X			X			

2. *OBJ-FR*

	FR-01	FR-02	FR-03	FR-04
OBJ-01		X		
OBJ-02				
OBJ-03			X	
OBJ-04				
OBJ-05	X			X

3. IR-FR

	FR-01	FR-02	FR-03	FR-04
IR-01	X		X	
IR-02	X			X
IR-03				
IR-04		X		X
IR-05	X		X	
IR-06		X		
IR-07		X		
IR-08	X	X	X	X