

Software Requirements Engineering

Project: Part A

The Canadian Security

Group 6:

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The Canadian Security

Assignment #1 (Part A)

Project Scope and eliciting & specifying requirements

Section 1 “Introduction” and subsections:

1.1 Purpose:

This new product, "The Canadian Security" will deliver public safety for Canadians through a convenient app that does not require internet connectivity and can immediately find a lot of support, this is version 1.0.0.

1.2 Document Conventions:

Acronyms	Description
SQL	Sequential query language
DB	Database
P/C	Phone call
FQA	Frequently questioned answers
ISPMC	Information Security Risk Management Committee
MDM	Mobile Device management
SLAM	Simultaneous Localization and Mapping
UI/UX	User interface and User experience

1.3 Intended Audience and Reading Suggestions:

The intended audiences for this SRS are:

1. General people in Canada, Canadian outside Canada, and government (Users)
2. Investor
3. Developers
4. Testers
5. Marketing members
6. Project manager

Section 1: Introduction; This is the most important section of the SRS to get the gist of what the system is indeed to do and how one is supposed to interpret or use it. This section is intended for everybody i.e., investors, users, testers, marketing members, project managers, and developers.

Section 2: Working flow; This part will go through the system's operation in a highly detailed and technical manner. This section is for developers and testers only.

Section 3: Components or Requirements; This section will discuss the components or requirements required to construct this software. The developers, marketers, testers, and project managers will be the target audience here.

Section 4: Costing; This section will roughly and simply state all of the various financial help that will be or will be required in the future. Project managers and marketing personnel are the intended audiences.

Section 5: References; This section will describe the many sites from which the software was built as well as the various sites from which one has sought assistance in developing the program. Developers will be the target audience here.

Section 6: Conclusion; This section will provide you with a quick overview of what's going on. Everyone will be addressed here, including users, developers, project managers, testers, and marketing staff.

1.4 Project Scope:

Canadians waste a lot of time trying to get contact information and information from the government and other sources such as the hospital. Canadian security is a mobile app that gives connection information and services without the use of the

internet. The app provides access to several categories, including police, hospitals, government sectors, and vital businesses such as clinics. People may quickly request straight to the police department with only a click button and a brief chat "We need your help," and the police will come to visit you without inquiring where you are since the police can gather your location with the app. This system is useful for individuals who will not know where they are and do not have enough data to search the map. Many departments and agencies in the government sector have current news and contact information. Hence, they may use this app to select any government department they wish to learn about and then contact that agency directly from the app. Individuals may search for available clinics in their area and contact them directly with symptoms and other items they want to utilize. People may access a variety of requirements with only one app.

1.5 References:

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- *Software requirement specification: How to make SRS for your project [with examples]*. DDI Development. (n.d.). Retrieved June 5, 2022, from <https://ddi-dev.com/blog/programming/how-to-write-software-requirement-specification-for-your-project/>

2. Section II

2.1 Product Perspective:

This system will consist of two parts: one mobile application and one web portal. The mobile application will be used to find support and view information about the community while the web portal will be used for managing the information about the users and the system as a whole.

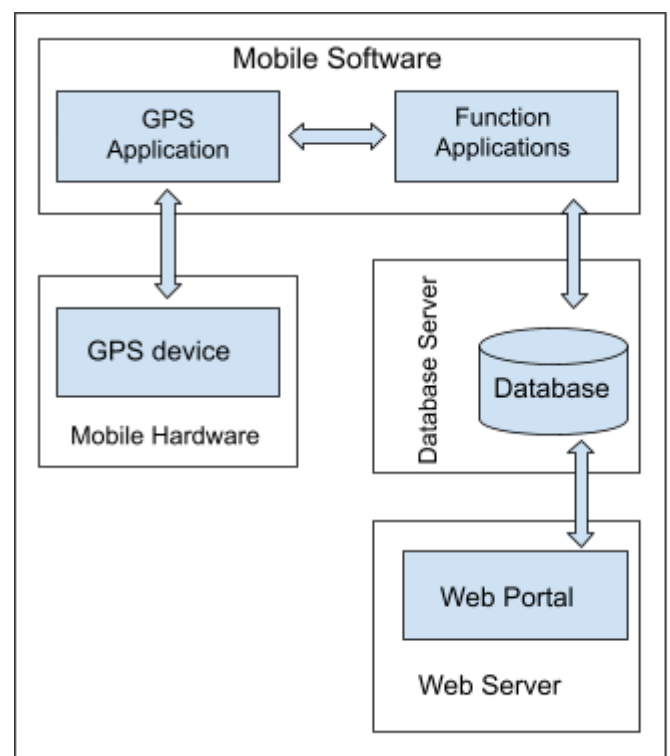
Canadian Security is a community product that will be controlled by a group of developers and the government in terms of collaboration. The mobile app will ensure the storage and retrieval of user-related information. It will be an app that covers all features. This will be a part of saving time for users and public safety for citizens. This will be the only app in Canada that provides many supports to users like security needs (health, safety, knowledge ...). It is an open-source project and it has a very active developer team to support it and provide feedback to users. It was developed to run on Windows, Mac OS X, and Linux.

2.2 Product Features (Functions):

Users will be able to look for information on government offices, such as updated information or contact information, clinics, police support, and other helpful support, using the mobile application. The outcome will be determined by the criteria that the user specifies. There are a number of search criteria, and the system administrator will be able to handle the options for those that have them.

Depending on which criteria are included in the search, the results will be shown in either a list or a map format. Each input meeting the search criteria will have one list item, with a little portion of the information displayed so the user can immediately identify it.

Each police officer's location will be displayed as a pin on the map, as well as the user's personal location. Users will be able to contact the police without providing their location in both views; in this instance, the user's destination will be in-store and communicated straight to the police officer. The user may either pick a piece of information as a target need or examine information about certain community agencies. The online portal will have the ability to control the system as



well as the information of the users. It will also give information about the system, such as when a new update is available.

Users may also utilize chat to report any problems in their community. In this situation, photographs and text messages will be uploaded to the app.

- Register - In order to use the programme, the user must first register; after registration, the user will be given a unique username and password that will allow the user to log in.
- Log-in - To use the programme, a registered user must provide his or her unique user name/password combination.
- Demo - A feature available to all users (registered or not) that introduces the application and highlights the product's primary features.
- Instructional - A feature offered to registered users that allows them to become familiar with the application's functionality.
- Setting - An option allowing the user to modify the setting for the password changing and notification from the app.
- FAQ - A feature that allows the users to ask the questions.
- Call - To contact the police officer, a direct call must have a sim card.
- Profile - The system allows all people in Canada and Canadians to update their profile with phone number, email, and security codes.
- Information - All information from the users will be collected when the users request help from the police like location and register name. The information will be converted to data in SQL for history.
- Language - French and English will be included in the app.

Other Nonfunctional Requirements:

- Capacity - The system's storage requires SQL for controlling data. Team has to be knowledgeable and happy to work in a team. Python is a language to use for a huge system in order to develop the app and to protect the system.
- Maintainability - The system can be easily managed by administrators within a short period of time.
- Performance - The update will be provided after the developers created. The user would expect to see the better version in a very short time.
- Usability - The app is easy to use for people who do not have time for checking tons of information, and the user can access the app by using the internet to provide location to police officers.
- Security - The product stores or transmit sensitive information. The IT department requires adherence to specific standards. Python and Linux are the best in this product.
- Reliability - The system has 85 percent reliability for a month, this means that during this month, under normal usage conditions, there's an 85 percent chance that the system won't experience critical

failure.

2.3 User classes and Characteristics:

- Type of users:
 - All general people in Canada and Canadian outside Canada
 - Users above 6 age

They will use this app for finding support and saving times.

- Technical expertise:
 - Employees in all tech companies in Canada will use this product for their convenience and safety in the community.
 - All IT or engineer who are interested on the project by further developing it

2.4 Operating Environment:

The software:

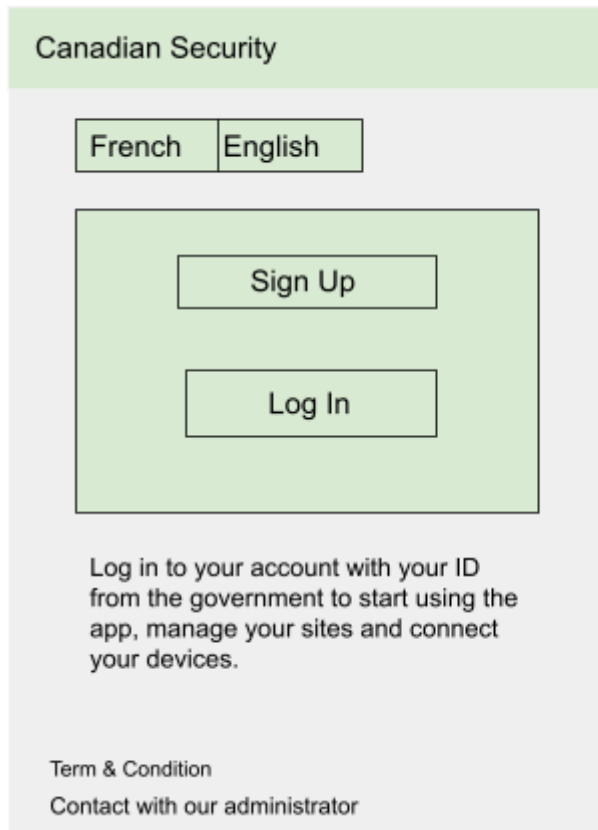
- will run on Windows, Mac OS X, and Unix server
- will developed using python, java, and C#
- supports IOS and Android for the mobile version
- will use python and linux for safety
- will require GPS for losing data connection

2.7 Assumptions and Dependencies:

Because Canadian security is an app, it necessitates the installation of the internet on IOS and Android. When the development team builds new functionalities for the applications, there will be upgraded choices available. However, the website will require internet access when the user is utilizing it for optional purposes.

3. Section III

3.1 User Interfaces:



Canadian Security

Departments

Bank Of Canada

Finance Canada

Elections Canada

Canada School of Public Service

Immigration, Refugees and Citizenship Canada

Infrastructure Canada

Canadian Security

Emergency

Report to police

Ambulance

Extra

3.4 Hardware Interfaces:

- A camera

3.3 Software Interfaces:

- Google Map
- Phone
- map

DELIVERABLE #2:

Stakeholder Name	Stakeholder Position	External /Internal	Stakeholder/contact	Operational/ Executive	Interest (high, medium, low)
Manvibolreach Ouk	IT security officer	Internal	mouk1@my.centennialcollege.ca	Executive	high

Wilson Rodriguez Arellano	Programmer	Internal	wrodri10@my.centreinnialcollege.ca	Executive	high
Nicole Escania Peralta Alejo	IT administrator	Internal	nperalt5@my.centreinnialcollege.ca	Executive	high
Albi Angjeli	Customer	External	albi_angjeli@gmail.com	Operational	high
Kevin Meoun	Software Engineer in Toronto	External	meoun_kevin@gmail.com	Operational	high
Aaron Cheung	Investor	External	cheung_aaron@gmail.com	Executive	high
Frank Huynh	Marketing officer	Internal	huynh_frank@gmail.com	Operational	high

DELIVERABLE #3:

Interview Questions		
Question	Stakeholder position	Answer
This app is designed for all of Canada or just Toronto and its surrounding areas?	Developer	At the moment, For this version 1.0.0. just Toronto citizens' needs are addressed, but the application is planned to be rolled out across Canada.
What's a good way to get people	Marketing member	Ads are being placed around the

to know about this app?		city, schools, hospitals, police stations, and social networks.
How would you rate Canadian security service?	Customer	5 out of 5, this app is really helpful in situations when you're at risk. This could save your life.
What is the best feature of the app according to you?	Developer	The best feature is that you do not need to have internet access to use this app, you can search for the contact information of the service you need through our search engine in our directory; then, if you require assistance officers could reach you through your G.P.S location.
What type of database is used in your app?	Database administrator	Oracle
How can you detect errors or aspects that can be improved in your app?	Tester	Tests are being carried out all the time to check if the app is working properly since one mistake could mean the life of a person. We're updating our contact information every time a change is done. Entities notify us, and we update the information in our database to give you the best service possible. If any bug is found, we correct it in the shortest possible time
Who's financing this app?	Project Manager	Canada's government and citizens.
How difficult is understanding how this app works?	Customer	It is not difficult at all, the interface is really simple and complete. It is easy to navigate through the functionalities of the app
How can a new user join the app for the first time?	Developer	The user needs to register itself when opening the app for the first time. The system will ask you for your telephone number; your email; a proof of ID, which can be your DL or your passport, and it will require access to your location.
Who is the target audience for this app?	Marketing member	The target audience can be any people in Toronto needing

		authorities' help, or health assistance. It will not matter which is your social status, whether you are a Canadian citizen, a tourist or an international student, you will be able to access all the features of the app.
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DELIVERABLE #4:

Functional Requirement List				
Requirement id	Requirement Title	Short Description	Priority	Requester
FR01	Notifications	Alerts are going to be sent to users in order to let them know what is going on with their status request. (i.e) Show the user that its request has been notified to the respective security agent, let the user know that the service is on the way to reach him, and ask for feedback after having received a service.	Medium	Programmer
FR02	Accounts	The system should allow any change in the contact information of the user, such as e-mail or telephone. It also may allow the change and validation of ID and Type of ID.	High	IT Security Officer
FR03	GPS	To know the exact location of a user at the moment of offering any help	High	IT Administrator
FR04	Camera	The app should register	Medium	IT Security

		and validate any type of identification through the camera of the device		Officer
FR05	E-mails	The app should write pre-design e-mails and send them to users indicating service request status.	Medium	Customer
FR06	Frequently asked questions FAQ	The app should have the ability to allow the administrator to set up and manage frequently asked questions.	High	Customer
FR07	Call	To contact the police officer or hospital ambulance, a direct call must have a sim card	High	IT Administrator
FR08	Register	In order to use the programme, the user must first register; after registration, the user will be given a unique username and password that will allow the user to log in	High	Customer
FR09	Information	All information from the users will be collected when the users request help from the police like location and register name. The information will be converted to data in SQL for history.	High	Cyber security officer and police officer in security department
FR10	Search criteria	The results will be shown in either a list or a map format. Each input meeting the search criteria will have one list item, with a little portion of the information displayed so the user can immediately identify	High	Customer

		it.		
FR11	Language	French and English are the official languages in the app.	High	Customer
FR12	Setting	An option allowing the user to modify the setting for the password changing and notification from the app.	High	Customer

Nonfunctional Requirement List				
Requirement id	Requirement Title	Short Description	Priority	Requester
NFR01	Cyber-security	To protect users' information the system must pass the following tests: pentest, DDoS testing, penetration testing and malicious script testing	High	IT Security Officer
NFR02	Storage	The system requires SQL databases for controlling and managing data from the users	High	IT Administrator
NFR03	Performance	The system should be able of addressing the requests from around 2.503.000 people, which is the approximate population of Toronto	High	Investor
NFR04	Usability	The system needs to have an easy to understand design, besides having not too complicated features	High	Customer

NFR05	Maintainability	The system should be easily managed by administrators within a short period of time	Medium	Programmer
NFR06	Reliability	The system has 85 percent reliability for a month, this means that during this month, under normal usage conditions, there's an 85 percent chance that the system won't experience critical failure.	High	IT administrator Programmer IT security officer Customer Invester
NFR07	Loopholes:	The application should load in 3 seconds if it can be done.	High	Customer