Software Requirements Specification

for

SOS App

Version 1.0

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Created on 23rd September, 2018.

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# Introduction

## Purpose

Security for women has become a major issue as the number of crimes over women and girls are increasing day-by-day. The fear inside women for sexual abusement, getting raped and physical assaultation is growing, due to hiking rate of crime at every moment. Keeping these mishaps in mind, an idea of developing a security application based smartphone is taking into account. The application development is the main consideration as increased Smartphone users, with the sensitivity of inclusion of everyday information useful in day to day activities and even for security.

## 1.2 Document Conventions

The typological convention for this documentation is the failure of the Delhi Police intiatives to work on with Himmat app, that couldn’t mark upto the needs which it could be socialized among the feminine groups of society. The working priority of the project is to overwhelmed the negativity of the application that could actually be governed into positive vibes.

## 1.3 Intended Audience and Reading Suggestions

Users: The users of this app will get a clear idea of the features in the app and how to use them in times of despair.

Admin: The admins or the local police will be able to gather information regarding the functionality of the app and how they can help the user.

Developers: Project developers have an advantage of quickly understanding the methodology enabled and personalizing the product.

## Product Scope

## This proposed system consists of GPS device ie. Any Android Phone and an emergency button. GPS device must to be placed inside the device (Android Phone). The device will provide the position information such as latitude, longitude of women. An emergency button(SOS button) is fixed on the device at a particular position. Whenever women in any kind of trouble she will press the emergency button and an alert will be immediately sent to the nearest police station. Then it is the responsibility of police squad to handle the situation. The app will also provide a simple to use user experience.

## 1.5 References

[//economictimes.indiatimes.com/articleshow/63254248.cms?utm\_source=contentofinterest&utm\_medium=text&utm\_campaign=cppst](https://economictimes.indiatimes.com/articleshow/63254248.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)

<https://en.wikipedia.org/wiki/Himmat_(app>)

<http://www.tribuneindia.com/news/nation/rajnath-launches-women-safety-mobile-app-himmat/25024.html>

<https://economictimes.indiatimes.com/news/politics-and-nation/delhi-polices-himmat-app-for-women-safety-failed-to-serve-purpose-parliamentary-panel/articleshow/63254248.cms>

<https://currentaffairs.gktoday.in/delhi-police-launches-women-safety-mobile-app-himmat-01201517012.html>

# Overall Description

2.1 Product Perspective

This application will consist of two parts: one mobile application for users and one for the admin.

The product is supposed to be an open source, under the GNU general Public License. It is a web based system implementing client-server model. The SOS App provides simple UI/UX for users to save themselves in time of despair.

The following are the main features that are included in SOS App

* Android platform support: Offers operating support for at present only Andriod.
* User account: The system allows the user to create their accounts in the system and provide features of updating and viewing profiles or stay anonymous.
* The application is easier to use all the woman.
* Number of users being supported by the system: Though the number is precisely not mentioned but the system is able to support a large number of online users at a time.
* Report system: Allows user to submit his issue to the admin in case his problems are not solved by the in built features of the app.
* User only need a Smartphone or tablet which has Android OS to the work.

2.2 Product Functions

The purpose of the application is to keep a surveillance trace on the user of the application and the functions it majorly serves are:

2.2.1 GPS location search

2.2.2 Wide circled ranged activity control dashboard

2.2.3 Fake video calling access

2.2.4 Top level Circling all the possible help stations in the radar of 3-5 km

2.2.5 Enhanced user interactive interface

2.2.6 Anonymous emailing with hidden traces of the addresses

2.2.7 Fake calling feature to get connected even in the situation of unreachability to network

2.3 User Classes and Characteristics

There are three types of users that interact with the system: users of the mobile application, family and friends who will have the contact information and administrators. Each of these three types of users has different use of the system so each of them has their own requirements. The mobile application users(womens) can only use the application to update the contacts of their family members and friends. This means that in the launch of the app, the user will have to update the contacts. The family members and friends should also have this application in their android device.The administrators also interacts with the application portal . They are managing the overall system so there is no incorrect information within it.

2.4 Operating Environment

An operating environment or integrated applications environment is the [environment](https://en.wikipedia.org/wiki/Deployment_environment" \o "Deployment environment) in which users run [application software](https://en.wikipedia.org/wiki/Application_software" \o "Application software). The environment consists of a [user interface](https://en.wikipedia.org/wiki/User_interface" \o "User interface) provided by an applications manager and usually an [application programming interface](https://en.wikipedia.org/wiki/Application_programming_interface" \o "Application programming interface) (API) to the applications manager.

Any android phone or tablet above android version 5.0 will work.

It should also have a 32-bit or 64-bit ARM, x86 architecture.

2.5 Design and Implementation Constraints

The mobile application is constrained by the system interface to the GPS navigation system within the mobile phone. Since there are multiple system and multiple GPS manufacturers, the interface will most likely not be the same for every one of them. Also, there may be a difference between what navigation features each of them provide. The Internet connection is also a constraint for the application. Since the application fetches data from the database over the Internet, it is crucial that there is an Internet connection for the application to function. Both the web portal and the mobile application will be constrained by the capacity of the database. Since the database is shared between both application it may be forced to queue incoming requests and therefor increase the time it takes to fetch data.

2.6 User Documentation

We ll provide user manuals in the form of text files for the users.

2.7 Assumptions and Dependencies

As already in this SRS documentation it has been declared the project is the self-declared task of the team and no third-party environment or constraints are being entertained but the only resource of help is the official documentation of the “Himmat App” which been gathered to research on the issues about WHY THE INITIATIVE COULDN’T BE SUCCOR??? Even an effective plan layout is been made to feature all the required aspects that can witness the flow and enhanced working of the entitled project.

# 3 External Interface Requirements

## 3.1 User Interfaces

1. Profile Module: Profile is an important component to users, which helps the users to add his/her personal details: Name, Address, Email Id, Mobile Number.
2. Police Station The user will get information about the nearer police station
3. Emergency Contacts Required details of one who is in danger will be contacted to the right persons or family members or friends or help lines.
4. Emergency Button When we sense any danger, we can escape by using emergency button.

The User Interface produced by the system are:

3.1 Functions Requirements

3.1.1 Module 1: Admin-login AIM: Admin can login to get access to the application with the helpof unique login-id&password.

INPUT: username & password

OUTPUT: Displays a message if username and password does not match otherwise enter into the home page.

PROCESS: Match username and password from the database.

3.1.2 Module 2: Add family members or friends

AIM: To add family member or freind(User).

INPUT: name,mobile no,email.

OUTPUT: (User) added successfully.

3.1.3 Module 3: View nearby police stations

AIM: To view nearby police stations

INPUT: user location

OUTPUT: nearby police station names retrieved.

## 3.2 Hardware Interfaces

## Since neither the mobile application nor the web portal have any designated hardware, it does not have any direct hardware interfaces. The physical GPS is managed by the GPS application in the mobile phone and the hardware connection to the database server is managed by the underlying operating system on the mobile phone and the web server.

## 3.3 Software Interfaces

The mobile application communicates with the GPS application in order to get geographical information about where the user is located, and with the database in order to get the information about the nearby police stations. The communication between the database and the web portal consists of operation concerning both reading and modifying the data, while the communication between the database and the mobile application consists of only reading operations.

## 3.4 Communications Interfaces

# The communication between the different parts of the system is important since they depend on each other. However, in what way the communication is achieved is not important for the system and is therefore handled by the underlying operating systems for both the mobile application and the web portal.

# 4. System Features

## By just touching the application from the mobile screen the options will appear and by choosing the particular options the appropriate function will take place. Each function is a special feature. They are:

4.1 Add guardians:

By choosing the option “Add guardians” from the main screen then the screen navigates to the other screen and the other screen is having two options they are “Add from contacts”, “Add new contacts”.

If the option Add from contacts is selected then it retrieves from the phone contacts and then again it should be saved in data base. After selecting the guardians from the phone contacts the selected mobile numbers are displayed and the contact numbers are stored in the DB. It is nothing but memory used in the android based mobile phones. If the option Add new contacts is selected then it gives the other popup box having the text boxes to enter the contact name and contact number and it also saved in database.

4.2 SOS Button:

The call sending is done by simply touching the option SOS button from main screen then it retrieves the contacts which are saved in the database and it performs the action and at the same time it sends the location url of the person through the message format where she/he used this application when they are in danger. By just touching the location URL got from the message then it gets the location where the person is in danger by showing us in (for eg. red color spot) in the Google Map. By zooming the Map guardian can easily find out the accurate location of the unsafe woman.

4.3 Fake call:

Another important option from main screen is Fake call. This option is very much helpful while the unnecessary conversations is going in between the people, then to protect over self we think that if anybody calls then I can leave from this meeting. In such situations this option fake call is very much helpful. The functionality is just it gets ring tone just like getting incoming call through that person can easy to escape from the un-necessary conversations. When the Fake call is activated it means that a fake call is accepted then it stops the ringing.

4.4 Fake video call:

There is another important option in the main screen is fake video call. This option gives the video of the person that he/she has taken before. That is if the person is in danger position that is unable to tell the position then she/he can take the video and escape from the situation.

# Other Non functional Requirements

## 5.1 Performance Requirements

## The system must be interactive and the delays involved must be less .So in every action-response of the system, there are no immediate delays. In case of saving contacts, of popping error messages and saving the settings or sessions there is delay much below 2 seconds. In case of opening databases, sorting questions and evaluation there are no delays and the operation is performed in less than 2 seconds for opening ,sorting, computing, posting > 95% of the files. Also when connecting to the server the delay is based editing on the distance of the 2 systems and the configuration between them so there is high probability that there will be or not a successful connection in less than 20 seconds for sake of good communication.

## 5.2 Safety Requirements

Information transmission should be securely transmitted to server without any changes in information

## 5.3 Security Requirements

## Security requirements placed restrictions on the use of this application by the student and the faculty of Wireless Lan communicator only, control access to the data, provide different kinds of requirements to different people, require the use of passwords. It requires proper programming techniques.

## 5.4 Software Quality Attributes

### 5.4.1 Availability

If the internet service gets disrupted while sending information to the server, the information can be send again for verification.

### 5.4.2 Security

The main security concern is for users account hence proper login mechanism should be used to avoid hacking. The mobile phone or tablet id registration is way to spam check for increasing the security. Hence, security is provided from unwanted use of recognition software.

### 5.4.3 Usability

As the system is easy to handle and navigates in the most expected way with no delays. In that case the system program reacts accordingly and transverses quickly between its states.

## 5.5 Business Rules

<List any operating principles about the product, such as which individuals or roles can perform which functions under specific circumstances. These are not functional requirements in themselves, but they may imply certain functional requirements to enforce the rules.>

# Other Requirements

<Define any other requirements not covered elsewhere in the SRS. This might include database requirements, internationalization requirements, legal requirements, reuse objectives for the project, and so on. Add any new sections that are pertinent to the project.>

Appendix A: Glossary

<Define all the terms necessary to properly interpret the SRS, including acronyms and abbreviations. You may wish to build a separate glossary that spans multiple projects or the entire organization, and just include terms specific to a single project in each SRS.>

Appendix B: Analysis Models

<Optionally, include any pertinent analysis models, such as data flow diagrams, class diagrams, state-transition diagrams, or entity-relationship diagrams.>

Appendix C: To Be Determined List

<Collect a numbered list of the TBD (to be determined) references that remain in the SRS so they can be tracked to closure.>

Is there any emergency?

Emergency button and other features display

Registred?

Enter mobile numbers and email ids of the guardians

Accessed?

Permission to access internal storage and current location

Welcome screen

Send notifications to the list via SMS, email or call.

Send notification to the nearest police station via SMS, email or call.

Press the emergency button

Exit application

Launch application