

A Survey on Women's Safety and Emergency Application

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ABSTRACT: Safety for ladies is one among the foremost pressing problems with our time that ought to be a fundamental, undeniable concept for any civilized society centuries ago. Denying fundamental rights to safety, personal choices, freedom to pursue whatever lifestyle they wish to, sexual and physical empowerment are not new issues — but have strangely not managed to be eradicated even in today's times. A lot of individuals are crying aloud for better ways to make sure women's security and make things better for them. And it seems like, not only people but we are also trying to do something about it. Now finally, there's an app that promises to feature its drop into the ocean to make sure safety for ladies that's completely designed for the overall public.

KEYWORDS: Women's Safety, Mobile Application, Emergency, GPS (Global Positioning System), Android.

I. INTRODUCTION

The need for women's safety and panic alert app is, unfortunately, increasing within the current societies across the planet. One of the biggest roles that have been played in ensuring the safety of women has to be the digital transformation and advancement in technology. Especially in the world where 3 out of every 5 people have smartphones and use dozens of mobile apps every day.

There's a one-time registration that requires the user(s) to fill out their details and that of the emergency contacts. Many situations occur when people don't have internet connection So we came with solution in terms of our application which works with and without internet services. An Android app which can INSTANTLY alert guardians (Along with user location) whenever the user is in an emergency situation.. On the mobile device even shaking the phone thrice will trigger the app to register it as an emergency. Immediately, your emergency contacts, as well as the local security authorities, will be notified that you are in an emergency situation along with exact GPS coordinates.

The key features of our app that makes it different from other apps designed till now are as follows:

- 1) Initially, we have to enter the two contact numbers of police, family members and friends in to the application say and click on "save" button.
- 2) While travelling, run the application and whenever need arises, click "start" button/toggle button.
- 3) As soon as "start" button pressed, it firsts make a call to the first saved registered contact number and also sends the message containing location URL of the victim to all the contact numbers.
- 4) Unique feature of this app is message with location URL is sent continuously to the registered contact numbers for every five minutes until "stop" button is clicked. So, continuous location tracking of victim is possible with this application.

II. RELATED WORK

As a part of literature survey, we investigated some applications that offer the same or similar services for android and other platforms.

[1] The aim is to see how these applications work and to see how they can be improved. Today the cases of atrocities on women are growing. In these types of cases, a smart phone plays an important role for safety of women. Now android is budding on some apps for women security purpose. These apps are as follows:



1. Fightback: This app is developed by Mahindra faction. In earlier days, this app was not complimentary, customer have to compensate for this app. But after Delhi gang rape incident, this app is on hand at no cost. This app sends a message to your friend or contacts that “user is in trouble” through E-mail, SMS and GPRS. This app works on those mobiles that support Android Java Programming. [2]
2. Secureme Beta: This app is developed by Think MPI Consulting Private Limited. It helps us to raise alert and we can get help in case of life threatening emergencies. After installing the app, initially we have to give a pin number for security purpose and then after emergency contacts must be registered in the app. By pressing a tap on secure button, it notifies the contacts with location coordinates. [3]
3. Vanitha Alert: This app is developed by ABC Mobile Learning Communication click on " HELP” button on our mobile's home screen in an emergency situation can deliver a distress text message to the registered mobile number ,E-mail id, face book id seeking help and indicating the user's location.[4]
4. Raksha – Women Safety Alert: This app is launched by BJP on May 15, 2014. By clicking on this app, it sends location of the user to the contacts registered and the user can also get the details of the location of the contacts. A distress signal just by pressing a single key sends out a loud buzzer to our near and dear ones. We can add multiple contacts to this app and when there is no data connection, this app alerts the contacts by sending SMS. [5]
5. Glympse – Share GPS Location: This is the recent application developed on January 28, 2015. This app is a fast, free and a simple way to share our location using GPS tracking in real time with friends and family. This app does not need any sign up and do not need any contacts to manage. [6]
6. Guardly: This app is developed basically for women safety intention, to put a phone call by your name, instantaneous location, and emergency hit to your selected friends. In this app you have to give your details in profile sheet e.g. birth date, tallness, weight, eye-colour, blood group, hair-colour, etc. This app is also used in I-Phone, I-Pad, BlackBerry, Windows Phone etc. [7]
7. Street Safe: This application is developed on worldwide Women’s day. It will call community to help woman in any situation and has four features for crisis which would be started by just clicking on the button. These features are as – First, it automatically updates on your Face book account with your recent location. Second, SMS will be sent to chosen associates with your locality. Third, an alarm is started with large volume on your mobile. Fourth, call is to be found to your chosen emergency number.[8]

III.METHODOLOGY

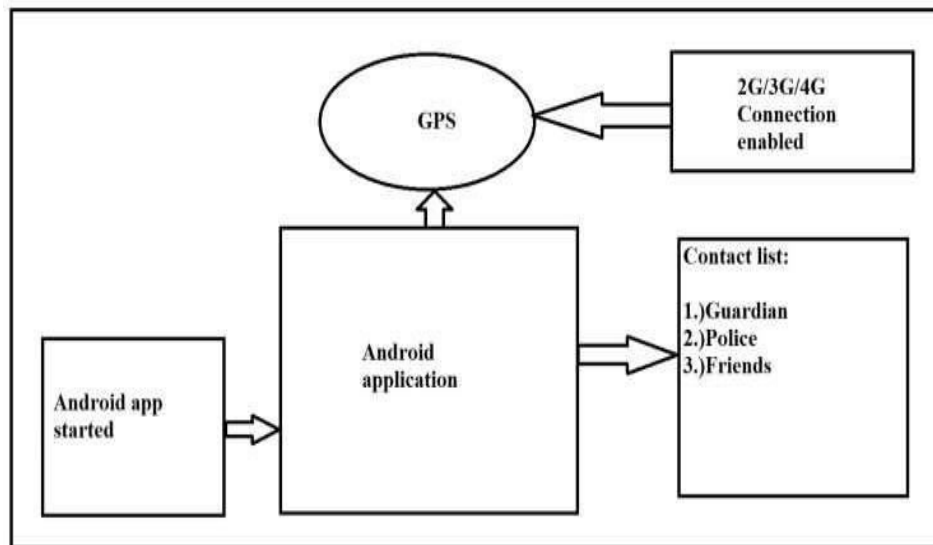


Figure 1:Block diagram of the application

“Fig 1” shows the block diagram of the system. Initially, when we click on the app, it first checks whether the location settings, data connection settings in the application are on or not. Then, it tracks the location of the victim via GPS and sends these location co- ordinates in the form of URL through message to the registered contacts. Here, registered contacts means the contact details that are saved in the Abhaya application during its initialisation. Now, at the received device, by clicking on the URL in the message, it spots the exact location of the victim. Also, as the message containing victim’s location is sent for every five minutes from the root device, the victim can be tracked wherever she goes and can be rescued safely and quickly.

To develop this system for android users for keeping track through multiple applications. This application uses global positioning system (GPS) for identifying the location of the user in panic/trouble situation and the system can be divided into two modules:

1. First module can be the victim’s phone i.e. the root device which uses 4G/3G/2G data connection for tracking the location of the victim through GPS.
2. Second module can be the mobile phone of registered contacts either police or friends or family members which receives the message containing URL of location of victim that is sent from the root device.

The following images depict the data flow diagrams of the application:

The following are the data flow diagrams of the proposed system that depict how the data flows in the android application:

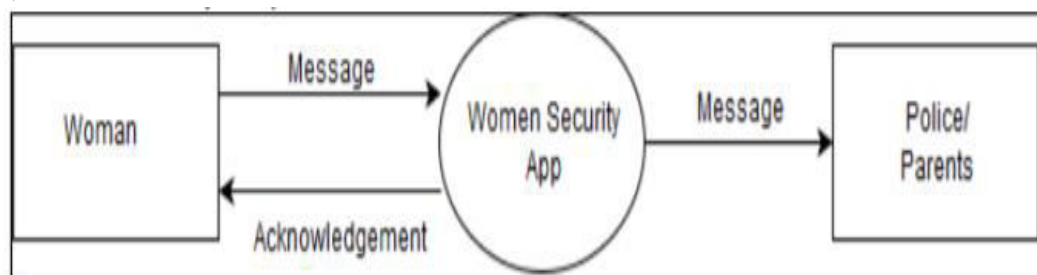


Figure 2: DFD Level 1.

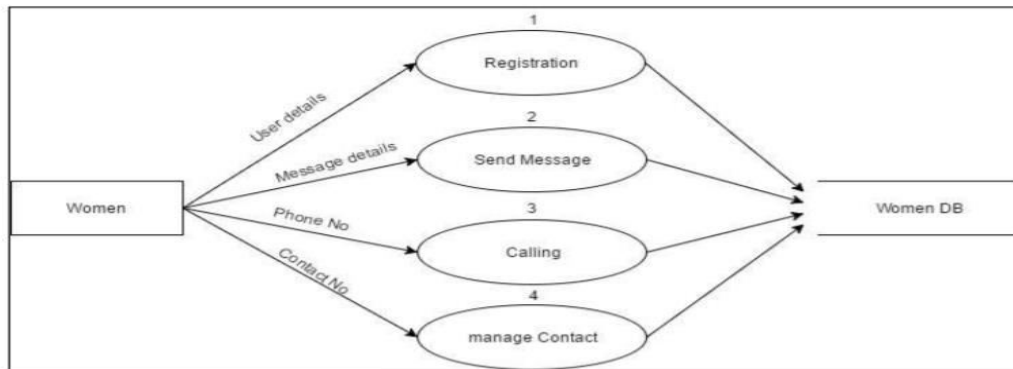


Figure 3:DFD Level 2.

III. CONCLUSION

We have implemented women's safety and emergency application an automatic message alert system for androidOur algorithm successfully detects the user's command and reacts to it appropriately by sending alerts. We have deployed our application on many android devices and found that it successfully send alerts in emergency situation.

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