

Women Safety Application

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Abstract - In the current situation, every woman is worried about when they will be able to walk out of home freely on the streets even at odd hours without thinking about their security things. Providing security to women in the current situation is a critical issue but very needed to every individual person. Now a day's sexual violence against women has been increased such as rape, robbery in public transport by drivers and so on. Hence women security has become the most needable preference among many organizations [1][2]. So many IT companies are looking forward to solve the security problems and thus require a framework that will work efficiently and reduce the number of crime rate. Hence this proposed project is developed to provide security for women, by sending message to nearby police station, hospital and to saved contacts. The application also sends location of the end user and also inform to the emergency contacts.

Index Terms - Women safety, Shake Mobile, Contacts, Hospitals, Police Station.

I.INTRODUCTION

Women are attainment at mobilizing diverse groups for frequent causes. They often work across racial, sacred, and intellectual divides to encourage tranquility. We are aware of importance of women's security for that we must recognize that they should be well secured. A Woman is not powerful when compared to men physically, in a difficult situation and need a helping hand to relieve them. The best way to minimize chance in becoming a user of violent crimes is to identify and call on resource to helping you out of unsafe scenarios. In the light of recent outrage in New Delhi which shook the nation and woke us to the safety issue for our daughters, public are initiate in different ways to fight back. A swarm of new application have been developed to provide safety systems to women on their smartphones. Here, we introduce an android application that ensures the security of women. It reduces the problem and helps

us in need by track the location of user who is in danger.

The key components of our application that make its different from other applications designed till now are as follows:

1. Initially, we have to enter the three contact numbers of police, family members and hospital into the application say and click on "save" button.
2. While travelling, run these applications and whenever need appears, initiate "start" button.
3. As soon as "start" button initiated, its firsts make a call to the first saved register contact numbers and sends the message containing locations URL of the users to all the contact numbers.
4. Unique feature of this application is message with location URL is sent normal messages continuously to the registered contact numbers for every four minutes until "stop" button is clicked. So, continuous location identifying of user is possible with this application.

Android is the most widely used mobile Operating System motorised by Linux-kernel. This is the first complimentary platform which is robust and is expected to gain much famous [1]. It was developed by Google corporation and allows writing managed code in the Java and kotlin language. The system is developed on the basis of an android platform. Android Consumes a custom virtual machine that was designed to optimizing memory and hardware resources in a smartphone.

II.EXISTING SYSTEM:

There is a various of applications for women protection when they are in dangerous situation. The disadvantage of using these applications are only sends the alert message to the saved contact numbers. Because of [5] existing systems there is less

possibilities of overcome the difficult situations of women. Existing applications also have GPS tracking module for to track the women location, but it has not specific range measures. Previous system does not have the feature that is it do not send the alert message to the nearby cell phones.

III.PROPOSED SYSTEM

The proposed system will be implemented with the use of android application. Which will alert the nearby people who having this application and by sending alert message to them, alert sound in the guardian mobile on shaking of users mobile. Also send message and alert sound to the saved contact numbers in the application and also police station, Hospital. Which also show the location [1] of the user with the help of Global Positioning System. The advantage of the proposed system is that helps to save the user from the physical attack and also helps the police to trace the hold of the culprit. This improved system when used eventually in India, makes possible that every girl will be able to move fearlessly on the streets even in odd hours without distressing over their security.

IV. RELATED WORKS

As part of surveys, it is found out that there is a number of application and preventive measures are available in the markets for women safety. Women's security is an app design by AppSoftIndia. The key components of the application are the user has to save details. These details include the Email address, password of the user, Email address and mobile number of the receiver and a text message. Then, the application is loaded as a "widget", so that when the user touches the application, it alerts the receiver. Another key component of the application is that it records the voice of surroundings for about 45 seconds, and this recorded voice and text message containing location coordinates of the user is sent to the receiver mobile number. Similarly, [3][4][5] are the applications which are specially developed for the purpose of women. No applications are guarantying 100% safety. Each device has their own advantages and disadvantages. It is found out that rather than mobile applications a portable device is rare in the market. The findings suggested a number of components that

must be included and generates an idea of creating both a portable device and mobile application.

V.SYSTEM ARCHITECTURE

The following diagram shows the architecture of the proposed system. The main three components needed to work this application are Internet on the clients phone, [2] GPS to identifying the location of the police and GSM which enables to send data through the messaging system.

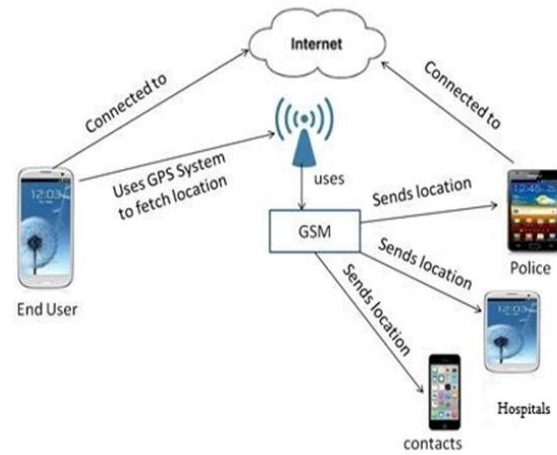
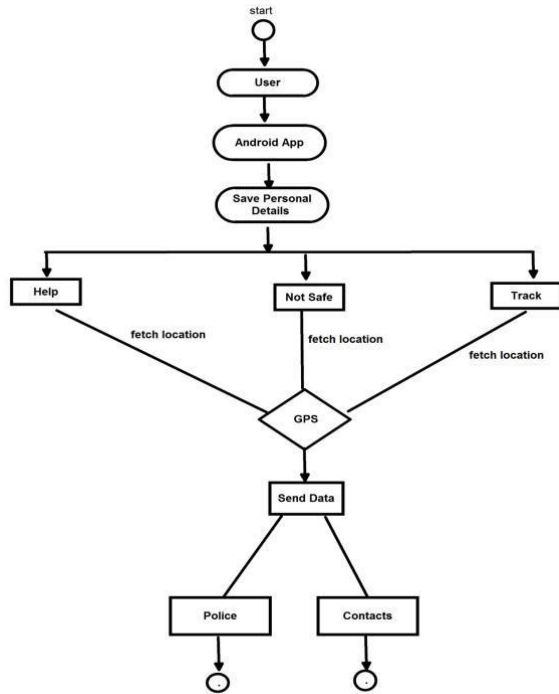


Figure 1 Architecture of women safety APP



Figure 2 Architecture of the proposed model

The above Figure 2 shows the architecture of the proposed model. The user need not register himself to use the application so that there will be [6] no delay time while using the application during the emergency situation. The user is given a set of options, which they can obtain depending upon their current situation.



Activity Diagram of the proposed Application

Activity diagrams demonstrate the stream of information in the framework side. The main goal in utilizing these charts is to display [6] the work stream behind the framework which is outlined in the figures. The above figure shows the process of through the activity diagram with respect to the application.

VI.MPLEMENTATION

6.1. Modules in the Project:

- 6.1.1. GPS Module.
- 6.1.2. User Interface and Mobile shaking.
- 6.1.3. Identifying the location.
- 6.1.4. Nearby police station and hospitals Modules
- 6.1.5. Emergency Calling Module.

Module 6.1.1: GPS Module:

This module is developed to provide two options such as Not Safe and Track for the user to provide security. The “Not Safe” Button is designed to protect the user who feels unsafe of her surrounding environment.

When the user selects this option to the nearby hospital are alerted by using the GPS System.

The GPS tracking the longitude and latitude in order to extract the current location of the user and also sends the pre-saved emergency message by using GSM to the nearby hospitals as well as to the registered mobile contacts. The “Track” button is developed to protect the user who feels unsafe while travelling in public transports. When she chooses this option, a message will be sent to the nearby police station and also to the registered contact numbers. After she reaches her destination securely, she could choose the Safe button.

Module 6.1.2: User Interface and Mobile shaking

The user interface design is to be designed for providing the user-friendly interface. In the user interface module, for the first time, the user has to give the details such as name, Email ID and mobile number of their friends. In the settings of the app, the user has to specify the threshold values. If they are alone, they might set their threshold value to the lowest level. When the user is in danger, they should shake their mobile. Because of the lowest threshold level, the shaking capacity of the mobile also be lesser and the app starts to work automatically. If the user is in very safe situation, then the threshold value might set to highest level.

Module 6.1.3: Identifying the location

The Global Positioning System (GPS) is a space-based satellite navigation system that provides location and time information in all weather conditions, anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites. The GPS in our smartphones always in ON position only. When the mobile shakes, the app is switched ON and it prompts the GPS to track the user’s location. The location of the user should be automatically identified by the GPS. The Latitude and Longitude values are calculated, and it calculates the exact position of the user. The identified location is saved in the server. The app also finds the user’s friends location through GPS.

Module 6.1.4: Nearby police station and hospitals Modules:

This option enables the user to view the nearby police station and hospital with the respective current location of the user limited to 5kms .

Module 6.1.5. Emergency Calling Module:

This button enable user to call hospital in case of any emergency. There are two types of emergency calling

system such as Default and User Enabled Default Calling: In this calling the call is diverted to a default number encoded during the implementation User Enabled Calling: Here the user has a right to choose the type of a hospital this feature is designed only for hospital. When the user chooses this option, the nearby hospital is displayed on Google maps. The user can then just select the hospital of his wish, the hospital side they received user location immediately they send the ambulance.

VII.CONCLUSION

The women safety application is very useful for girls because it could only focus the safety for women. We can send our location to our contacts, hospital, and police stations by shaking mobile. Also, system send message to nearby peoples who are all having this app. Overall application works for the safety of the women.

VIII.FUTURE ENHANCEMENT

This mobile application is helpful in future when any problem arises in travelling or any kind of scenario. As the technology grows, it is possible to upgrade the system it could be adaptable to desired environment. Because it is based [2] on object-oriented design, any further changes can be easily upgradable. Based on the future safety issues, security can be improved using emerging technologies

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