MAIEE - Android Based Women Safety Application

Aditi Varunkar
Branch- Electronics and communication
Usha Mittal Institute Of Technology,
SNDT Women's University

Trishala Kapure
Branch-Electronics and Communication
Usha Mittal Institue of Technology, SNDT Women's University

Prof. Dr. Sontoshi Pote
Usha Mittal Institute of Technology, SNDT Women's University

Abstract— We live in an era where everyone owns a smart phone. A teenager to an adult of 70 years. Mobile phones are carried by everyone, everywhere and every time. Technology has upgraded so much that everyone today has high speed internet. After the odious incident that happened, whole nation was grieving. Government has come up with laws that are stricter than earlier but yet there's no decline in the rate of sexual assaults. Women are not safe at anytime of the hour. There are many women who have to work late night. The only reason why women are scared to move out of the house is because on the safety issues. With today's smart technology, we can use mobile phones for women safety purpose. If not anything we can at least ask for help. Through the women safety applications , women can seek help and a text can sent to those who the woman has trust on. With features from this application, even the location of the user can be sent. Calls and text messages can be sent to the contacts. As said, "precaution is better than cure", it's better to take safety precautions than being a victim of any crime. Government has come up with many emergency numbers. Also government has come up with various versatile applications that can be used in the time of need.
Keywords— Mobile phones, GPS, Alert message, Safety

I. INTRODUCTION

Women security is an issue which is not restricted to a certain area. It is an issue all over the world. With changing times, women are not only doing the household work but also traveling alone for work purposes. Today, mobile phone is carried by every individual. In the world of communication and technology, a mobile phone can be called as a sophisticated device. World has come closer with the help of mobile phone and data connection. Life has become easy because of the features such as Wireless Fidelity, GPS, high resolution camera, touch screen and most important thing is broadband connection. It has become easy to reach out to people who are away from you. Many of the mobile features are integrated to mobile operating system, due to which users are unable to manipulate with the features. This mobile operating system is called as ANDROID. Hence, google has come up with an open system architecture called as ANDROID STUDIO. Users can create their own application and manipulate with features of the application as per their desire. Even after tremendous development in technology, many unfortunate incidents are taking place against women safety. Women are not safe at any hour of the time. Even after so much of change in mentality, we still need to change and adopt to new things. There are many women harassed not only outside of their homes, but in their houses too. And we need to stand up for each other. Women face harassment even from most unexpected place and person. It is mandatory that women should have their own safety measures. Even after the heinous incident outraged entire nation, Government has made stricter laws. But yet, there is no decrease in number of crimes against women. And it is not only limited to women, but infants are victims too. Women are not physically strong as men to protect themselves from the crime. More than strength presence of mind is important. We humans tend to fall for fear of nothing. Help can be brought when required and risk can be diminished by having women safety applications in mobile phones. As it is rightly said, "precaution is better than cure", it is better to have our own safety measures. Our motto of developing this application is to provide a safe environment to women through mobile phones. Through this application, we aim to provide nearest and fastest help to the user

II.   EXISTING APPLICATION

There are variety of applications that are proposed for women security. In most of the applications, in the time of need, an alert message is sent to the saved contacts and not to the people around. The location of the user can be known, but immediate help cannot be guaranteed. The GPS location sent to the contacts will be of the same position at which she was initially present. The user may or may not be present at the same position during emergency situations

III.   LITERATURE SURVEY

We studied papers that offer similar services for android platforms. Main aim of studying the papers is to understand working of the applications and things that can be improvised.

1.   ABHAYA: AN ANDROID APPLICATION FOR WOMEN SAFETY
The application sends alert messages to the contacts via phone call and text message. The live location of the user is sent to the contacts continuously in the interval of every five minutes until 'STOP' button in the application is pressed by the user.

2.   STAY SAFE APPLICATION
The application sends alert messages to contacts that are registered. The longitude and latitude of the location is sent to the registered contacts. The system also captures images that can be used as evidence.

3.   VANITHA ALERT
An alert message, seeking for help will be sent to the contacts that are registered on the application, a message on the Facebook id will be dropped when the user will click on the 'HELP' button the home screen.

4.   RAKSHA - WOMEN SAFETY ALERT
On 15 May, 2014 this application was launched by BJP. Location of the user is sent to the contacts that are registered on the application. Even if the data connection is off, this application sends a text message to the contacts that are registered. A loud buzzer goes on whenever the user in is danger. These all happens just by a single click of the user. Adding of multiple contacts is available in this application.

5.   STREET SAFE
On Women's Day this application was launched. Community is called for help of the woman in any situation. Facebook is updated by the recent location of the user through this application. A text message is sent to the contacts that you have chosen from your locality. When the user is in danger, a loud alarm or buzzer is enabled on the user's mobile phone. The contacts that you have chosen as emergency contact will be called.
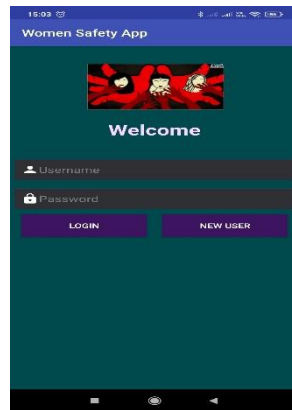
IV.   PROPOSED SYSTEM

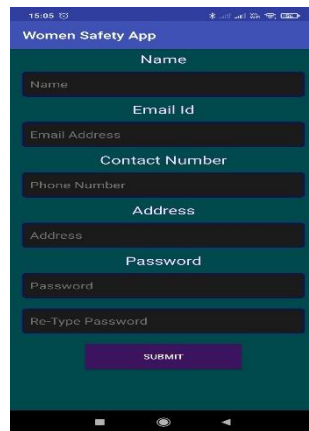The working of application is divided into three major sections:
a)   When the user opens the application for the first time, the user will register herself with corresponding mobile number and email address. And an appropriate password will be created by her. And the data will be saved. Later the user will log in using the registered mobile number or email address. And authentication will take place.
b)   During the time of emergency, the user's GPS location will be sent to the registered contacts in the form of text message with the message which says, the user is in danger and is seeking help. The text message will also include the link with coordinates of her GPS location.
c)   The information is continuously sent to the registered contacts. To track the user's location continuously is the ultimate goal of database. The another major asset of using database in future will be if the database used in the application is city police control room database, then when the user is in trouble, based on the user's location observed from the database from the control room, the police from nearest police station can go to the location and rescue the user in danger.

V.   RESULT

When the user opens the application for the first time, the user will have register herself and will have to create an account first.

After clicking on 'new user', registration page will open.

When the user will create the account after filling details as shown in the picture above, the user will be taken to the log in page again.
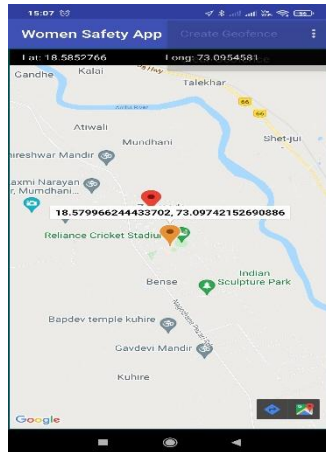The user will log in with the email address and password and authentication will be done.

After authentication, dashboard will open. It will consist of buttons like emergency, add numbers, fake calls, safety tips, calls and geo fence. On the top right corner log out button will be provided.
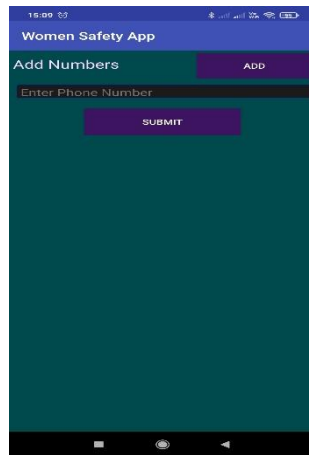

A geo fence can be created using maps, the area which is not safe or the area where user does not want to go can be marked. If the user enters the area, a text message will be sent to the user. This geo fence can be created and cleared according to the user's desire.
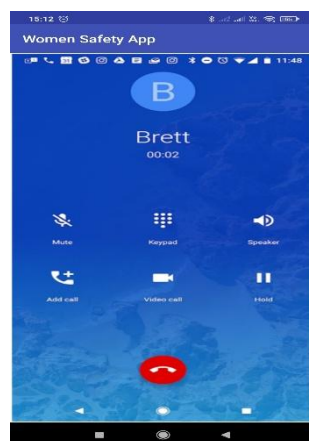The dark red color mark is user's current location and the orange color mark is the geo fence created by the user.
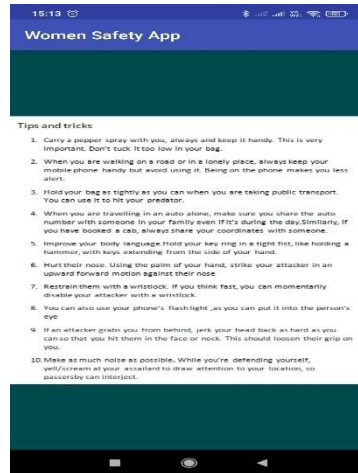
For emergency and calls, first the user will have to add numbers. User can add minimum of three contacts and add up to however the user desires.

After submitting the contacts, the first mobile number will get a phone call and other contacts will receive a text message seeking help with the user's GPS location.

In fake calls, the phone will ring and a screen will open that will appear like the user is on the call.

Just for precautions, we have added a number of safety measures that the user can take.

VI. CONCLUSION

Today, almost every woman is out of her comfort zone and working. Not only during the day time but also in the nights, away from their loved ones. Its is important to take safety precautions as we never know how, when and from where danger will be standing in front of you. The main motto of this app is to seek help from the people you know as early as possible through calling the user's contacts and by sending a link of the user's location. It is important to have a presence of mind.

This application mainly focuses on providing help to the user through calls, text message and GPS location.

The first part of this application is to register yourself on the application.

In the second part, user will have to add the contacts that can reach her out in the times of need.

We have learnt a lot of new terms and technologies while developing the application overall. Thus it can be concluded that in the time of need this application can be way to help the user. Hundred percent safety is not guaranteed, but we can say we can send help to the user as early as possible. It is important for the user to have a little patience and not panic, she should know that the people who care about her are reaching out to her. Not only this applications, but today we need to teach all the girls and women out there how to defend her self. Societal help is also necessary. Society needs to reach out to the victims and help her. Our fear is the strength of those inhumane predators. Be strong and be safe.

REFERENCE

[1]. Abhaya: An android app for women safety- 17 December 2015 Ravi Sekhar Yarrabothu and Bramarambika Thota
[2]. Stay safe application- 05 May 2016 Mr. Indrajeet A. Mane, Miss. Jyotsna R. Babar, Miss. Snehal S. Patil, Miss. Sarika D. Pol, Prof. Mrs. Nikita R.archivesPDFWeb resultsStay Safe Application IRJET
[3]. Vanitha alert- 23 January, 2014
[4]. Raksha- women safety alert- 15 May 2014
[5]. Street safe- 24 September 2013
[6]. Smart24×7
[7]. Himmat application
[8]. Shake2safety
[9]. Busy Coder's Guide to Android Development
[10]. Hello, Android: Introducing Google's Mobile Development Platform
[11]. JAVA: *A Beginner's Guide, Sixth Edition*
[12]. Kotlin Programming by Example: Build real-world Android and web applications the Kotlin way