Rakshaa: A Women Safety Application

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ABSTRACT

There is a rapid increase in the usage of smart phones with GPS navigation in the past few years. It has increased from 21.2% to 36% in the past 5 years. And thus we can effectively use a smart phone for personal security. Women's security is a decisive issue in today's world and it's dreadfully needed for every individual to be acting over such an issue. The fear inside women for sexual abasement, getting raped and physical auscultation is growing, due to hiking rate of crime at every moment. We have built Rasa an Android application to provide security to women. Our research can be activated by a single click or through voice. Once the SOS is activated the app sends message to the registered contacts along with live location. The live location feature helps the guardian to continuously track the ward.

Keywords: GPS, Smart phone, registered contacts, SOS, live location

1. INTRODUCTION

Technology is being incorporated to solve the problem of personal security of women, which has always been a major concern for women in India. [1] Women have become more proficient at mobilizing varied groups for a common cause. They frequently work across ethnic, religious, political, and cultural divides to endorse peace. We are all aware of significance of women's safety, but we must realize that they should be appropriately protected. [2] Women's are not as physically strong as men, in an emergency situation a helping hand would be a relief for them. The best way to diminish your likelihood of becoming a victim of aggressive crime (robbery, sexual assault, rape, domestic violence) is to identify and call on resources to help you out of treacherous situations.[3] Thus, we bring in an app which ensure the security of women. So when you sense threat around you then you can use RAKSHAA app which include SOS button, voice Activation, live streaming, video recording, siren, time alarm, live tracking, and fake call. The key element of this application is to endow with security for the women. This app will send a text message to the Guardian that includes the current position of the victim using SOS service.

2. LITERATURE SURVEY

Reports showed in the year 2016, a total of 38,947 cases of rape were registered in the country under Protection of Children from Sexual Offences Act (POCSO) as well as Section 376 and other correlated sections of the Indian Penal Code. Among these 38,947 cases, in 36,859 matters, accused are related to the victims, it said. The NCRB figures also point out that more and more rapes are being reported every year. However, that could mean that more victims are coming forward to file complaints. [4] As a part of literature survey, we made inquiries about the applications that are already present. The aim of this survey is to learn about the existing system and their working based on which we adapted some features and added some features [5] [6].

3. EXISTING SYSTEM

A. Vatu: VithU is a crisis and emergency application which, at a click of power button of your android cell phone twice successively starts conveying cautious messages like clockwork in every two minutes to your contacts that you bolster into the application as the designated receivers. The VithU application does not take even a penny for download so assuming that you might want to be secured this is the most ideal way. [7]

B. SafetiPin: Safetipin is an innovative safety app that provides safety score for every place you visit. It is a map based mobile application that provides safety related information to safeguard the community. The safety score is based on the research, which describes how safe a person is in that area. [8]

C. Life 360: Life 360 is a Real Time Location Sharing application which allows staying connected with the family. In emergency this application reports to your family and friend. Each family member can track other member just by using this application. Various circles can be created to share location with. [9]

Table 1. Comparison Rakshaa app with others

Features	Rakshaa	SafetiPin	VithU	Life 360
Free to all	Yes	Yes	Yes	Yes
Share Location	Yes	Yes	Yes	Yes
Collects Evidences	Yes	No	No	No
SOS	Yes	No	Yes	No
Video Recording	Yes	No	No	No

4. PROPOSED METHODOLOGY

The proposed system will be implemented with the help of an android application, in which a SOS message will be sent to the registered contacts. The SOS message contains live location of the user. Video recording and audio recording will start as soon as the message is sent. The video and audio are recorded and saved in the storage. The working of this application is being divided in three parts respectively. They are as follows:

1. In the first part we have the Login and Signup section. For a new user there are various modes to Signup. The new user can Sign up with Face book or Google or by just entering Email. And the existing user can Login by just entering the valid credentials. Once successfully Logged In the user can edit her profile by adding few more details like picture, phone number, etc. Then the user has to enter contacts that she wants as guardian. On the activation of SOS these feuded number will receive a message along with users live location through which she can be tracked.

2. When the SOS button is pressed or triggered through the voice activation method, the application will send a message along with the live location to the guardian. The application will also record the video and audio and stream it on the guardian's phone along with saving it into the database. In case when the user cannot take out her phone and press the SOS button voice activation acts very useful option.

3. The database plays a very crucial role in this application. Right from logging in to recording video everything is stored in the database. The voice activation commands are also stored in the database. The database will store the current location and send it to the guardian. The main benefit of database is that it records the live location as well as the audio and video of the surrounding which can be further extremely helpful in case of any mishap.

5. RESULTS

The graph below shows the comparisons between main features of applications and they are safety, security and privacy.

6. CONCLUSION AND FUTURE SCOPE

This paper describes Rasa, a women safety application built on Android platform to provide complete safety to women who live alone far from family, women working in night shifts, etc. Through this application the user can be traced live through GPS. Once developed the application will act like a weapon for women that will ensure the safety and security. This works on the Smartphone with the android operating system. The application acts as a rich tool for sending predetermined message to the registered contacts including a call for help that automatically includes an address and exact location, the victim. Thus this app will go a long way and reduces the risk of becoming the victim.
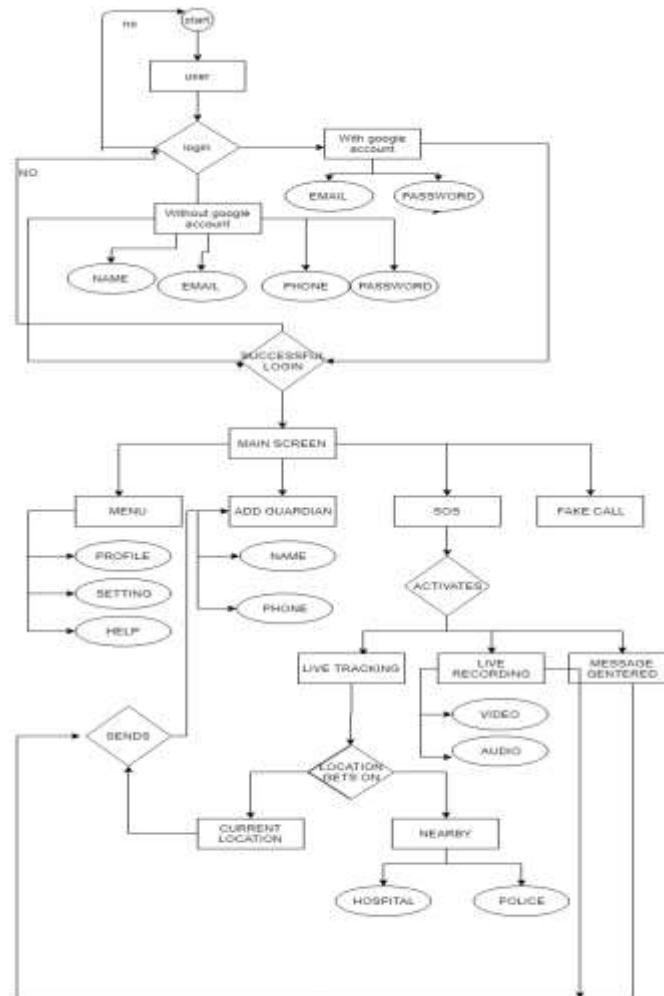
Fig. 4. Algorithm

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