

VSafe: Securing Lives

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Abstract - Safety is the biggest crisis facing mostly women in India. In today's life, a common device almost everyone has is Smartphone. So we can have this device be used for our safety purpose. There are many such cases that made us think about safety hence we came up with an application "VSafe: Securing Lives". Here the user is verified using automatic OTP verification. Emergency Situations defined in two ways is level 1 and level 2. In level 1 victims can get help from Emergency contacts by making a call to the primary number and send emergency messages to every registered contact with the current location. In the case of level 2 in the extreme case where the victim can get help from police as well as Emergency Contacts. The only difference is call will be for police rest will get an emergency message with the current location. These messages will be kept on sending for every three minutes which can only be stopped when sending a safe message is selected. Then only safe SMS will be sent to every contact Victim can also have an option to record a video with a timestamp which can be used as proof. Also one can use other helpline numbers which he wants, e.g. Ambulance, fire, etc.

Key Words: Android OS, GPS, URL, IOS, Mobile.

1. INTRODUCTION

A mobile phone is known as a portable telephone that made communication possible by making and receiving calls over radio frequency. In today's world smartphones have now overtaken the usage of earlier mobile systems. According to research Android is the most widely used cellular OS in the world and recent movement's android covers nearly 85 % and the rest are IOS, etc.

Nowadays smartphone users may look for a new application that meets their needs. Using android we can develop an application that will only work on android phones. To overcome this Google invented Flutter. Flutter is an Open-source UI software development kit created by Google. It is used to develop applications for Android, IOS, Linux, MAC, Windows, and Web from a single codebase. So this gave the biggest advantage that this application will provide safety for women. Women are not more powerful physically as compared to men. There can be many situations where they need help as they may become victims. Hence immediate actions need to be taken to request help from beloved ones or may need help from police. Having such applications may save any of them from becoming victims. That is the reason we introduced an application that will ensure the safety of women.

1.1 Features that make our app different from others are as follows:

- Initially need to enter a maximum of 5 contact numbers and make any of that number a primary. [1]
- Simply clicking the alert Button or pressing the volume button 5 times will be activated. [2]
- two-level security given wherein level 1 one call for primary contact and rest all get emergency SMS with current location. In level 2 call will be for the police and the rest will get an Emergency message every 3 minutes. [5]
- Can record a video with a button provided or pressing the volume down key 5 times.
- Introduced safe button when the pressed system will stop sending SMS and send a safe SMS.
- Another Emergency helpline also provided when clicked will make a call. [5]
- High-speed Internet not required.

2. LITERATURE SURVEY:

In today's world people using smartphones has increased rapidly and hence. That is a reason smartphones can be used for security purposes. In growing atrocities cases, a smartphone plays an important role in the safety of women. The app can be activated by a single click, whenever the need arises to alert the people associated with the person. A single click on this app identifies the location of place through GPS and sends a message with the current location URL to the registered contacts to help the one in dangerous situations [1] User Only have to press Volume Key Button After that a message alert is sent to Register Contact list and a Voice Call to the Registered contacts will receive an alert message that is "I am in trouble please help me", and a voice call to first registered contact [2]. Continuous location tracking information via SMS helps to find the location of the victim quickly [1] By pressing another button user can contact with hospital also [3] The registered contacts will get an Emergency message for 3 minutes interval time until the "stop" button in clicked [4] Not only for women but also helpful for older people, senior citizens, and children. Some special buttons are also provided to generate emergency alerts to the caregiver, including nearest Hospitals, Fire

stations, or Police stations so that the user can easily get instant help.

3. EXISTING SYSTEMS

In today's world, people using smartphones have exploited quickly and therefore smartphones are often used efficiently for personal security or varied alternative protection function.

Kavita Sharma and Anand More introduce

“Advance Woman security system based on Android” review the system which provides security to women by tracking the mobile location of users using a GPS. But tracking the location is not the only solution we have to inform our family/friends about the situation. So we are providing an SOS button for emergency contact.

Tabrez Chowkar, Ankit Shukla, Saif Shaikh, and Vivek Anand introduce

“People Safety APP – Belief” is a security app that comes with features like calling and sending the message of geolocation, sending recorded audio and the surrounding pictures in the treat situation to get the help.

Bhushan Dhobale, Sayali Thorave, Sagar Doke introduce

"A Survey On-Smart App for Women Safety" which provide a Panic button, Message service, Location tracking but the application will run on screen, and it's dangerous because if the attacker identifies that you have already asked for emergency help then he/she will act accordingly.

Dr. Shridhar mandapatil, Sravya Pamidi, and Shriharitha introduce

"A mobile-based women safety Application" which provides an emergency automatic call and message system to selected contacts but deactivating this emergency service at the correct time is also necessary. We are providing this service but for that OTP verification from our selected contact will take place which will make sure that the user is safe now

4. PROPOSED SYSTEMS

This application is designed to supply security to not only ladies but also every individual.[5] The main purpose of this application to supply attention to the time of the vital scenario.

The whole system has six modules are as follows:

4.1. Login

When the user installs this application first method is to log in. The user has to be Login by using the name and mobile number. After adding emergency contact numbers then it is able to use.

4.2. OTP Service

When the user login the system user needs OTP which can send to the registered mobile number. Once OTP gets into mobile number system will automatically log in.

4.3. SMS API

When the user activates the system SMS send to emergency contacts that contain the user name PLEASE HELP message with current location.[5] If just in case there's no network in the user area then the system sends an IMEI number instead of a location link thus emergency contact can find the user location simply.

4.4. GMap API

We use GPS in the application to fetch the current location of the user. This location is sent via SMS Gateway. By simply clicking on the link emergency contact gets the user's location quickly.[1]

4.5. Calling API

We have two levels of security. In level1 call goes to emergency contacts and in level 2 call goes to the police. We provide this service for ambulances also. [5]

4.6. Camera API

We use this flutter widget for video recording. A timestamp is also given to the recording. From these recordings, the user has proof against the victim.

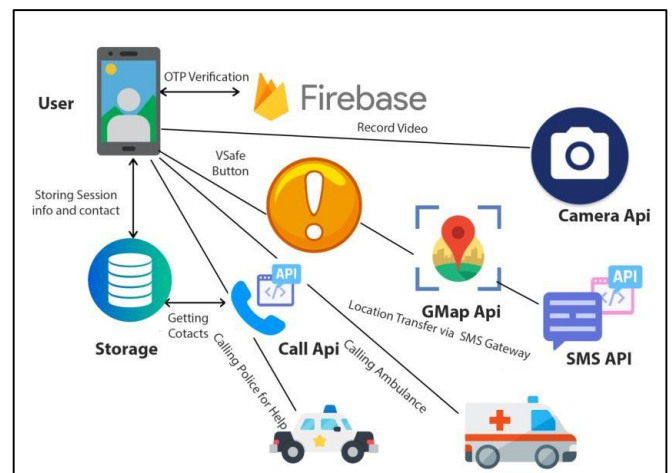


Fig 4.1 System architecture

5. RESULTS

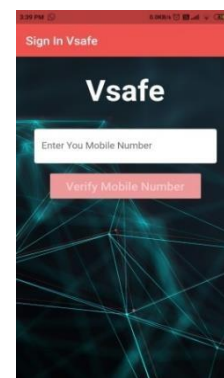


Fig 5.1

This is an authentication page where the user Need to enter a mobile number.

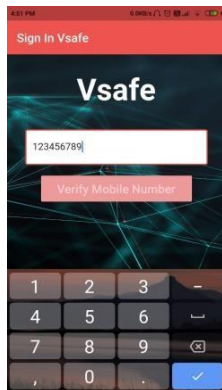


Fig 5.2

After entering mobile number and click verify, system will generate OTP. User is no need to enter OTP manually; it will be done automatically by system itself.

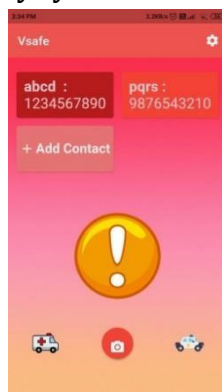


Fig 5.3

This is homepage. The user needs to enter emergency contact and make one contact as primary.

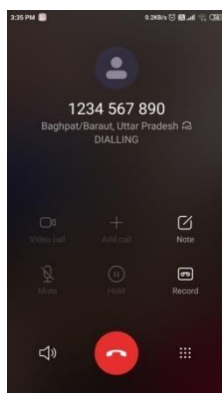


Fig 5.4

When the user click on emergency button then call made to primary contact which is set by user.

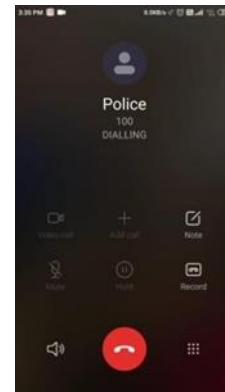


Fig 5.5

When clicked on police button.

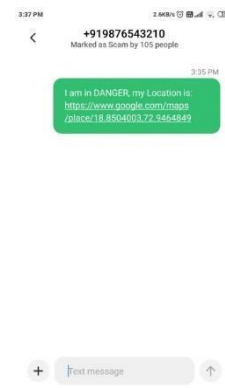


Fig 5.5

This is emergency SMS which will appear on the emergency contact number.

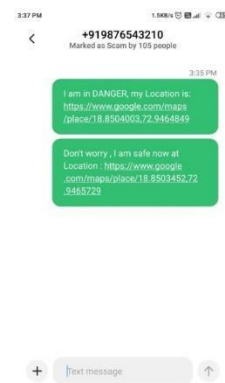


Fig 5.5

Safe SMS sent when send safe SMS is clicked.

CONCLUSION

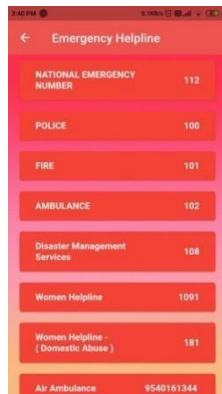


Fig 5.5

**Here all emergency helpline numbers.
Whatever helpline we want we can just click
those button and system will make direct call.**

6. CONCLUSION

In this paper we had described Vsafe, a droid application for safety of women. This application can help a victim getting secured from attackers by including the people that can help him/her also involvement of police will definitely provide help. It provides live tracking of victim so that makes easy to find the victim. As a future scope this application can be integrated with a hardware that can prevent this types of attacks. User and hardware will be registered in government officials which keeps a record of every one who uses this hardware. It will be useful in when mobile network is not available and also in switched off conditions as a result this application will help the women in any of the unsafe situation.

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