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Human Surveillance with Android based S.M.A.R.T Emergency Application

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ABSTRACT: Human Surveillance With Android based S.M.A.R.T(Smart Mobile Accessibility at Right Time) emergency application enables you to connect your android phone across the internet from a device powered by Google android platform. Once click, this application will send messages and call with the location you are in. As there are number of android application developed everyday, we realize the importance of an safety application. In this paper, we are proposing to use the smart phones for retrieving the location of the victim with continuous update of its location. Including one of the most interesting feature of continuous call which can be helpful in case of emergency(if a person is not responding to message at a particular instant), this call would be predefined one, making helper alert that an message from the victims side is been received. This application would be useful when someone is in need of you, by providing victim location, as it is crucial for helper to know victim location. This application is been developed in Eclipse IDE platform using an android smart phone. The application flow starts with a side selecting screen.

KEYWORDS: Mobile Phones, Android, GPS.

I. INTRODUCTION

As there are number of android application developed every day and keeping in mind about the real life scenario, a need of an emergency application is must for the betterment of humans, we are developing an android application which will be useful under critical circumstances. Many situations in our day to day life occur where victim needs help of someone.

Considering an suitable example of an accident where a victim is in need of help and need to provide its proper location he is in. This can be overcome by this emergency application where the victim can send his current location to the helper with a continuous call to the helper.

This application is based on Location Based Service(LBS). LBS can be used to provide information such as tourism guide and roadside assistance to users according to the current locations of them. LBS consisted of mobile devices, communication networks, service provider and database.

The application looks for two side communication between the victim side and the helper side. This communication is possible through the process running at the helper side which will look out for an handshake message (A Handshake message is a message which is send to the helper with predefined message and voice).

The project has also used the GPS service to locate the present location of the victim and send it to the helper with the location latitude and the longitude as well as the location name.

II. EXISTING MODEL

The aim is to develop an application through which user can send the message and call to family member over a network in case of emergency, lifted many developers to create emergency application.

As there are many android application available on the web today, some of the SOS application is listed below which provide facility of sending message for authorized person. Many application lacks in one way of emergency calling.

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The applications also lacked a continuous call and updated message if necessary, this all drawback was kept in mind for the making of proposed system.

III. PROPOSED MODEL

As there is a boom of android operating system in market, everybody is willing to buy android phone. It is open source. Android market place has millions of applications and all are free. Development of application is easy.

We proposed the use of smart phones to retrieve the location of the victim to the problems faced by in retrieving accurate information while high risk area. In this application pre-recorded message will be send to the helper side.

SMART is an application which is used to call continuously to the helpers in case of emergency. This is the most striking feature of our application. This application also allows userto send message and location with help of GPS. Thus, the location can be viewed to the helper.

IV. DESIGN OF THE PROJECT

- This Android Application which contains two side implementation one is Victim and another is Helper one, application will react in two ways. It means there will be server-client relationship in this application. Victim will be the server who will send message and Helper will be client who will receive messages.

A. Structure

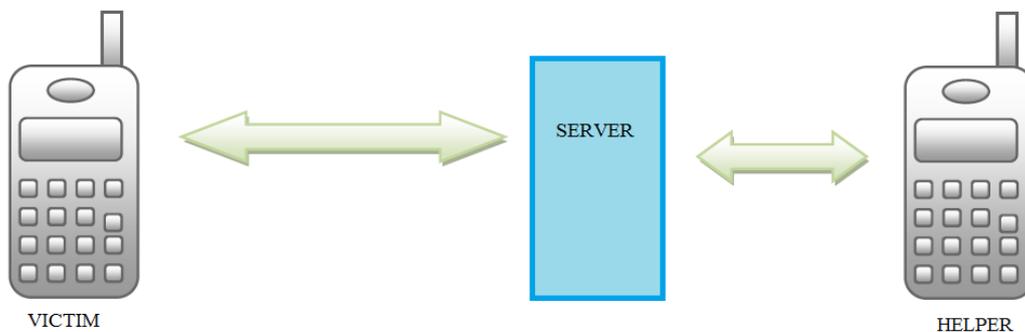


Fig 1. Basic Structure

- On the Helper side there will be service running who will listen those message only which send by the client side from application for help and then helper application will play pre-recorded audio which will be end only after helper sees that message .
- Message will contain location , name and number of victim because one helper can be a helper of numerous victim's so to identify victim we will send name and number of victim
- After seeing that message helper can know the location of victim.

V. EXPERIMENTAL RESULT

A. Side Selection

- The application start with the side selection process. It is a one-time process.

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- There appears two side, Victim and Helper.
- As side is being selected, the working of the current side commences.

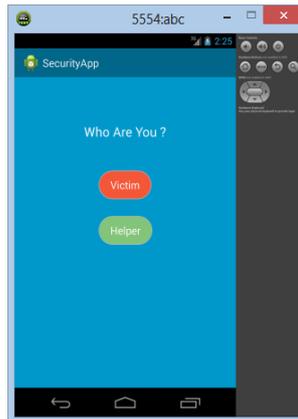


Fig 2. Side Selection phase

B. Victim Side

- Victim will open that application first screen contains two option says who you are victim or helper he will choose victim.
- After selecting victim another screen will be popping up with 7 textboxes, which will ask user to give input and that 7 textboxes will be Victim name, Victim number, Helper number1, Helper number 2, Helper number 3.
- Now after putting this values victim will click on save button(This is one time approach). After doing this there would be a handshake message been send to the helper side.(Handshake message means a message will be send to helper number with predefine text, before that the helper should open our application).
- After this one screen will appear which will contain four buttons, one in middle as HELP and another 3 will be lined down one after another horizontally they are the emergency buttons, the number of helper will be assign to that three button respectively they are for emergency calling.

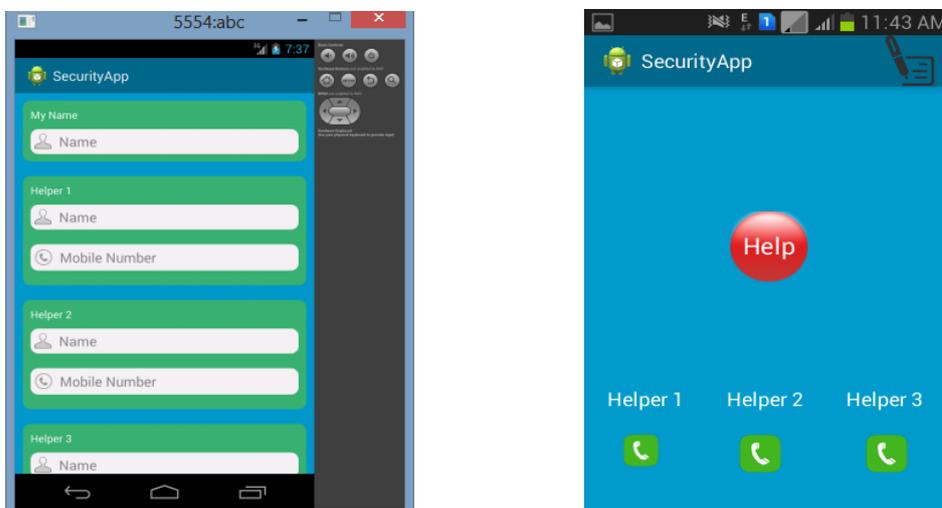


Fig 3. Victim side

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- When Victim will press that middle button one message will send to all this three number and that message will contain name, number and location of victim.
- There would be an Edit button given on the third screen ,which will help to edit the helper name and number if victim wants.
- It could be well understood by an flow diagram

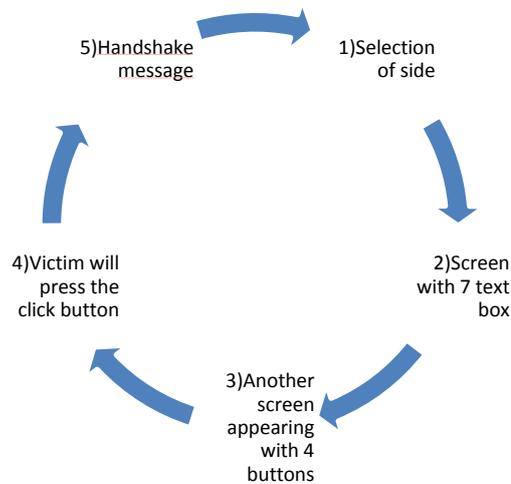


Fig 4. Victim side flow diagram

C. Helper Side

- Helper needs to select the side from first screen, as a helper.
- Now there will be no operations taking place at helper side, application will automatically detect the number of victim from that handshake message. Now after selecting helper from first screen one service will invoke and it will run in background and application will be close.



Fig5.Helper Side

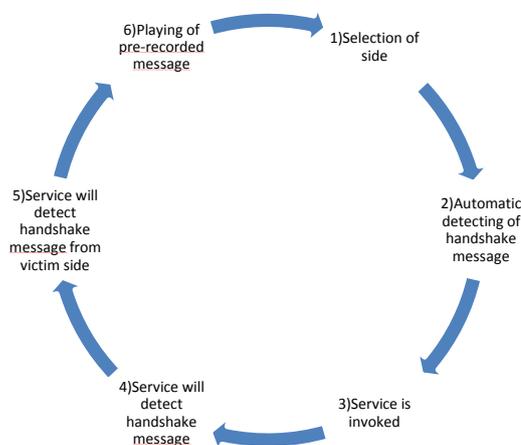


Fig 6.Flow of Victim Design



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- In that service, first it will detect the handshake message and it will store the helpers number and name in application database.
- When that help message will come service will detect that help message from victim using that database number. Application will come to know it's our victim number and then it will play pre-recorded sound until helper sees that message and when he will open our app he can see location of that victim which will be pin pointed by using latitude and longitude from victim message.

VI.CONCLUSION

In the proposed system we allow user to provide its proper location. After comparing with existing applications, we have added calling facility and one way calling which is predefined voice call after specific time intervals.

ACKNOWLEDGMENT

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