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WINDOWS 8/8.1 PHONE BASED APPLICATION "SNIFFOUT"

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ABSTRACT

Now a day windows app is in prime demands. In this research paper we propose and develop SniffOut. SniffOut is windows 8/8.1 application will send an alert by way of an SMS with the person's location to the configured group through the Global Positioning System (GPS). It can easily be used as a safety utility that will help create a haven for women/people in the cities and countries they live. Users can configure their own list of contacts including police and other close relatives and friends. With a single button click a user can send an emergency alerts to his contacts including his present location.

General Terms: Windows Phone Based Application, Personal Safety Application.

Keywords: Geolocator, Geoposition, Geolocation, Automatic Message Sending, Latitude and Longitude.

I. INTRODUCTION

We often come across ethnic, religious, political and cultural divides to promote peace. We are all aware of importance one's safety especially women, but we must realize that they should be properly protected. Women are not as physically strong as men, and in emergency situation a helping hand would be a relief for them. The best way to minimize your chances of becoming victim of violent crime is to identify and call on resources to help you out in dangerous situations. SniffOut is a new service that aims to make sure people get from A to point B safely, notifying their emergency contacts if they don't. It's not the first of its kind, but it's probably the improved one. Unlike bsafe or nirbhaya it also sends the current Geolocation of the user to alert people. You can also customize the automated message it sends out to our emergency contacts and change the message recipients accordingly. It has a major advantage over the other applications which work only on smartphones. The message recipients can access the user's current location even if they lack a smartphone as the message will include the latitudinal and the longitudinal positions.

II. HOW IT WORKS

SniffOut will let the user set a time frame in which you want to be pinged by the application. It will ping him after the time frame elapses. Once the user respond to the application it will again reset the time and waits for the time frame. If the user does not responds in the given time, SniffOut will search or will try to access the current location of the user at the time instance. The location will be accessed in the desired accuracy in meters. SniffOut will then retrieve the closest or the exact coordinates that means the latitudinal and the longitudinal

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positions. After that an automated message which comprises of "*Hello! I might be needing your help. Right now I am here latitude x longitude y*"

is sent to the registered numbers which are by default set to the help line numbers. The use can replace the numbers with his/her desired or preferred emergency contacts.

III. ACCESS LOCATION

In Visual Studio 2013, windows phone application there are certain Geolocation API's which allows us to acquire information about the single position at a time. We have used namespaces like:

System.Device.Location; Windows.Devices.Geolocation;

These APIs allows some inbuilt features which can help to access the current latitudinal and longitudinal position on the globe. When the GetSinglePositionAsync method is called, it creates a new Geolocator object. Then, the code uses the Geolocator object to determine the geoposition. The geoposition is determine in the background using the windows Runtime (WinRT) asynchronous pattern. When the geoposition has been determined, the method returns the coordinates as the latitude and longitude associated with the geographic location (see Figure 1 and Figure 2). In this app, certain requirements are there such as accuracy for the position it needs and more like:

Desired Accuracy: A best-effort approach satisfies the accuracy requirement of the app. This can be expressed either through an enumeration or through a scalar value (in meters).

Timeout: The maximum time the Geolocator object has to obtain a position that satisfies the accuracy requirement. When the time out is exhausted, the Geolocator object returns the best position it could obtain (even if this doesn't satisfy the desired accuracy value), or an error if it wasn't able to require any location. Time out is a period of time the request has to complete from the point the operation is started. By default the request has no time out.

Figure 1

Figure 2

IV. AUTOMATIC MESSAGE SENDING

The application will automatically send an automated message which includes the current latitudinal and longitudinal position of the user acquired by the Geolocator as described above. The recipient of the message

will also get a link of google maps in the message by clicking on which will get an access to the current position of the user on the map. This functionality of automatically sending a message can be obtained by using particular APIs such as **Microsoft.Phone.Task** and **Microsoft.Phone.Control** This application uses the SMS composed task to enable the user to send a message from the application. The SMS composed task launches the messaging application with a new SMS message displayed (see Figure 3). The message recipients in the application by default are set to the helpline numbers. The user can change the registered numbers according to his preference of the emergency contacts in his contact list.

Figure 3

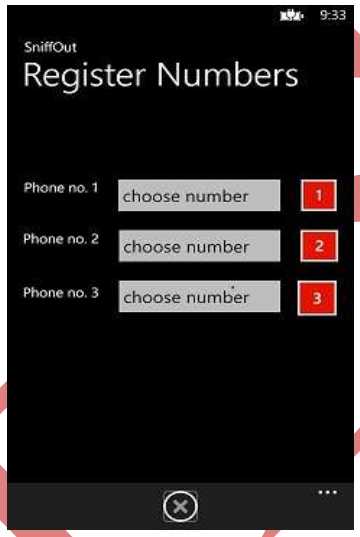

Figure 4

V. FUTURE WORK

Some functionalities can be added later on in SniffOut application. In future, SniffOut will aim to track all the points and positions covered by the user between the points A and B with the help of the GPS technology, this will help the recipient to follow the path which the user has covered.

One more module which is aimed to be covered in the future is that SniffOut will keep a check on the battery of the user's phone if the battery is below a certain mark (e.g. below 20%) then SniffOut will ask the user whether he wants to ping his emergency contacts before his phone turns off. This will help the emergency contacts of the user to know where he was before his phone switched off.

VI. CONCLUSION

Our phone application's automatic message sending plays a vital role in personal security of an individual. It is simple and easy to use and it's free of cost. The emergency contacts need not confirm their phone number. SniffOut takes privacy and security extremely seriously. Your personal information will not be shared anyone. The list of emergency contacts may increase more than one. SniffOut may be used anywhere in India. Therefore SniffOut puts your safety in your hands and lets you stay connected with those you love and keep them safer too. This is faster way as it does not require any password or any identification for its functioning. Therefore it is easily accessible to its customers. So stay safe stay blessed.

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