AN ANDROID APPLICATION FOR EMERGENCY SERVICES

Rishi Nandedkar[1], Shubhum Farkase[2], Anurag Mishra[3], Piyush Gajbe[4]

[1,2,3,4] *Department of Computer Technology,*

Rajiv Gandhi College of Engineering and Research, Nagpur (India)

ABSTRACT

In an era where calamities whether they are natural or man-made can stuck any time of a year, efficient disaster management is the need of the hour. The disaster management is a very crucial phrase after a calamity has stuck. One of the immediate challenges after a disaster is to rescue as many human lives as possible. To this an efficient way to call for help should be developed which responds immediately to any kind of calamity ranging from road, rail accidents, and mudslides to earthquakes, floods or an air crash. This application is specifically developed to cater to such needs. This paper provides an in-depth analysis of the application.

I. INTRODUCTION

According to United Nations University for Environment and Human Security (UNU-EHS), India ranks 100th out of a total of 172 countries in the world with a disaster risk of 7.17 %. In India, 138,258 people died of road accidents in India in 2012. This number is alarming. Also many 143,039 deaths occurred because of natural calamities. Due to climate change this calamities are rising every year causing more number of deaths. Various counter measure techniques are undertaken such as Humanitarian aid, Emergency population warning, Emergency Alert System, Evacuations, Emergency management, Crisis management, Disaster risk reduction. This application is focused on Emergency Alert System which will help people to flee or protect themselves from the incoming disaster.

II. RELATED WORK

The first Emergency Alert System was developed by U.S.A. which was used to publish information about tornadoes and flash floods. The system was used in many situations where human help could not reach, and it alerted the people to take safety measures for the disaster. This system was constantly upgraded over the years and was recently used in New York City to inform people about incoming Hurricane Sandy.

2.1 Proposed Work

When the app is opened on the Smartphone of the user, it checks if the data connection and the GPS system is turned on or not. If it is not, it prompts the user to do so, since both these services are essential to the functioning of the application Once the GPS and the data connection has been enabled, the user can start using the app.

1.   The user can click a picture to be sent along with his report. To do so, the user has to click on the "Take photo" button, after which the camera will start, enabling the user to click a photograph of something he feels would be helpful in the report.

2.   The user can also submit some comment along with his report. The comment should be ideally short and should clearly state the nature of the problem. The comment is optional.

3.   The GPS activity keeps running in the background, trying to get the location coordinates of the phone. Whenever the location coordinates are set, a toast is displayed saying so. If for some reason, the location coordinates aren't set by the time the user chooses to submit his report, the app prompts him to enter his address manually.

4.   After all this, the user clicks on the submit button to send all the data back to the web server, where a PHP file catches it and inserts it into a database table.

2.2 Proposed Architecture
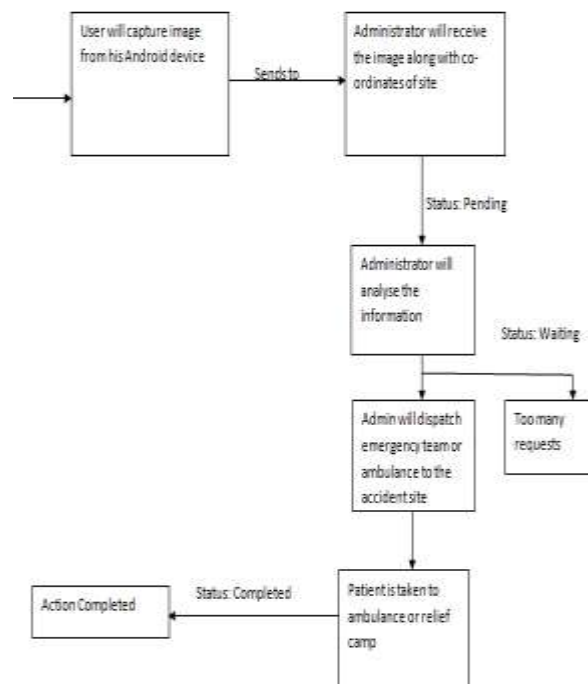
2.2 Implementation

This project consists of two modules:

1. The server side: It consists of a dummy server created on a certain website. An account on that website and created various fields such as latitude, longitude, image, id etc. The data received from the user gets stored in this table. The administrator computer receives this data and quickly responds to the request.

Fig 2.1 Database of Stored Information

2. The application side: The actual functioning application on an Android device is created using Software Development Kit. The application's background and user interface is created in this module.
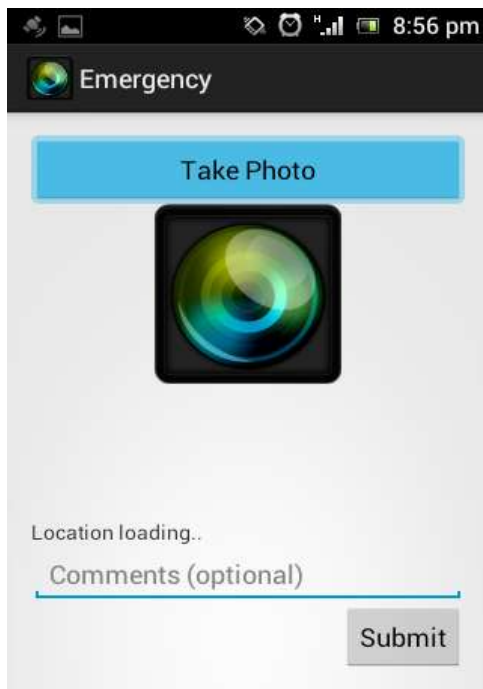
III. RESULT

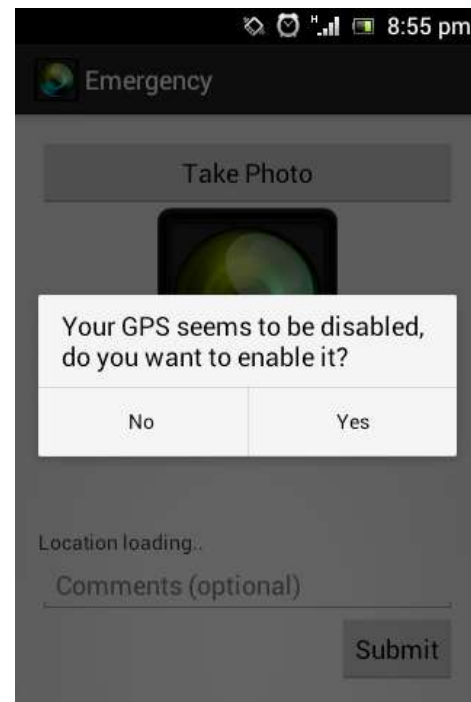Fig 3.1: User interface of the application   Fig 3.2: Application asking for location services

This is the application side as seen from any Android device

IV. CONCLUSION

In this paper, we have presented an Android Application which can be used in times of tragedy. We have showed that this application takes minimal time to provide speedy relief to accidents or disasters' victims.

V. FUTURE SCOPE

1. The application in future can also be run on Apple's iOS , Microsoft's Windows and Symbian Operating System.

2. This application can be upgraded to handle more requests and serve more people.

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