Hospital Finder

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***Abstract* – It has been noticed that many times because people have experienced injury or sudden health conditions however, because of no knowledge of the nearby hospital some of the injured peoples could not reach correct hospital with all the necessary speciality and also urgent requirement of blood transfusion its often difficult to find a blood bank nearby, in case of requirement of first aid one needs to buy medicines and lot of time people don’t know where the nearest pharmacy is. Those who are interested in donating their organs don’t know where to register for it and help other people who are in dying need of organ transplant. We have a developed an app which can be used in emergency situations for finding hospitals, pharmacy, blood bank and also organ donation centers.**

***Index Terms – CT in Healthcare, Smartphone application, MAP, Health, Emergency***

I. Introduction

Developed and developing countries have recognized the importance of Electronic Health Record in Healthcare Management System. Emergency Medical System (EMS) is a revolutionary approach to emergency medical treatment in some medical emergency. It also describes a mobile system that enables electronic healthcare data storage, update and retrieval using API. It observed that people in unknown area are in severe danger if they don't able to find hospital quickly. In emergency case a single minute counts so it is very important that automatic applications must be used for decision making, maintain up to date status of the hospital. Saving the time which can be save life of the patient. When the doctor or family receives the alarm message, they can immediately take measures to rescue the user. It can also manage the health record of the user. The proposed system locates nearest available hospital, contacts its ambulance emergency system. The system will identify availability of the nearest available specialized hospital all through google APIS which provides continuous information. This paper proposes Android Based Tracking for EMS (Emergency Medical System) using APIS [1]

II. OBJECTIVES

1.The objective of our project is to provide the user with all the basic necessities such as ambulance hospitals pharmacies organ donation centres during a medical emergency

2.We wanted to provide a platform which helps people in making a better and quick choice in an emergency situation.

3.We noticed that people got confused during an emergency as they did not have proper information about the services, they had near them and that adds to the panic of the situation.

4.So we listed the necessary options which can prove to be of great help in an emergency and tried to make a platform which can be trustworthy in an emergency with various live saving services ready at the tip of a finger.

5.We also saw people from under developed areas lacked information on these important services and such a platform could prove to be helpful in a lifesaving decision.

III. VARIOUS INSTRUMENTS USED

*A. Android Devices*

Generally, AOS devices are available with a merger of source programming and proprietary software but with AOSsource code released by Google Inc. under the open source

licenses agreement [3]. Android was revealed in 2007 in conjunction with the founding of the Open Handset Alliance; an association of hardware, software and telecommunication companies dedicated to moderate open standards for Smartphone and other cellular devices [4]. Android is popular in all kinds of technical fields that require a user friendly, low-cost and customizable software or applications for high-tech devices. Due to Android open source style, it encouraged software developers worldwide and devoted them to use the Android platform as a base for Smartphones and PC tablets related projects that add new features for advanced users [5]. The other operating system's developers are also making their project in AOS for android devices to achieve more success. This kind of accomplishment made a target for patent litigation as part of Smartphone wars between technology manufacturers [6]. AOS based devices find more consumer demands comparatively to Microsoft Windows, Apple iOS and Mac OS X devices combined in last three years. As of July 2013, the Google Play store has had over one million Android apps published and over fifty billion times apps downloaded. A developer survey has been conducted in April–May 2013 where 71% of apps developers develop for Android devices [7]. In 2014, Google Inc. disclosed that there were over one billion Android users that have been active for a month.

*B. GPS in Smartphone*

Global Positioning System (GPS) enabled navigation in devices that precisely determines geographical location by receiving GPS co-ordinates information from the GPS satellites. Originally, it was only used by the United States

military, but later this service is available freely worldwide and now most receivers are integrated into Smartphones, PC tablets, airplanes, tracking devices and automobiles [8]. At present, people feel more convenient to just use them Smartphone built-in GPS as navigation tools instead of a separate GPS device. Smartphone navigation typically gets free and speedy automatic updates as compare with commercial GPS devices.

*C. Google Map APIs*

Google Maps are commonly used to determine the destination location, calculate distance and approximate time to reach a destination points from your current location. Basically, Google Maps have an extensive array of application program interfaces (APIs) that let you embed the great functionality and effectiveness of Google Maps into your Smartphone applications. Google gives by means of Google play a library for using Google Maps into Smartphones application. At present, Google Maps Android API V2 are available that provides improvements to the older API version [9]. The Google Map library gives the com.google.android.gms. maps. Map Fragment class and the Map View class for displaying the map component. To access the Google Maps servers through the Maps API we have to add a Maps API key to Smartphone application. The key is free and can be used with any application that calls the Maps API, and it supports many users. Maps API key can be achieved from the Google APIs Console by providing application of signing certificate and its package name. The key is included in the application by adding an element.

III. METHODOLOGY

*A. Informative survey*

This research work was conducted in two steps. The first step was an informative survey and it conducted to gather the latest information about hospitals and doctors. The second step was to implement an application for android Smartphones, so that it will be available to all android users. Later it will be implemented for another mobile operating system. Figure 1 shows the flowchart of the whole project. The first step was to collect authentic information about doctors and hospitals that would be used in the application database. For this purpose, an informative paper-based survey was conducted in major hospitals in India with the aim of acquiring valid information such as a hospital name, a list of specialized doctors, hospital contact numbers and web addresses.

B. *Development Tool Kit*

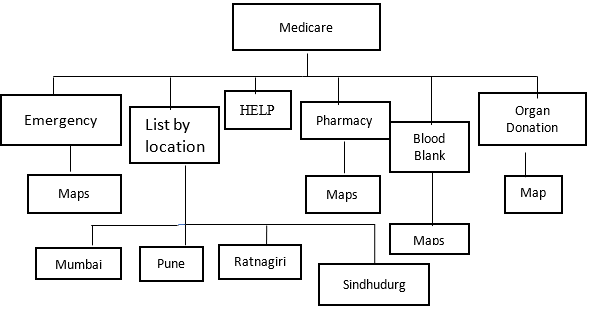
Android Studio is the official integrated development environment (IDE) for Android application development. It is based on the IntelliJ IDEA, a Java integrated development environment for software, and incorporates its code editing and developer tools.To support application development within the Android operating system, Android Studio uses a Gradle-based build system, emulator, code templates, and Github integration. Every project in Android Studio has one or more modalities with source code and resource files. These modalities include Android app modules, Library modules, and Google App Engine modules.Android Studio uses an Instant Push feature to push code and resource changes to a running application. A code editor assists the developer with writing code and offering code completion, refraction, and analysis. Applications built in Android Studio are then compiled into the APK format for submission to the Google Play Store.The software was first announced at Google I/O in May 2013, and the first stable build was released in December 2014. Android Studio is available for Mac, Windows, and Linux desktop platforms. It replaced Eclipse Android Development Tools (ADT) as the primary IDE for Android application development. Android Studio and the Software Development Kit can be downloaded directly from Google.

TABLE 1

Screen and its features

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| SCREEN | FEATURES |
| Splash Screen | Click on icon to open app |
| Home Screen | Main screen that show all the specialization fields  Of Nearby Hospitals |
| Emergency | Will give the location of nearby hospitals |
| List by location | Will give location wise list of hospitals |
| Pharmacy | Show nearby medical stores |
| Blood banks nearby | Will show blood banks nearby |
| Organ donation centers | Will show organ donation centers nearby |
| Help | Will provide app related help |
| Ambulance service | Will send an ambulance to your location |

C*. FLOW CHART FOR APPLICATION*



IV. FUTURE ENHANCEMENT

Currently, this application shows the static list of doctors available in the particular hospital. This application can be enhanced to provide real-time information about the doctor present in particular time in the specific hospital designed for android devices, later it will be designed for iOS, windows OS and other popular mobile operating systems. A questionnaire survey will be helpful in determining the benefits and usability of this application in general users

V. CONCLUSION

Android as a full, open and free mobile device platform, with its powerful function and good user experience, rapidly developed into the most popular mobile operating system. This study makes a basic and up-to-date medical category application is designed to help the patients and caregivers to determine the nearest hospital with a specific specialization field. The hospital names along with their address and route are determined by Smartphone GPS receiver with the help of Google Map, the distance and route to each of the hospital is displayed for the user. This application is greatly useful in emergency cases as well as for the non-resident person of the city. With filter wise location we have also provided options for pharmacy, blood bank and nearby organ donation centres.

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