Ambulance Service Using Android Application

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--ABSTRACT--
Initially the ambulance driver did not know the exact location of the accident spot because of the heavy traffic due to this we cannot save many people's life. By current technology era everything runs on smart phones and applications so we created an mobile application by live tracking of ambulance service .This app will have ambulance driver's register their availability and location. Either executive emergency helpline or user's on client side will book an ambulance and the user login .The user's location will be pin pointed on the Google map and even the ambulance which is nearby the user will be pin pointed on the map , once the patient is on board the ambulance location is pointed and it will send to the admin this location will be shared to ambulance driver and then the list of hospitals are pointed out on the map which helps the admin to choose the nearby hospital to take the patient on time .The ambulance location is tracked by the navigator geolocation method based on Rest FUL Web Services .This technique will help the ambulance location to be updated in the database . Moreover the ambulance driver can control the traffic signals by the upcoming ambulance route by changing red to green signal.

Keywords **- Rest FULL Webservice, Navigation, Geolocation.**
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I. INTRODUCTION

With current technology era where mostly everything runs on smartphones and applications, the need of quick and efficient services are almost important in every aspects especially when it comes to medical services. Patients are mostly having issues on handlingthe locations and searching of ambulance their availability due to limited service in the time of emergency .The lack of such attention and information may lead to several casualties .The question arises where the user have to find ways to check the availability for theambulance to find the user's precise location in the quickest time . Thus the ambulance diver have to provide proper information and location . So both the user and ambulance driver won't get lost or by searching each other .The main aim is to reduce the time of calling the fraud calls and to allow ambulance driver to locate the victim easily by using GPS signal.

II. RELATED WORKS

[1]''Automatic Ambulance Rescue System Using Shortest Path Finding Algorithm.'' by P.Arunmozhi and P.Joseph William Volume: 07 Issue:04 |Oct.-dec.| 2018
Traffic congestion and tidal flow management were recognized as major problems in modern City areas, which have caused much uncomfortable for the ambulance. Moreover accidents in the city have been nonstop and to bar the loss of life due to the accidents is even more Complexity . To implement this scheme called AARS (Automatic ambulance rescue system). The main Function behind this scheme is to provide a smooth flow for the ambulance to enter the hospitals in time and thus minifying the Practical Implementation. The idea behind this scheme is to implement a ITS which would control mechanically the traffic lights in the path of the ambulance. The ambulance is controlled by the MCU which furnishes the most scant route to the ambulance and also controls the traffic light according to the ambulance location and thus reaching the hospital. The server also determines the location of the accident Place through the sensor systems in the vehicle which encountered the accident and thus the server walks through the ambulance to the Exact Place. This scheme is automated, thus it finds the accident Place, controls the traffic Signals, helping to reach the hospital in time.

III. PROBLEM IDENTIFICATION

In the existing system , there was no correct booking of ambulance and driver faces the difficulty to reach the accident spot in short time due to heavy traffic so that will take a lot of time to reach the hospital. Due to this many people mayloss their lives or is in trouble due to heavy traffic.This system would not help the ambulance to reach the hospital in short time.

IV. PROBLEM SOLUTION

A mobile application that the users can usefor booking an ambulance, by this user can send accident location to admin them admin get address of received GPS co-ordinate from the user side. This location will be shared to the ambulance driver .Then ambulance driver will reach the spot.Then Ambulance driver will send notification to admin and then admin will send location of near by hospital to the driver where he has to reach.The driver can

clear signal for upcoming ambulance route by changing red to green signal
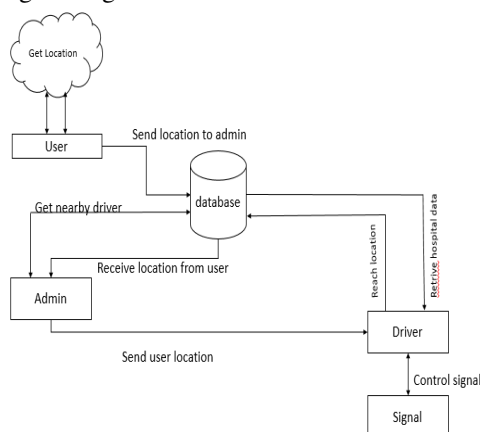

Figure 1.Flow Diagram

Diagram explains the flow of the application. Here user will send an accident spot location to the admin this location will stored in database then admin will get an nearby driverlocation after this admin will share an accident spot location to driver.After reaching the accident spot driver will send an notification to admin then driver can retrieve the hospital location.The driver can control the signal in the upcoming ambulance route.

V. SOFTWARE USED

Android Studio is the official integrated development environment (IDE) for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android development. It is available for download on Windows, macOS and Linux based operating systems.It is a replacement for the Eclipse Android Development Tools (ADT) as the primary IDE for native Android applicationdevelopment.In the Eclipse IDE as your environment for developing Android applications, you can install a custom plugin called Android Development Tools (ADT), which adds integrated support for Android projects and tools. The ADT plugin includes a variety of powerful extensions that make creating, running, and debugging Android applications faster and easier.

Figure 2.Android Development Tool

ADT extends the capabilities of Eclipse to let you quickly set up new Android projects, create an application UI, add packages based on the Android Framework API, debug your applications using the Android SDK tools, and even export signed (or unsigned) .Apk files in order to distribute your application.

VI. PROGRAM OUTCOME

6.1 MODULE 1-User have to register

This is the first activity that opens when user installs the app.User needs to provide a correct contact number and a password, which user enters while registering, in order to login into the app. If information provided by the user matches with the data in the database table then user successfully login into the app else message of login failed is displayed and user need to reenter correct information. A link to the register activity is also provided for registration of new users.

6.2 MODULE 2- Admin

Admin will receive the accident spot location by the user this location will be shared to ambulance driver. Their driver availability is checked by the admin by calculating latitude and longitude values. Once the driver reached the location he will send an notification to admin and admin will allocate the hospital by calculating latitude and longitude value where the driver have to reach

6.3 MODULE 3- Driver

The driver sends notification to admin system after sending notification he will receive the location of the hospital where he has to reach. The driver can change the traffic signal of upcoming ambulance route by changing red to green signal.

VII. CONCLUSION

Ambulance service system can have multiple functions and also provides more benefits to users. With increased features like tracking of ambulance lively . This will help the admin to track the ambulance driver. This helps the user and ambulance driver to make more comfort.

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