

ARISTA

S.Brinda, Abhishek kumar chhotu, Suraj kumar, Sushil kumar, Rishabh singh, Raghu Pareek

¹ Asist.Profesor, C.S.E., SRM IST, Tamilnadu, India

² Student, C.S.E., SRM IST, Tamilnadu, India

³ Student, C.S.E., SRM IST, Tamilnadu, India

⁴ Student, C.S.E., SRM IST, Tamilnadu, India

ABSTRACT

We are developing an android application which enabled supported users requiring daily supports to share their location via message. Supporting users can check the location coordinates of the supported user whenever required. The users can use this application to easily send a request through the app if it is required. The request is automatically notified to the service provider account. This is designed for receiving such requests. The application will be helpful for self-assistance, mutual assistance and public assistance in both the daily and emergency situations. In this application the system will obtain the GPS location co-ordinates and store in the memory if the location co-ordinates are old then it will release that memory. If the user will push the request button then it will send the data to the firebase which is the real-time data base and data will further transfer to the target device or user. Target device will receive that request as a notification and if user open that notification then it will show the location of another user.

Keyword : - live-location , GPS-service, coordinates, crash report

1. Introduction

In India 400 women and children go missing without any trace and it is very difficult for all their family to find them without any sort of help, so that every hour 17 people are go missing [1]. In India so many people are died in accident because of they did not get medical facility on time. This app will help lot to trace the missing people and it also help to get the help in case of emergency.

Accidents & People Killed In 2015, By Type Of Road

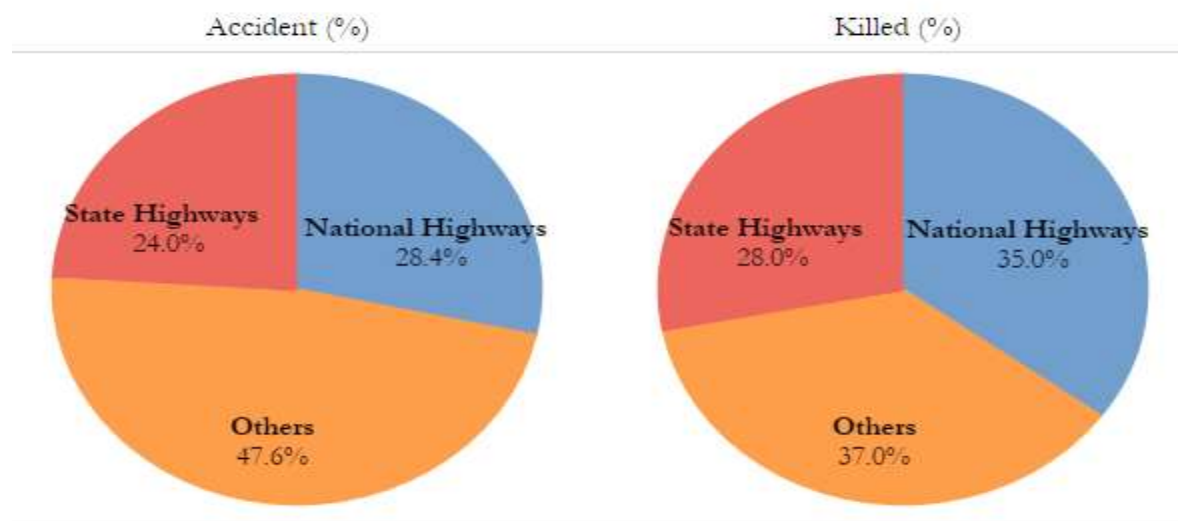


Fig-Data of road accident

1.2 Issues in Existing System

Following are the issues:

1. User interface design of App is not that attractive.
2. Current system required third party app to send the location of user.
3. It can't able to share continuous location of user.
4. No voice-based command for distress message
5. Can't provide any crash report in case of accident.
6. Can't able to locate the location on live.

1.2 Advantages of proposed system

Following are the advantages:

1. It provide hassle-free usages because it is light weight.
2. Improved user interface design.
3. Provide voice-based command for sending the location.
4. User can able to send continuous location co-ordinator.
5. It usages the real time data so it is very efficient.
6. It can able to send the crash report in case of accident.

2. SYSTEM DESCRIPTION

In this app we are going to access the user location so that in case of emergency the user can able to share their location via app and the other are able to track the sender. For achieving this we are going to use the real time database so that the user are able to send their location and other get update of that location at same time.

2.1 System Architecture

In this the system will invoke the activity in which the location service will be called. In first the onCreate method will be invoked in which all the setup will be completed and it also created instances of the firebase. In second steps the onStart function will be invoked in which the function call all the essential variable and initialize the variable in this steps the location service will start and wait for location co-ordinate. If the connection will be failed then the onconnection failed function will be invoked and it take essential steps to regain the connection. Onlocation changed function will be invoked when the location will be changed by the minimum of one meter.

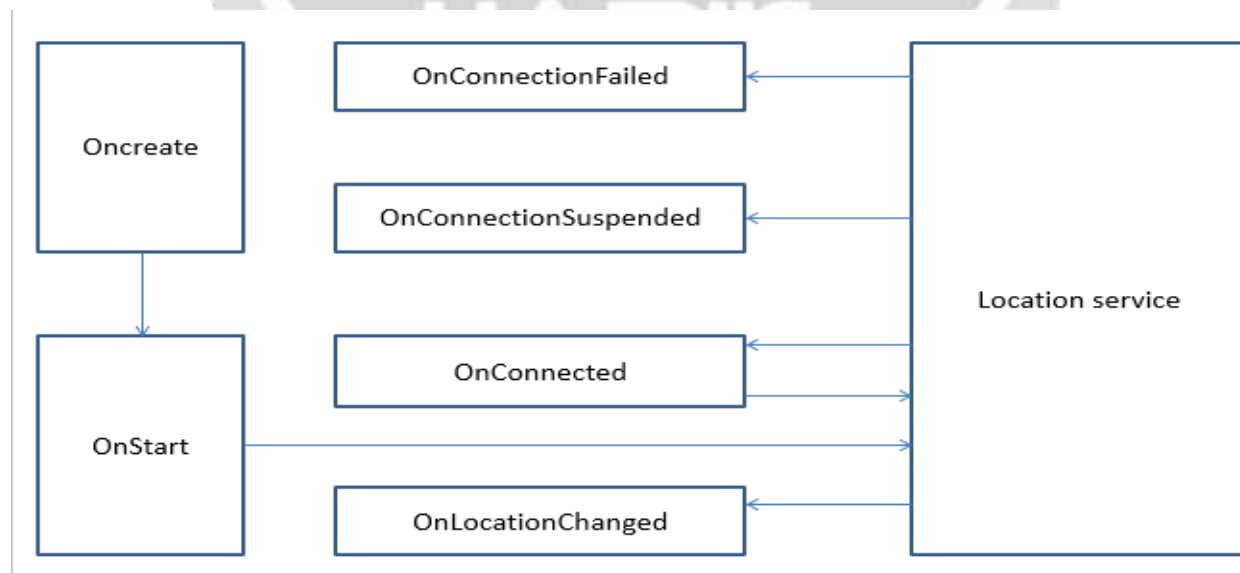


Fig-2 System architecture

2.2 Data Flow diagram

This represent the data flow of application in this the location is send by the user which goes to the database and stored the data and after the it will send the notification of location of all the connected device and when they click on notification the app will lunches the map Api and start to show the location and it also calculate the distance vector of user.

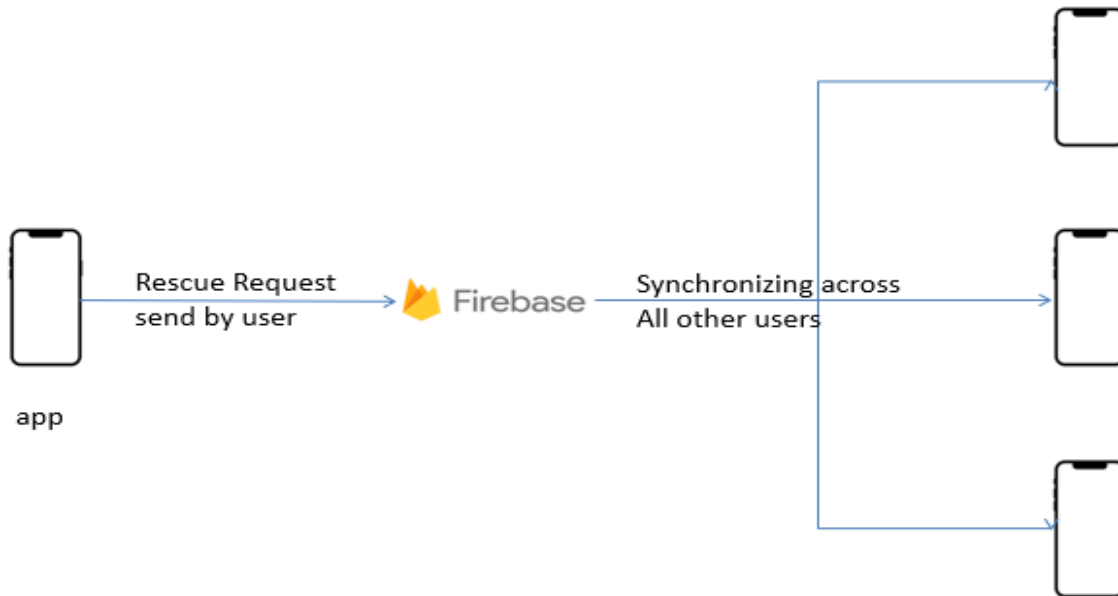


Fig-3 Data flow diagram

3. Crash Report

In this the app will record the location change and then it will calculate the speed of vehicle and by use of coordinate change algorithm and then it also calculate the amount of acceleration and deacceleration, so if change of acceleration and speed is huge then it will prompt an message for sending an stress message to their trusty if user will not cancel within few second then it will send the location of user and also send the help message to nearest hospital

4. CONCLUSIONS

The project named Arista has been designed with the using java and XML code. System has satisfied all the proposed work. This project is implemented successfully. This app will give the excellent result in term of user interaction with safety and it also provide the live location of victim . After all it will give the good user interface and enhance the chance safety and security.

5. REFERENCES

- [1]. [https://qz.com/569456/charted-everyday-400-women-and-children-go-missing-in-india-and-many-remain- /](https://qz.com/569456/charted-everyday-400-women-and-children-go-missing-in-india-and-many-remain-/)
- [2]. <https://ieeexplore.ieee.org/document/7899464/>
- [3]. <https://www.udemy.com/completeandroiddevelopercourse/learn/v4/overview>
- [4]. <https://developer.android.com/design/index.html>
- [5]. <https://www.androidhive.info/2016/05/androidworkingwithcardviewandrecyclerview/>