A SUGGESTIVE IMPLEMENTATION ON STUDY OF PRIVACY & PROTECTION USING IOT FOR CIVILIANS

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Abstract: **Mobile Technology is the evergreen area since usage of smart phone is equipped with GPS navigation has increased rapidly to more than 90%. In this paper, an attempt is made to concentrate on the safety of every citizen. In this paper, we are proposing a personal safety app develop for smart phones using android as a platform. This app will start by simply clicking on the icon of the app whenever the user feels he\she is in problem. Whenever the users start this application it will directly start the GPS of their mobile phone due to that server will get the information about their exact location. After that server will send notification to the police headquarters so they can send the help to needy person as soon as possible. Another feature of this application is, this application will have access to the all cameras, which are accessed by police. Due to this if, any accident happens and get caught in camera then the server will notify the nearest hospital as well as police station so they can reach at the place as soon as possible.**

Keywords: **Accident Helper, GPS locator, Global Security, Protection, Safety.**

I.   Introduction

In today's world, it is not safe for anyone either they are men or women to travel in mid night, because of the increased in crime rate in world. The aim is to protect a victim in violent crime like robbery, rape, domestic violence and sexual assault in the situation like these people may feel unprotected. So, if in situation like these they are using our app they can diminish the risk. Whenever the user will feel unprotected, they will just have to open the app and press the "HELP" button after pressing this button our application will send a notification to the server. After that server will check the data which they had provided when they were registering along with that detail it will check current location and send it to the police headquarter.So the police can reach their as soon as possible, but there are chances that the user may send a fake request for that we have planned to verify their account via registering with the help of "AADHAR CARD". So if anyone tries to send a fake request police will have every information about them as well.

There is an existing application called 'NIRBHAYA'. This application is specially made for the protection of women. This application can be activated by clicking the power button of your smart phone thrice whenever the user is feeling unsafe. This application communicates the user (sender) current location. And send a message "I'M IN DANGER" along with the location to predefined registered user's (receiver) groups of peoples which are created by the user (sender). This application is made after the "Nirbhaya gang rape in Delhi".

IOT *(Internet of Things)*

IOT stands for Internet of Things. The Internet of Things (IOT) is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with a unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction. The GPS (Global Positioning System) system had essential influence on IOT.

The number of IOT devices is increased by 31% year-over-year to 8.5 billion in 2017.IOT involves extending Internet connectivity beyond standard devices, such as desktops, laptops, smartphones and tablets, to any range of traditionally dumb or non-internet-enabled physical devices and everyday objects. Embedded with technology, these devices can communicate and interact over the Internet, and they can be remotely monitored and controlled.

How GPS does works?

GPS uses satellites to track the position of any object with the help of GPS tracking chip, includes vehicles, mobiles and many more. It works regardless weather conditions and provides real time positional data of an any object. At least three satellites – positioned to be in the sky over any area at any given time – are used to triangulate the position of a tracking chip. The satellites use microwaves to collect information in three dimensions and calculate position from their intersecting spheres. These satellites update data regularly so satellites can get accurate position of objects in motion.

II.   Literature Review

Mobile Technology is the evergreen area since usage of smart phone is equipped with GPS navigation has increased rapidly to more than 90% [1]. This application can be activated by clicking the power button of your smart phone thrice whenever the user is feeling unsafe [2]. This application communicates the user (sender) current location [3]. And send a message "I'M IN DANGER" along with the location to predefined registered user's (receiver) groups of peoples which are created by the user (sender) [4]. The Internet of Things (IOT) is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction [5]. The GPS (Global Positioning System) system had essential influence on IOT [6]. It works regardless weather conditions and provides real time positional data of an any object [7]. At least three satellites – positioned to be in the sky over any area at any given time – are used to triangulate the position of a tracking chip [8]. The satellites use microwaves to collect information in three dimensions and calculate position from their intersecting spheres [9].

III.   Framework
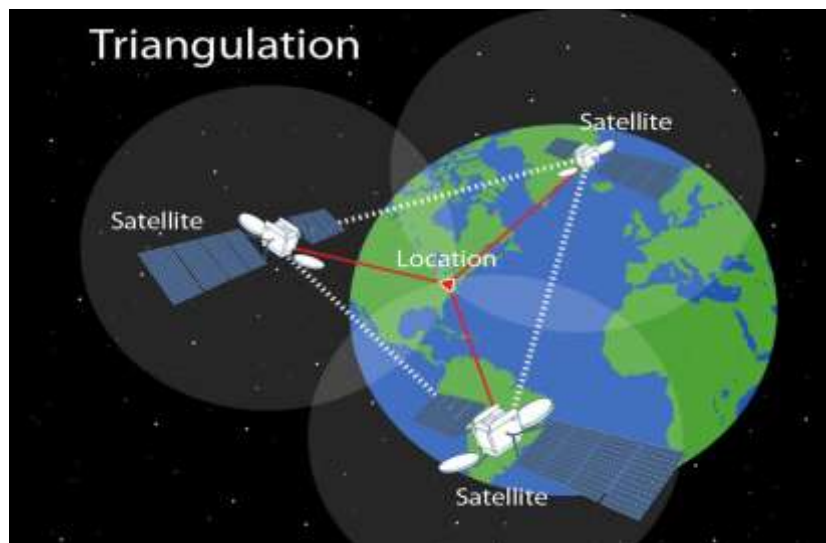
Working of GPS (Global Positioning System):

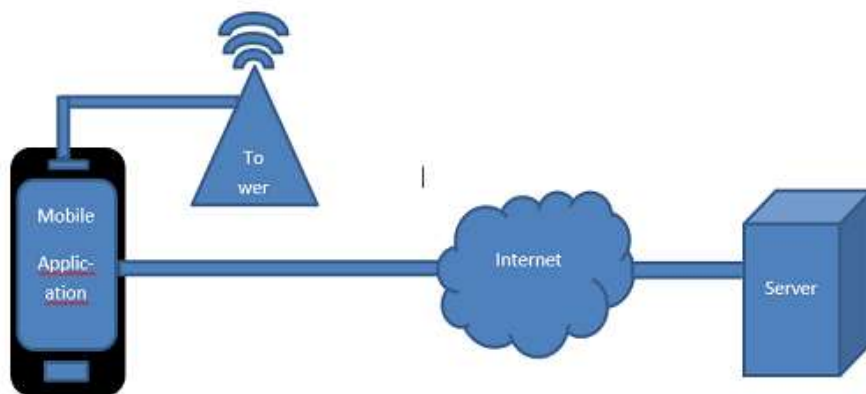*Fig 3.1 Global Positioning System [Source:https://i.ytimg.com/vi/6XJDf8lunGk/maxresdefault.jpg]*

Fig 3.2 Architecture of Global Positioning System

IV.   Working Architecture

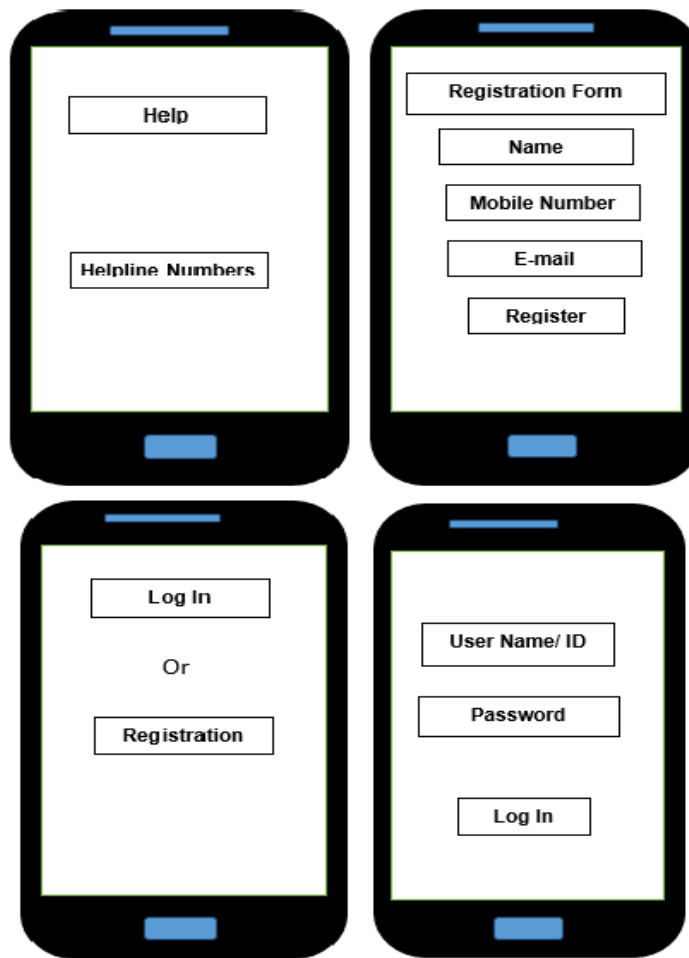*Design: Graphical User Interface on Smartphone*

Fig 4.1 Graphical User Interface
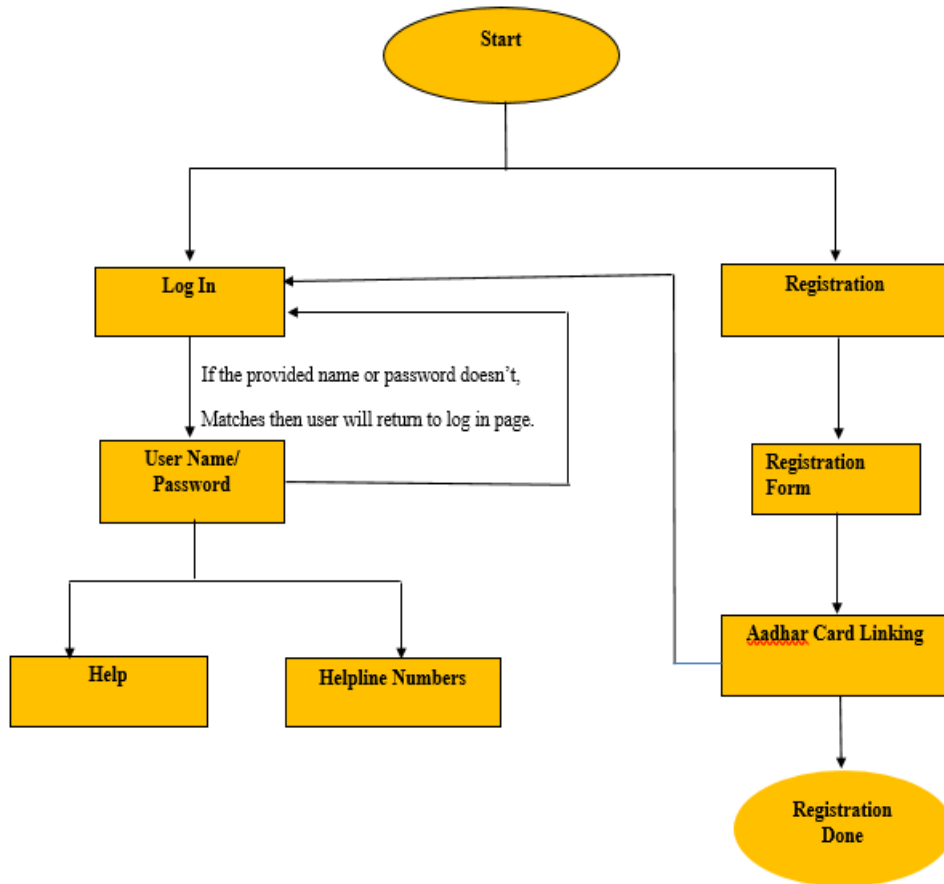
System Flow

Fig 4.2 Flow Chartof Global Security
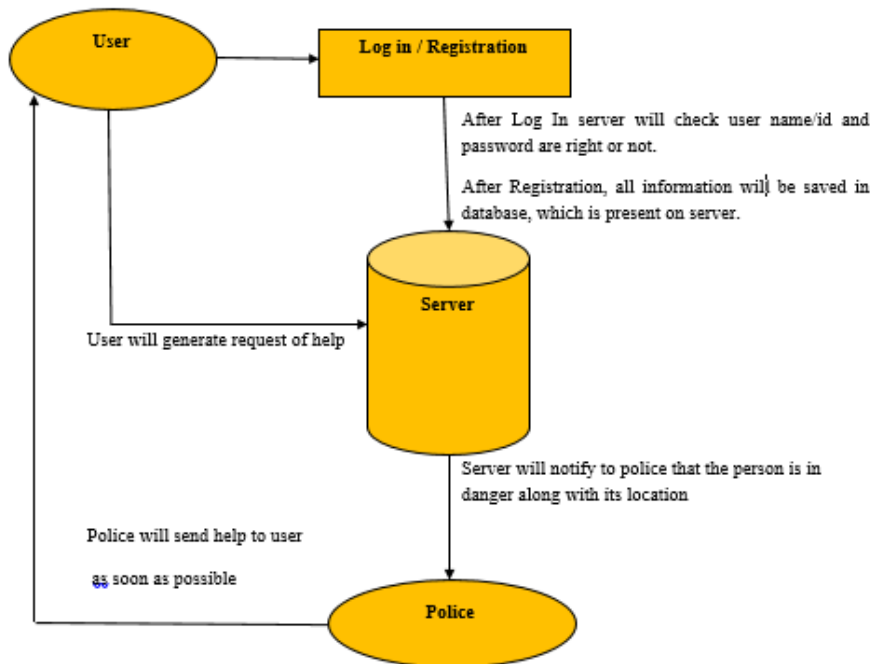
Data Flow Diagram

Fig 4.3 Data Flow Diagram Global Security

V.   Advantages

1. This application reduces the crime rate in various violent crimes like rape,robbery, and domestic violence.
2. This application will also work as accident helper to help the person who faced accident.
3. Due to this application police/hospital can get exact location where is the user/the person whose accident is happened.
4. Sometimes there are chances that any person can generate the fake request just to keep police distracted or to make another crime, for that we are planning to link all users account with their 'Aadhar Card' so if any one tries anything like this the police will have all their information as well.

VI.   Conclusion

Now a day's peopleeither they are men or women who are travelling in the mid night or travelling alone on deserted road.They are not feeling safe because of increasing of violent crimes like rape, robbery, domestic violence and sexual assault as well. Hence, our application will help that people to travel safely at mid night or travel from deserted roads. As well as our application will helpful them to overcome their fear and problems. It will also work as accident helper to help in the any accidental incidence.

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