

'Chal' : Digital Citizen

Shrutika Tayade
Information Technology dept.
MIT Academy of Engineering
Pune, India
shrutikatayade12@gmail.com

Rutuja Burde
Information Technology dept.
MIT Academy of Engineering
Pune, India
rutujaburde18@gmail.com

Sayali Patil
Information Technology dept.
MIT Academy of Engineering
Pune, India
sayalipatil7875@gmail.com

Gauri Mungase
Information Technology dept.
MIT Academy of Engineering
Pune, India
gaurimungase1234@gmail.com

Mrs. Jayashree B. Kulkarni
Information Technology dept.
MIT Academy of Engineering
Pune, India
japatil@it.maepune.ac.in

Abstract— *Nowadays smart phones are the basic need of people and its use is increased rapidly. Hence, it can be used for personal security or various other protection purpose. There are various applications which provide security and safety solutions via the phone. This paper basically represent 'Chal': Digital Citizen, an android application for women safety, police complaint and hospital finder. This app is activated with just a single click when facing emergency. Within those three services in women safety by clicking panic button, it identifies the location through Global Positioning System and sends the emergency message with the Uniform Resource Locator (URL) to registered contacts and police portal. In Police service user can complaint regarding any issues. In Hospital service by a single click user can locate nearest hospitals and can navigate through map. This app overcomes the safety problems and mobile acts not as a basic application but also plays vital role with android.*

Keywords— *Android application, Global Positioning System, Google map Application Program Interface*

I. INTRODUCTION

Digitalization is of crucial importance to data processing, storage and transmission, because it allows information of all kinds in all formats to be carried with the efficiency and also intermingled. Governments have been striving since last years to find better ways to connect with the citizens with their constituents via the Digitalization. By putting the government information online, and making it easily findable, readily available, accessible, understandable, and usable, people can now interact with government in ways never before imagined. Now a day most of the people use the android mobile, laptops, tabs. With the increasing no of mobile phone availability people are accessing mobile internet to get information and services from anywhere and everywhere. Smart phone apps are available at the play store and apple iphone OS (IOS), etc. There are various applications and each app works with a specific functionality. There are tons of hospitals which are specialized for different purposes. In emergency cases of accidents or any need within a single click this application gives the information of the nearest hospitals. So according to our need we can search the necessitate hospital. It provides the distance of selected hospital using the Global Positioning System (GPS) of mobile from users current location and find the easy way to go to the destination, this all happens with the help of Google map Application Program Interface (API). In the same way, in

emergency cases of accidents, violence or if any trouble the user can register complaint to police station with attachment of photo as a proof of that incident. The attachment is send via email to the police email. An 'app' is a small specialized software program which is easily downloadable and installed on our device. In this way this app is an integration of three services which overcome the security issues of a citizen. Nowadays, women's safety is a big concern of increasing emergency in India as well as in other countries. The issue from police side is that there lies some constraints preventing them to respond quickly to the calls of distress. The constraints include not knowing the location of crime, and reaching there assuredly and discretely is a challenge. To remove this constraints, this application provides women a panic button to send an emergency SMS to the registered contacts and police station portal. SMS contains URL of women's emergency help location which helps police to track the victim.

II. GLOBAL POSITIONING SYSTEM WORKING IN PROJECT

Global Positioning system in the satellite based radio navigation system that provides geo location and time information to GPS receiver at any location. GPS does not require user to transmit any data. In this application GPS is used for women's safety. User has to enable GPS in the mobile system. Once the GPS is enabled then the location of the mobile device is converted into longitude and latitude format and from this data the Uniform Resource Locator (URL) is created and is send in the form of SMS to the given mobile number and to the web portal of women's panic message at the admin side. In hospital finding module GPS is necessary for searching nearest hospital. According to the GPS location of user nearest hospital are search and user get to navigate hospital location.

III. EXISTING SYSTEM

As a part of literature survey, we have investigated some applications that offer the same or similar services for android and also other platforms. The aim is to see how these applications work and to see how they can be improved further. Nowadays the crime cases of on individuals are growing. In these types of cases, a smart phone plays an important role for safety of a citizen. Now android is building on some apps for security purpose. These apps are as follows

A. Indian police app

App provides the name of the police station, telephone number, the distance from the place where the user is and how much time it will take to reach to police station where one want to go . The app also prompts one to call any of numbers listed with the Tap to call facility.

B.Rakashak

An emergency response app specially designed for women and senior citizen. It send a text to four different numbers at the time of installation. It also initiates a voice call to an emergency number.

C.Indian Police At Your Call

This app is GIS map based interface for citizen to locate police stations near to the users current location so that he /she can easily reach to the police station in case of emergency . The app displays the current location of citizen on the map along with the details such as name of the places , roads and major landmarks . The app dynamically fetches details of police station near to the position of user . Only land line numbers are available.

D.Koshish

The prime orientation of this app is towards road accident and vehicular regulations . Simple click of alert button transmits emergency data information about the user to the guardians . Emergency data include audio and video of the location along with SMS alerts and emails which would be sent to contacts . The apps feature is the ALERT VIEW which tracks and displays the users location to the police control room.

E.Hospital-Finder

we download from play store after download the app there is no need to login . In Hospital-Finder two main option are available search option and favorite hospitals in that we can choose the favorite hospitals .It also gives the option of select the range with in we want search the hospital and view all hospitals on map.

F. National Doctor and Hospital finder

This application gives the location of nearest hospitals and also gives the name of the doctors which is work on that place,educational qualification, specialized subject of that doctors. And this app also take appointment of the doctors. This gives all the information of doctors and hospitals official mail address and also contact details.

G.Apollo Hospital

There are many departments in hospitals according to that user want to choose the specialist according to the time slot available user can book there appointment by filling the form.

H.b Safe

Free and Subscription Versions. Available on iPhone, Android,BlackBerry. A personal safety alarm that sends an emergency message to your chosen contacts with the push of a single button, b Safes slogan is Never walk alone.

I.Saathi

Apart from providing safety tips for women' s safety, children and senior citizen,it also useful to take help in natural disaster and accidents . Provides information on traffic rules,penalties signs and license fees, besides data on wanted criminals,missing persons, and unclaimed vehicles. The app is available for re department also.

J.Bharti Airtel

It has announced the launch of GPS-based navigation application on mobile handsets in collaboration with Way- finder Systems AB of Sweden. The application turns the compatible mobile phone into a complete GPS-based navigation system with detailed maps and points-of-interest of a number of cities in India.

All the existing app are region based app,means they are work on particular region only. User have to install app depending upon the regions in which he/she leaves. So from all these app it is conclude that it is necessary to develop single app which work with out region boundaries.

IV.METHODOLOGY

A.Architecture and proposed system

This application is basically developed for the convenience of citizens. So the proposed system is that there will be integration of various applications that will provide number of features at one place. It supports digitalization as government has been finding better ways to connect with citizens.In this user will get the facilities like police station, hospital and women safety. In hospital, the user will get the nearest hospital and distance of that one from user's location. In police station, user can send the complaints online and also need to send the proof that is an image of that particular crime. In Women safety , she need to just click on help button, the message is sent to that registered numbers.

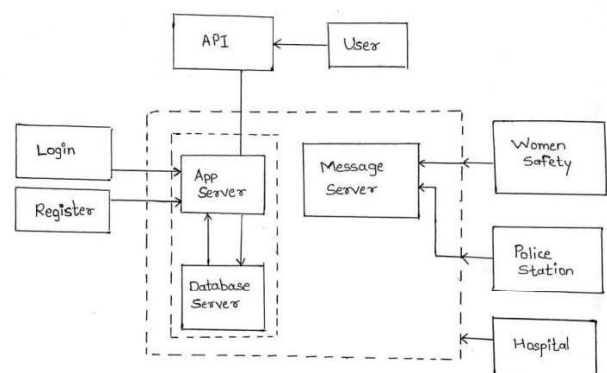


Fig4.1: Architecture Diagram of 'Chal'-D igital Citizen

B. Design and implimentation

1) Message procedure for women's safety

When the user register for the app, he/she need to enter relatives contact for emergency . When the user registered successfully, then that numberis saved to the backend. When the user click on the panic button the message will be sent to that number .GPS current location of the user is generated from it's longitude and latitude and it is send as a URL to that number,so that other's will get the user's exact current location. Same message is send to admin portal.

Fig 4.2: user need to registered for using the app.

In the registration field of app mail id and parent mobile number are the important field for sending mail to police station and sending location message to that register number respectively.



Fig4.3:Panic Button for sending

This panic button is in the women's safety module. When user press the panic button longitude and latitude is send to registered or parents phone number

2) Hospital searching process

After selecting the hospital facility , map is displayed with our current location by using google map API . Then after click on the search button , user get the nearby hospitals with their corresponding distances from the user's current location. To show the nearby hospitals , we have used markers.

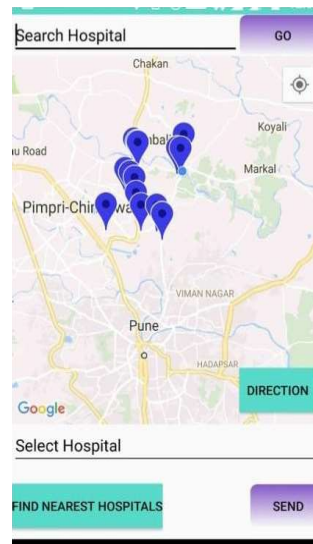


Fig4.4: Hospital facility for searching nearby hospitals

3) Police complaint process

In this service, user need not to got to police station, online complaints are accepted. If user in any trouble or he/she finds any crime then user can suddenly make the complaint. For this process, user have to send the photo of that particular place for proof.

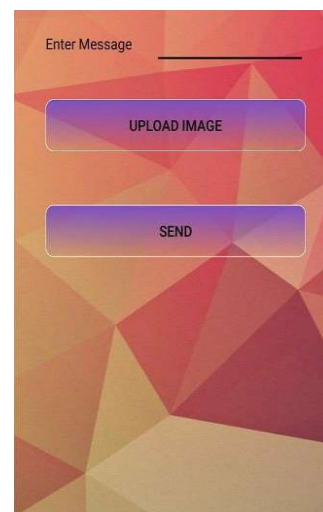


Fig4.5: police complaint for user

This is the police station module user can send send message and upload the image of crime to the police station email id.

4) Implimentation on user side

FUTURE SCOPE

Because it is based on mobile application is helpful in future when any problem arises in travelling or any kind of situations. As the technology emerges, it is possible to upgrade the system and can be adaptable to desired environment.

Because it is based on object-oriented design, any further changes can be easily adaptable.

Based on the future security issues, security can be improved using emerging technologies.

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