SMART REMINDER APPLICATION WITH GPS SYSTEM

Mr.Swapnil S. Nate[1], Mr.Pravin S. Navele[2], Mr.Vikas B. Mote[3], Prof. Laxman S. Naik[4]

[1, 2, 3] Under Graduate Student, Department of Computer Engineering, Rajendra Mane College of Engineering and Technology, Mumbai University, Maharashtra, India
[4]M. Tech.Professor, Department of Computer Engineering, Rajendra Mane College of Engineering and Technology, Mumbai University, Maharashtra, India

----

Abstract- *In today's life everyone is using smartphone, everyone should aware about android operating system and android applications. In this paper we have discussed features and functions of our application. This application includes three types of reminder. Basic reminder includes schedule and medicine intake reminder, which will work on schedule provided by the user. Communication reminder includes Call, SMS and Email reminder. This application also provides location based reminder module. Main purpose of this application is to allow users to create reminders based on the location and notify to users with those reminders automatically. First of all, the user tags the locations using the applications such as Google Maps or manually. Then, he creates reminders for the tagged locations and when he gets close to this location, the system notifies the user. Also, the location based reminder changes the profile according to the location e.g. at noise restricted area the profile should be silent. Our application is altered from similar type of applications with its enhanced location tagging feature and conversion of text notification into voice. The usability test results will show that our application is an effective reminder application to remember the essential things.*

Keywords— Global Positioning System (GPS), Google map, Application Programming Interface (API)

1. INTRODUCTION

The android is the latest and upcoming operating system in the market and application related to this operating system are much faster and easier to work [1]. Android offers an integrated approach to development of application for mobile devices. Android is one of the multipurpose operating system which is capable of satisfying the user and there increasable requirement [2]. In this system we are going to develop android applications which are location based and also it includes different types of reminders which are used in daily life. The whole concept is that, when we reach any desired place then our mobile should notify us to complete the tasks as we have already come here. Another purpose of this system is to make change in profile as per location. This application allows user to enter location manually or by selecting location from

Google map and notifies the actions to be performed at that location. The system continuously keeps on updating the location and takes actions as specified in database at that location. This application provides services at public places automatically as well as at the locations of user's choice.

2. AIM AND OBJECTIVES

The main goal of our application is to develop smart reminder application to remember things by receiving notification at any time or after reaching at any desired location.

Objective includes:

2.1 Working of Basic Reminder

This will include schedule and communication reminder. Working of both reminder is fully depend upon the date and time matching if date and time matched then it notifies to the user.

2.2 Location Based Reminder[3]

In this reminder it simply matches the latitude and longitude of location which is entered by the user with current location. If match found then it notifies to the user.

2.3 Profile Changing

It is one of the parts of location based reminder which is run in the background. In this it matches location every time and changes audio profile according to the location.

2.4 Text to Voice Conversion [4]

It simply converts that text message into voice.

3. LITERARURE SURVEY

In last few year usages of smart phones have rapidly increased. Previously cell ids (identifiers) and cell towers were used to find the location of the phone. Now a day's concept of cell ids is replaced by GPS. GPS

calculates the latitude and longitude, and determines the exact location of the phone.

3.1 Problems in existing system:

A. Previous application provides profile changing facility but user needs to choose the profile manually after reaching to the selected location [5].

B. The Wedjat is medicine in-take reminder application in which gives reminder only in the form of text [6].

4. PROBLEM STATEMENT

Develop android application to help in our busy life to remember things like schedule of meetings, medicine schedule to do tasks after reaching at particular location, etc.

5. PRAPOSED SYSTEM

Our application contains basic three types of reminder. First reminder is location based reminder which provides services according to the location. This application provide Google map for selecting location. User gives input as a particular location name or select location from Google map [7]. All the information related to location is stored into database. Second type of reminder is communication reminder, this reminder provides three facilities such as SMS, Calling, and Email reminder. Using SMS reminder user can send SMS to one or more than one person at a time. After confirmation from the user, communication can be completed. Third one is scheduled reminder, in this user enter the schedule with date and time. Scheduled reminder gives the alert in voice format after converting text message into voice message.

Data related to above reminder is stored into database. Reminder application checks date and time with mobile date and time, and if date and time is matched then buzz the alarm.
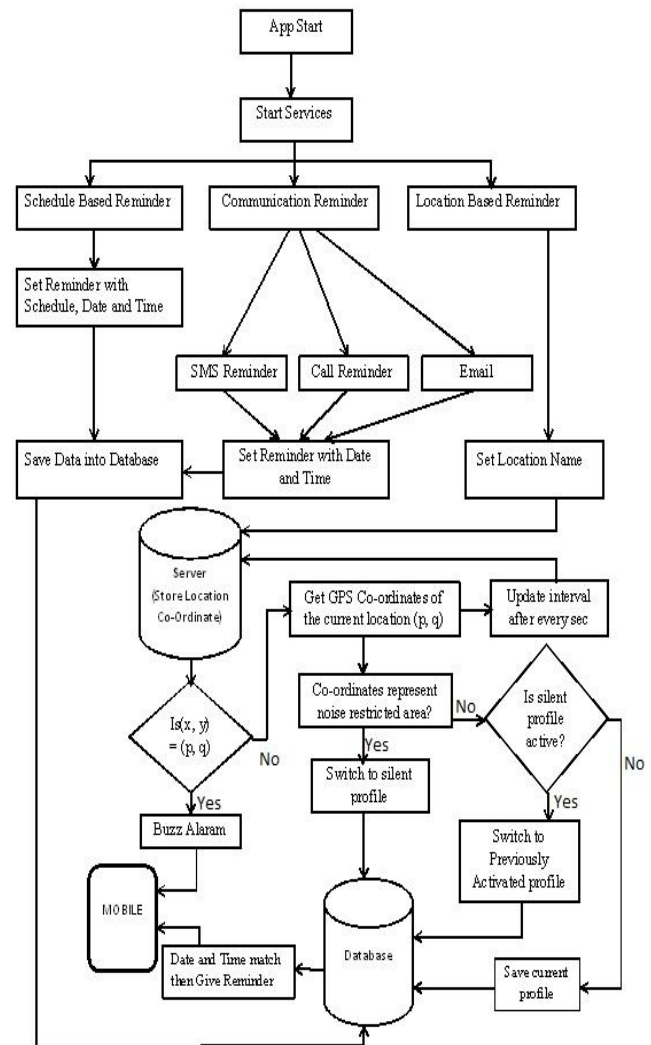

Fig -1: Block Diagram

6. UNITS

6.1 Schedule Based Reminder

It works on schedule provided by user. In this reminder user enter schedule with date and time and then set reminder. Data related with schedule reminder is stored into mobile database.

6.2 Medicine in-take Reminder:

This reminder will give alert 1 to 15 minutes before medicines will be taken. The alert will be given repetitively until it is cancelled by the user. If user cancelled the alert then cancelation time will be recorded.
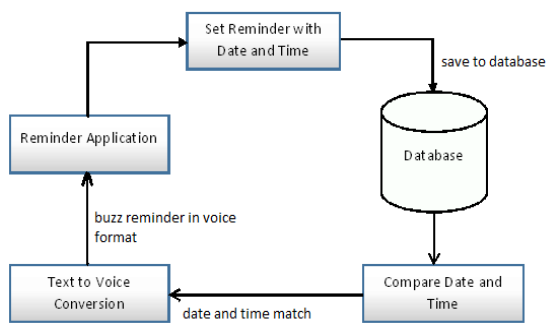
Fig -2: Flow of Schedule Based Reminder

6.3 Communication Reminder

i. Emailing: Email can be sent from any location with internet connectivity.

ii. Calling: Using this reminder, call can be made at user specified date and time.

iii. SMS: Using this reminder, SMS sending can be done at user specified date and time, and it is possible to send one or more than one person at a time like group of friends, employee etc.

Above three activities can be done after confirmation from the user.

6.4 Location Based Reminder

The location based services is depending on the location of the mobile device. This module allows user to add the locations for which he wants to set reminder [8]. User can give the name of location or select the location from the Google map.

6.5 Profile Changing:

Another location based service is profile changing. Automatic profile changing ability means with this feature of android application, the profile of user's mobile device will change automatically from normal mode to silent mode & vice versa.
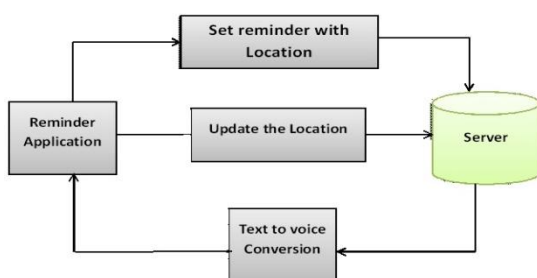

Fig -3: Flow of Location Based Reminder

Techniques to be used: [9]

A. Android Location API

These are the different classes present under Location API package to retrieve the location information of the user.

i. Location Manager: The class provides access to the location service. It also provides facility to get the best Location Provider as per the criteria.

ii. Location Provider: A location provides periodic reports on the geographical location of the device.

iii. Location Listener: This class provides call back methods which are called when location gets changed.

B. Google Places API

The Google Places API is a service that returns data about places defined within this web service. There are 3 fundamental place services available:

i. Place Searches: It returns an array of nearby places based on a location defined by the user.

ii. Place Details: It returns more specific data about a user defined place.

iii. Place Reports: It allows the users to add new locations to the place service, and to delete places that the application has added to the database.

7.   CONCLUSION

Android users can make the best use of our application to remember the important things using communication and schedule based reminder. Also, this application gives location based reminder facility using that user set reminder according to location and manage their audio-profiles automatically. In location based reminder we provide Google map, so it will be easier for user to select the location. User can make use of other features like log maintainer for keeping their past records and location based reminder to remind them with respect to both place and time.

REFERENCES

[1]   Android   Tutorial: Tutorials   Point   - http://www.tutorialspoint.com/android/

[2]   SuhasHolla, Mahima M Katti, *"Android Based Mobile Application Development and Its Security"*,

International Journal of Computer Trends and Technology – 2012

[3] J Parthasarathy, "Positioning and Navigation System using GPS", International Archives of the Photogrammetric, Remote Sensing and Spatial Information Science, Volume XXXVI, Part 6, Tokyo Japan 2006

[4] Sound Manager, An Existing Android Application
https://play.google.com/store/apps/details?id= com.cgg.soundmanager

[5] Abish G J, Nishanth S, Shilpa B C, Venkatesh Prasad V B, Lovee Jain, *"GAPS-GPS Based Automated Profile Switcher and Activity Manager for Android"*, International Journal of Engineering Development and Research, 2015, © 2015 IJEDR | Volume 3, Issue 2 | ISSN: 2321-9939

[6] John K. Zao (SMIEEE), Mei-Ying Wang, Peihsuan Tsai, Jane W.S. Liu (FIEEE), Computer Science Department ,National Chiao Tung University , Hsinchu, Taiwan and Institute of Information Science, Academia Sinica, Taipei, Taiwan *" Smart Phone Based Medicine In-take Scheduler, Reminder and Monitor*", 978-1-4244-6376-31101$26.00 ©2010 IEEE

[7] Neelu.L, ArunaKumara.B, Shashidhar.V, Bharath J, Asst. Professor, Department of CSE, Raja Rajeswari College of Engineering, Bangalore, India *"Location Based Reminder Using Android and Google Maps"* International Journal of Innovative Research in Computer and Communication Engineering(An ISO 3297: 2007 Certified Organization) Vol. 3, Issue 5, May 2015, ISSN(Online): 2320-9801, ISSN (Print): 2320-9798

[8] Prof. AmitKushwaha, Prof. VineetKushwaha*" Location Based Services using Android Mobile Operating System"* International Journal of Advances in Engineering & Technology, Mar 2011,ISSN: 2231-1963

[9] Prof. SeemaVanjire, Prof. UnmeshKanchan, Prof. Ganesh Shitole, Prof. Pradnyesh*Patil "Location Based Services on Smart Phone through the Android Application"* International Journal of Advanced Research in Computer and Communication EngineeringVol. 3, Issue 1, January 2014, ISSN (Print) : 2319-5940 ISSN (Online) : 2278-1021