

Android Application based Location Aware Profile Switching

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Abstract—There are numerous places like Hospitals, Universities, and Corporate offices etc. where it is noticeably mentioned, “Keep mobile phone silent” Many times people forget to switch the mobile to the “Silent Mode” which is not practicable each time like in a significant meeting, lectures etc. An Android application for automatic profile switching will afford near about entirely automated profile switching. This application will enable the device to control to the Silent Mode based on the data stored by the users in the database as per their necessities.

Key words: Android, Location, GPS, Tracking, Tracing, Chatbox, Switching GPS Satellite, Message

I. INTRODUCTION

Silent system will enable the device to switch to the Silent Mode in locations like Hospitals, schools, colleges, Universities, offices etc. as per customized by the user. The user just needs to enter the required coordinates of the locations along with the required radius dimensions that he wants to be in the silent zone. The accumulate statistics will be compare via the GPS and the profile will be changed consequently. The user can store selected phone numbers in the database. If being on the silent mode say, in a meeting, a call comes from that particular number, the profile will change automatically to general mode after receiving more than 3 missed calls, and back to the silent mode after the call is been attended.

A message will be sent automatically to that number of being busy. The user can contact them back later without being disturbed. In User- Defined Switching Mode user set location that gets stored in the MySQL database which is already present in Android Devices. The application will use GPS Service provided by GPS Satellites for finding locations. In profile switching procedure request really switch the ringer mode of profile. Here user preserve decide among Silent or Vibrate only ringer mode for switching purpose. There is a provision made to neglect the calls while on the silent profile to avoid the disturbance.

II. EXISTING SYSTEM

There are various Chabot's in the day to day market that provide different types of services to the user using different strategies. Until now, no such Chabot has been developed which facilitates the healthcare or symptoms based result users. It provides advices from hospital help desk. Discuss a chat of similar interest for visually impaired people. Also, websites have been developed that help the users by asking some questions to find out the best hospital and predict the disease. Hospitals help desk is only help users know about which time it's open. Chabot's with similar features, have been developed, but for some other purposes that help the user in their routine activities.

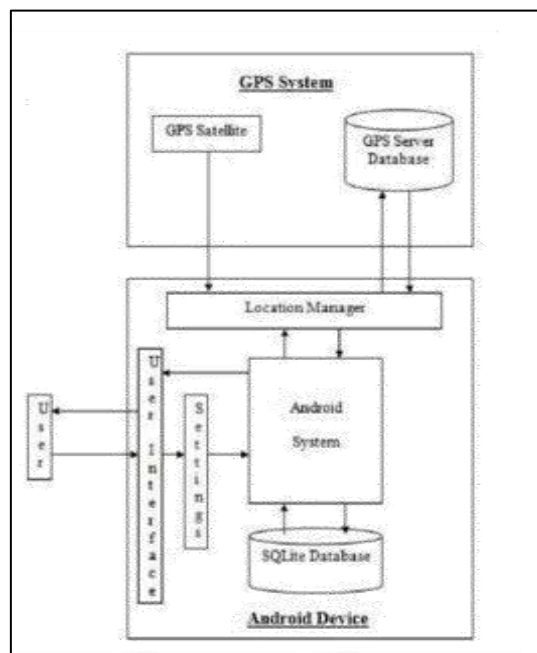


Fig. 1: Block Diagram of Android device

Only Calls from the emergency numbers accumulate by the users will be permissible to be attended. Android devices are more common these days. It will be troublesome if our mobile phone rings on unwanted locations or also if we can't able to receive important calls.

This application will switch sound profiles automatically. If user's mobile device is in silent mode then user will not come to know about incoming phone calls. It will be troublesome in case of emergencies. This android application will solve this problem. If user receives calls more than three times from same number then it will treat it as important call and it will switch the device's sound profile to vibrate mode or general mode. So for the next call from the same number, user's device will ring automatically even though the user's device is in silent mode.

This application also provides location based sound profile switching. There are some locations where mobile phones must be in silent mode such as hospitals, government offices etc. The application will switch device to silent mode when the device is in required locations.

There are some android applications like „phone weaver“ which will change device's sound profile based on time or location but they are not completely automated. This application will provide completely automated sound profile switching.

III. PROPOSED SYSTEM

This novel application will offer complete regular profile switching according to location. This application will enable the device to switch to the silent mode in location similar to hospitals, offices, institutions etc. This new application will provide near about entirely automated profile switching

according to location. This application will facilitate the device to switch to the „Silent Mode“ in locations like Hospitals, Major Corporate offices, Universities, Well known Educational Complexes, Petrol pumps, Government offices etc. by defaulting & there will be no need to position them manually. This application is also has User Defined mode in that, when the device is in locations not belonging to several of above category, it can use „User-Defined Switching mode“ for automatic switching. Identical like “Phone Weaver” in User Defined Switching Mode user set location that does not feel right to any of Default Switching Location as User-Defined Switching Location e.g. User’s Home, Gym etc.

IV. DESIGN AND IMPLEMENTATION

A. System Module

Our project is about as long as near about entirely mechanical profile switching that will enable the device to switch to the Silent Mode based on the data store by the users in the catalog as per their necessities.

B. Location Module

This module consists of the Google maps using which the user can set required locations to be used for profile changing. The name for the location and the range of radius is defined along with the coordinates of the locations selected.

C. Profile Change

Module Using this module the locations are activated for the call rejection and profile changing functions. It plays an important role in mapping the groups with the location.

D. Call Reject Module

These modules help conveying groups to the locations for call rejection activation. More than one group can be assigned to a single location.

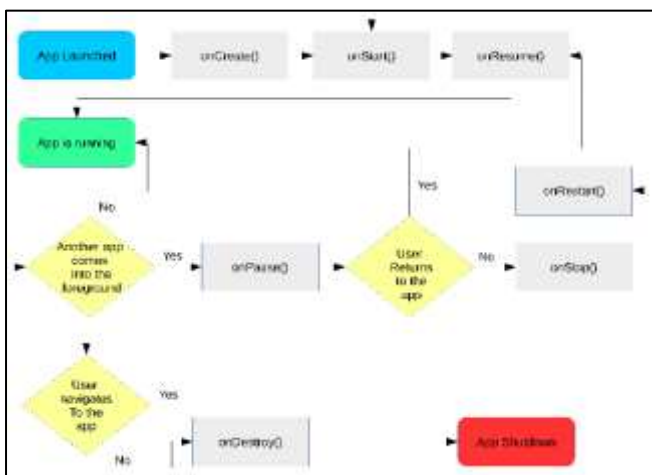


Fig. 2: Application flow diagram

E. Logs Module

This module basically helps to maintain the track of the user call logs. The type of calls i.e. incoming, outgoing or missed call along with its date and time of calling is saved for the future reference of the user.

F. Exit Module

This module is being used when the user desires to leave the submission. The application stops working and the user needs to log in again in order to continue using the services icons selected.

To develop an application which will switch sound profile of user’s android device automatically according to user’s location or when user is getting call for more than three times from the same number

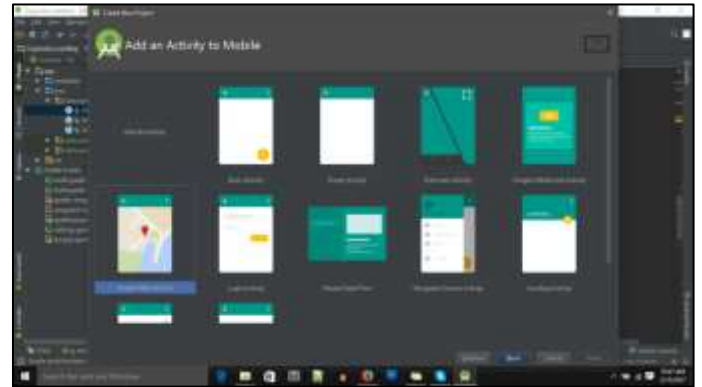


Fig. 3: sample output of front-end

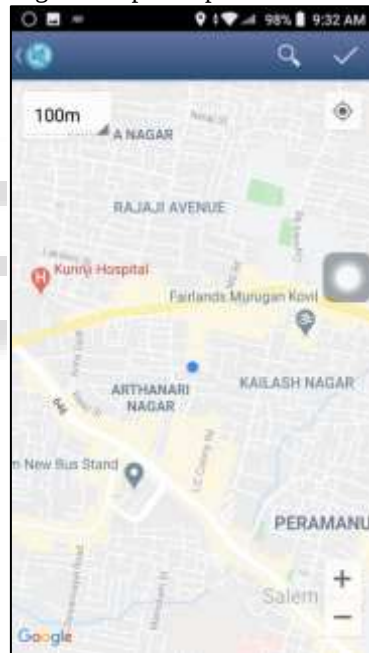


Fig. 4: Sample output of GPS Location

G. Android Studio:

Android Studio is created by an Open Source community and is used in several different areas, e.g. as a development environment for Java or Android applications. Android Studio's roots go back to 2001. The Android Studio Open Source community has over 200 Open Source projects covering different aspects of software development. The Android Studio projects are governed by the *Android Studio Foundation*. The *Android Studio Foundation* is a non-profit, member supported corporation that hosts the Android Studio Open Source projects and helps to cultivate both an Open Source community and an ecosystem of complementary products and services.

The Android Studio IDE can be extended with additional software components. Android Studio calls these

software components *plug-ins*. Several Open Source projects and companies have extended the Android Studio IDE. It is also possible to use Android Studio as a basis for creating general purpose applications. These applications are known as Android Studio Rich Client Platform (*Android Studio RCP*) applications.

H. Android Eclipse

Android is a Linux-based operating system designed primarily for touch screen mobile devices such as smart phones and tablet computers. Initially developed by Android, Inc., which Google backed financially and later bought in 2005, Android was unveiled in 2007 along with the founding of the Open Handset Alliance: a consortium of hardware, software, and telecommunication companies devoted to advancing open standards for mobile devices. The first Android-powered phone was sold in October 2008.

Android is open source and Google releases the code under the Apache License. This open source code and permissive licensing allows the software to be freely modified and distributed by device manufacturers, wireless carriers and enthusiast developers. Additionally, Android has a large community of developers writing applications ("apps") that extend the functionality of devices, written primarily in a customized version of the Java programming language. In October 2012, there were approximately 700,000 apps available for Android, and the estimated number of applications downloaded from Google Play, Android's primary app store, was 25 billion.

I. Android

These factors have allowed Android to become the world's most widely used smartphone platform, overtaking Symbian in the fourth quarter of 2010, and the software of choice for technology companies who require a low-cost, customizable, lightweight operating system for high tech devices without developing one from scratch. As a result, despite being primarily designed for phones and tablets, it has seen additional applications on televisions, games consoles, digital cameras and other electronics. Android's open nature has further encouraged a large community of developers and enthusiasts to use the open source code as a foundation for community-driven projects, which add new features for advanced users or bring Android to devices which were officially released running other operating systems.

Android had a worldwide smartphone market share of 75% during the third quarter of 2012, with 500 million devices activated in total and 1.3 million activations per day. The operating system's success has made it a target for patent litigation as part of the so-called "smartphone wars" between technology companies.

J. Android Emulator

The Android Development Tools (ADT) includes an emulator to run an Android system. The emulator behaves like a real Android device (in most cases) and allows you to test your application without having a real device.

You can configure the version of the Android system you would like to run, the size of the SD card, the

screen resolution and other relevant settings. You can define several of them with different configurations. These devices are called Android Virtual Device and you can start several in parallel.

K. Graphics performance

For a graphics performance boost, the hardware-accelerated 2D renderer now optimizes the stream of drawing commands, transforming it into a more efficient GPU format by rearranging and merging draw operations. For multithreaded processing, the renderer can also now use multithreading across multiple CPU cores to perform certain tasks.

Android 4.2.3 also improves rendering for shapes and text. Shapes such as circles and rounded rectangles are now rendered at higher quality in a more efficient manner. Optimizations for text include increased performance when using multiple fonts or complex glyph sets (CJK), higher rendering quality when scaling text, and faster rendering of drop shadows.

Android is open source and Google releases the code under the Apache License. This open source code and permissive licensing allows the software to be freely modified and distributed by device manufacturers, wireless carriers and enthusiast developers. Additionally, Android has a large community of developers writing applications ("apps") that extend the functionality of devices, written primarily in a customized version of the Java programming language.

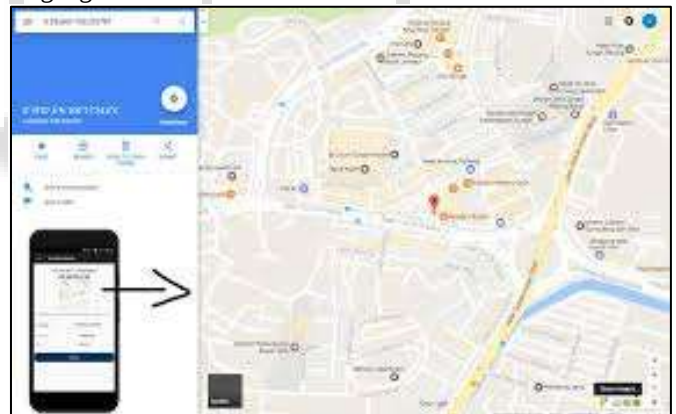


Fig. 5: Sample output of attendance location based

V. CONCLUSION

Silent System in Android Mobiles is a subsequently stage of Location Aware Intelligent Software which reduces human intervention for simple task such as sound profile switching. Android Smart Phone becomes much smarter by this submission.

- Wide range of default locations, such as educational complexes, medical complexes, government and corporate offices etc. can be considered.
- Provision for adding those locations in silent zone which the user requires.
- User-defined accuracy settings for user-defined locations.
- User-defined locations are stored in devices MySQL database and not in GPS Server Database hence GPS Server Database is not get disturb for adding new user

defined location or updating existing user-defined locations.

VI. FUTURE ENHANCEMENT

One can make location based triggering application without making lot of changes in this application. Instead of profile switching one can design this application for call divert also, so whenever he enters into the Silent Zone his all calls will be diverted on some another number specified by him. One may use navigation map system to set user-defined locations.

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