



Android Timer-Based Phone Silencer

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ABSTRACT:

It is very evident at a lot of places, like hospitals, universities, corporate offices, etc., to "KEEP YOUR MOBILE PHONES SILENT!!" People frequently forget to put their phones in "Silent Mode," which is not always possible, such as during crucial meetings or presentations. An automated profile switching app for Android devices will offer almost entirely automated profile switching. Depending on the information users record in the database, this application will allow the device to transition to the silent mode in accordance with their needs.

Keywords: Auto Silent, Silent modes, automatic profile switching.

Introduction:

When the user customizes the device, the SILENT SYSTEM will allow the device to transition to the Silent Mode in places like offices, hospitals, colleges, universities, and so on. All the user has to do is input the places' required coordinates and the radius measurements he wants to be inside the silence zone. The GPS will be used to compare the stored data, and the profile will be adjusted as necessary. Selected phone numbers may be kept in the database by the user. When a call comes in while the profile is in silent mode, such as during a meeting, it will automatically switch to general mode after more than three missed calls and revert to silent mode once the call has been answered.

That number will automatically receive a message stating that it is busy.

The user won't be bothered if they get in touch with them again later. User-defined switching mode allows the user to specify a location that is saved in the SQLite database that is built into Android devices. For location-finding purposes, the application will make use of GPS satellite services. The program that performs profile switching really changes the profile's ringer mode.

Here, the user has the option to select between the only vibrating and silent ringer modes. To prevent disruption, a feature has been implemented to ignore calls while using the silent profile. The only calls that can be answered are those from the emergency numbers that users have saved.

Objectives

1. Easy to use
2. Automated profile switching
3. Accuracy
4. Increase usability
5. User-friendly.

Problem Definition

Completely automatic profile switching based on location will be offered by this new application. With the help of this program, the device will be able to enter silent mode in establishments such as government offices, hospitals, large corporations, universities, and renowned educational complexes. User-defined switching mode allows the user to specify a location that is saved in the SQLite database that is built into Android devices. For location-finding purposes, the application will make use of GPS satellite services. The program that performs profile switching really changes the profile's ringer mode. Here, the user has the option to select between the only vibrating and silent ringer modes.

Implementation

System Module:

In order to enable the device to transition to the Silent Mode based on the data saved by the users in the database according to their requirements, our project aims to provide nearly fully automatic profile switching. Our project is divided into six sections.

Group module: This module handles the process of forming various contact groups based on the user's needs, which can then be utilized to connect to the destinations chosen in order to modify a profile. It is possible to create and activate several groups for one or more places.

Location module: This module includes Google maps that the user can use to specify the locations that must be used in order to change their profile. The name for the location and the range of radius is defined along with the coordinates of the locations selected.

Profile Changer module:

The locations for the call rejection and profile-changing functions are enabled using this module. It is crucial for mapping the groups to the designated places.

Call Module Reject:

This module facilitates the assignment of groups to activation points for call rejection. A single place may be allocated to more than one group.

Records:

All that this module does is assist in tracking user call records. The kind of call—incoming, outgoing, or missed—as well as the time and date of the call are saved for the user's future reference.

Exit: When a user wants to stop using the application, they utilize this module. When this happens, the user must log in again to continue utilizing the services and the application stops functioning.

Existing System

Users of the current method must plan the period that their mobile device will be silent. They can also designate a specific day on which the phone must be turned off. The phone will automatically adjust its profile in accordance with the time and settings. The user must reset the time whenever offices and classes change. The current system has a very high level of user participation.

Disadvantages of Existing System

1. More human interface is needed.
2. It is incompatible with location-based services.
3. Users are usually required to indicate the time.

System Architecture

The Android device, the GPS system, and the user components make up the system architecture. Through the User Interface, the User can communicate with an Android device. The Android device makes use of the Location Manager Interface to obtain location information via Forward Geocoding and Reverse Geocoding from the GPS system.

The GPS System is made up of GPS satellites and GPS server databases, as seen in the figure. The GPS satellite constantly sends out a signal that contains data on the location of the receiver, such as the receiver's current location in relation to the GPS satellite and the time. The GPS receiver determines the location's coordinates (longitude, latitude, and altitude) using this data. The GPS Server Database contains location-related data, including name, longitude, latitude, and altitude coordinates.

Conclusion and Future work

The next generation of location-aware intelligent software, known as Android Mobile's Silent System, minimizes the need for human intervention for routine tasks like changing the sound profile. With the help of this app, Android smartphones become considerably smarter.

A broad variety of default places can be taken into consideration, including government and corporate offices, medical and educational facilities, and more. The ability to add the locations in the silent zone that the user needs.

User-specified locations with user-specified accuracy parameters.

Because user-defined locations are kept in the SQLite database of the device rather than the GPS server database, the GPS server database is not disturbed when new user-defined locations are added or updated.

Without making much changes to the application, one can create location-based triggers. One can use this application to designate a call divert instead of profile switching, so that when he enters the Silent Zone, all of his calls will be routed to a number he specifies.

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List of all the material used from various sources for making this project proposal

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