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Implementation of Android Based Application using GPS

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Abstract

Appolicious is a set of android based mobile application which helps us manage our mobile phones in a really smart way. This project is an attempt to contribute towards ever expanding Android market. This application provides two good functions, first sub application is Silento, which takes the help of the GPS system and according to the location pre-specified by the user it automatically switches the cell phone on the silent mode and when the user comes out of the pre-defined location the cell phone again switches back to the normal profile. Second sub-application is the Call-Blocker, where user is provided the facility to create his own blacklist of numbers whose calls and SMSs are required to be blocked.

Keywords: Android, GPS, Appolicious.

Introduction

Appolicious is an android application hub where user can have an access to multiple android applications. Initially there are two applications, first is the silent and the other is call-blocker. Presently we are having a mobile application which automates profile silencing but it is based on the time duration factor, where user has to specify that during which period he wants to keep his cell phone on silent mode. Silento is an advanced and enhanced version of it. It uses GPS system to automate profile silencing. Here user is just required to specify the location at which he desire to keep his cell phone on silent mode, now as soon as the GPS system tracks the phone in the zone of specified location it automatically turns the cell phone to silent mode and afterwards when the user moves out from the specified zone the cell phone again automatically switches the profile to general mode. So with this application the user doesn't have to bother about manually changing the profile to silent. The application can also be enhanced for switching between multiple profiles at different location, so that phone can automatically changes its wallpaper, screen saver, brightness can be increased or decreased, volume can be increased or decreased and many other such things. Call blocker is the next application in the Appolicious. Call blocker is the smart and powerful call and SMS filter. It facilitates the user to create a list of contacts or cell phone numbers from which the calls and SMSs are required to be blocked. Call Blocker has a strong and intelligent interface which helps user to easily add and remove contacts from the blacklist. So it provides an easy way to manage the privacy of the user and

hence is a very beneficial application for android phones.

Definition, Acronym and Abbreviations

- **User:** User is the person that uses the application features of Appolicious. A general User ID is provided by the developer who created the application. The user can later on change his profile settings.
- **Android SDK:** The Android SDK provides the tools and libraries necessary to begin developing applications that run on Android-powered devices.
- **SQLite:** SQLite is a software library that implements a self-contained, serverless, zero-configuration, transactional SQL database engine. SQLite is the most widely deployed SQL database engine in the world. The source code for SQLite is in the public domain.

Problem Domain

Android market is expanding at very high rate and adding features to it would an extra feature to it. In the features available there is no facility to block calls or to automate the profile switching. If we don't have blacklist and mobile silent software some general problem occurs:

- Mobile user is unable to block the unwanted call.
- It is difficult for user to switch from silent to ringing or vice versa, as user is moving to

different area like college, home, office and many more.

- User required lot of time to find the contact
- It is difficult to manage the contact list of unwanted call.

1. Problem Solution

This project is an attempt to contribute towards ever expanding Android market. This application provides two good functions, first sub application is Silento , it takes the help of the GPS system and according to the location specified by the user it automatically puts the cell phone on the silent mode and when the user comes out of the defined location the cell phone again switches back to the normal profile. Second application is the Call-Blocker, user is provided the facility to create his own blacklist of numbers whose calls and SMSs are required to be blocked.

Appolicious is a set of android based mobile application which helps us manage our mobile phones in a really smart way. This project is an attempt to contribute towards ever expanding Android market. This application provides two good functions, first sub application is Silento, which takes the help of the GPS system and according to the location pre-specified by the user it automatically switches the cell phone on the silent mode and when the user comes out of the pre-defined location the cell phone again switches back to the normal profile. Second sub-application is the Call-Blocker, where user is provided the facility to create his own blacklist of numbers whose calls and SMSs are required to be blocked.

Architectural Design

✓ E-R Diagram:

An entity may be defined as a thing which is recognized as being capable of an independent existence and which can be uniquely identified. An entity is an abstraction from the complexities of a domain. When we speak of an entity, we normally speak of some aspect of the real world which can be distinguished from other aspects of the real world. An entity may be a physical object such as a house or a car, an event such as a house sale or a car service, or a concept such as a customer transaction or order. Although the term entity is the one most commonly used, following Chen we should really distinguish between an entity and an entity-type. An entity-type is a category. An entity, strictly speaking, is an instance of a given entity-type. There are usually many instances of an entity-type. Because the term entity-type is somewhat cumbersome, most people tend to use the term entity as a synonym for this term. Entities can be thought of as nouns. Examples: a computer, an employee, a song, a mathematical

theorem. A relationship captures how entities are related to one another. Relationships can be thought of as verbs, linking two or more nouns. Examples: an owns relationship between a company and a computer, a supervises relationship between an employee and a department, a performs relationship between an artist and a song, a proved relationship between a mathematician and a theorem.

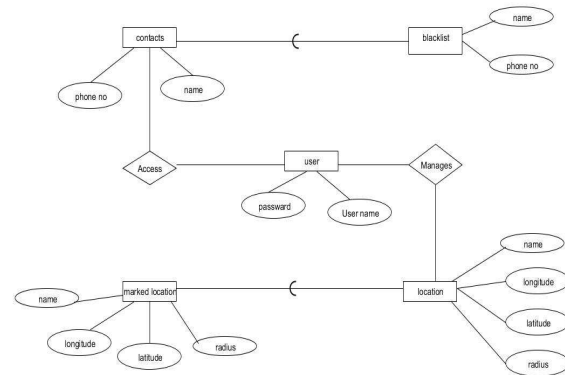


Figure 1: E-R diagram for Appolicious

Scope

Application can be used by a single user who is the owner of the mobile phone.

- User will have a unique username and password with which it he can access the application.
- Appolicious provides two basic applications Silento and Call-blocker.
- With silento user can specify the locations at which cell phone should automatically switch to silent profile.
- With Call-blocker user can create a list of numbers whose calls and SMSs are required to be blocked.

Conclusion & Future Enhancement

This project can be used in future very easily:-

- We can add more application like mobile tracker.
- We can increase the speed of sending email and searching.
- Automatically extract domains from emails and add them to a **blacklist**.
- We can send any file (Picture, Video) through email using this application. We can provide mobile wallpapers, screen savers, display and light changes according to the particular location.

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