

Emergency SMS Bot

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Abstract: Mobile technology is widely used in all classes of society. It is the most effective way of communication. Since the dependency has increased largely, it becomes difficult to live without it. The application intends to address this problem by retrieving data from mobile handset though it is not physically available with the user. The system is designed to be controlled via SMS from anywhere that is covered by GSM service. The system can also be programmed to send specific SMS to a predetermined number if any event or condition is triggered. If one's mobile phone is not available at the moment and one needs to call a person urgently whose contact number is not available at that instant. To get that contact one has to go through a very tedious process of calling home and get that contact number etc. The proposed system project helps to simplify this problem. One has to send an SMS to his/her own mobile with the contact name and automatically the contact will be returned to the same number.

Keywords: Short Message Service (SMS), General Packet Radio Service (GPRS), Global Positioning Service (GPS), Multimedia Message Service (MMS), Global System for Mobile Communications (GSM), Remote control, Text message.

1. Introduction

Mobile technology is widely used in all classes of society. It is the most effective way of communication. Since the dependency has increased largely, it becomes difficult to live without it. The application intends to address this problem by retrieving data from mobile handset though it is not physically available with the user. The system is designed to be controlled via SMS from anywhere that is covered by GSM service. The system can also be programmed to send specific SMS to a predetermined number if any event or condition is triggered. If one's mobile phone is not available at the moment and one needs to call a person urgently whose contact number is not available at that instant. To get that contact one has to go through a very tedious process of calling home and get that contact number etc. The proposed system project helps to simplify this problem. One has to send an SMS to his/her own mobile with the contact name and automatically the contact will be returned to the same number.

2. Literature survey

Android applications are written in the Java programming language. The Android SDK tools compile the code along with any data and resource files into an Android package, an archive file with an .apk suffix. All the code in a single .apk file is

considered to be one application and is the file that Android-powered devices use to install the application.

Once installed on a device, each Android application lives in its own security sandbox:

The Android operating system is a multi-user Linux system in which each application is a different user. By default, the system assigns each application a unique Linux user ID (the ID is used only by the system and is unknown to the application). The system sets permissions for all the files in an application so that only the user ID assigned to that application can access them.

Each process has its own virtual machine (VM), so an application's code runs in isolation from other applications.

By default, every application runs in its own Linux process. Android starts the process when any of the application's components need to be executed, then shuts down the process when it's no longer needed or when the system must recover memory for other applications.

In this way, the Android system implements the principle of least privilege. That is, each application, by default, has access only to the components that it requires to do its work and no more. This creates a very secure environment in which an application cannot access parts of the system for which it is not given permission.

However, there are ways for an application to share data with other applications and for an application to access system services:

It is possible to arrange for two applications to share the same Linux user ID, in which case they are able to access each other's files. To conserve system resources, applications with the same user ID can also arrange to run in the same Linux process and share the same VM (the applications must also be signed with the same certificate).

An application can request permission to access device data such as the user's contacts, SMS messages, the mountable storage (SD card), camera, Bluetooth, and more. All application permissions must be granted by the user at install time.

That covers the basics regarding how an Android application exists within the system.

The rest of this document introduces you to:

The core framework components that define the proposed system.

The manifest file in which you declare components and required device features for the proposed system.

Resources that are separate from the application code and allow the proposed system to gracefully optimize its behavior for a variety of device configurations.

3. Proposed system

If you have forgotten your Cell Phone at home and you need to call a person urgently whose contact number is not available at that instant. In that case you have to call home and ask someone to search for that contact and then resend it back to you. It takes your lot of time. Instead of doing this tedious process one can send an SMS from someone's cell to his/her own mobile in a predefined syntax.

E.g.: GET CONTACT (Contact name/initial)

Also unread SMS can be retrieved using this application.

E.g.: GET SMS

Also misscall can be retrieved using this application.

E.g.: GET MISSCALL

Also can be phone security lock using this application.

E.g.: LOCK

Also Latitude and longitude can be retrieved using this application.

E.g.: GET GEOLOCATION

Also we can silent our phone remotely

E.g. Silent Phone

4. Security perspective

If one wants to get to know about this application, he/she can steal or can make an unauthorized access over the contacts. To secure the contacts from unauthorized access we can set a PIN number to be sent along with the syntax which will be known only to you. The application will match the PIN number, the syntax and then process and will reply back.

E.g.: 1234 GET CONTACT (contact name/initial)

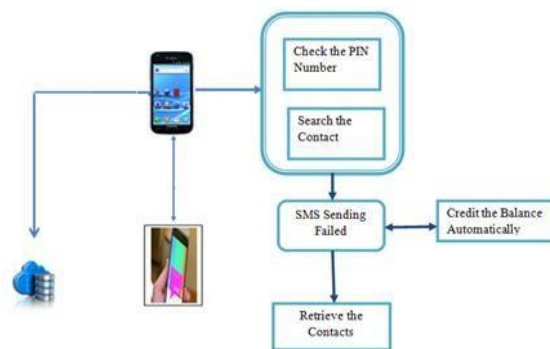


Fig. 1. Architecture diagram

5. Implementation

To make this application work, the coding part is done using android (java/xml) and php for switch off mode. Different tools used are Android Studio, Xampp, Jdk 1.8 and apache server. Protocols used are http/https.

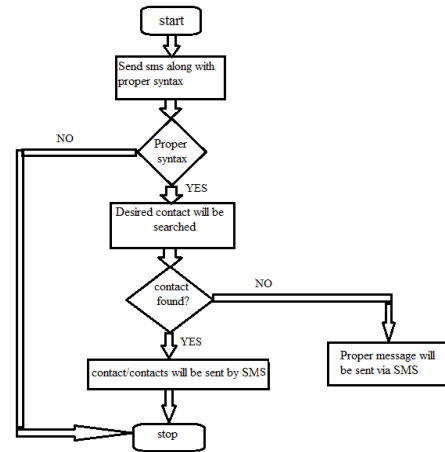


Fig. 2. Workflow diagram

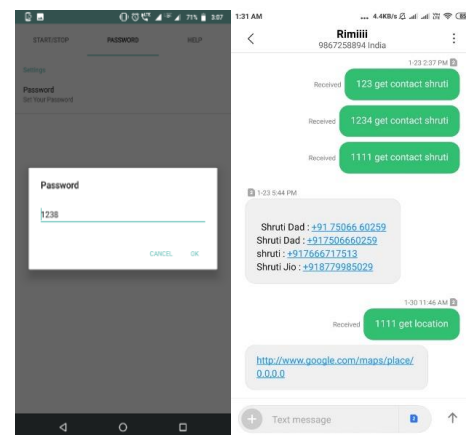
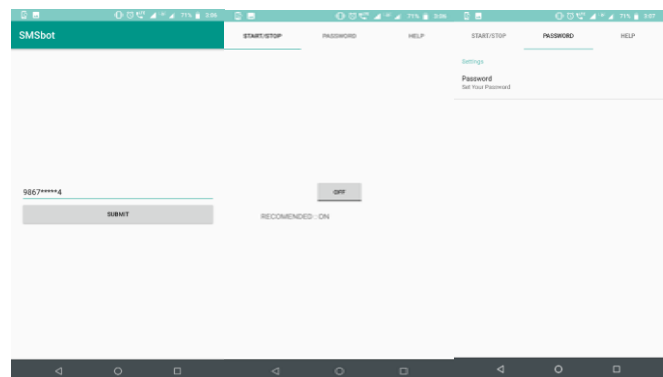


Fig. 3. Application screenshots

6. Application

This project has several applications in day-to-day life. These applications are as follows:

1. You can use this system to access contact in your phone remotely.
2. You can also use this system to access unread SMS in your phone.
3. You can access missed calls in your cell.
4. E-mail ID stored in contact number can be accessed by using this application.

5. Address stored in contact number can also accessed by this system.

7. Limitations

1. If the Mobile phone is out of network area, then accessing of data is not possible.
2. If the mobile phone is switched off, then data retrieval is possible if the random mobile phone is having internet working.
3. If there is no balance in the remote phone, then the process cannot be accomplished.

8. Results and conclusion

Thus the application is very small, simple and easy to use by using SMS service.

The best part of the system is that it has a very low Memory. It is very light on your phone's resources, it doesn't need much accesses accept for contacts and messages.

The application overcomes the problems faced in real life, like emergency cases, it can be your savior, all you need to do is just send an sms to your lost cell phone and retrieve the important contacts you want.

Working in the switch off condition makes it more reliable and acceptable for the emergency cases.

For the security measures, automatic changing of the security pin adds up the plus points in the application.

The application can be shared with anyone using different

mediums for the purpose of providing a backup in the emergency cases.

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