



Full Length Research Article

SMS BASED E-MAIL SENDING TECHNICQUES IN ANDROID MOBILES

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ARTICLE INFO

Article History:

Received 15th February, 2016
Received in revised form
28th March, 2016
Accepted 17th April, 2016
Published online 31st May, 2016

Key Words:

Android,
Cellular Data On,
Email-Sending,
Attacing File.

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ABSTRACT

The usage of smart phone among people is increasing rapidly. Now days we are dependent on our mobile phones, if we forget the phone at home or somewhere place that time we can access the mobile phone remotely using the application. By using this application user can send e-mail in our mobile even if mobile is very far from us, by sending a single text message we can send e-mail from our remote mobile. To accomplish this task first step we need to turn-on the cellular data for that we have to send SMS to our mobile through remote mobile. Second step we have to send SMS (formatted SMS) for e-mail sending operation. Then we can also attach the file with our e-mail.

INTRODUCTION

Small Message Service is common way of communication, now a day's most of the communication done by the SMSs. We are live in a technology fulfilled world, so we want to do most of the work in automation. In this paper we describe how to send e-mail in our mobile phones even if it is far from us and how it will respond for our request automatically like an intelligent device. Our application create a client server relationship between mobile phones in which the mobile requesting to send e-mail via SMS will act as client and mobile serving the sending E-mail will act as server. In our existing application various operations can be performed like storing and fetching the device's location sending SMS to our mobile phones through the remote mobile, auto responding to the incoming messages, finding and fetch the details about SIM and mobile and we can switch off our mobile via sending a SMS to it. Our proposed application we enable the operation like sending e-mail to our mobile phones through our remote mobile. Sending a e-mail function can be accomplished by a small formatted text message from the remote mobile to our mobile where it is far away from the user.

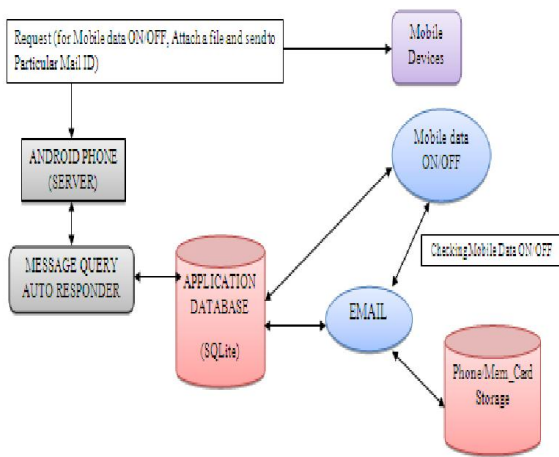
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Before executing this sending e-mail function, we need to turn-on our mobile data, so for that from the remote mobile phone need to send SMS which describe to turn-ON the cellular data (Mobile data), then only we can send e-mail from our mobile. Next very important feature is security which is very important and necessary aspect of this application. To use this software application we have some fixed formats of SMSs that are needed to be sending on the android mobile on which application is installed. These formats are discussed later sections in this paper.

ARCHITECTURE

INTRODUCTION TO ANDROID

Android is a software platform and OS for mobile device based on the linux operating system and developed by Google and the Open Handset alliance. It allows developers to write managed code in a Java-like language that utilizes Google-developed Java libraries, but does not support programs developed in native code. It is used to write applications for Android. Unlike other embedded mobile environments, Android applications are all equal, for instance, an applications which come with the phone are no different than those that any developer writes.



The framework is supported by numerous open source libraries such as OpenSSL, SQLite and libc. It is also supported by the Android core libraries. From the point of security, the framework is based on UNIX file system permissions that assure applications have only those abilities that mobile phone owner gave them at install time.

IMPLIMENTATION

DATABASE READ THE SMS FORMAT

Our application is useful for you if you want to develop your own SMS (or another service) handler. As a sample, I choose received SMS handler that receives SMS, encrypts them, and puts into the SMS table of the Android system database. Manifest is a very important part of an Android application. You can find everything about the Android manifest by this link. And now I'll try to describe every line that is important for us. The first are permissions.

The application must receive, write and read SMS from the database. The main class that receives the SMS is Sms Receiver. It extends Broadcast Receiver class. After received entire text message will be passed to the service class where the entire SMS format scanned one by one character and if any format defined by our application is matched with SMS Format than appropriate action will be performed (Dan Li *et al.*, 2014).

TURN_ON MOBILE DATA:

In case when we forget our mobile phone at home or in office and we want some important file immediately which stored in our mobile phone (Dan Li *et al.*, 2014). So we can send attach that file into E-mail. For this purpose first we need to turn – on our mobile phone, with help of sending SMS format to android mobile.

SMS format should be like this below

SMS format: Security keyword, Mobile Data ON/OFF

All these keywords must be separated by a comma. So when a text message is received and transferred to the service class .Service class then scan the message and separates out all the keywords if security keyword matches to the security keyword stored in the database.

```
public void updateUI(boolean state) {
    if(state) {
        TVMobileData.setText(STATUS_ON);
        tBMobileData.setText(TURN_OFF);
    } else {
        TVMobileData.setText(STATUS_OFF);
        tBMobileData.setText(TURN_ON);
    }
}
```

E-MAIL SENDING WITH FILE

Once our android mobile data activated by remote mobile via SMS format we start our E-mail sending technique. For that we can provide our SMS format for e-mail sending operation.

SMS Format: From mail address, To mail address, subject, attach file name First we need to type mail address from whose mail id going to send mail then to whom we need to send mail type that address .Again we need to specify subject name of our E-mail, finally we have type the file name to be attach with mail. We have one constraint here that we need to remember the file name which saved in our android mobile. So it's very simple operation easily we can fetch our file in our android mobile which is far away from us.

AUTHENTICATION MODE

We are accessing our personal details in this application so security is very essential aspect in this software. That means only authenticated person can use the features offered by this software. Authentication is provided by a security key word. We can enter a new security key word in this application which can only be changed by us. To fetching any information with help of SMS format we need to know the security key word. The entire SMS format that we have provided here starts with security key word. In our android mobile the service class finds the first security key word in incoming message as password the it will do further searches for other keywords for specific operation. For security purpose we can change security keyword frequent this will provide more secure then no one can track it.(Dan Li *et al.*, 2014)

```
setContentView(R.layout.activity_change_key);
sdb=openOrCreateDatabase("key", MODE_PRIVATE, null);
String create="create table if not exists secure_key(id integer
primary key autoincrement,key_value varchar(20))";
```

So we can assure that our personal information not be tracked some other person using this application.

CONCUSION AND FUTURE WORK

This SMS based e-mail sending operation very useful in our current situation that frequently we are using smart phone so we have all the files in our hands (mobile).

If we missed that into somewhere else with help of this application we can easily fetch our file from our mobile. For the same concept we can able to do for all the mobile OS this is our future work then we can also able to send image attachment to the mail.

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