

Mobile Phone Mode Conversion & Location Application for Android

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Abstract - Track My Phone is an android application used to change the mode of the phone which is in silent mode and to trace the location of misplaced Android mobile. A silent phone can be extremely tricky to find. If the user is in the habit in losing a silent cell phone, it's difficult to find the phone. The user has to follow tedious work to find the misplaced mobile and ultimately user may not find his phone. This application is helpful at those times to easily track your misplaced mobile without much effort. Using a simple SMS command you can ring your Android Device even if it is in silent or vibration mode and thus locate your device locally. As soon as the Android mobile receives the code word and if it matches with the code word set in the application then it starts ringing activity and abort broadcasting. And in the background it also traces its location using the network provider information if internet is available else if the location service is turned off then checks in GPS turned on and acknowledges the latitude and longitude values to the friend's mobile as a text message. This application can also be used by the user to change the modes to even silent and vibration if already in ringer mode when required.

I. INTRODUCTION

Smart phones have become the most common gadget in common man's life now-a-days. People tend to carry it everywhere and also use it now and then to make their work simple. Many android applications are even developed to make their work easy. Similarly here goes an android application which can be used to change the mode of the mobile when your phone is being in silent mode. It consists of three simple modules which include the user interface module, for setting the customized code, changing the mode of phone and also to trace the location of mobile. Generally, when user's mobile is in silent or vibrate mode and is being misplaced, he cannot find the misplaced mobile by giving it a ring. This is the situation where this application comes into picture. With the help of this application, the user can change the mode of the misplaced mobile to general mode (or silent, vibrate also) with the help of a single text message. The user has to install the application on his/her mobile and have to set the passwords for each mode in either alphabetic or numeric format. When the mobile gets misplaced, the user can send the password of the preferred mode to his/her misplaced mobile as a simple text message. This message acts as a signal and changes the mode as prescribed by the user. It also traces the location and sends back the latitude and longitude location of the mobile. The location of the mobile can be received in the form as a message to the mobile which is being used by the user to change the mode of the mobile.

Android Architecture:

Android operating system is a stack of software components which is roughly divided into five sections and four main layers as shown in the architecture diagram.

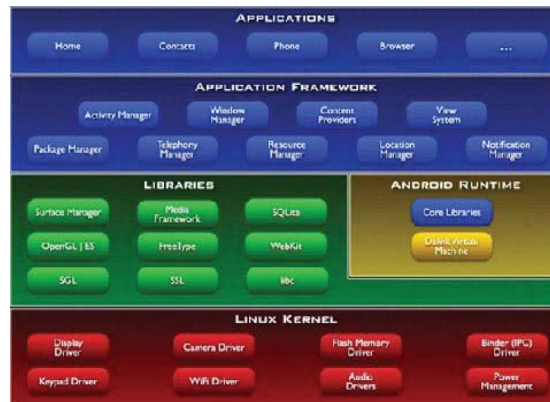
Android Architecture:

Fig.1

II.EXISTING SYSTEM

The existing application can only change the mode of mobile from silent/vibration mode to ringer mode. Problem arises when the user misplaces in some other location. He/she may not find the mobile by changing its mode if it is at different place. These are some problems in existing system

III.PROPOSED SYSTEM

Unlike the existing applications we have overcome the problems like changing to other modes and tracing the location. The proposed system traces location and acknowledges to the user if user misplaced the mobile in different location. And can also overcome the problem of changing the mode to different modes whenever required in times.

IV.PROPOSED MODEL*ANALYSIS MODEL:**SDLC Methodologies:*

This document play a vital role in the development of life cycle (SDLC) as it describes the complete requirements of the system. It means for use by developers and will be the basic during testing phase. Any changes made to the requirements in the future will have to go through formal change approval process.

SPIRAL MODEL:

Spiral model was defined by Barry Boehm in his 1988 article, "A spiral Model of Software Development and Enhancement. This model was not the First model to discuss iterative development, but it was the first model to explain why the iteration method. As originally envisioned, the iterations were typically 6 months to 2 years long. Each phase starts with a design goal and ends with client reviewing the progress thus far. Analysis and engineering efforts are applied at each phase of the project, with an eye towards the end goal of the project.

The steps for Spiral Model can be generalized as follows:

Step1:The new system requirements are defined in as much details as possible. This usually involves interviewing a number of users representing all the external or internal users and other aspects of the existing system.

Step 2: A first prototype of the new system is constructed from the preliminary design. This is usually a scaled-down system, and represents a approximation of the characteristics of the final product.

A second prototype is evolved by a fourfold procedure:

1. Defining the requirements of the second prototype.
2. Planning and designing the second prototype.
3. Constructing and testing the second prototype.

At the customer option, the entire project can be aborted if the risk deemed too great. Risk factors might involve development cost overruns, operating-cost miscalculation, or any other factor that could, in the customer's

judgment, result in a less-than- satisfactory final product. The existing prototype is evaluated in the same manner as was the previous prototype, and if necessary, another prototype is developed from it according to the fourfold procedure outlined above. The preceding steps are iterated until the customer is satisfied that the refined prototype represents the final product desired.

1. The final systems is constructed, based on the refined prototype.
2. The final systems is thoroughly evaluated and tested. Routine maintenance is carried on a continuing basis to prevent large scale failures and to minimize down time.

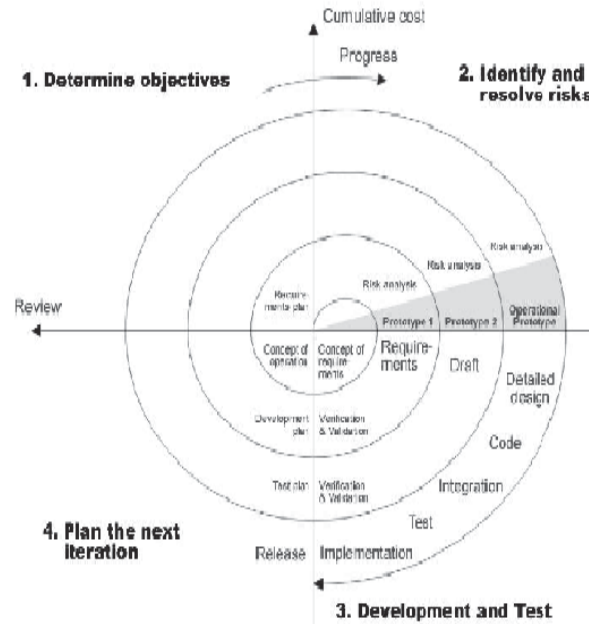


Fig.2

V.IMPLEMENTATION

INPUTS:

As this is an android application every input is given through user interface components:
 User clicks start app button in the start screen.
 User enters code words for each mode.
 User selects save button.

OUTPUTS:

- The code words are saved in the database and successfully saved text is displayed.
- The Mobile where the application can dump should also have some requirements like both hardware as well as software requirements for mobile are:

Software:

The android OS version must be at least 2.3 Gingerbread. Device must have apk installer.

Hardware:

RAM: 512MB. Processor: DUAL core processor.

SELECTED SOFTWARES

ANDROID:

Android is a mobile operating system (OS) currently developed by Google, based on the Linux kernel and designed primarily for touch screen mobile devices such as smart phones and tablets. Android's user interface is based on direct manipulation, using touch gestures that loosely correspond to real-world actions, such as swiping, tapping and pinching, to manipulate on-screen objects, along with a virtual keyboard for text input. Initially developed by Android, Inc., which Google 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. As of July 2013, the Play store has had over one million Android applications ("apps") published, and over 50 billion applications downloaded. An April–May 2013 survey of mobile application developers found that 71% of developers create applications for Android, and a 2015 survey found that 40% of full-time professional developers see Android as their priority target platform, which is comparable to Apple's iOS on 37% with both platforms far above others. At Google I/O 2014, the company revealed that there were over one billion active monthly Android users, up from 538 million in June 2013.

History of android:

Android, Inc. was founded in Palo Alto, California in October 2003 by Andy Rubin, Rich Miner (co-founder of Wildfire Communications, Inc.), Nick Sears (once VP at T-Mobile), and Chris White (headed design and interface development at WebTV) to develop, in Rubin's words, "smarter mobile devices that are more aware of its owner's location and preferences". In July 2005, Google acquired Android Inc. for at least \$50 million, whose key employees, including Rubin, Miner and White, stayed at the company after the acquisition. At Google, the team led by Rubin developed a mobile device platform powered by the Linux kernel. Google marketed the platform to handset makers and carriers on the promise of providing a flexible, upgradable system. On November 5, 2007, the Open Handset Alliance, a consortium of technology companies including Google, device manufacturers such as HTC, Sony and Samsung, wireless carriers such as Sprint Nextel and T-Mobile, and chipset makers such as Qualcomm and Texas Instruments, unveiled itself, with a goal to develop open standards for mobile devices. That day, Android was unveiled as its first product, a mobile device platform built on the Linux kernel. The first commercially available Smartphone running Android was the HTC Dream.

Versions of android:

The version history of the Android mobile operating system began with the release of the Android beta in November 2007. The first commercial version, Android 1.0, was released in September 2008. Android is continually developed by Google and the Open Handset Alliance (OHA), and has seen a number of updates to its base operating system since the initial release. The most recent major Android update is Android "Marshmallow", which was released in October 2015. Since April 2009, Android versions have been developed under a confectionery-themed code name and released in alphabetical order, beginning with Android 1.5 "Cupcake"; the earlier versions 1.0 and 1.1 were not released under specific code names:

- Cupcake (1.5)
- Donut (1.6)
- Eclairs(2.0-2.1)
- Froyo(2.2-2.2.3)
- Gingerbread(2.3-2.3.7)
- Honeycomb(3.0-3.2.6)
- Ice cream sandwich(4.0-4.0.4)
- Jelly Bean(4.1-4.3.1)
- Kitkat(4.4-4.4.4,4.4W-4.4W.2)
- Lollipop(5.0–5.1.1)
- Marshmallow(6.0)

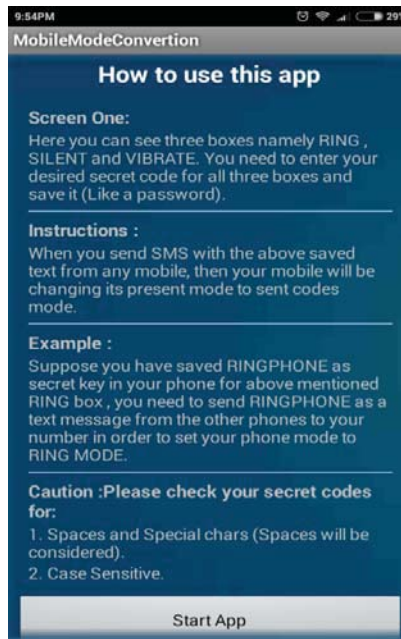
VI.CONCLUSION AND FUTURE WORK

This app is very useful in day to day life to find your misplaced mobile easily. It provides a user friendly graphical user interface to easily manage it.

FUTURE ENHANCEMENTS:

This app can be enhanced by getting the URL of the exact location as a return text message. And also adding SIM card change notification can be done in future. We can set a code and a trusted contact to send the notification to him/her from the new SIM when the current SIM is replaced.

Instructionscreen:



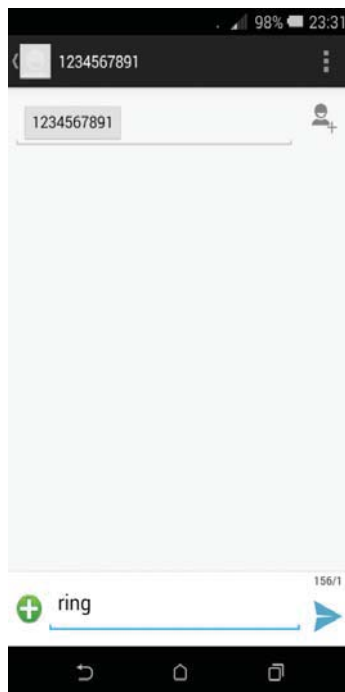
Setting code words:



Saving code words:



Sending message:



VII.ACKNOWLEDGMENT

There are many people who helped me directly and indirectly to complete my project successfully. I would like to take this opportunity to thank one and all.

First of all I would like to express my deep gratitude towards my internal guide MR PRAVEEN KUMA ASSISTANT PROFESSOR, Department of IT for her support in the completion of my dissertation. My sincere thanks to RAMARAO SIR, HOD, Department of IT, Prof K.L Chugh(Dean Information Technology) and also to our principal Dr. P BHASKARAREDDY,MLR institute of technology support for providing the facilities to complete the dissertation.

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