

L. D. COLLEGE OF ENGINEERING

FINAL YEAR PROJECT REPORT

ACADEMIC YEAR 2014-2015

SECURE IT PRO

AUTHORS:

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SUPERVISOR:

PROF. BHAVESH OZA

Lalbhai Dalpatbhai College Of Engineering

Department of Computer Engineering
Navrangpura, Ahmedabad 380015



CERTIFICATE

This is certify that the report entitled "**SECURE IT PRO**", submitted by **Marmik Patel (110280107003)** is a record of bonafide work carried out by him, in the fulfillment of the requirement for the award of Degree of Bachelor of Engineering (Computer Engineering) at Lalbhai Dalpatbhai College Of Engineering under Gujarat Technological University. This work is done during year 2014-2015, under our guidance.

Prof. Bhavesh Oza

(Project Guide)

Prof. D. A. Parikh

(HOD, CE Department)

Examination:

Examiner _____

Date:

Lalbhai Dalpatbhai College Of Engineering

Department of Computer Engineering
Navrangpura, Ahmedabad 380015



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Prof. Bhavesh Oza

(Project Guide)

Prof. D. A. Parikh

(HOD, CE Department)

Examination:

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Date:

Lalbhai Dalpatbhai College Of Engineering
Department of Computer Engineering
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CERTIFICATE

This is certify that the report entitled "**SECURE IT PRO**", submitted by **Gaurav Shah (110280107020)** is a record of bonafide work carried out by him, in the fulfillment of the requirement for the award of Degree of Bachelor of Engineering (Computer Engineering) at Lalbhai Dalpatbhai College Of Engineering under Gujarat Technological University. This work is done during year 2014-2015, under our guidance.

Prof. Bhavesh Oza

(Project Guide)

Prof. D. A. Parikh

(HOD, CE Department)

Examination:

Examiner _____

Date:

Lalbhai Dalpatbhai College Of Engineering

Department of Computer Engineering
Navrangpura, Ahmedabad 380015



CERTIFICATE

This is certify that the report entitled "**SECURE IT PRO**", submitted by **Nisarg Shah (110280107050)** is a record of bonafide work carried out by him, in the fulfillment of the requirement for the award of Degree of Bachelor of Engineering (Computer Engineering) at Lalbhai Dalpatbhai College Of Engineering under Gujarat Technological University. This work is done during year 2014-2015, under our guidance.

Prof. Bhavesh Oza

(Project Guide)

Prof. D. A. Parikh

(HOD, CE Department)

Examination:

Examiner _____

Date:



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CERTIFICATE FOR COMPLETION OF ALL ACTIVITIES AT ONLINE PROJECT PORTAL

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This is to certify that, **Marmik Navinchandra Patel** (*Enrolment Number-110280107003*) working on project entitled with **Secure It Pro** from **Computer Engineering** department of **L. D. College Of Engineering, Ahmedabad** had submitted following details at online project portal.

Submitted Four Periodic Progress Reports (PPR)	Completed
Business Model Canvas (Image)	Uploaded
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Patent Drafting Exercise (PDE)	Completed
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Name of Student : Marmik Navinchandra Patel

Name of Guide : Mr. Bhaveshkuamr Amrutlal Oza

Signature of Student : _____

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Business Model Canvas (Report)	Uploaded
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Name of Student : Niket Bhogilal Patel

Name of Guide : Mr. Bhaveshkuamr Amrutlal Oza

Signature of Student :

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Patent Drafting Exercise (PDE)	Completed
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Name of Student : Gaurav Prakashkumar Shah

Name of Guide : Mr. Bhaveshkuamr Amrutlal Oza

Signature of Student : _____

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Name of Guide : Mr. Bhaveshkuamr Amrutlal Oza

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Patent Search & Analysis Report (PSAR)

Team Id : 7478
Name : PATEL MARMIK NAVINCHANDRA

Part - I : PATENT SEARCH TECHNIQUE USED

Patent Search Database Used : Espacenet (EPO Patent database)
Keywords Used for Search : Mobile,Calling,Emergency
Search String Used : Mobile AND Calling AND emergency
Number of Results/Hits getting : 360

Part - II : BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

Category/Field of Invention : COMPUTER ENGINEER
Invention is Related to/Class of Invention : Emergency Calling
Title of Invention : Implementation of Emergency Call in android device
Patent No. :
Application No. : WO2013KR04469 20130522
Date of Filing/Application : 13/11/2014
Priority Date : -
Publication/Journal Number - (Issue No. of Journal in which Patent is published) :
Publication Date : -
First Filed Country :
Also Published as :

Country	Patent No

Applicant for Patent is : -



GTU - Prior Art Search

- INVENTOR DETAIL

Name of Inventor	Address/City/Country of Inventor
PARK SANGIL	Busan, Korea

- APPLICANT/ASSIGNEE DETAIL

Name of Applicant/Assignee	Address/City/Country of Applicant
Park Sangil	Busan Korea



Part - III : TECHNICAL PART OF PATENTED INVENTION

Limitation of Prior Technology/Art :

There is no application for emergency calling.

Specific Problem Solved/Objective of Invention :

Emergency call can be called at specific number such as 100,112.

Brief about Invention :

Disclosed is an emergency call system manufactured in the form of an accessory which can be used by anyone regardless of age or sex. In particular, a user carries a calling pendant for transmitting an emergency call signal to a user's own mobile communication terminal. When an emergency situation happens, the emergency call system can quickly and accurately notify a pre-registered phone number and an emergency center or emergency rescue service, such as 112 or 119, of an accident simply by removing a holder attached to the calling pendant.

Key Learning Points :

User can call pre-registered number using emergency call system. Here user can call only fixed numbers.

Summary of Invention :

This is about emergency calling on pre-fixed number. This invention cannot help user for calling from his contact list. This is useful during emergency calling such as fire,rainfall etc.

Number of Claims : 0

Patent Status : Granted Patent

How much this invention is related with your IDP/UDP? : < 70 %

Do you have any idea to do anything around the said invention to improve it? :

This invention can be improved by adding widget at mobile screen.



Patent Search & Analysis Report (PSAR)

Team Id : 7478
Name : PATEL NIKET BHOGILAL

Part - I : PATENT SEARCH TECHNIQUE USED

Patent Search Database Used : Google Patents
Keywords Used for Search : emergency ,call,emergency calling,emergency,call, emergency calling
Search String Used : emergency calling
Number of Results/Hits getting : 384,000

Part - II : BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

Category/Field of Invention : COMPUTER ENGINEER
Invention is Related to/Class of Invention : emergency call
Title of Invention : Emergency call system and method for mobile phones
Patent No. :
Application No. : US 13/763,668
Date of Filing/Application : 09/02/2013
Priority Date : 10/02/2012
Publication/Journal Number - (Issue No. of Journal in which Patent is published) : US20130231072 A1
Publication Date : 05/09/2013
First Filed Country :
Also Published as :

Country	Patent No

Applicant for Patent is : Company



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- INVENTOR DETAIL

Name of Inventor	Address/City/Country of Inventor
Bryan Anderson	US

- APPLICANT/ASSIGNEE DETAIL

Name of Applicant/Assignee	Address/City/Country of Applicant
Bryan Anderson	US



Part - III : TECHNICAL PART OF PATENTED INVENTION

Limitation of Prior Technology/Art :

1. A method for handling an emergency call, the method comprising:
receiving, with an emergency call handling server, an emergency call originated by a mobile communication device to a land line number serviced by the emergency call handling server, the land line number having a pre-defined location associated therewith;
determining, with the emergency call handling server, an emergency call center to receive the emergency call based on the land line number; and
routing the emergency call to the selected emergency call center using the land line number.
2. The method of claim 1, wherein:
receiving the emergency call comprises receiving an emergency call to a land line number mapped to a particular emergency type; and
determining the emergency call center comprises determining the emergency call center based on the emergency type mapped to the land line number.

Specific Problem Solved/Objective of Invention :

Technologies for handling emergency calls from mobile communication devices include receiving an emergency call originated by a mobile communication device to a land line number serviced by an emergency call handling server, determining an emergency call center to handle the emergency call based on the called land line number, and routing the emergency call to the determined emergency call center. The land line number may have a pre-defined location associated therewith.

Brief about Invention :

1. A method for handling an emergency call, the method comprising:
receiving, with an emergency call handling server, an emergency call originated by a mobile communication device to a land line number serviced by the emergency call handling server, the land line number having a pre-defined location associated therewith;
determining, with the emergency call handling server, an emergency call center to receive the emergency call based on the land line number; and
routing the emergency call to the selected emergency call center using the land line number.
2. The method of claim 1, wherein:
receiving the emergency call comprises receiving an emergency call to a land line number mapped to a particular emergency type; and
determining the emergency call center comprises determining the emergency call center based on the emergency type mapped to the land line number.
3. The method of claim 1, wherein determining the emergency call center comprises comparing the land line number called by the mobile communication device to a location mapping database, the location mapping database mapping land line numbers to pre-defined locations.
4. The method of claim 1, wherein routing the emergency call comprises conveying the pre-defined location to the emergency call center using the land line number.
5. The method of claim 1, further comprising receiving additional emergency information related to an emergency prompting the emergency call from the mobile communication device and supplying the additional emergency information to the emergency call center.
6. The method of claim 1, further comprising:
determining whether the mobile communication device is authorized to originate the emergency call using the land line number; and
disconnecting the emergency call prior to routing the emergency call to the selected emergency call center in response to determining that the mobile communication device is not authorized to originate the emergency call using the land line number



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Key Learning Points :

Most locations have public emergency call systems with which a person in an emergency situation can call to receive help. Generally, such systems include a public short call number that is connected to an emergency call center having a human operator who can immediately activate an emergency service, e.g. a police call, a fire department alert, or an ambulance. Traditionally in land line systems, the human operator inherently knows the location of the caller as the telephone carrier provides the physical location of the telephone, typically in the form of an on-line data connection between the incoming caller ID and the telephone carrier location information database.

Such public emergency systems work well for land lines but have inherent difficulties with mobile telephones. In the United States, in which the 911 telephone number is the traditional emergency number, regulations have been created that require all mobile telephone operators to attempt to track the location of the mobile phone. With such a system, the human operator of the emergency number is informed of the location of the 911 mobile caller by the mobile carrier. Unfortunately, the location information is only approximate so that the exact physical location of the caller is not known and delays in determining such location information may be experienced.

Summary of Invention :

Accordingly to one aspect, a method for handling an emergency call includes receiving, with an emergency call handling server, an emergency call originated by a mobile communication device to a land line number serviced by the emergency call handling server, the land line number having a pre-defined location associated therewith; determining, with the emergency call handling server, an emergency call center to receive the emergency call based on the land line number; and routing the emergency call to the selected emergency call center using the land line number.

In some embodiments, receiving the emergency call may include receiving an emergency call to a land line number mapped to a particular emergency type. Additionally, determining the emergency call center may include determining the emergency call center based on the emergency type mapped to the land line number. Further, in some embodiments, determining the emergency call center may include comparing the land line number called by the mobile communication device to a location mapping database. In such embodiments, the location mapping database may map land line numbers to pre-defined locations. Additionally, in some embodiments, routing the emergency call may include conveying the pre-defined location to the emergency call center using the land line number.

In some embodiments, the method may further include sing receiving additional emergency information related to an emergency prompting the emergency call from the mobile communication device and supplying the additional emergency information to the emergency call center. Additionally, the method may include determining whether the mobile communication device is authorized to originate the emergency call using the land line number and disconnecting the emergency call prior to routing the emergency call to the selected emergency call center in response to determining that the mobile communication device is not authorized to originate the emergency call using the land line number.

Yet further, the method may also include determining, with the emergency call handling server, an entity to notify by comparing a cellular telephone number of the mobile communication device to a notification policy stored on the emergency call handling server, the notification policy mapping incoming cellular telephone numbers to entities to be notified and notifying the determined entity in response to receiving the emergency call. In some embodiments, the determining the entity to notify may include comparing the land line number to the notification policy.

Number of Claims

: 20

Patent Status

: Granted Patent

How much this invention is related with your IDP/UDP?

: 71 to 90%

Do you have any idea to do anything around the said invention to improve it? :

No



Patent Search & Analysis Report (PSAR)

Team Id : 7478
Name : SHAH GAURAV PRAKASHKUMAR

Part - I : PATENT SEARCH TECHNIQUE USED

Patent Search Database Used : Google Patents
Keywords Used for Search : Smartphone,Security,Apps
Search String Used : Smartphone,Security,Apps
Number of Results/Hits getting : 101,000

Part - II : BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

Category/Field of Invention : COMPUTER ENGINEER
Invention is Related to/Class of Invention : Smartphone Security
Title of Invention : Smartphone security system
Patent No. :
Application No. : US 13/757,898
Date of Filing/Application : 04/02/2013
Priority Date : 27/09/2011
Publication/Journal Number - (Issue No. of Journal in which Patent is published) : US8732827 B1
Publication Date : 20/05/2014
First Filed Country :
Also Published as :

Country	Patent No

Applicant for Patent is : Company



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- INVENTOR DETAIL

Name of Inventor	Address/City/Country of Inventor
Igor Zhukov	RUSSIA
Alexander Zuykov	RUSSIA
Dmitry Mikhailov	RUSSIA

- APPLICANT/ASSIGNEE DETAIL

Name of Applicant/Assignee	Address/City/Country of Applicant
Novilab Mobile Llc	RUSSIA



Part - III : TECHNICAL PART OF PATENTED INVENTION

Limitation of Prior Technology/Art :

Various anti-virus and security software is available today for protecting networks, servers and personal computers against at least some forms of malicious applications and malware.

However, mobile devices, such as smartphones, are also susceptible to malicious software. Modern smartphones access the Internet and perform a wide range of functions and, therefore, there is a wide range of possible types of attack by malware or other forms of malicious communications that can be launched against a mobile device.

For example, short messages can be sent from the victim's phone to paid numbers (i.e., Short Message Service), the victim can be signed up for a paid service by having an SMS sent from his number, the victim's personal data (i.e., contacts, messages, call logs, etc.) can be obtained and given to spammers, the victim's location can be obtained as well. Additionally, photo and video recording can be performed using the victim's phone.

Currently, personal mobile devices are not sufficiently protected. Accordingly, there is a need for effective protection of users of smartphones (or other personal mobile devices) against malware or other malicious attacks occurring on-line or via call (or SMS) communications.

Specific Problem Solved/Objective of Invention :

System for protecting a mobile device against malware or harmful communications via calls and SMSs. A security module for a personal mobile device protects the device (and the user) against malicious communication, unauthorized access to resources and user private data, and against other security threats. The security module includes a combination of some or all of the following features: control of third-party applications, validation of the SMS sender's number, protection against fake contact name of the SMS sender, collection of data about fraudulent and spam SMS messages, robust sending of SOS SMSs and SOS e-mails with geographic coordinates of the mobile device, verification of validity of the base station, deletion of user data from a mobile device remotely, locking of a phone until the password is entered and filtering calls and SMS messages.

Brief about Invention :

1. A mobile communication device security system, the system comprising:
a mobile communication device;
an operating system running on the mobile communication device;
security modules installed under the mobile device operating system,
wherein each security module includes components that implement some functionality natively and components that implement some functionality non-natively;
the security modules comprises at least an anti-spam module and an anti-virus module;
wherein the anti-virus module performs natively any of the following:
processing of system calls that are already under control, (b) adding methods to classes.dex and replacement of their calls, (c) adding classes to classes.dex, and (d) replacing classes in classes.dex;
wherein the anti-virus module performs any of the following: (e) processing of applications over which control is being established, (f) receiving and unpacking of distributive files, (g) packing of the changed/edited applications to distributive files, (h) signing of the new distributive file with a generated signature, (i) requests to user for installation/removal of the applications, and (j) changes to AndroidManifest.xml;
wherein the anti-spam module performs any of the following: (k) SMS intercepts, (l) validation of SMS sender's number, (m) interactions with the user, and (n) whitelist/blacklist checks of the SMS.
2. The system of claim 1, wherein the security module performs any of:



GTU - Prior Art Search

control of third-party applications;

verification of the current system time based on a timestamp of the SMS;

protection against fake contact name of the SMS sender;

collection of data about fraudulent and spam SMS messages;

sending of SOS SMSs and e-mails with a pre-set text and geographic coordinates of the mobile device;

deletion of user data from the mobile device remotely;

locking the mobile device until the password is entered;

filtering calls or SMS messages; and

checking status of a microphone or a baseband processor.

3. The system of claim 2, wherein the control of third-party applications comprises re-assembling the applications, embedding custom code into the applications and replacing calls of controlled functions by different methods.

4. The system of claim 2, wherein the validation of SMS sender number by verifying that the sender number and the SMS center (SMSC) number specified in message Protocol Description Unit (PDU) belong to the same Mobile Network Code (MNC).

5. The system of claim 2, wherein the validation of SMS sender number by verifying that the sender number is not an alphanumeric string (Type Of Number, TON, in PDU is alphanumeric, value 5) with a correct phone number recorded in it.

6. The system of claim 2, wherein the protection against fake contact name of the SMS sender by verifying if a sender alphanumeric address is the same as any transliteration variant of any word subset of a displayed name of any contact.

7. The system of claim 2, wherein the collection of data about fraudulent and spam SMS messages comprises enabling users to complain about unwanted messages using a collection component installed on the mobile device.

8. The system of claim 2, wherein the deletion of user data from the mobile device remotely comprises using direct deletion of data from all available content providers.

9. The system of claim 1, wherein the security modules further comprise an anti-eavesdropping module that performs any of the following:

processing of system calls that are already under control, (b) interaction with the user, and (c) receiving messages from application under control, (d) intermediation between the GSM/3G-modem and phone software, and (e) intermediation between the GSM/3G-modem and phone firmware; wherein the anti-eavesdropping module also performs any of the following: (a) base station verification, (b) search for base stations in the database, and (c) service provider connection verification.

10. The system of claim 9, wherein the filtering calls and SMS messages comprises filtering respective attention (AT) commands from a baseband processor.

Key Learning Points :

- 1) The invention is directed to method and system for protection of a mobile device against malware or harmful communications that substantially obviates one or several of the disadvantages of the related art.
- 2) The present invention relates to telecommunication technology, and, more particularly, to protection of a mobile communication device against malware or harmful communications.

Summary of Invention :

The present invention is directed to method and system for protection of a mobile device against malware or harmful communications that substantially obviates one or several of the disadvantages of the related art.

In one aspect, there is provided a system, method and computer program product for protecting a mobile device against malware or harmful communications via calls and SMSs. According to an exemplary embodiment, security module for a personal mobile device protects the device (and the user) against malicious communication, unauthorized access to resources and private data, as well as against other security threats.

The security software includes a combination of one or more of the following features:



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Control of third-party applications by re-assembling them, embedding custom code into them, and replacing calls of controlled functions by shell method calls;

Validation of the SMS sender's number by verifying that the sender's specified number and the SMSC (Short Message Service Center) number specified in the message's Protocol Description Unit (PDU) belong to the same Mobile Network Code (MNC);

Validation of the SMS sender's number by verifying it against Type of Number (TON) with a false number notification, if the number is an alphanumeric string with a correct phone number recorded in it;

Protection against fake contact name of the SMS sender by verifying if the sender's alphanumeric address is the same as the displayed name in all transliteration variants (the display_name field in the contacts content provider) and in all word subsets in the name;

Collection of data about fraudulent and spam SMS messages by enabling users to complain about unwanted messages using the software installed on the mobile device (i.e., mobile phone or smartphone);

Robust and simple sending of SOS SMSs and e-mails with a pre-set text and sending the geographic coordinates of the mobile device;

Verification of the validity of the base station (BS) the subscriber is connected to by searching coordinates of the current and adjacent base stations in the database, and comparing their locations and a certain maximum distance from each other;

Validation of the base station the subscriber is connected to by proportion of the signal level change for the current and nearby base stations;

Validation of the base station the subscriber is connected to, if Mobile Country Code (MCC) or MNC of the BS change, while the subscriber has not crossed a country border (in case of MCC), or has not changed service provider (if MNC has changed);

Identification of a fake BS, the subscriber is connected to, by a long BS handover when the subscriber is moving;

An automatic update of the BS database with new BS and update of previous coordinates by collecting statistics of the identified BS by user mobile devices and by adding a new BS, if it is identified several times by a certain number of different users;

Deletion of user data from a mobile device by: using the device administrator's Application Programming Interface (API) and by direct deletion of data from all available content providers;

Locking of a phone until the password is entered by: setting the password to unlock the device when switching the screen on, and by interception of all user key touches or a special activity;

Execution of certain actions when an SMS message with preset commands is received and hiding this message from the user;

Detection of the device being used by a person other than the device's owner, when a Subscriber Identification Module (SIM) card that is not the user's SIM card is inserted into the device;

Detection of entry of information about the user's SIM cards by advising the program that a new trusted card is going to be inserted;



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Detection of other applications' use (or access) of the device's functions by attempting to use these functions resulting in their immediate release and processing situations when the system rejects the request;

Detection of encryption between the phone and the base station by querying the baseband processor using the respective AT (attention) command(s) (the Hayes command set) when an incoming or outgoing call is initiated to warn the phone operation system (e.g., Android OS) user that no encryption is being used;

Protection against SMS eavesdropping by third party programs by registration of the new message respective AT command from the baseband processor followed by waiting for the respective SMS at the system applications operation level;

Filtering calls and SMS messages by filtering the respective AT commands from the baseband processor;

Checking current status of the microphone and baseband processor to detect an unauthorized operation by means of external controlling commands and notification of the user about hidden audio transmission; and

Protection against time manipulation by the user in order to extend the activation period by comparing the current system time, the end of the license term and Service Center Time Stamp (TP-SCTS) field value in the latest received SMS.

Additional features and advantages of the invention will be set forth in the description that follows. Yet further features and advantages will be apparent to a person skilled in the art based on the description set forth herein or may be learned by practice of the invention.

The advantages of the invention will be realized and attained by the structure particularly pointed out in the written description and claims hereof as well as the appended drawings.

It is to be understood that both the foregoing general description and the following detailed description are exemplary and explanatory and are intended to provide further explanation of the invention as claimed.

Number of Claims : 29

Patent Status : Granted Patent

How much this invention is related with your IDP/UDP? : 71 to 90%

Do you have any idea to do anything around the said invention to improve it? :

NO



Patent Search & Analysis Report (PSAR)

Team Id : 7478
Name : SHAH NISARG HIREN

Part - I : PATENT SEARCH TECHNIQUE USED

Patent Search Database Used : Google Patents
Keywords Used for Search : File, Hide, Software, File, Hide, Software
Search String Used : File, Hide, Software
Number of Results/Hits getting : 117,000

Part - II : BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

Category/Field of Invention : COMPUTER ENGINEER
Invention is Related to/Class of Invention : file hide software
Title of Invention : Handheld smart device data security protection method
Patent No. :
Application No. : CN102722663 A
Date of Filing/Application : 16/05/2012
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Applicant for Patent is : Company



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Part - III : TECHNICAL PART OF PATENTED INVENTION

Limitation of Prior Technology/Art :

1. I claim the protection of data security smart handheld device, characterized in that step 1202) does not perform as described in the user install or uninstall operation instruction also includes prompts the user to install or uninstall the software is prohibited.
2. I claim the protection of data security smart handheld device, characterized in that step 1202), enter the wrong password is less than the number of input threshold allows a user to enter a password to continue through the human-computer interaction.

Specific Problem Solved/Objective of Invention :

The invention relates to a handheld smart device data security protection method, comprising steps that: whether a password input by a user through human-computer interaction is correct is judged and if so, a setting of a privacy protection status is changed, and if not, the setting of the privacy protection status remains unchanged; and according to a true record of the privacy protection status, device file management software and protected software are hidden, and otherwise, the device file management software and the protected software are shown and used normally. The method of the invention further comprises steps that: 1101) connection between the handheld smart device and a computer via a USB port is detected and judged; 1102) whether the device is in the privacy protection status is judged and if so, a user interface entrance which has a U disc using function is hidden and a logic code of opening the U disc is not performed; and otherwise, normal operation is carried out; 1201) installation or unloading of application software is detected and judged; and 1202) whether the device is in the privacy protection status is judged, and if so, a user operation instruction or a logic code for the installation or unloading is not performed; and otherwise, normal installation or unloading is performed.

Brief about Invention :

1. A handheld smart device data security method characterized by comprising the following specific steps of the service is always running power: 1101) to detect and determine the smart handheld device connected through the USB port of the computer; 1102) determines whether the device is in the Privacy protection status? Yes, to hide the use of U disk function user interface logic code entry is not performed open U disk function or prohibit user interface using U disk function does not execute logic code to open U disk function; otherwise normal use; always run at boot Services also include the following specific steps: 1201) to detect and determine ready to install or uninstall software applications; 1202) to determine whether the device is in a state of privacy? Yes, do not perform the installation or uninstallation instructions or logical user operation code; otherwise normal installation or uninstallation; the data security method further comprises the step of setting specific privacy protection status: 1301) to determine whether the user through the human-computer interaction to enter the correct password? Is the next step, otherwise it does not change the state of privacy settings; 1302) to change the settings of privacy protection status and record; after shutdown are still able to save the recording; 1303), according to state records privacy is true, hidden devices and document management software protected software, otherwise normal display and use; step 1303) also runs automatically when the device is switched on.
2. I claim the protection of data security smart handheld device, characterized in that step 1202) does not perform as described in the user install or uninstall operation instruction also includes prompts the user to install or uninstall the software is prohibited.
3. I claim the protection of data security smart handheld device, characterized in that step 1202), enter the wrong password is less than the number of input threshold allows a user to enter a password to continue through the human-computer interaction.
4. The claim I said smart handheld device data security methods, wherein the step 1202), enter an incorrect password attempts exceeds the input threshold by HCI continues to deny users to enter a



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password within a specified time.

5. The device according to claim intelligent data security protection method according to any one of claims 1-4 handheld, characterized in that the smart handheld devices including cell phones or MP4. Users can not abort system processes

According to any one of claims 1 to 4 data security smart handheld device, characterized in that the smart handheld devices using open source code of Android operating system, the corresponding service is always running boot can not be terminated by the user or after the termination of the service will automatically restart.

Key Learning Points :

anywhere camera, micro-Bo, check information, smart phones have become indispensable in people's lives part, but the smartphone tremendous convenience, but how to prevent leaks and protect users' privacy has become smart phone era focus of attention. So, like the 360 ??guards, security housekeeper, butler and other mobile phone security management software emerged. These software in large part to ensure the safety of mobile phones and the user's privacy, but still there is a big loophole, t dagger such as privacy protection features of these software programs can be locked on, when the user is locking the file manager After the phone before the password is required to access the file system, in theory, prevent the user's personal files are not compromised, to protect the user's privacy, but this time through the phone's USB can still function, browsing on a computer or copy phone files, or re-install a file manager can access the user's mobile phone in the file system. So before privacy features did not play the desired effect. The present invention in order to better protect the privacy of mobile phone users as the target for the current smartphone privacy flaw invented a better method for privacy protection, that is, when the phone is in privacy protection status, turn off the phone U disk function, Hide file management tools on the phone, and the phone is prohibited to install and uninstall the software.

Summary of Invention :

[0003] The present invention technical problem to be solved is how to provide a smart handheld device data security method that can reduce security vulnerabilities, to avoid user privacy data theft.

[0004] The technical problem underlying the present invention, such a solution: build the following specific steps a smart handheld device data security methods, including in the service is always running in the boot:

[0005] 1101) to detect and determine smart handheld devices connected to the computer via a USB port;

[0006] 1102) to determine whether the device is in a state of privacy? Yes, to hide the use of U disk function user interface logic code entry is not performed open U disk function or prohibit user interface U disk function is not performed using open U disk function logic code; otherwise normal use;

[0007] In the boot is always running in the service further comprises the following specific steps:

[0008] 1201) to detect and determine ready to install or uninstall software applications;

[0009] 1202) to determine whether the device is in a state of privacy? Yes, do not perform user operation instructions or logic code to install or uninstall; otherwise normal installation or uninstallation;

[0010] The data security method further includes the steps of privacy protection state specific settings:

[0011] 1301) to determine whether the user through the human-computer interaction to enter the correct password? Is the next step, otherwise it does not change the state of privacy settings;

[0012] 1302) to change the state of privacy settings and record; after shutdown are still able to save the recording;

[0013] 1303) record is true according to privacy protected, hidden device file management software and software are protected, otherwise the normal display and use; [0014] Step 1303) also runs automatically when the device is switched on.



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[0015] The present invention provides a smart handheld device data security protection methods, 1202) the user does not perform the operation command to install or uninstall ban also includes prompts the user to install or uninstall software.

[0016] The present invention provides a smart handheld device data security protection methods, 1202) entered the wrong password is less than the number of input threshold allows a user to enter a password to continue through the human-computer interaction.

[0017] The present invention provides a smart handheld device data security protection methods, 1202), enter an incorrect password attempts exceeds the input threshold by HCI continues to deny users to enter a password within a specified time.

Number of Claims : 5

Patent Status : Granted Patent

How much this invention is related with your IDP/UDP? : 71 to 90%

Do you have any idea to do anything around the said invention to improve it? :

No

GUJARAT TECHNOLOGICAL UNIVERSITY

UNDERTAKING ABOUT ORIGINALITY OF WORK

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We certify that, to the best of our knowledge, the current IDP/UDP Project report does not infringe upon anyone's copyright nor violate any proprietary rights and that any ideas, techniques, quotations or any other material from the work of other people included in our IDP/UDP Project report, published or otherwise, are fully acknowledged in accordance with the standard referencing practices. Furthermore, to the extent that we have included copyrighted material that surpasses the boundary of fair dealing within the meaning of the Indian Copyright (Amendment) Act 2012, we certify that we have obtained a written permission from the copyright owner(s) to include such material(s) in the current IDP/UDP Project report and have included copies of such copyright clearances to our appendix.

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TEAM ID: 7478

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110280107020	GAURAV SHAH	
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Place: Ahmedabad

Date:

Name of Guide: BHAVESH OZA

Signature of Guide

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I amespecially indebted to my parents for their love, sacrifice, and support. They are my first teachers after Icame to this world and have set great examples for me about how to live, study and work.

ABSTRACT

The basis for the Secure It Pro is recognition of a need for improving an existing system or procedure. This involves a preliminary study or initial investigation to determine whether a new Security Application can solve the problem. It entails looking into an inefficient existing apps or whether parts of the apps can be combined in single app. The single app is not available for meeting the security requirement of user. Hence new single app Secure It Pro is needs to be developed which provides integrated environment.

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1 Introduction

-  Purpose
-  Objective
-  Overview
-  Scope
-  Benefits
-  Definitions, Acronyms, and Abbreviations

1.1 Purpose

The purpose of this document is to define the requirements for creating an Android application (Secure It Pro). This document will outline all of the necessary information to start development.

1.2 Objective

In the world of smartphones, there are many android apps for security of data, mobile and apps, but main disadvantage of these apps are that they are needed to install separately. They are not available in single app and individual apps consumes more RAM.

Imagine, if all these features are available in a single application then the user need not to install all the applications separately. Our project is about develop such application.

1.3 Overview

Secure It Pro has four modules.

- One Touch Calling
- Anti-Theft
- App Lock
- Data Hiding

One Touch Calling module is useful in emergency situation. Using this application, user can call to predefined contact by one touch.

Anti-Theft module is for securing mobile from thieves. This module send message to predefined contact on inserting a SIM card with different number which does not match with provided number while installation of application. User can trace his device from website as well.

App Lock module provides facility for locking of specific applications. To open application locked by App Lock, user have insert a password.

Data hiding module provides facility of data hiding. This module hide personal data. To show this data user have to insert password.

Thus, this app provide most of all necessary security features in single package.

1.4 Scope

(1) This application is only for android OS. This application is supported by android OS 4.0 and above. To run this application, it is necessary to have RAM more than 512 MB, processor having 834GHz and internal memory more than 512MB.

(2) Secure It Pro contains anti-theft module, which may not run on android OS having dual SIM.

1.5 Benefits

Secure It Pro provides following benefits.

- All applications comes in single package
- Consumes less RAM
- Consumes less Memory
- Consumes less Battery
- Better user interface
- Live tracing
- Also provides features of one touch calling
- Provides integrity

1.6 Definitions, Acronyms, and Abbreviations

SIM	-	Subscriber Identity Module
IMSI	-	International Mobile Subscriber Identity
IMEI	-	International Mobile Equipment Identity
UML	-	Unified Modeling Language
API	-	Application Programming Interface

2 General Description

-  Product Perspective
-  Product Function
-  General Constraints

2.1 Product Perspective

In current situation smart phones uses different types of application for providing various types of security. Our application provide integrity by combining all these functionality within one package. It provides support for hiding personal data, app lock, anti-theft, emergency call. Android phones having OS 4.0 and above are able to use this application.

2.2 Product Functions

Stakeholders of the application are as follows:

- 1) Smartphone Users: Download application from googleplaystore and install it. Configure the application.
- 2) Thief: Try to crack the password.
- 3) Non-Regular User: Try to open application installed in mobile. Try to access personal data.
- 4) Mobile Station: Track the IMSI number and send it to registered number.

2.3 General Constraints

This application will run on android mobile having OS 4.0 and above versions. It is necessary to have RAM 512 MB and not have dual SIM mobile. This application required administrative control.

3 Project Management

-  Project Planning & Scheduling
-  Risk Management
-  Scheduling

3.1 Project Planning & Scheduling

3.1.1 Software Development Life Cycle

- Software Development Life Cycle (SDLC) is a diagrammatical representation of various activities required to fulfill the process by which System Analyst, Software Engineers & Programmers depict the information & build the computer applications to solve business problems & needs.

Software Process Model:

- The project is based on the evolutionary process model. To cover all aspects of the application the whole process has to be divided in various modules and work on it according to need. This method can be appropriately achieved by this model.

Incremental Model:

- In incremental model the whole requirement is divided into various builds. Multiple development cycles take place here, making the life cycle a "multi-waterfall" cycle. Cycles are divided up into smaller, more easily managed modules. Each module passes through the requirements, design, implementation and testing phases. A working version of software is produced during the first module, so you have working software early on during the software life cycle. Each subsequent release of the module adds function to the previous release. The process continues till the complete system is achieved.

- In the diagram above when we work incrementally we are adding piece by piece but expect that each piece is fully finished. Thus keep on adding the pieces until it's complete. As in the image above a person has thought of the application. Then he started building it and in the first iteration the first module of the application or product is totally ready and can be demoed to the customers. Likewise in the second iteration the other module is ready and integrated with the first module. Similarly, in the third iteration the whole product is ready and integrated. Hence, the product got ready step by step.

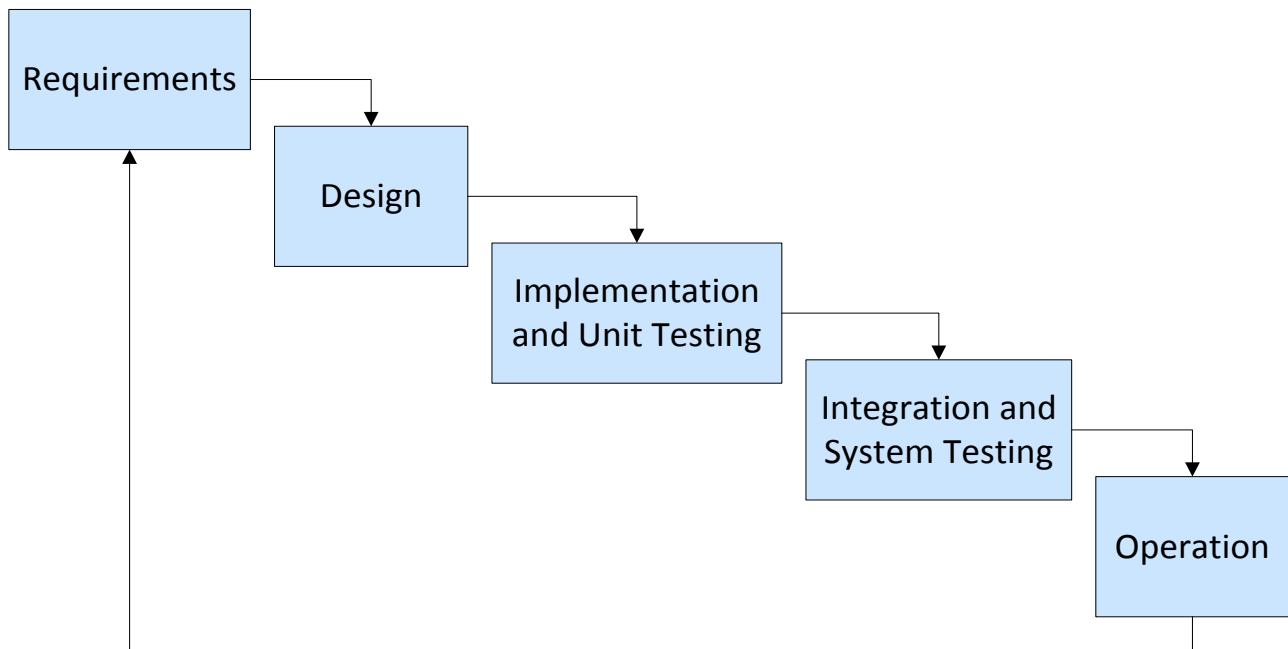


Figure 1 Incremental Model

3.1.2 Software Project Scheduling

“Software project scheduling is an activity that distributes estimated efforts across the planned duration by allocating the effort to specific software engineering tasks.”

Proper Scheduling requires:

- All tasks appear in network.

- Proper effort and timing are allocated to each task.
- Interdependencies between tasks are properly indicated.
- Resources are allocated for the work to be done.

3.2 Scheduling

Title	Starting Date	Ending Date
Planning	15 th July 2014	30 TH JULY 2014
Analysis	1 st August 2014	30 TH AUGUST 2014
Design	21 st September 2014	10 TH NOVEMBER 2014
Coding	1 st January 2015	25 TH FEBRUARY 2015
Testing	1 st March 2015	15 TH MARCH 2015

4 System Specific Requirement

-  Functional Requirement
-  Non-Functional Requirement
-  Hardware Requirement
-  Anticipated Work Environment

4.1 Functional Requirements

4.1.1 App-lock Module Requirement

4.1.1.1: Set password.

- **Description:**

Insert a password having minimum length of 4 characters which is used to open the locked application.

- **Input:**

Insert a password in a set password textbox and re-entered the same password in confirm password textbox.

- **Output:**

Redirect to the lock-cart.

- **Processing:**

Check for password format and also compare password and re-entered password. If condition satisfied then redirect to the lock-cart.

4.1.1.2: Change password.

- **Description:**

Insert a new password with proper format.

- **Input:**

Insert old password, new password and re-enter new password in respective textboxes.

- **Output:**

Redirect to the lock-cart.

- **Processing:**

Validate old password, and check format of new password. Compare new password and re-entered new password. If all condition satisfied then redirect to the lock-cart.

4.1.1.3: Select app to lock-cart.

- **Description:**

Select installed application to insert it to lock-cart.

- **Input:**

Select application one by one from the list fragment.

- **Output:**

Selected application are added to lock-cart.

- **Processing:**

Provide flag to the application. When application start, Applock provides lock screen.

4.1.1.4: Remove application from lock-cart.

- **Description:**

Select application from lock-cart to remove it from lock protection.

- **Input:**

Select application one by one from the lock-cart.

- **Output:**

Application removed from lock-cart.

- **Processing:**

Application removed from lock protections.

4.1.1.5: Run applock module.

- **Description:**

Run applock module on startup of application which is available in lock-cart.

- **Input:**

Enter password to open the application.

- **Output:**

Application start if the password is valid.

- **Processing:**

Applockmodule compare the password with the saved password. If password matches, application starts.

4.1.2 Data Hiding Module Requirement

4.1.2.1: Set password.

- Description:**

Insert a password having minimum length of 8 characters which is used to open the data hiding module.

- Input:**

Insert a password in a set password textbox and re-entered the same password in confirm password textbox.

- Output:**

Redirect to the data hiding.

- Processing:**

Check for password format and also compare password and re-entered password. If condition satisfied then redirect to the data hiding.

4.1.2.2: Hide Data.

- Description:**

Select files from file manager to hide it.

- Input:**

Select files from file manager and hide them into particular folder.

- Output:**

Files will be invisible to the user.

- Processing:**

Selected files will move from file manager to particular folder in data hiding module.

4.1.2.3: Change password.

- **Description:**

Insert a new password with proper format.

- **Input:**

Insert old password, new password and re-enter new password in respective textboxes.

- **Output:**

Redirect to the data hiding.

- **Processing:**

Validate old password, and check format of new password. Compare new password and re-entered new password. If all condition satisfied then redirect to the data hiding.

4.1.2.4: Unhide data.

- **Description:**

User can unhide the hidden files from hidden folder.

- **Input:**

Select files from data hiding module to unhide it.

- **Output:**

Files will be visible to all user.

- **Processing:**

Files properties will be changed from hidden to unhidden.

4.1.2.5: Set dummy password.

- **Description:**

Insert a dummy password having minimum length of 8 characters which is used to open the data hiding module with no files.

- **Input:**

Insert a dummy password in a set dummy password textbox and re-entered the same password in confirm dummy password textbox.

- **Output:**

Redirect to the data hiding.

- **Processing:**

Check for password format and also compare password and re-entered password. If condition satisfied then redirect to the data hiding.

4.1.3 Emergency Calling Module Requirement

4.1.3.1: Provide two numbers for emergency call.

- **Description:**

Provide two number which is used for one touch calling in emergency situation.

- **Input:**

Enter primary number in textbox-1 and secondary number in textbox-2.

- **Output:**

Numbers are successfully set up for one touch calling.

- **Processing:**

Add numbers to the “PreferenceManger”.

4.1.3.2: Call Forward.

- **Description:**

If one number is busy then call is forward to the second number.

- **Input:**

Call Status of 1st number is busy.

- **Output:**

Call to the second number as saved in Emergency calling.

- **Processing:**

Check call status of 1st number and forward it to the second number if 1st number is busy.

4.1.3.3: Change the given number

- **Description:**

If user wants to change number, he can change it.

- **Input:**

Insert another number/s in the textbox.

- **Output:**

Number/s will be changed.

- **Processing:**

Check call status of 1st number and forward it to the second number if 1st number is busy.

4.1.3.4: Create widget.

- **Description:**

Once the secure it pro application installed successfully, widget for emergency calling module automatically created.

4.1.4Anti-Theft Module Requirement

4.1.4.1: Set password.

- Description:**

Insert a password having minimum length of 8 characters which is used to prevent mobile from thief.

- Input:**

Insert a password in a set password textbox and re-entered the same password in confirm password textbox.

- Output:**

Redirect to the anti-theft module.

- Processing:**

Check for password format and also compare password and re-entered password. If condition satisfied then redirect to the anti-theft module.

4.1.4.2: Change password.

- Description:**

Insert a new password with proper format.

- Input:**

Insert old password, new password and re-enter new password in respective textboxes.

- Output:**

Redirect to the anti-theft module.

Processing:

- Validate old password, and check format of new password. Compare new password and re-entered new password. If all condition satisfied then redirect to the anti-theft module.

4.1.4.3: Provide number for anti-theft.

- **Description:**

User provides number where he wants to send details of the SIM card when his mobile is stolen.

- **Input:**

Insert mobile number in textbox.

- **Output:**

Number is setup successfully for anti-theft module.

- **Processing:**

Number is saved in “PreferenceManager”.

4.1.4.4: Change number.

- **Description:**

If user wants to change given number, he can change it.

- **Input:**

Insert new numbers in new number textbox.

- **Output:**

Number is changed and saved successfully.

- **Processing:**

Number is changed in “PreferenceManager”.

4.1.4.5: Run the anti-theft module on startup (if SIM card is replaced).

- **Description:**

If anybody steal the mobile and try to change SIM card, then he must require to enter password on start up.

- **Input:**

Insert new SIM card.

- **Output:**

New SIM detect and Run the anti-theft module.

- **Processing:**

Anti-theft module detects new SIM card and it asks password from the user.

4.1.4.6: Send message on registered number.

- **Description:**

If password is find invalid then message with SIM details is forwarded to the saved mobile number.

- **Input:**

Insert an anti-theft password.

- **Output:**

Message is send if password is wrong.

- **Processing:**

Anti-theft validate the password and if the password is wrong then message is sent to the registered number.

4.1.4.7: Trace device online through website

- **Description:**

User can search and trace his registered device through website.

- **Input:**

Login into website through username and password.

- **Output:**

Device location is shown on the google map.

- **Processing:**

Website uses database and locate device.

4.2 Non Functional Requirements

- **Efficiency**

Consume less RAM in android system and faster than app available in playstore market.

- **Integrity**

Such kind of application available in playstore market but those consume more RAM in system. This application integrate such kind of application and consume less RAM.

- **Availability**

Application always run in background.

- **Security**

Application has administrative constraints so that nobody can uninstall it without entering password.

- **Maintenance**

Application will be updated according to requirement.

4.3 Hardware Requirements

- Capable of running Android 4.0 or later
- 512 MB RAM
- 834 MHz processor
- 512 MB of internal memory for installation of application

4.4 Anticipated Work Environment

4.4.1 Java OOPs Concepts

- **Simula** is considered as the first object-oriented programming language. The programming paradigm where everything is represented as an object, is known as truly object-oriented programming language.
- Object Oriented Programming is a paradigm that provides many concepts such as inheritance, databinding, polymorphism etc.

OOPs (Object Oriented Programming System)

Object means a real word entity such as pen, chair, table etc. **Object-Oriented Programming** is a methodology or paradigm to design a program using classes and objects. It simplifies the software development and maintenance by providing some concepts:

- Object
- Class
- Inheritance
- Polymorphism
- Abstraction
- Encapsulation

4.4.2 Android



Figure 2 Android

- Android, Inc. was founded in Palo Alto, California in October 2003 by Andy Rubin (co-founder of Danger), 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".
- Android is a mobile operating system (OS) based on the Linux kernel and currently developed by Google. With a user interface based on direct manipulation. Android is designed primarily for touchscreen mobile devices such as smartphones and tablet computers, with specialized user interfaces for televisions (Android TV), cars (Android Auto), and wrist watches (Android Wear). The OS uses touch inputs that loosely correspond to real-world actions, like swiping, tapping, pinching, and reverse pinching to manipulate on-screen objects, and a virtual keyboard.
- To develop android application we need
 - Android SDK
 - ADT plugin for Eclipse or android studio
 - SDK tools and SDK manager

4.4.3 Android SDK



Figure 3 Android SDK

- The Android SDK (software development kit) is a set of development tools used to develop applications for Android platform. The Android SDK includes the following:
 - Required libraries
 - Debugger
 - An emulator
 - Relevant documentation for the Android application program interfaces
 - Sample source code
 - Tutorials for the Android OS
- Every time Google releases a new version of Android, a corresponding SDK is also released. To be able to write programs with the latest features, developers must download and install each version's SDK for the particular phone.

4.4.4 AVD & AVD Manager



Figure 4 AVD & AVD Manager

- An Android Virtual Device (AVD) is a device configuration that is run with the Android emulator. It works with the emulator to provide a virtual device-specific environment in which to install and run Android apps. An AVD is a device configuration for the Android emulator that allows you to model different configurations of Android-powered devices.

4.4.5 GENYMOTION Emulator



Figure 5Geny Motion

- Genymotion is an Android emulator which comprises a complete set of sensors and features in order to interact with a virtual Android environment. With Genymotion, you can test your Android applications on a wide range of virtual devices for development, test and demonstration purposes.

4.4.6 JSP (Java Server Pages)



Figure 6 JSP

- Java Server Page (JSP) is a web-scripting technology similar to Netscape server-side JavaScript (SSJS) or Microsoft Active Server Pages (ASP). However, it's more easily extensible than SSJS or ASP, and it isn't proprietary to any one vendor or any particular web server. Although the JSP specification has been managed by Sun Microsystems, any vendors can implement JSP in their own systems.

4.4.7 JAVA Servlet



Figure 7 Java Servlet

- In recent years, servlet technology has emerged as a powerful way to extend Web server functionality through dynamic Web pages. A servlet is a Java program that runs in a Web server, as opposed to an applet that runs in a client browser. Typically, the servlet takes an HTTP request from a browser, generates dynamic content and provides an HTTP response back to the browser. Alternatively, the servlet can be accessed directly from another application component or send its output to another component. Most servlets generate HTML text, but a servlet may instead generate XML to encapsulate data.

5 UML Diagrams

- Use case Diagrams
- Sequence Diagrams
- Flowcharts
- Class Diagram

5.1 Use case Diagrams

Use case testing is a technique that helps us identify test cases that exercise the whole system on a transaction by transaction basis from start to finish. In short it is a diagram that depicts overall system.

- Anti-Theft

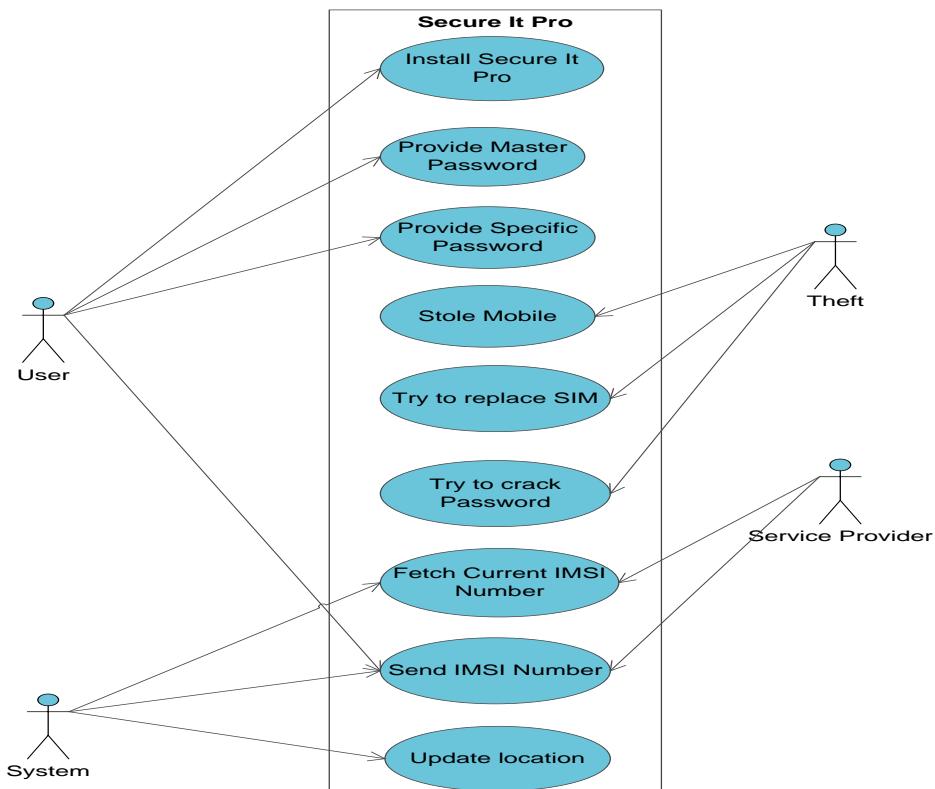


Figure 8Anti Theft

- Applock

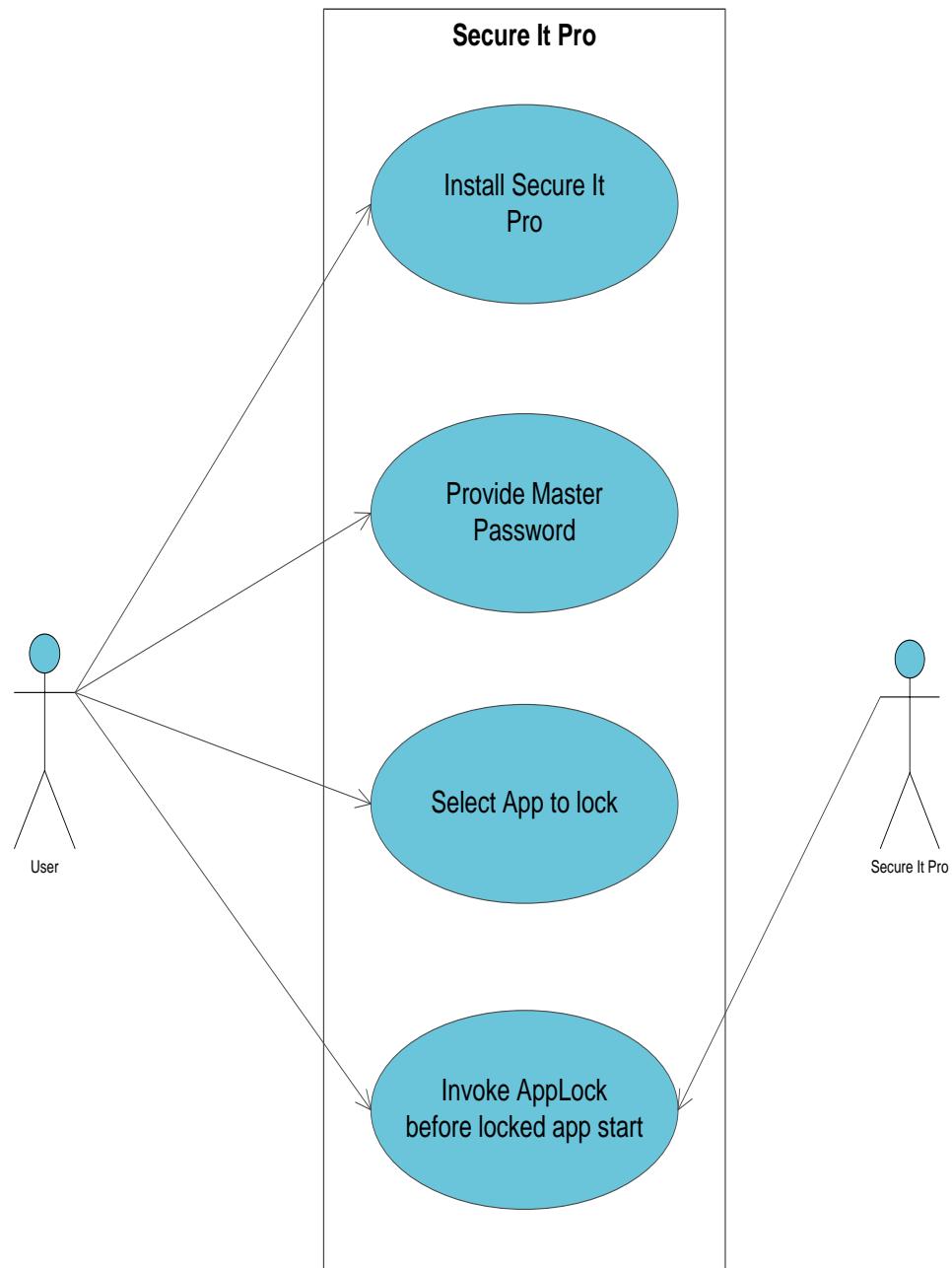


Figure 9 App Lock

- Data Hiding

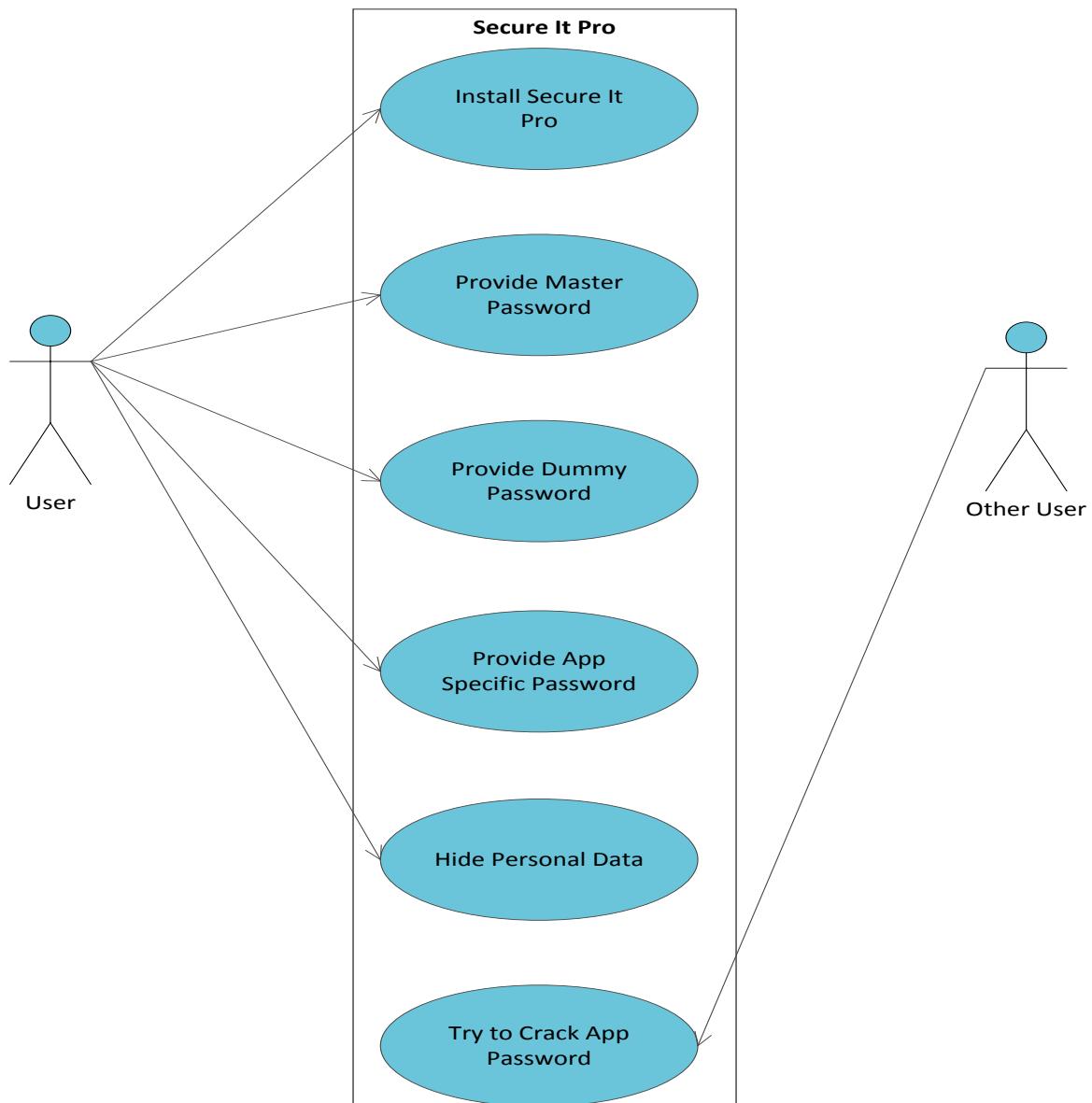


Figure 10 Data Hiding

- One Touch Calling

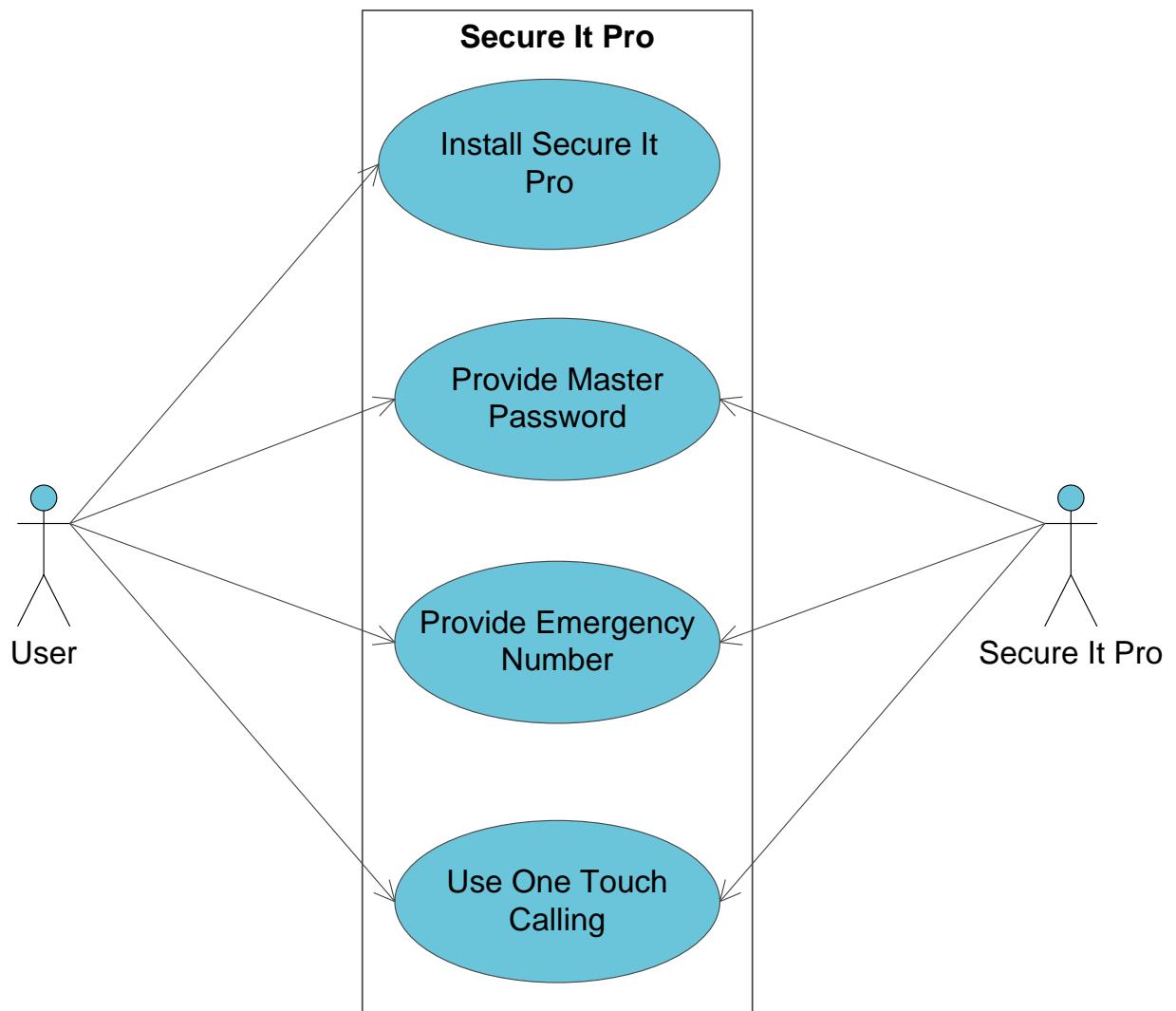


Figure 11 One Touch Calling

5.2 Sequence Diagrams

A **Sequence diagram** is an interaction diagram that shows how processes operate with one another and in what order. It is a construct of a Message Sequence Chart. A sequence diagram shows object interactions arranged in time sequence.

- Anti-Theft

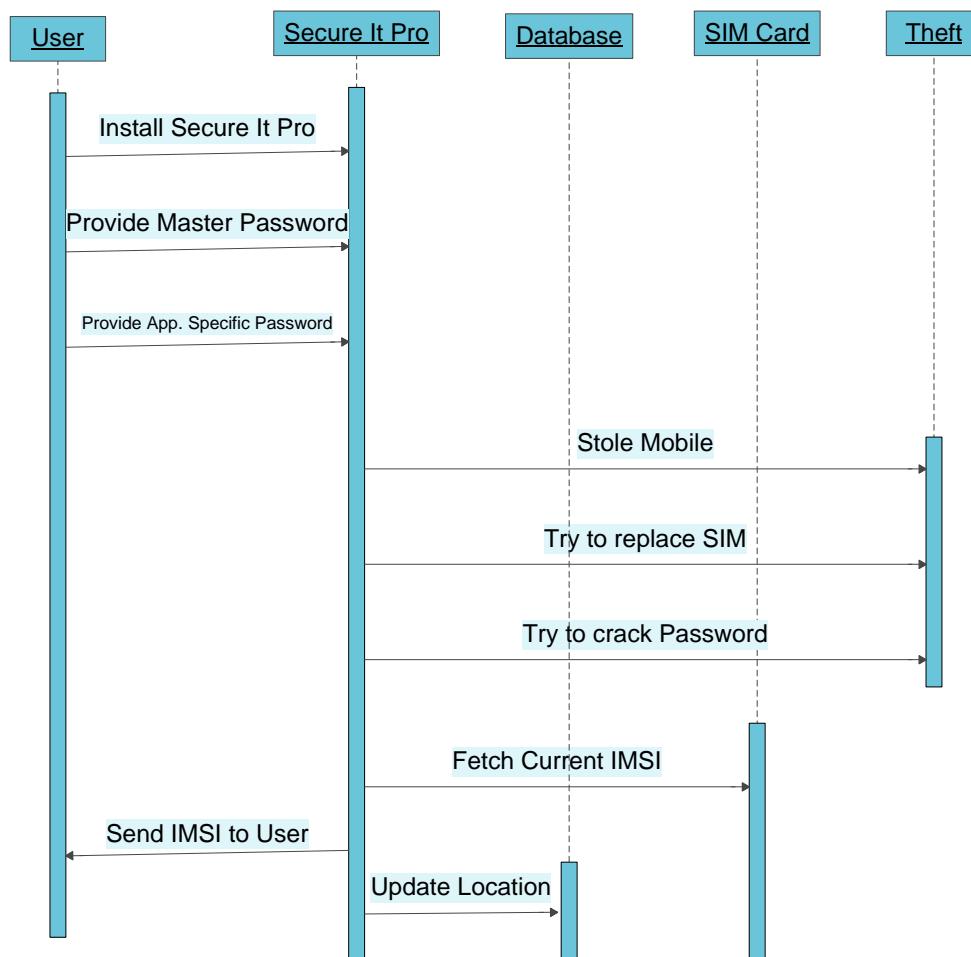


Figure 12 Sequence Anti Theft

- Applock

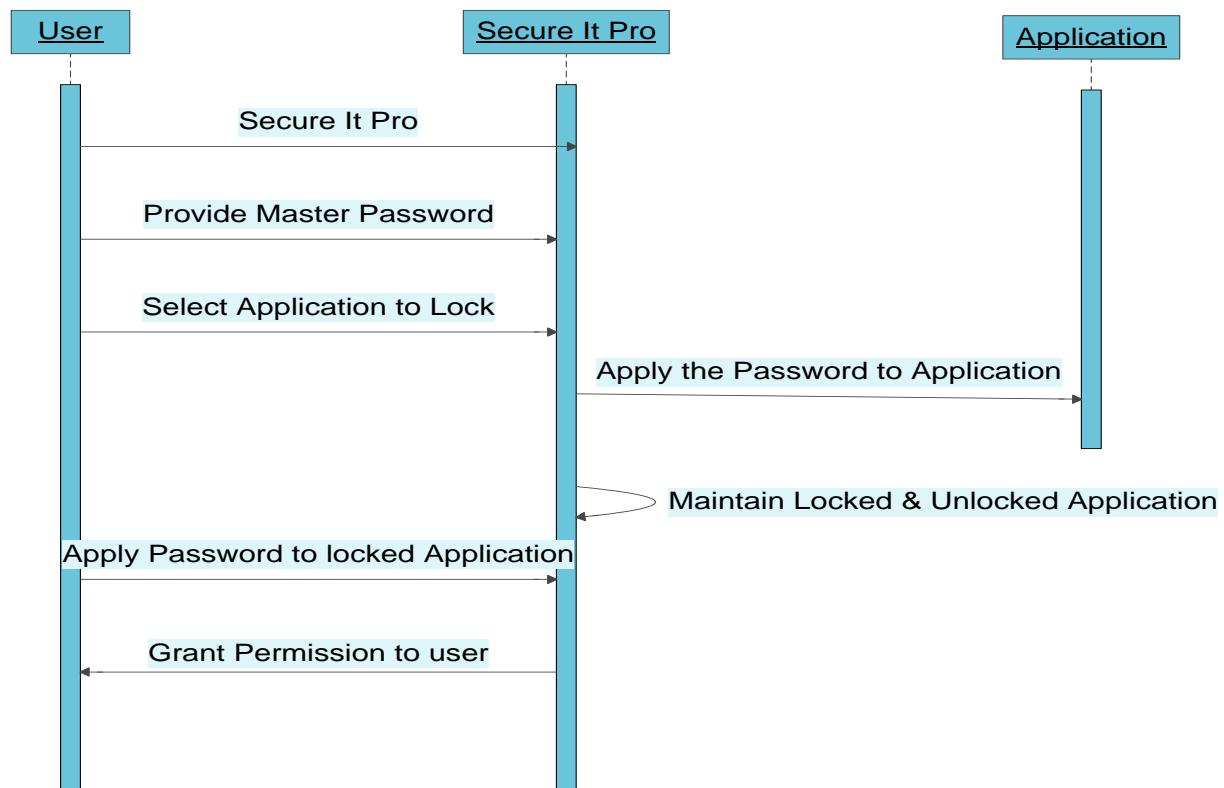
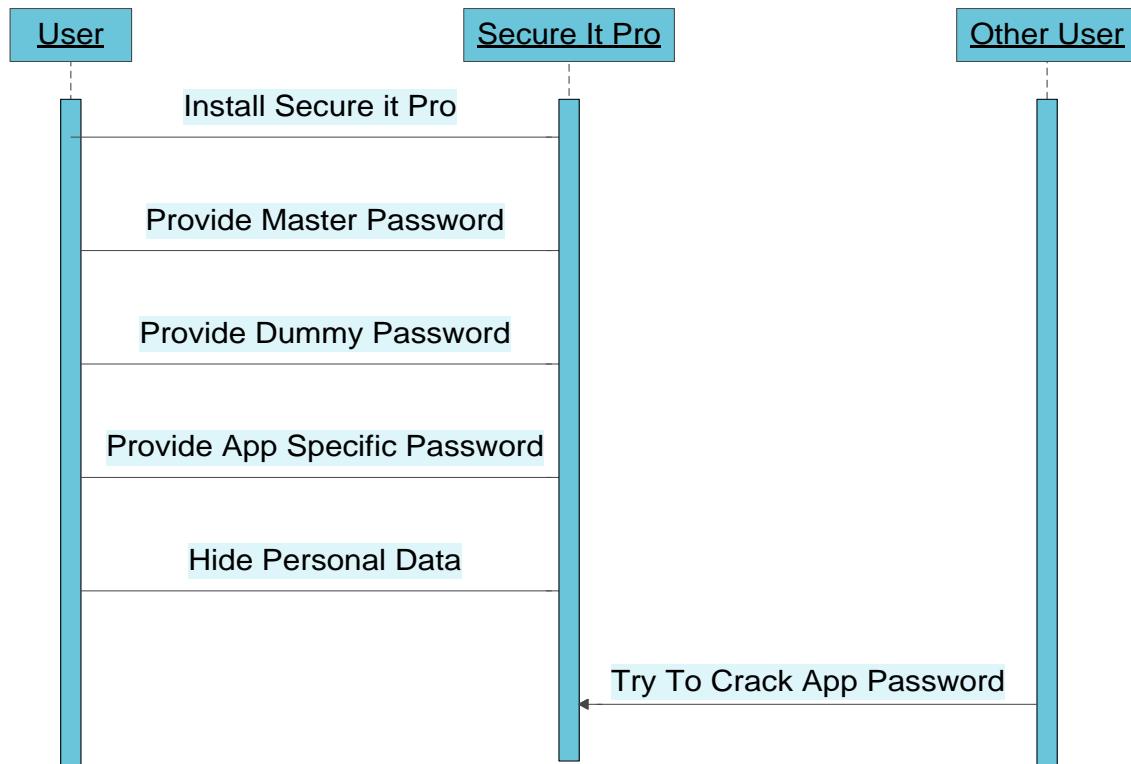


Figure 13 Sequence App Lock

- Data Hiding



- One Touch Calling

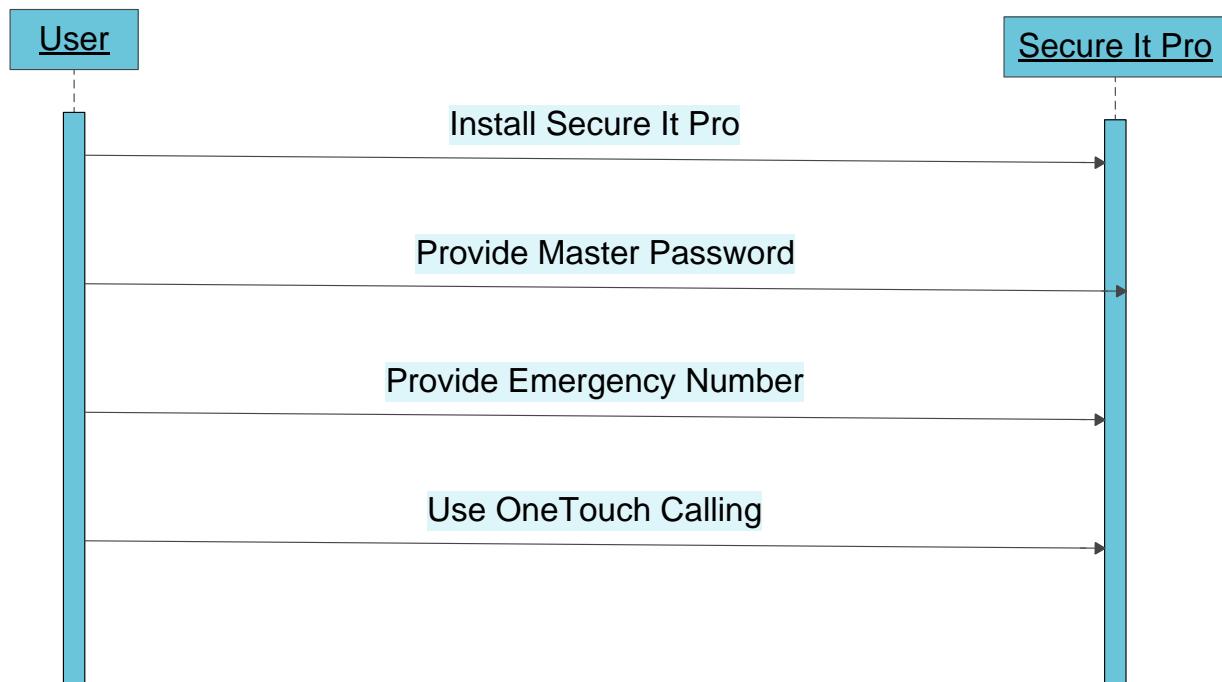


Figure 15 Sequence One Touch Calling

5.3 Flowcharts

A **flowchart** is a type of diagram that represents an algorithm, workflow or process, showing the steps as boxes of various kinds, and their order by connecting them with arrows. This diagrammatic representation illustrates a solution model to a given problem. Flowcharts are used in analyzing, designing, documenting or managing a process or program in various fields.

- Initial Setup

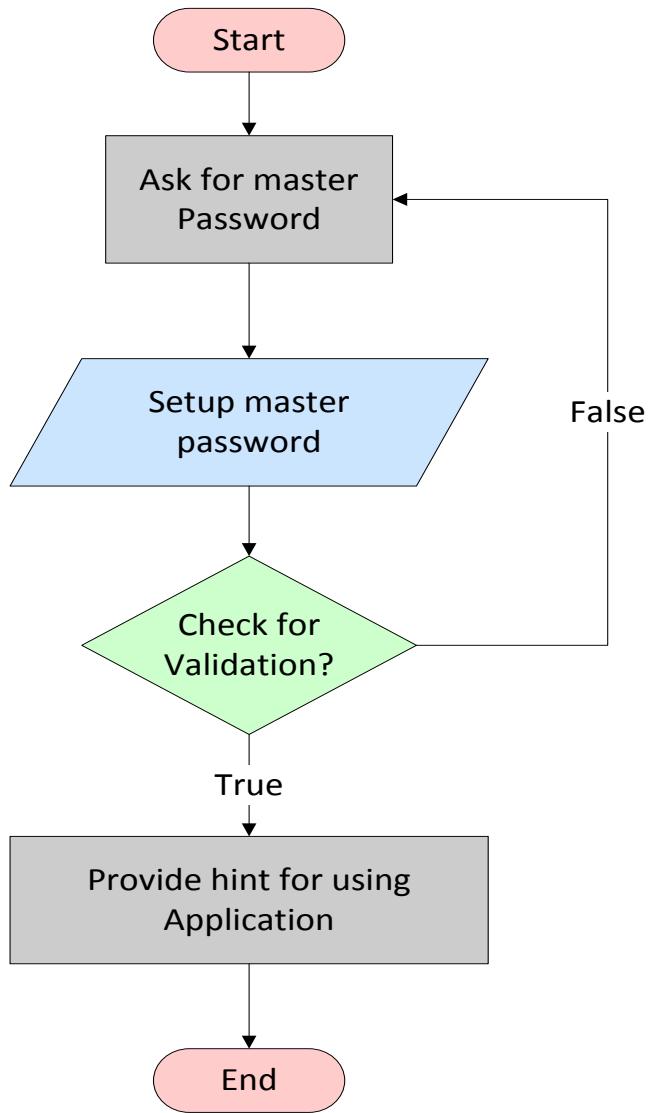


Figure 16 Flow Chart Initial Setup

- Password Change

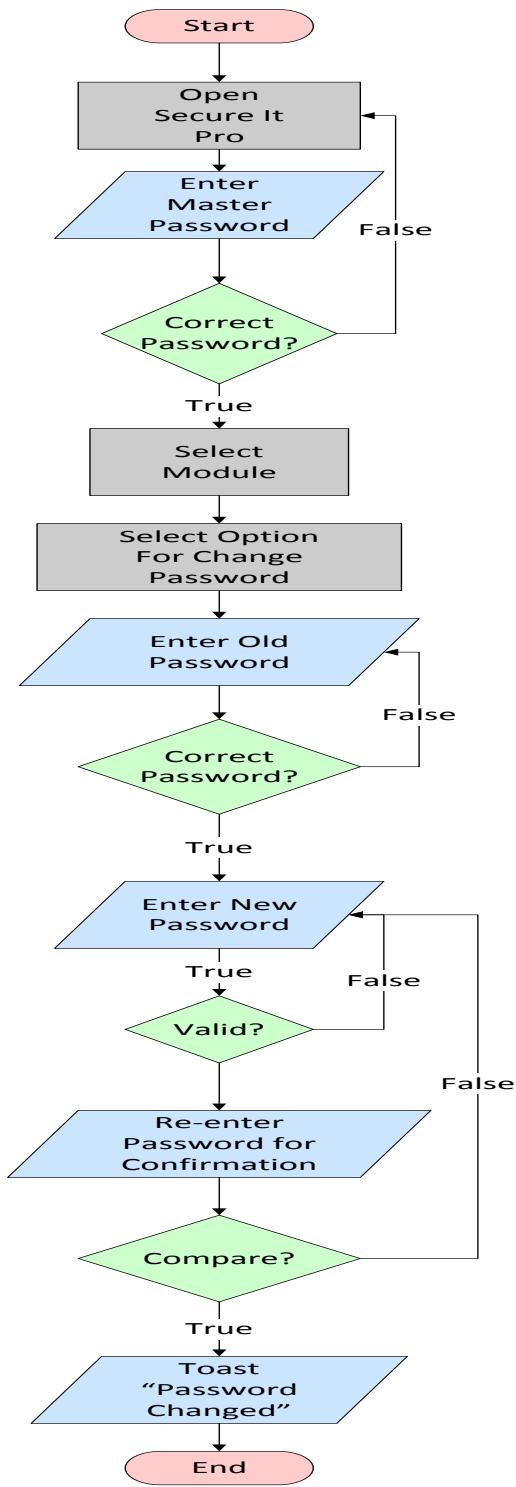


Figure 17 Flowchart Password Change

- Anti-theft setup

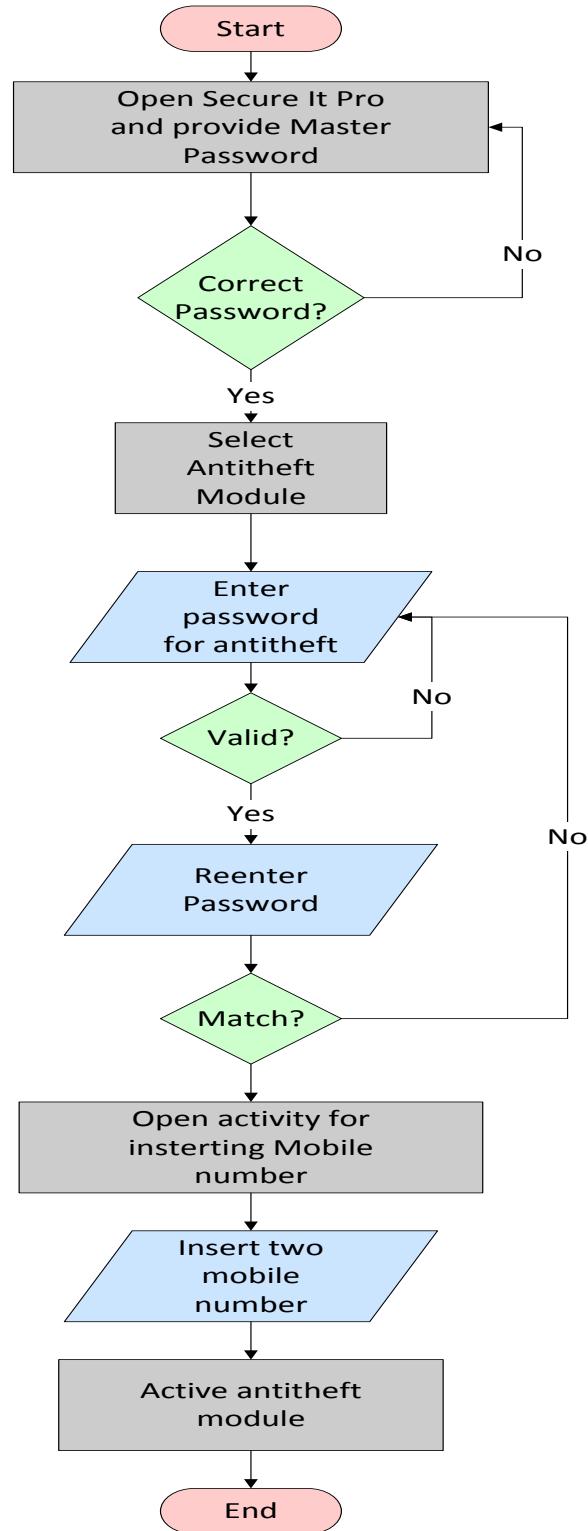


Figure 18 Flowchart Anti theft

- Anti-theft password change

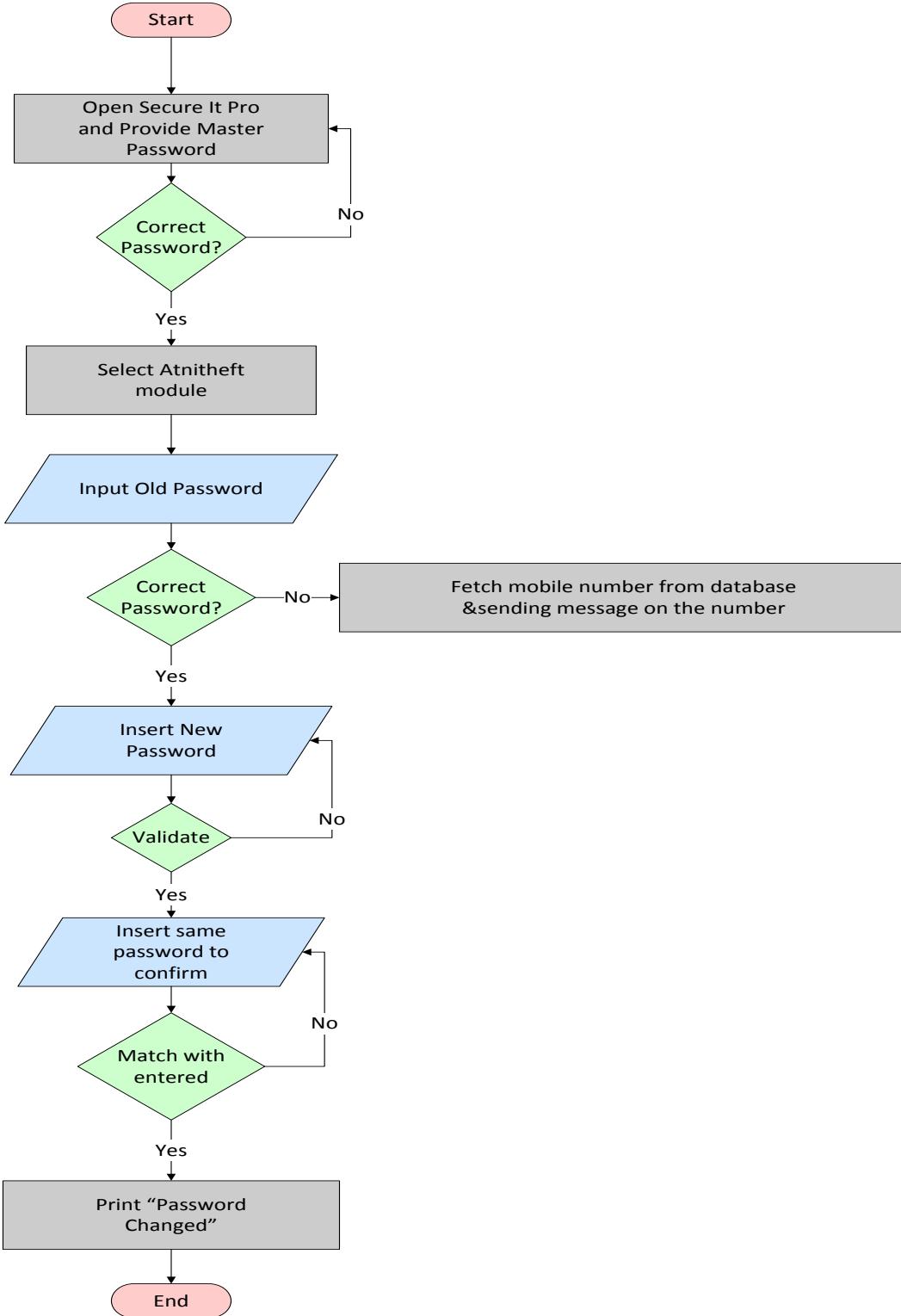


Figure 19 Flowchart Anti-theft password change

- Anti-theft Working

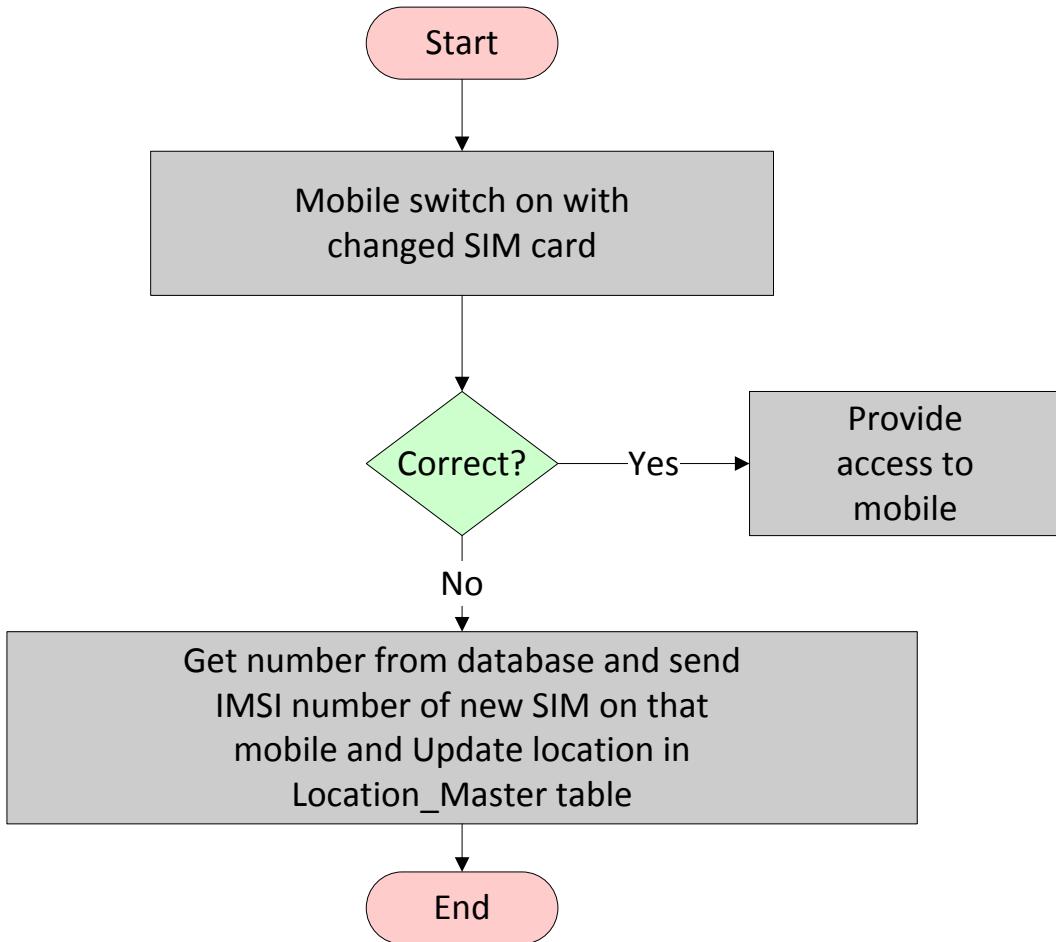
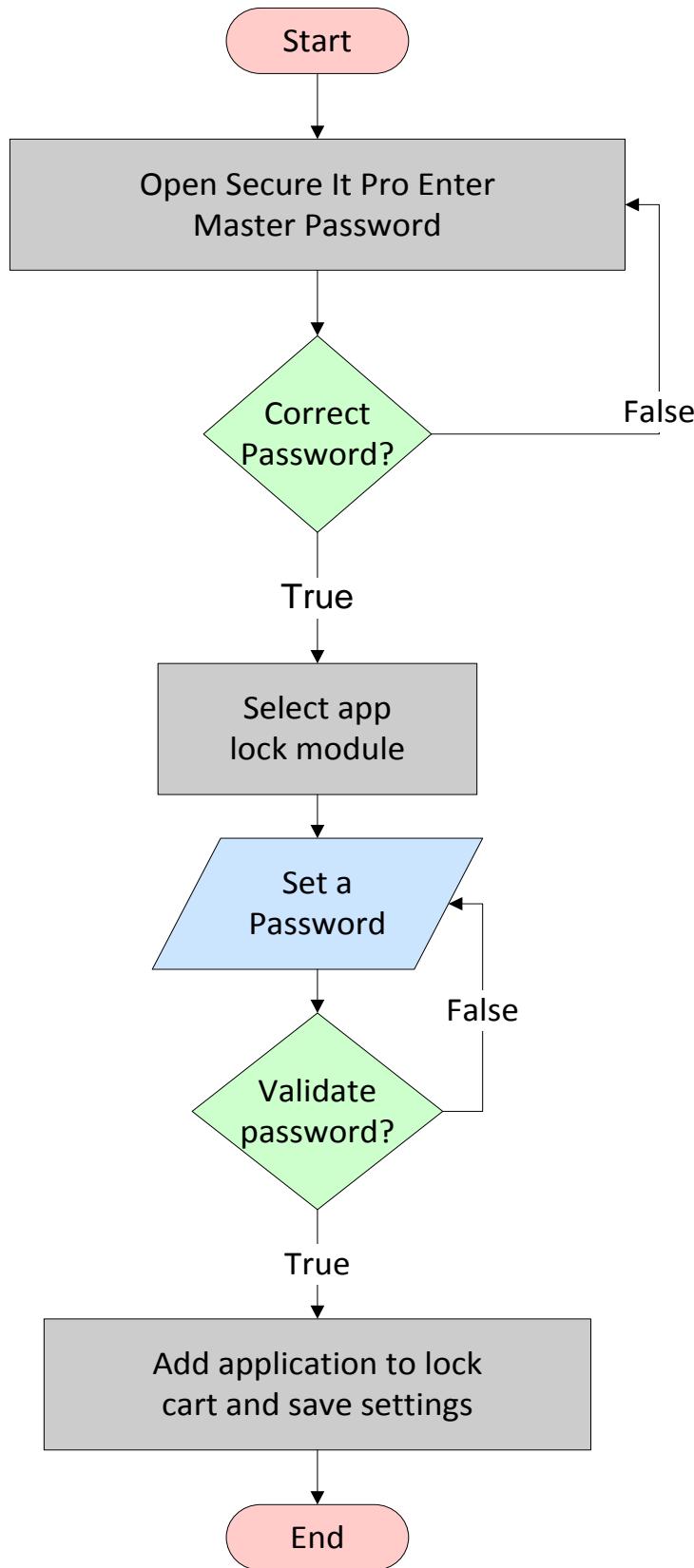
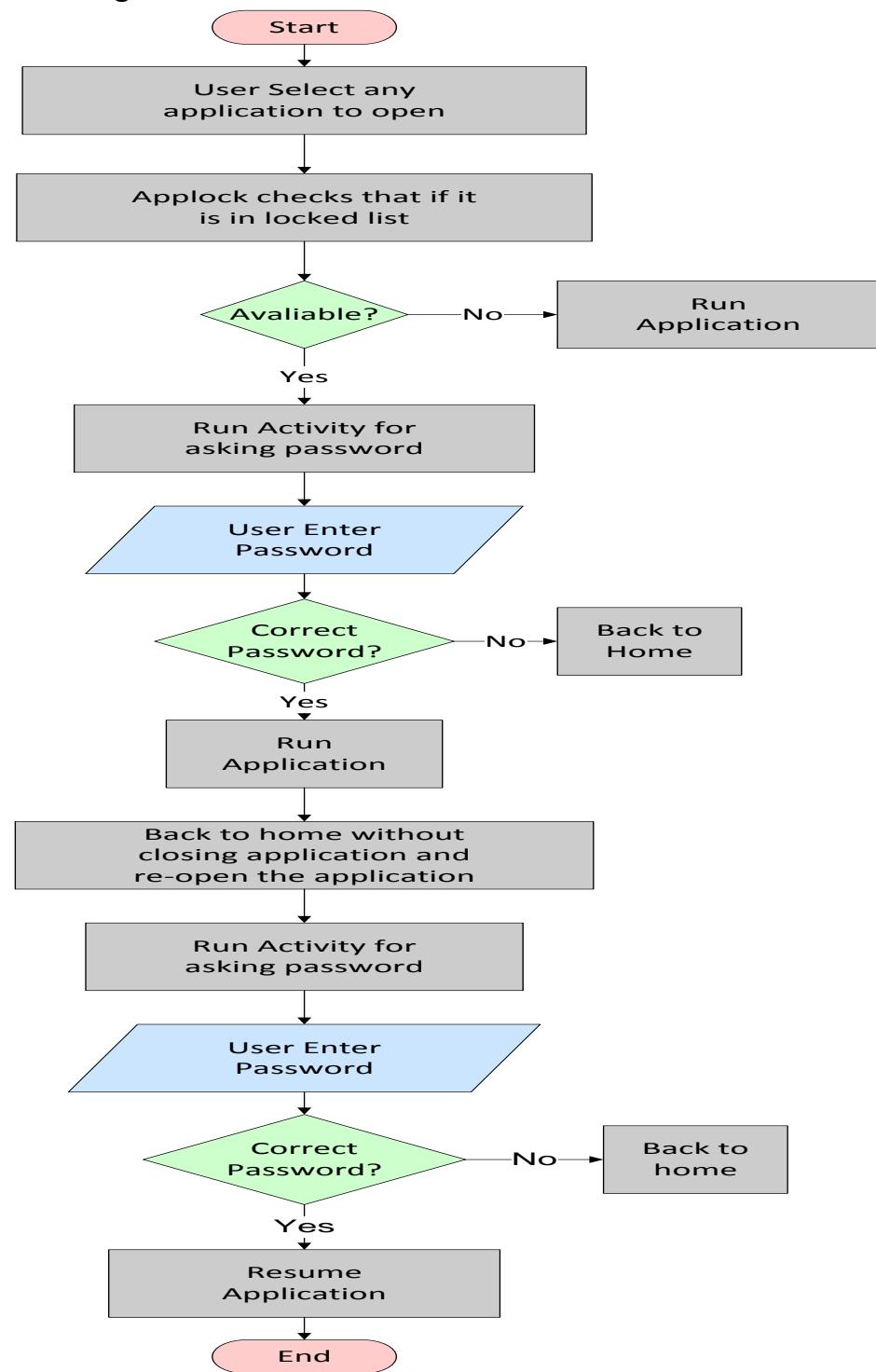


Figure 20 Flowchart Anti theft working

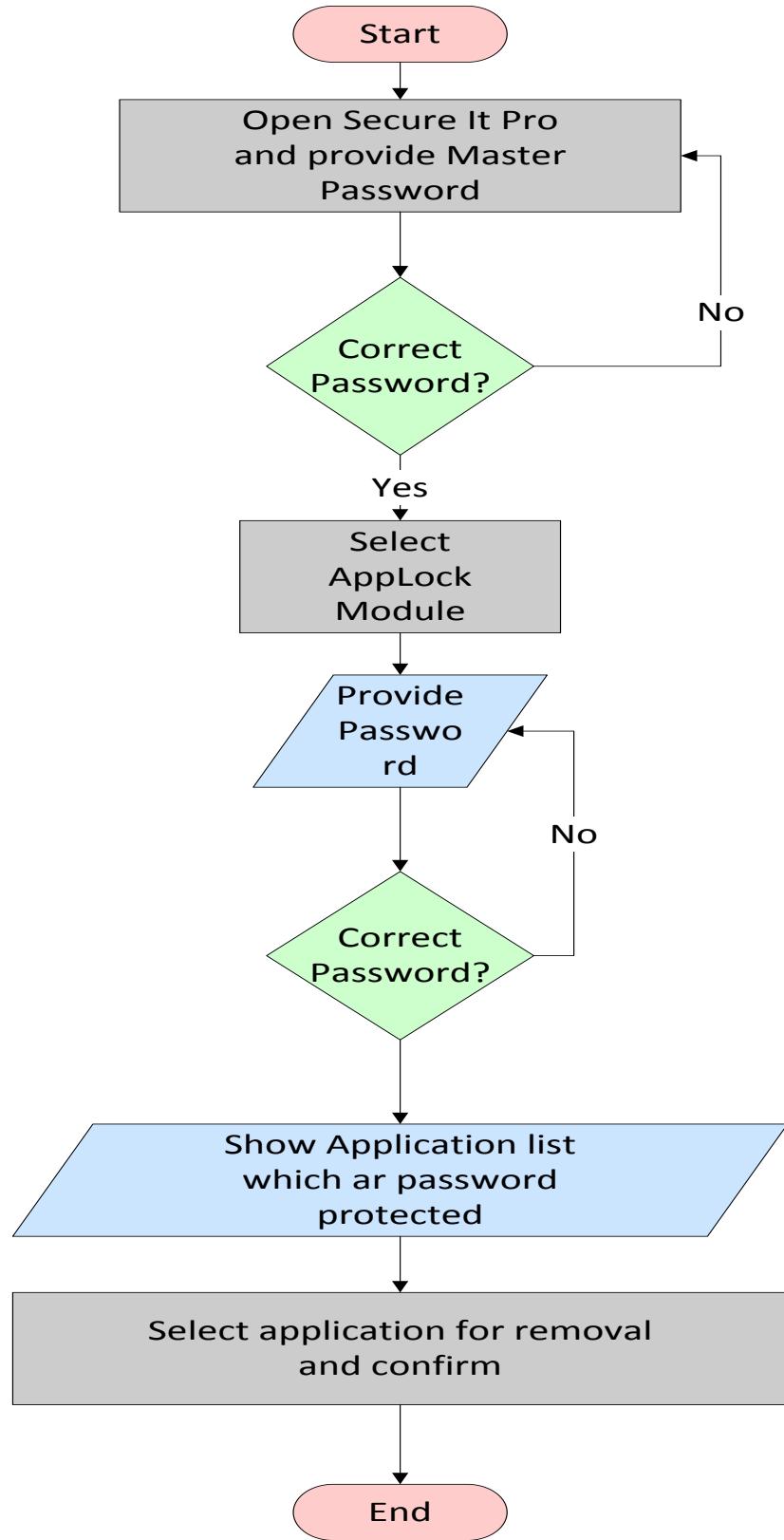
- Applock Setup



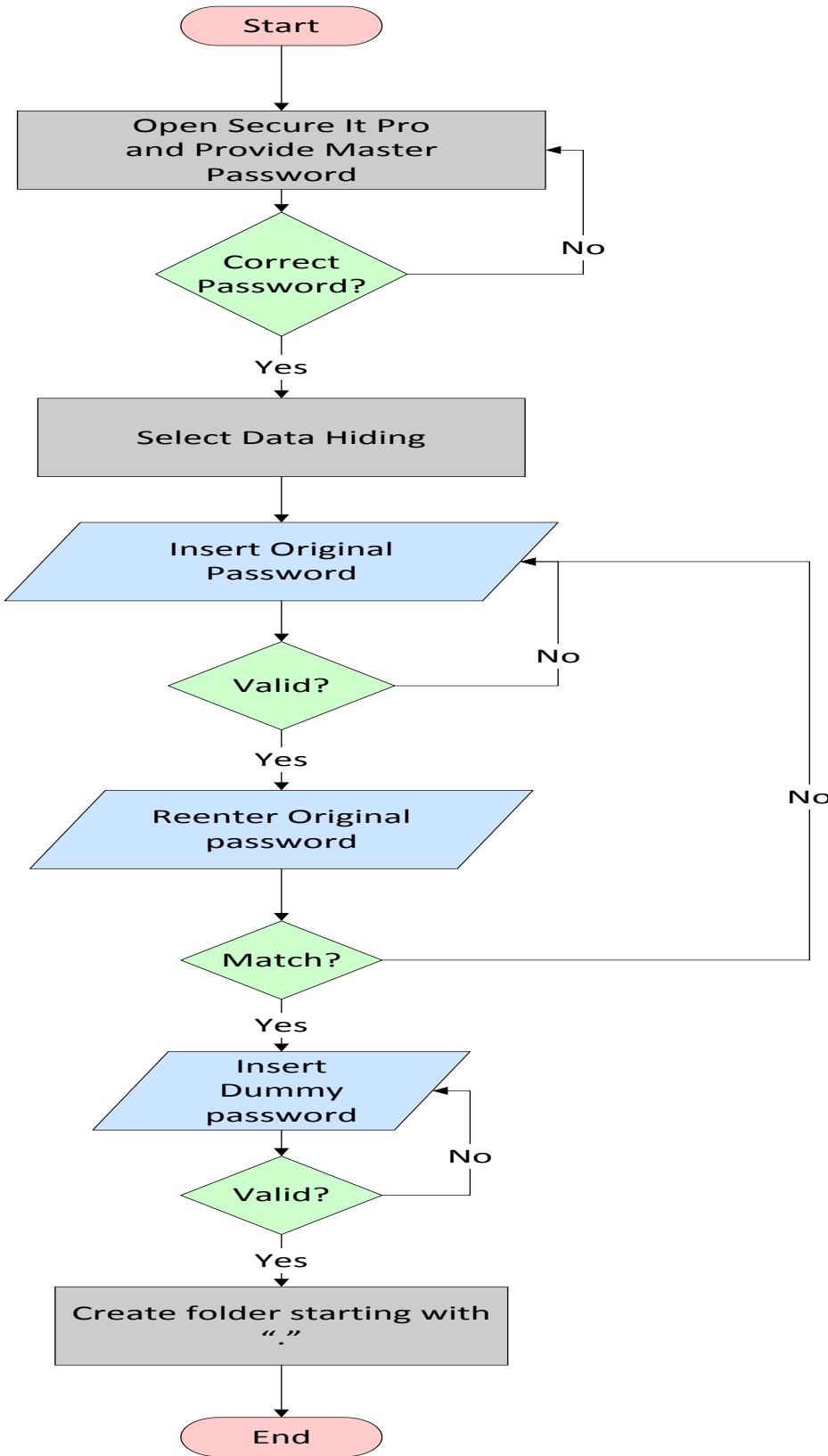
- Applock Working



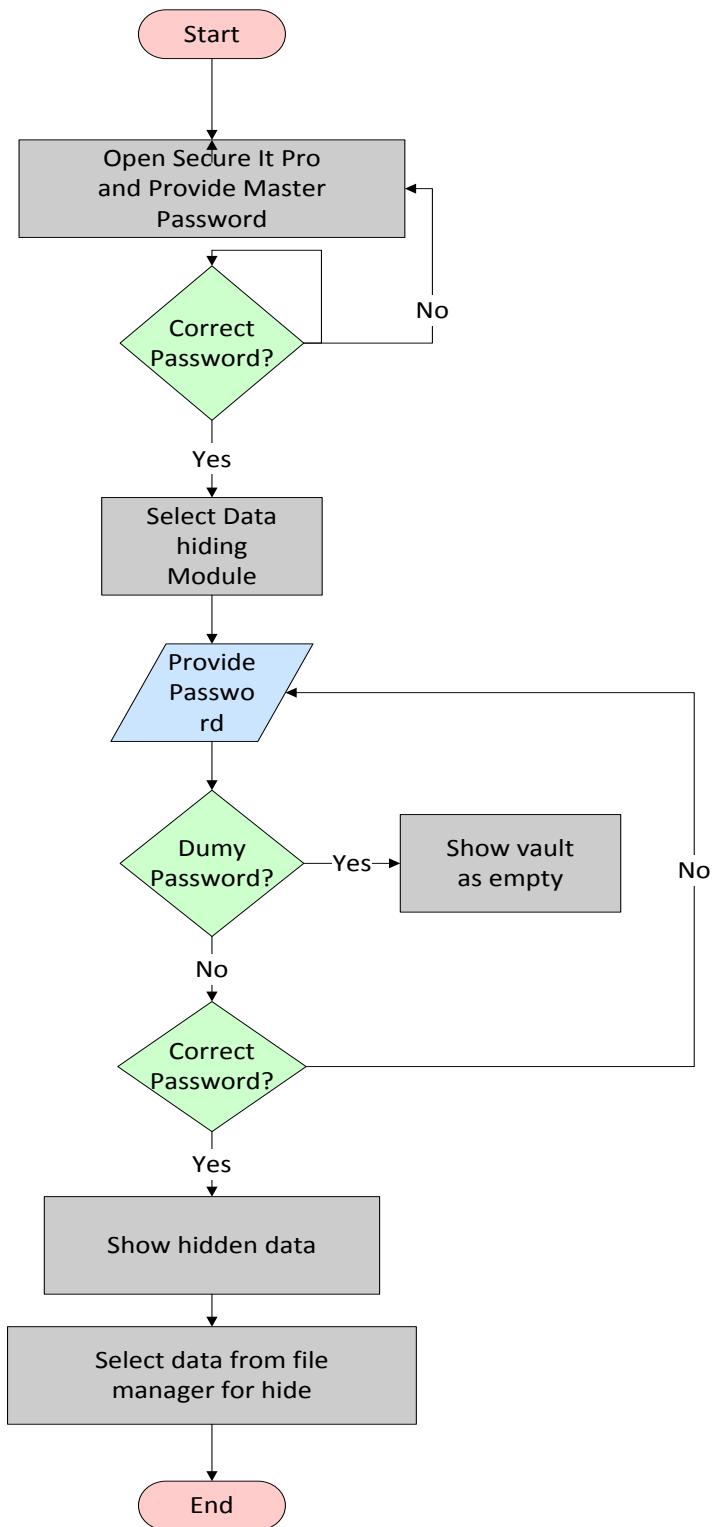
- Remove Application From Applock



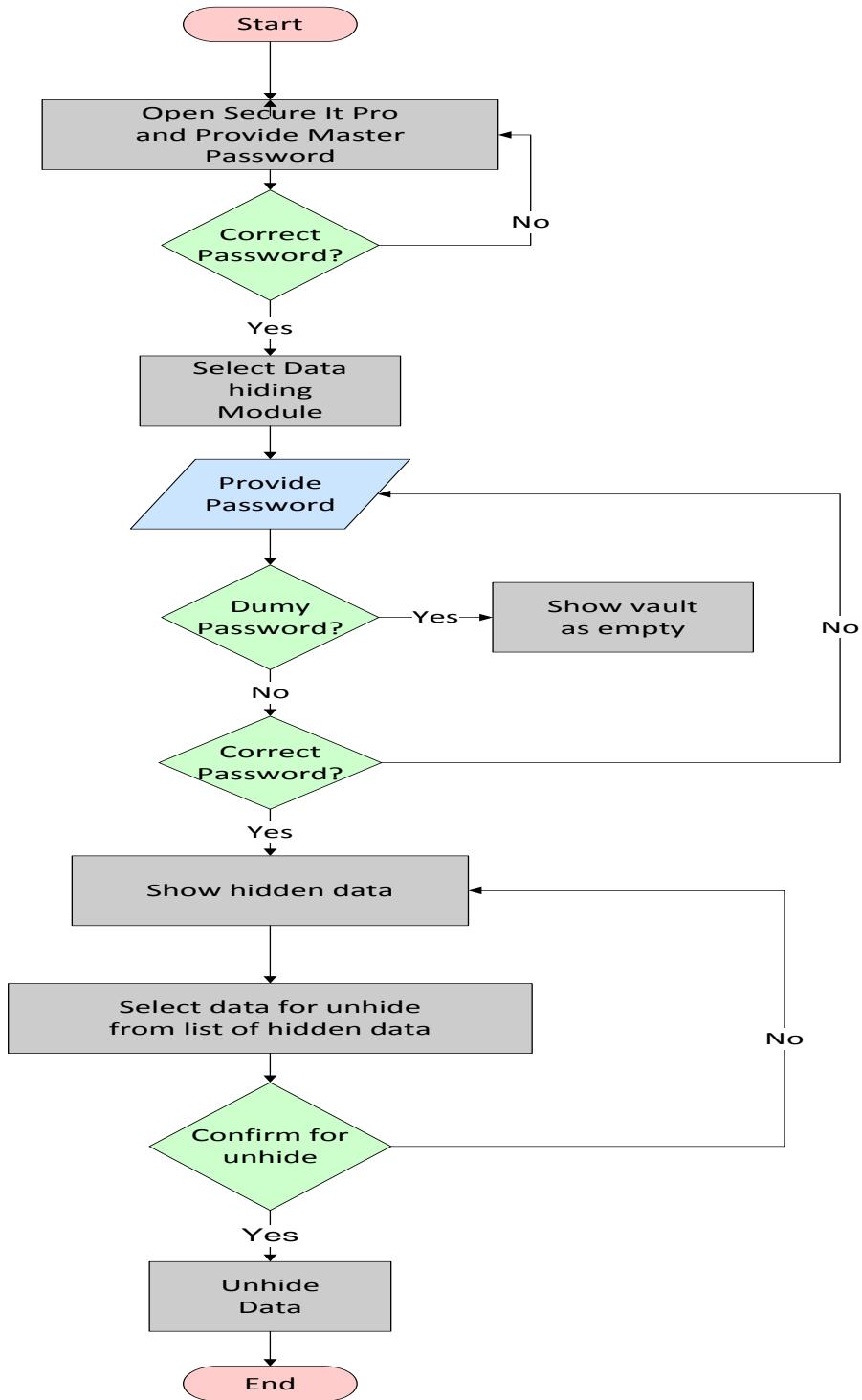
- Data Hiding Setup



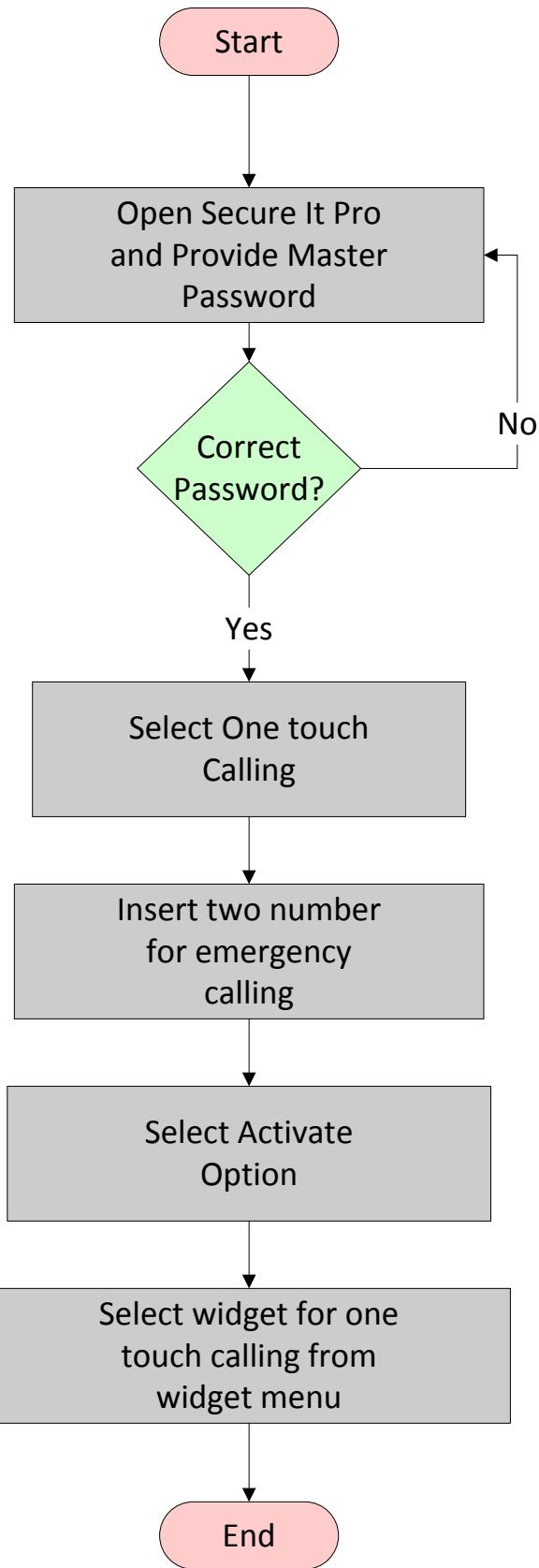
- Data Hide Working



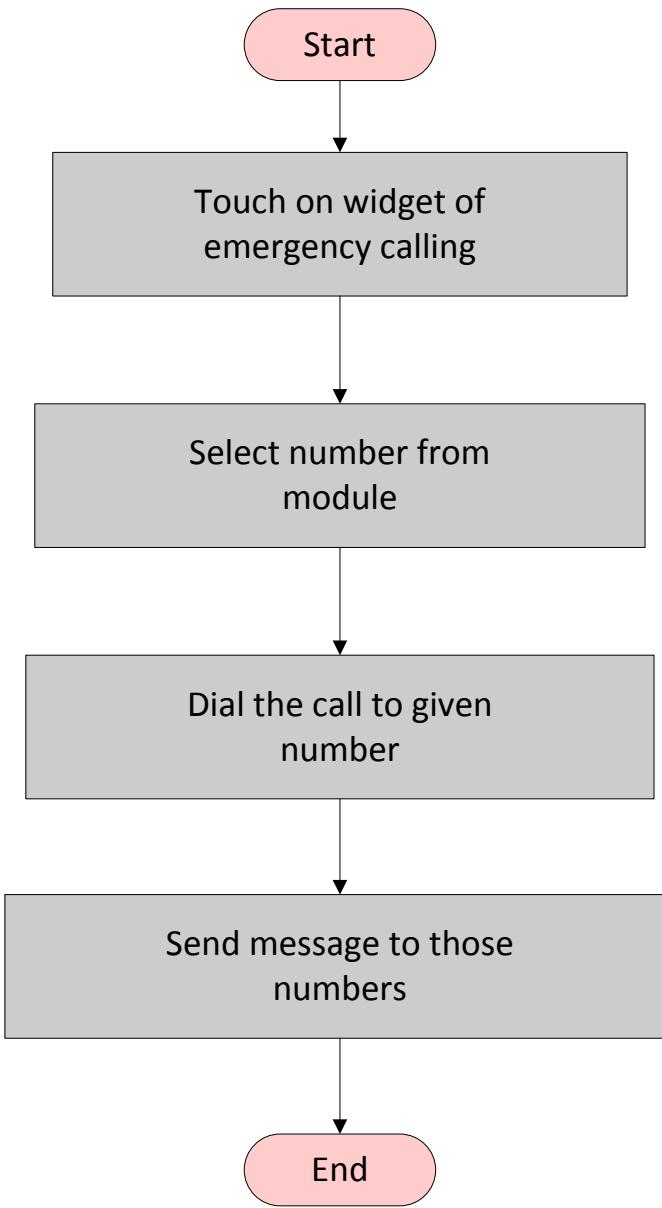
- Data Unhide Working



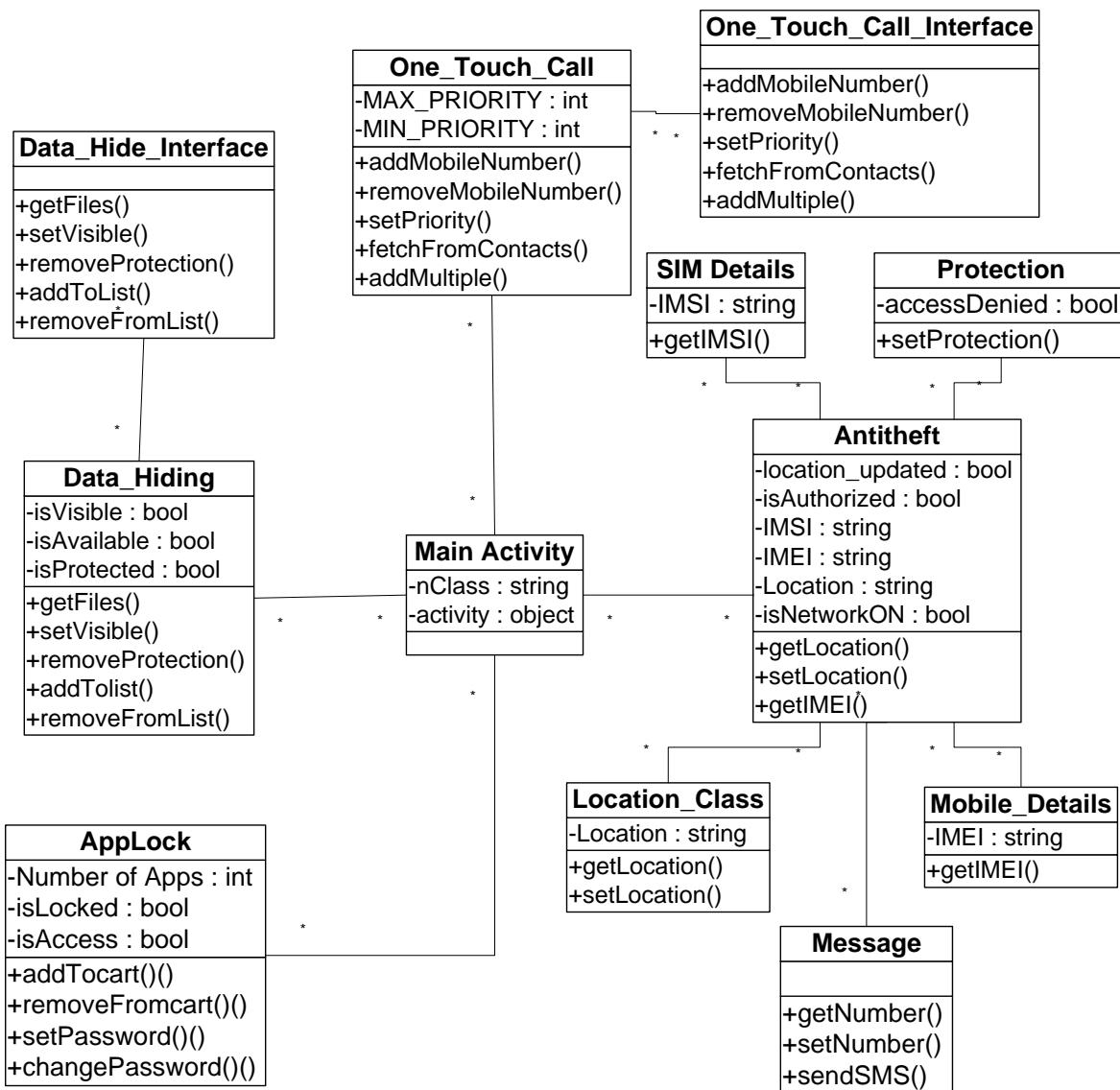
- One Touch Call Setup



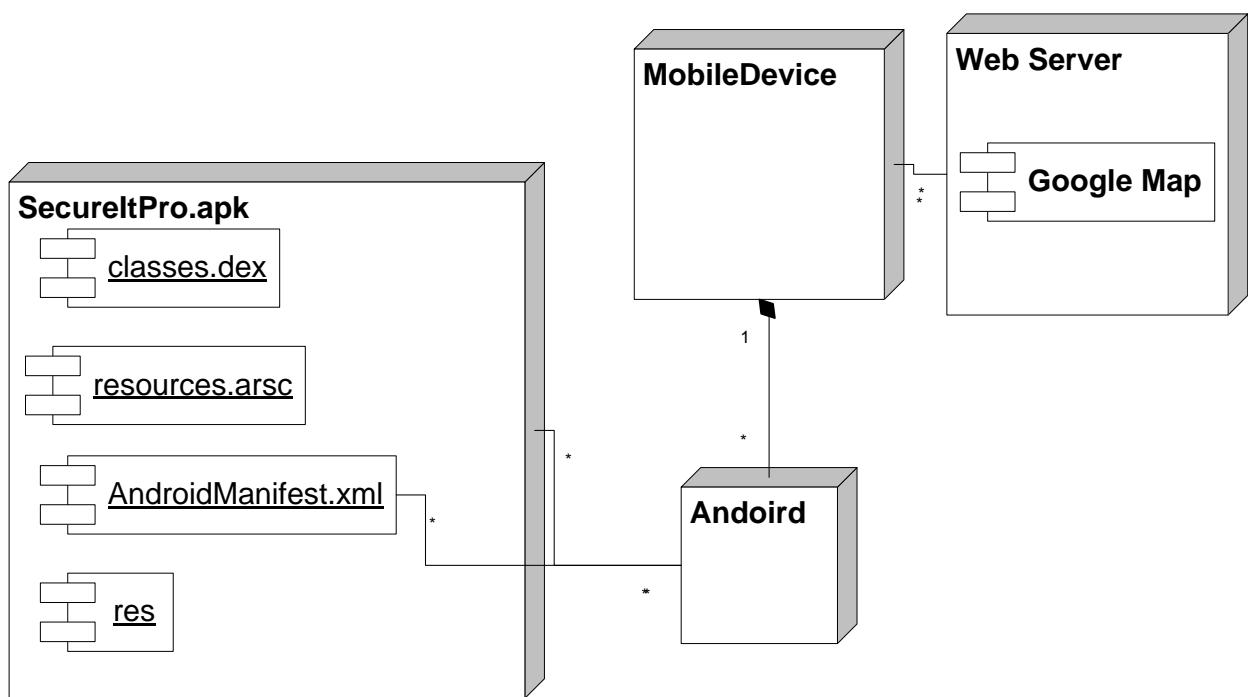
- One Touch Call Working



5.4 Class Diagram



5.5 Deployment and component diagram



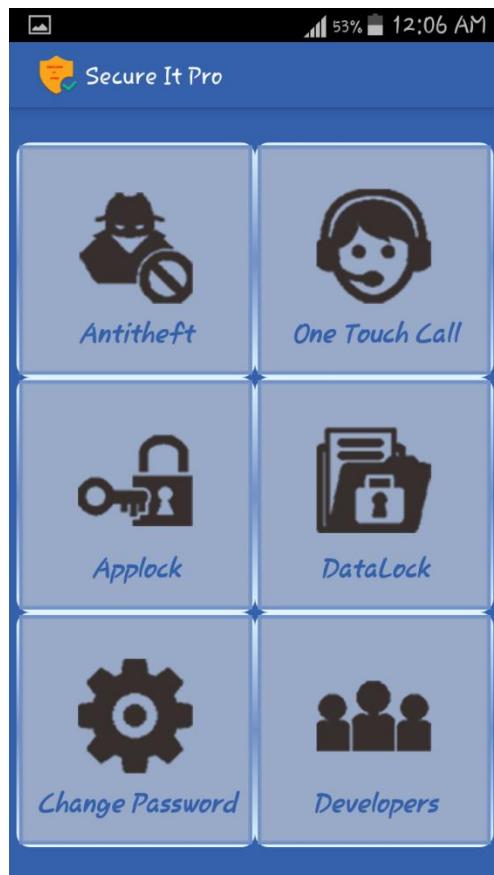
6 Design and Layouts

-  Layouts
-  Data Dictionary

6.1 Layouts

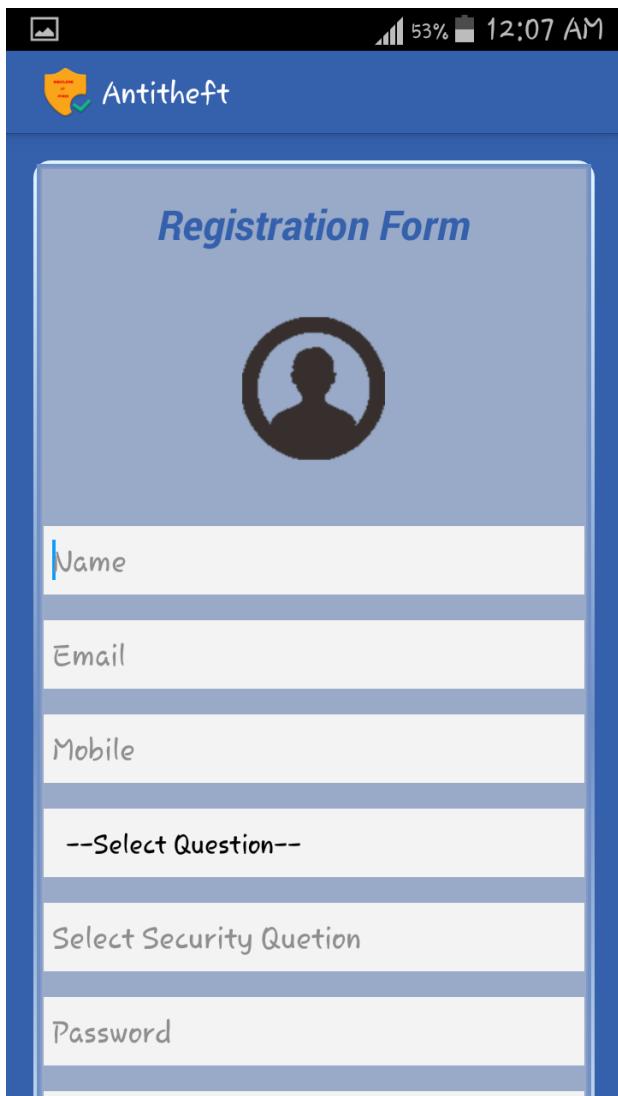
1 .Main Screen :-

- When Secure It Pro app starts this is a very first page that opens.
- It contains link to the four module along with setting facility.



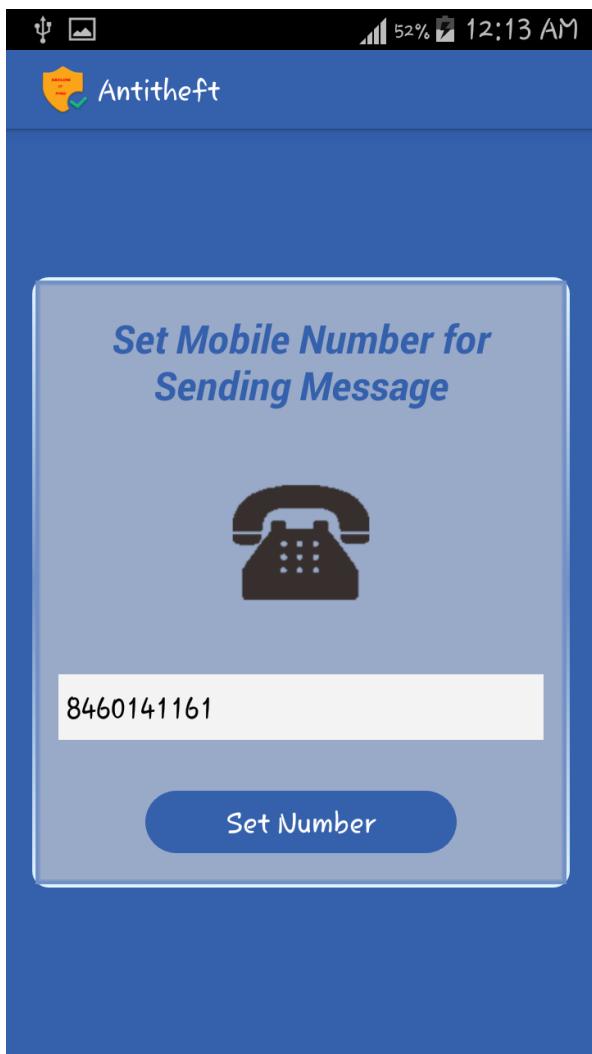
2. Antitheft Registration Form:-

- When Anti Theft App is selected a simple registration form will be Displayed.



3. Antitheft Select Phone Number :-

- Once a registration form is filled. User Login ID and password is stored.
- On Clicking the “Set Mobile Number” Button we will move to This Screen.



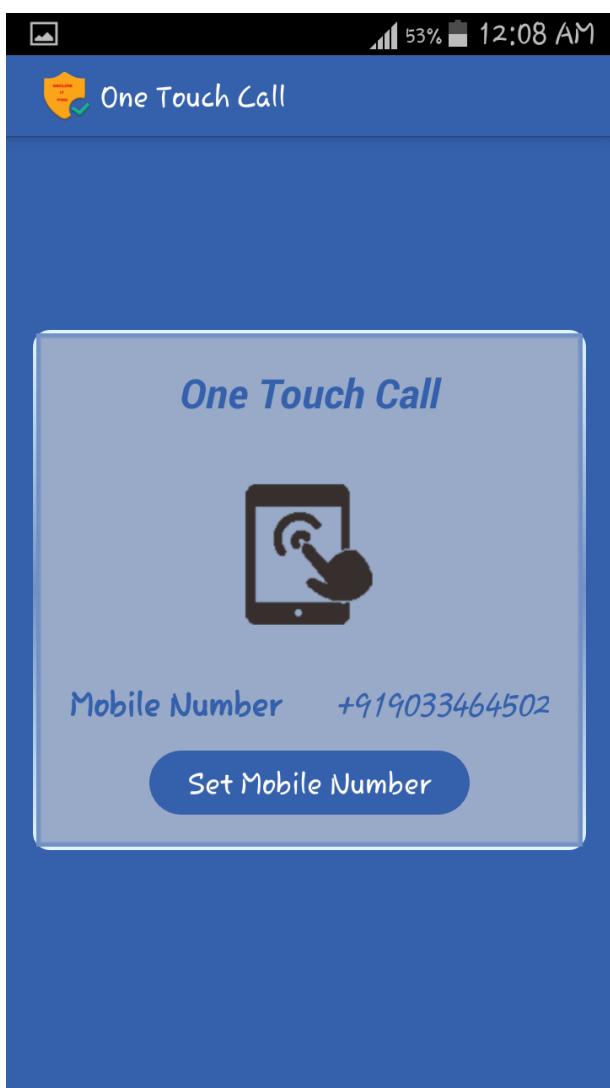
4. OneTouch Select Phone Number :-

- Here we can set Mobile Number on which we want to call by single touch.



5. One Touch Call :-

- Here the selected phone number will be displayed.



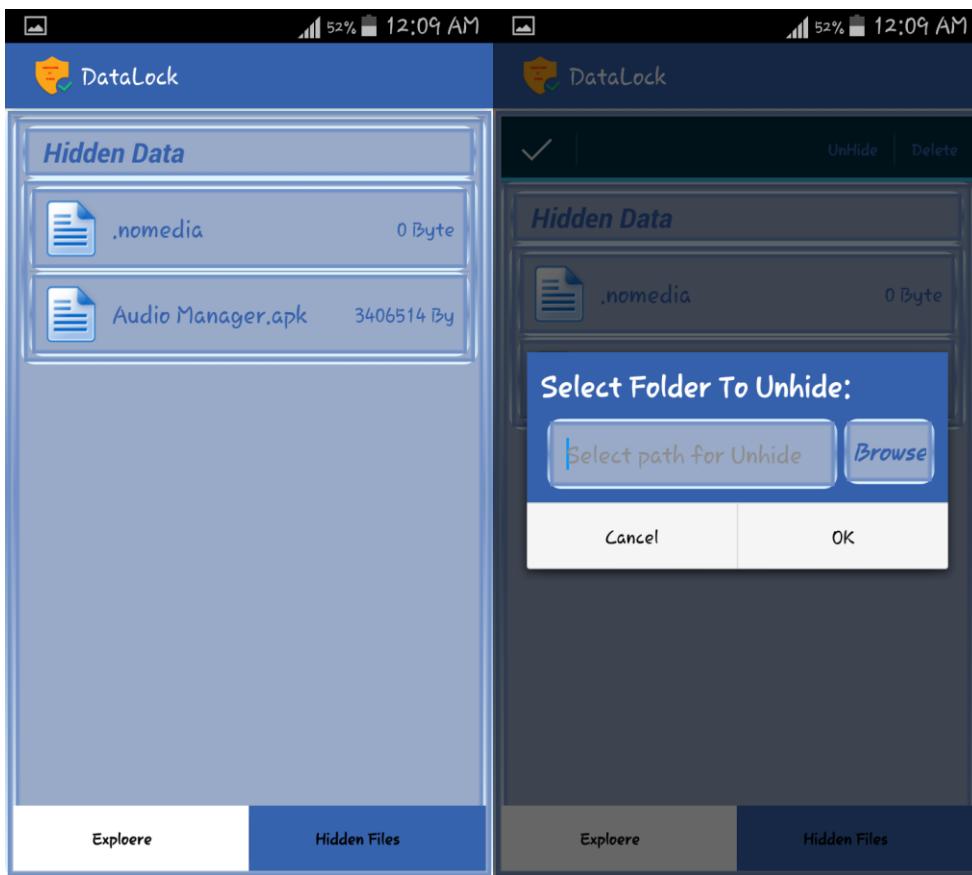
6. Data Hiding Select File :-

- After clicking Data hiding icon, File explorer is opened.
- Just route the file and select the one file that you want to hide.



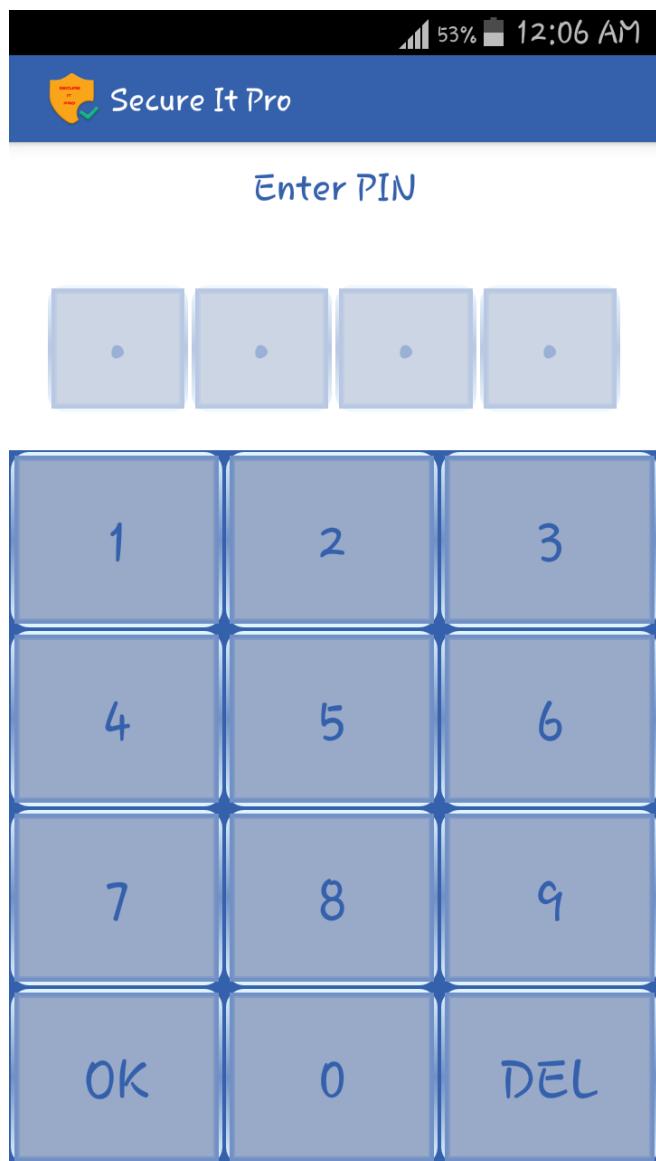
7. Data Hiding Hidden Files :-

- By clicking hidden files we can see those files which are hidden.
- Just long press any files and unhide it.



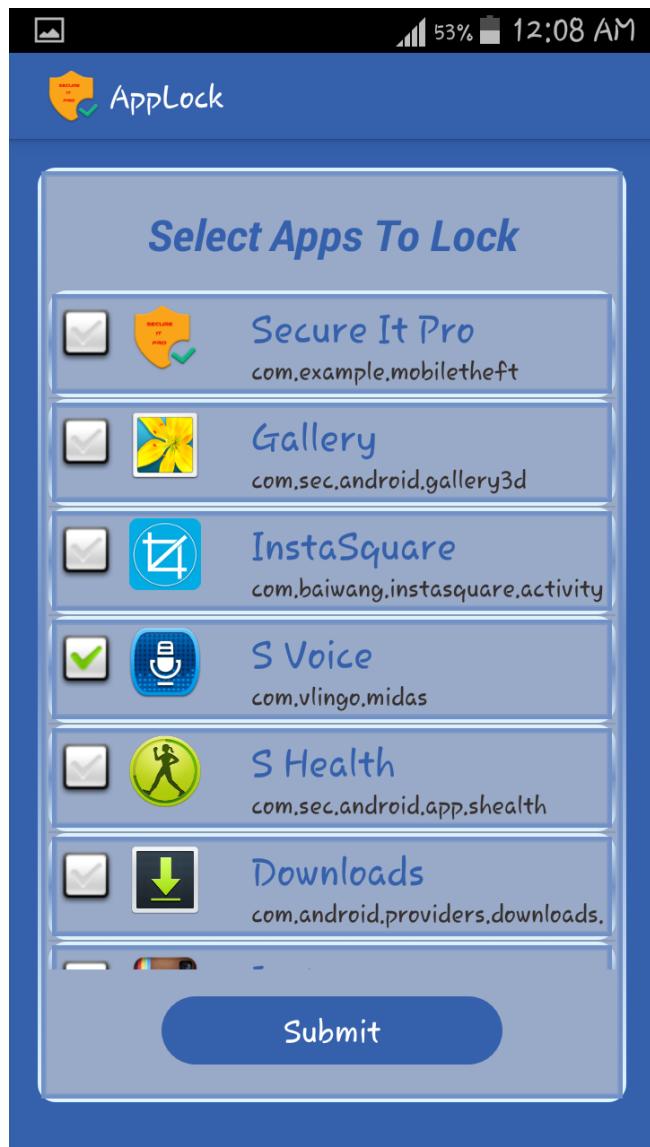
8. AppLockScreen :-

- This is a LockScreen which will display when the apps selected by user will be in foreground.
- On Entering a Correct Password we need to click on OK Button. So we get access to that app.



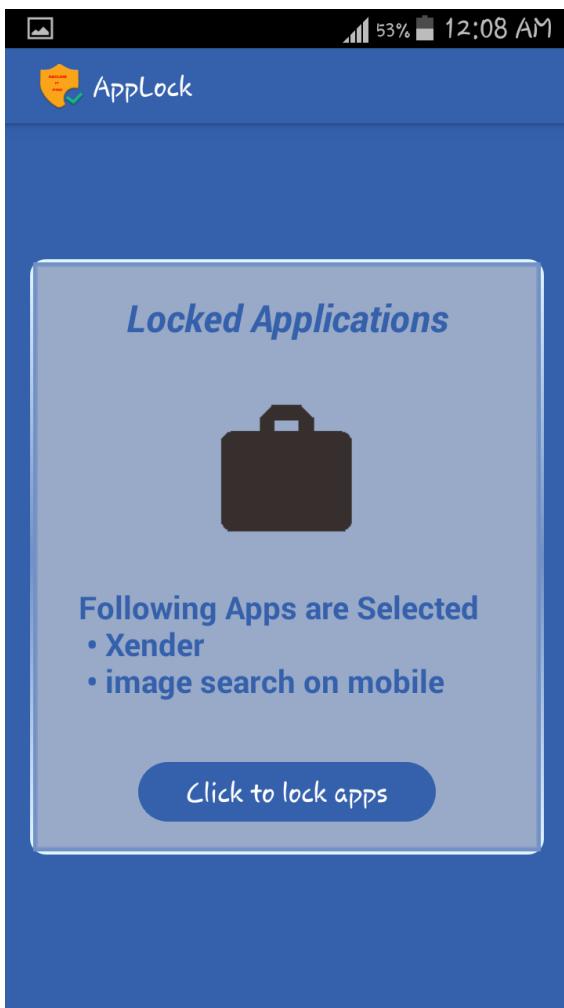
9. Applock App Selection :-

- From the list of installed app select those apps which you want to Protect.

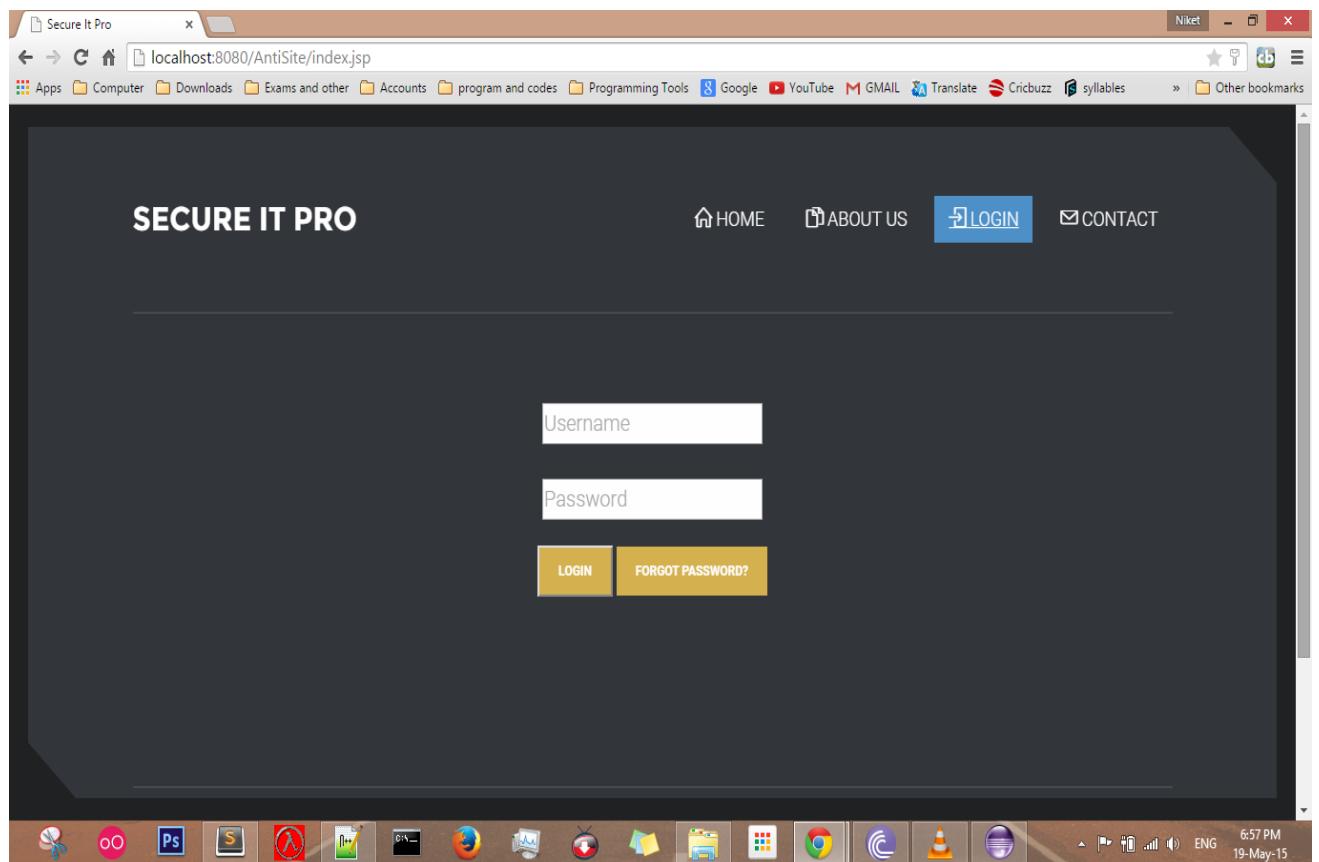


10.Applock Selected App :-

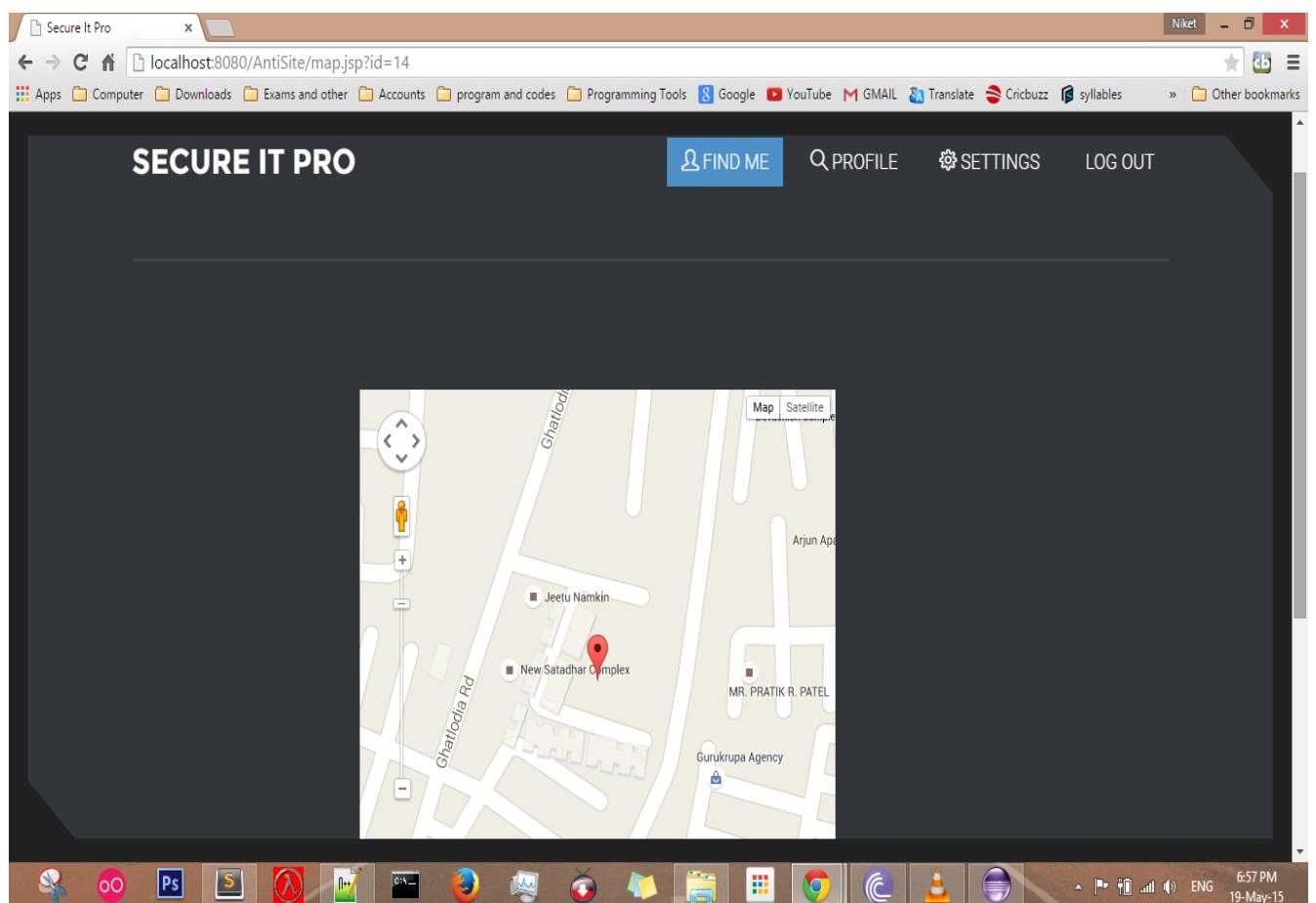
- Selected Apps Will be displayed here.



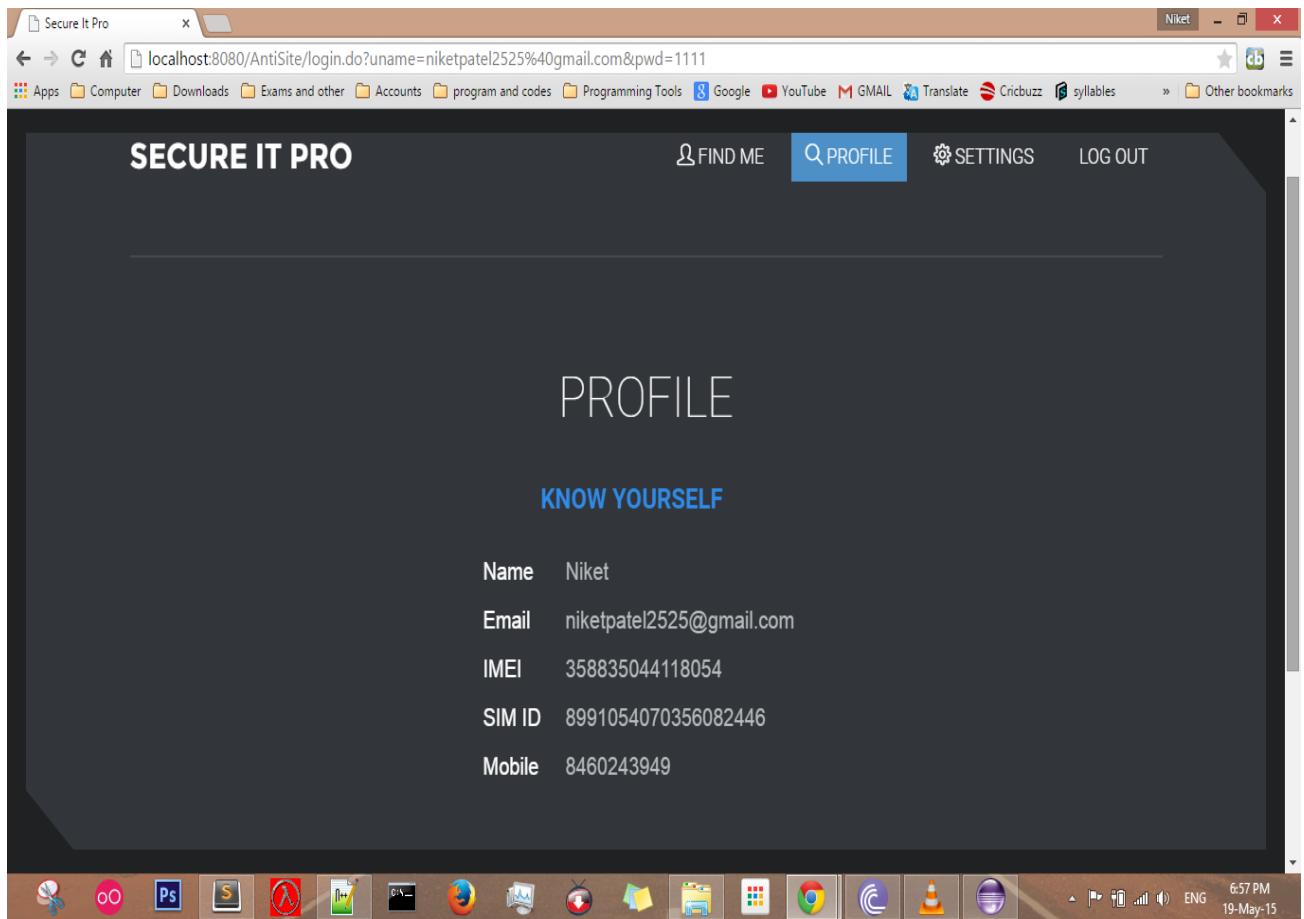
11. Secure IT ProLogin :-



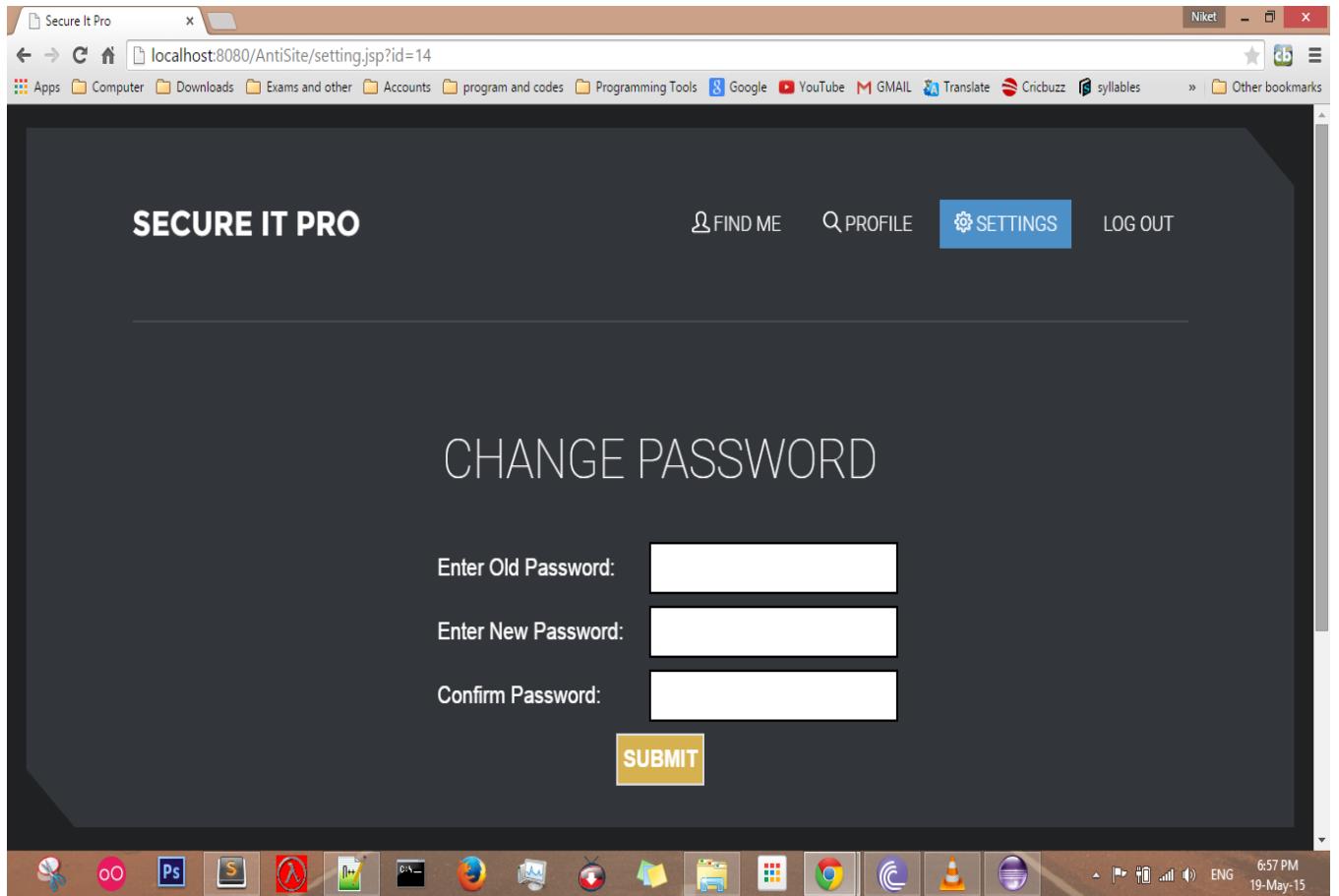
12. Secure IT Pro Trace Location :-



13. Secure IT Pro User Profile :-



14. Secure IT Pro Change Password :-



6.2 Data Dictionary

1. AntiTheft Login

This table contain the details of user.

Primary key : id

Field Name	Type	Size	Allow Null	Description
id	int	15	N	User ID
emailid	varchar	150	N	Email ID of user
password	varchar	20	N	Password of user
active	boolean		Y	Status of user

2. AntiTheft Profile Detail

This table contain the details of user profile.

Primary key: id

Field Name	Type	Size	Allow Null	Description
id	int	15	N	User ID
name	varchar	150	N	User Name
emailid	varchar	150	N	Email ID of user
mobile_number	varchar	15	N	Mobile Number of user
sim_number	varchar	45	N	Sim Number of card.
IMEI	varchar	15	N	IMEI number of user mobile.

3. AntiTheftLocation

This table contain the details of user mobile location.

Primary key: id

Field Name	Type	Size	Allow Null	Description
id	int	15	N	User ID
longitude	varchar	45	N	Longitude of location
latitude	varchar	45	N	Latitude of location
time	timestamp		N	Time when mobile is traced.

4.AntiTheftSec_Que

This table contain the Security details of user.

Primary key: id

Field Name	Type	Size	Allow Null	Description
id	int	15	N	User ID
question	varchar	45	N	Security question
answer	varchar	45	N	Security answer

6.3 Code Details (Code Snippet)

1. Andoridmanifest.xml

Set Permission:

```
<uses-permission  
    android:name="android.permission.RECEIVE_BOOT_COMPLETED" />
```

Application Activity:

```
<application  
        android:allowBackup="true"  
        android:icon="@drawable/ic_laucher"  
        android:label="@string/app_name"  
        android:theme="@style/AppTheme"  
        <activity  
            android:name=".RegistrationForm"  
            android:label="@string/app_name">  
        </activity>  
    </application>
```

Recevier:

```
<receiver android:name="receiver.StartUpdateLocationServiceIfNot"  
    android:enabled="true"  
    android:exported="true"  
    android:permission="android.permission.RECEIVE_BOOT_COMPLETED" >  
    <intent-filter>  
        <action android:name="android.intent.action.BOOT_COMPLETED" />  
        <action android:name="android.intent.action.QUICKBOOT_POWERON" />  
        <action android:name="android.intent.action.USER_PRESENT" />  
        <action android:name="android.intent.action.ACTION_SHUTDOWN" />  
        <category android:name="android.intent.category.HOME" />  
        <category android:name="android.intent.category.DEFAULT" />
```

```
</intent-filter>  
</receiver>
```

2. mainmodule.java

TableLayout:

```
<TableLayout  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_gravity="center_horizontal"  
    android:layout_weight="0.5"  
    android:gravity="center_horizontal" >  
    <TableRow  
        android:layout_width="wrap_content"  
        android:layout_height="wrap_content"  
        android:layout_gravity="center_horizontal"  
        android:gravity="center_horizontal" >  
        </TableRow>  
    </TableLayout>
```

3. Item.java

```
public class Item implements Comparable<Item> {  
  
    private String name;  
  
    private String data;  
  
    private String date;  
  
    private String path;  
  
    private String image;
```

```
public Item(String n, String d, String dt, String p, String img) {  
    name = n;  
    data = d;  
    date = dt;  
    path = p;  
    image = img;  
}  
  
public String getName() {  
    return name;  
}  
  
public String getData() {  
    return data;  
}  
  
public String getDate() {  
    return date;  
}  
  
public String getPath() {  
    return path;  
}  
  
public String getImage()  
{  
    return image;  
}  
  
public int compareTo(Item o) {
```

```
        if (this.name != null)

            return

        this.name.toLowerCase().compareTo(o.getName().toLowerCase()));

        else

            throw new IllegalArgumentException();

    }
```

4. AppLockShowApplist.java

```
private List<ApplicationInfo>getModel(List<ApplicationInfo> list) {

    aList = new ArrayList<ApplockAppList>();

    List<ApplicationInfo>applist = new ArrayList<ApplicationInfo>();

    for (ApplicationInfo info : list) {

        if

        (packageManager.getLaunchIntentForPackage(info.packageName) !=

        null) {

            applist.add(info);

            String n = info.loadLabel(packageManager).toString();

            System.out.println("packagename:" + n);

            int i = info.icon;

            aList.add(get(n));

        }

        return applist;
    }
}
```

5. DataHidingExplore.java

```
public boolean onOptionsItemSelected(ActionMode mode, MenuItem item) {  
    switch (item.getItemId()) {  
        case R.id.delete: {  
            Toast.makeText(getApplicationContext(),"Delete  
selected"+getListView().getCheckedItemCount(),Toast.LENGTH_LONG).show();  
            return true;  
        }  
        case R.id.edit: {  
            getCheckedItems();  
            return false;  
        }  
    }  
}
```

6. AntitheftSetMobile.java

```
public void onClick(View v) {  
    String mobileNum = eMobile.getText().toString();  
    if (mobileNum.length() >= 10 && mobileNum.length() <= 12) {  
        Editor confirmEdit = getPref.edit();  
        confirmEdit.putString("Antitheft_stored_mobile", mobileNum);  
        confirmEdit.commit();  
        Intent ourIntent = new Intent(getApplicationContext(), AntitheftFrontPage.class);  
        startActivity(ourIntent);  
    } else {  
        showWarningMessage("Insert valid Mobile Number.");  
    }  
}
```

```
    }  
}  
}
```

7. OneTouchCallFrontPage.java

```
public void onClick(View v) {  
    switch (v.getId()) {  
        case R.id.bOneTouchSelectContact:  
            Intent iContact;  
            try {  
                iContact = new Intent(getApplicationContext(), ContactList.class);  
                startActivity(iContact);  
            } catch (Exception e) {  
                e.printStackTrace();  
            }  
            break;  
    }  
}
```

7 Testing



7.1 Test Plan And Test Method

7.1.1 Test Plan

A test plan is a document detailing a systematic approach to testing a system such as a machine or software. The plan typically contains a detailed understanding of what the eventual workflow will be. A test specification is called a test plan. The developers are well aware what test plans will be executed and this information is made available to management and the developers. The idea is to make them more cautious when developing their code or making additional changes. Some companies have a higher level document called a test strategy.

7.1.2 Test method

The objective of the testing is to find the greatest possible number of errors with manageable amount of effort apply over a realistic time span. There are two basic classes of software testing , black box testing and white box testing.

Black box testing (also called functional testing) is testing that ignores the internal mechanism of a system or component and focuses solely on the outputs generated in response to selected inputs and execution conditions.

White box testing (also called structural testing and glass box testing) is testing that takes into account the internal mechanism of the system or component.

7.2 Test Cases

In software engineering, the most common definition of a test case is a set of conditions or variables under which a tester will determine if a requirement or use case upon an application is partially or fully satisfied. It may take many test cases to determine that a requirement is fully satisfied. In order to fully test that all the requirements unless a requirement has sub requirements. In that situation, each sub requirement must have at least one test case.

7.2.1 Test Case for User Login[Valid]

Purpose	Login is used for tracing his mobile and also to view and update profile.
Prereq	For login user must be registered through mobile device.
Test Data	EmailID = { valid emailID } Password = { valid password }
Steps	Steps to carry out the test 1. Visit the login page 2. Enter emailID 3. Enter password 5. Enter Login Button 6. Verify message of successful login. 7. Visit Home page.
Notes and Question	Note :- Password must be atleast 6 characters.

7.2.2 Test Case for User Login[Invalid]

Purpose	Login is used for tracing his mobile and also to view and update profile.
Prereq	For login user must be registered through mobile device.
Test Data	EmailID = {invalid,emailID,empty} Password = {invalid,password,empty} or EmailID={valid,emailID} Password={invalid,empty} or EmailID= {empty} Password= {empty}
Steps	Steps to carry out the test 1.Visit the login page 2.Enter emailID 3.Enter password 5.Enter Login Button 6.Verify message of invalid emailID or password.. 7.Go back to login page.
Notes and Question	Note :- Password must be atleast 6 characters.

7.2.3 Test Case for User Registration

Purpose	User Registration is used for login and user profile.
Prereq	For user registration, user must need to fill all the details of registration form.
Test Data	Name ={ valid name,invalidname,empty } Email={ valid Email,invalidEmail,empty } Mobile={ valid Mobile,invalidMobile,empty } Password={ valid Password,invalidPassword,empty } Confirm password={ valid confirm password,invalid confirm password,empty }
Steps	Steps to carry out the test 1.Visit the Registration Form page. 2.Enter the required details. 3.Click on Submit. 4.See Home Page. 5.Verify the message.
Notes and Question	Note:- Password must be atleast 6 characters.

8 Future Plan and Conclusion

 Future Plan
 Conclusion

8.1 Future Plan

The Ideal scope for any system should be that it should be everlasting. But we know that, in today's world, anything cannot be everlasting as things change within seconds. So, our system cannot be everlasting, as one should always keep pace with the requirement. In Future, we will provide encryption-decryption to protect our data. We will also provide remote phone locking system and offline mobile tracing system also. We will provide pattern lock apart from password to lock mobile.

8.2 Conclusion

The scope of the project has been described and it will be able to provide security to data, mobile, application etc. This application offers best GUI to users and take care of android device resources as well.

9 Bibliography

-  Websites
-  Books

9.1 Websites

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- <http://developer.android.com/guide/components/index.html>
- <http://developer.android.com/google/index.html>
- <http://stackoverflow.com/>
- <http://www.technotalkative.com/android/>
- <http://www.technotalkative.com/adt-bundle-a-single-step-to-setup-android-development-environment/>
- <http://developer.android.com/reference/android/telephony/TelephonyManager.html>

9.2 Books

- Software engineering By Roger Pressman
- Android Programming: The Big Nerd Ranch Guide
- Programming Andorid Ziguard Mednieks

10 Appendix

-  Periodic Progress Reports (PPR)
-  Business Model Canvas
-  Business Model Canvas Report
-  Patent Drafting Exercise (PDE)

10.1 Periodic Progress Reports (PPR)

5/1/2015

Periodic Progress Report (PPR) Details

Periodic Progress Report : First PPR

Project : Secure It Pro

:

Status : Submitted (Freeze)

What Progress you have made in the Project ?

There are four modules in our project. 1) AntiTheft 3) Data Hiding 3) AppLock 4) One Touch Calling Out of them we have completed our first module Antitheft and currently working on our 2nd module Data Hiding. Also started designing website.

What challenge you have faced ?

In AntiTheft we face the problem of fetching location of theft and also sending message to the given number. However it was solved then.

What support you need ?

We have read many books ,refer websites such as developer.android.com , Github,etc .Also take help of Faculty Member and project guide.

Which literature you have referred ?

- Absolute beginners for android - Head First Android - Android Programming: The Big Nerd Ranch Guide - Android User Interface Design: Turning Ideas and Sketches into Beautifully Designed Apps

Periodic Progress Report : Second PPR**Project** Secure It Pro

:

Status : Submitted (Freeze)**What Progress you have made in the Project ?**

There are four modules in our project. 1) AntiTheft 3) Data Hiding 3) AppLock 4) One Touch Calling .We have completed our coding at web side. We have started new module data hiding.

What challenge you have faced ?

Loading transition in our website is the difficult task for us.

What support you need ?

We have read many books ,refer websites such as developer.android.com , Github,etc .Also take help of Faculty Member and project guide.

Which literature you have referred ?

Absolute beginners for android Head First Android Android Programming: The Big Nerd Ranch Guide
Android User Interface Design: Turning Ideas and Sketches into Beautifully Designed Apps

Periodic Progress Report : Third PPR**Project** Secure It Pro

:

Status : Submitted (Freeze)**What Progress you have made in the Project ?**

There are four modules in our project. 1) AntiTheft 3) Data Hiding 3) AppLock 4) One Touch Calling .We have applied some optimization in first module antitheft. We have completed second module data hiding

What challenge you have faced ?

In Data hiding we face the problem of fetching the hidden data from the folder.However it was solved then.

What support you need ?

We have read many books ,refer websites such as developer.android.com , Github,etc .Also take help of Faculty Member and project guide.

Which literature you have referred ?

Absolute beginners for android Head First Android Android Programming: The Big Nerd Ranch Guide Android User Interface Design: Turning Ideas and Sketches into Beautifully Designed Apps

Periodic Progress Report : Forth PPR**Project** Secure It Pro

:

Status : Submitted (Freeze)**What Progress you have made in the Project ?**

There are four modules in our project. 1) AntiTheft 3) Data Hiding 3) AppLock 4) One Touch Calling .We have completed the functionality of four modules. Right now we are improving GUI and optimizing our application.

What challenge you have faced ?

We face problem to load our map in our website ,which track the location of device.

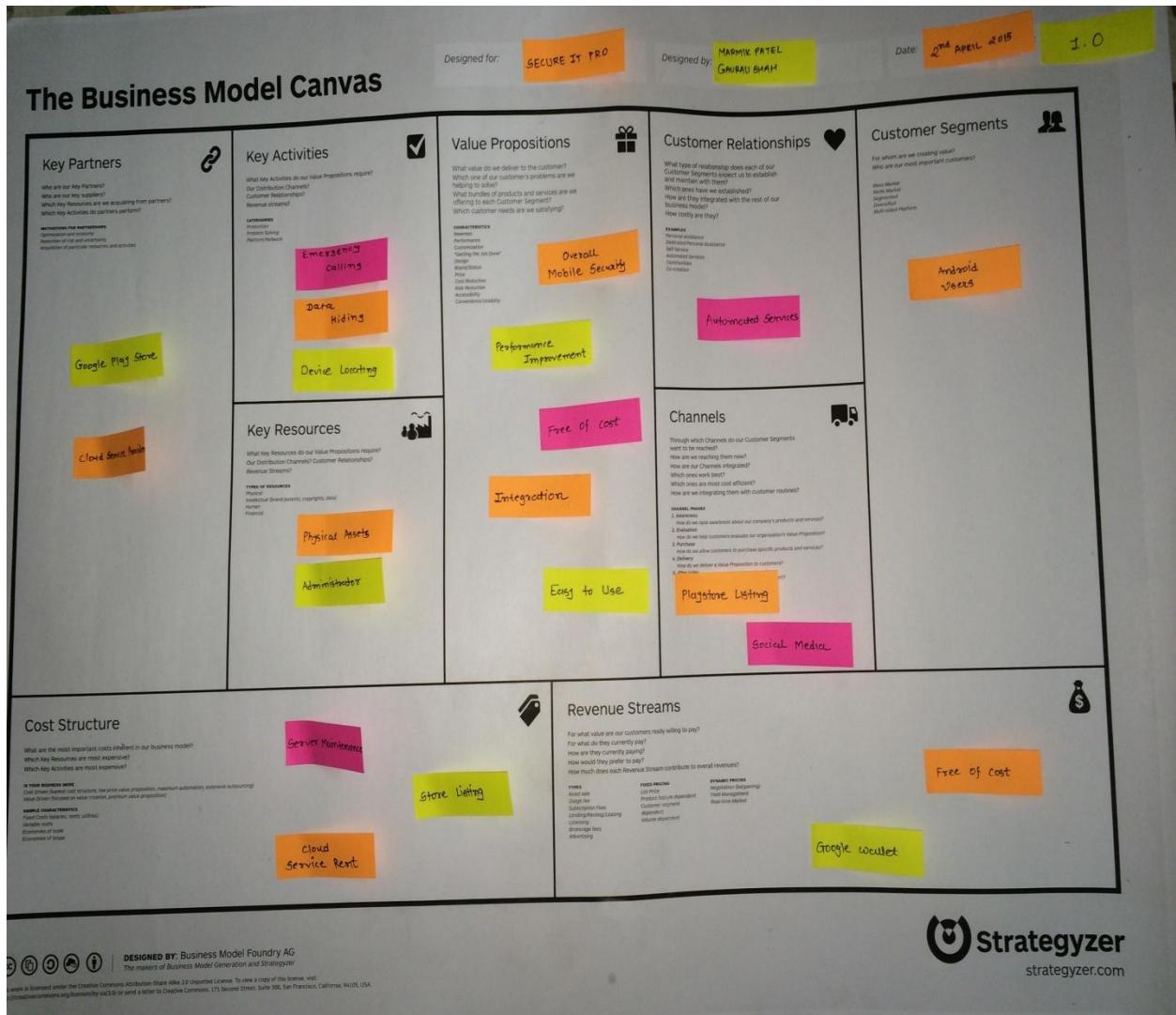
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Which literature you have referred ?

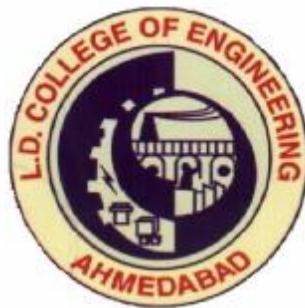
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10.2 Business Model Canvas & Report



Report
On
Business Model Canvas
For Project
"Secure It Pro"

Prepared By
Group ID: 7478/17292
Marmik N. Patel (110280107003)
Niket B. Patel (110280107017)
Gaurav P. Shah (110280107020)
Nisarg H. Shah (110280107050)



Submitted to
Department of Computer Engineering
L .D COLLEGE OF ENGINEERING
Affiliated to
Gujarat Technological University, Ahmedabad
May , 2015

INDEX

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- *Value Propositions* 89
- *Channels* 89
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- *Resources Key* 90
- *Key Partnership* 90
- *Cost Structures* 90

Business Model Canvas

- **Customer Segments**
 - Android Users are the customers who uses smart phone based on android operating systems. They install this application for the security of mobile, hiding of data etc.
- **Value Propositions**
 - Overall Mobile Security features provides various security functionalities to android mobile.
 - Due to overall security functionalities in single application there is an improvement in performance of application.
 - One of the important feature of application is that it is available free of cost and user can download it from google play store.
 - Due to consistent and simple user interface application is easy to use for user.
- **Channels**
 - Social media is the best channel for the connect to the people for Attract the our software which
 - give the advance features of the system.
 - Google Play Stores is the also biggest channel for publishingthe ourapp which provided by Google Inc.
- **Customer Relationship**
 - This application is totally automated service which does not require any relationship with providers and customer can use it by downloading and registering with it by free of cost.
- **Revenue Streams**
 - This application is free of cost so there is no need to pay for using this application.
 - In future ,customer can buy some extra features through google wallet.
- **Activities**

- Calling by single touch. By this feature user can call pre selected number by single click.
- Data Hiding features facilitates authorized access to personal documents by hiding them.
- Device Locating is most attractive feature of this application. This feature track android mobile whenever sim card is changed and password entered is wrong.

- **Resources Key**

- Physical assets such as mobile phones, personal computers are required for this app.
- Administrator is responsible for managing updates , server for website.

- **Key Partnership**

- Google Play Store and Cloud Service Provider is key partners of the our software.

- **Cost Structures**

- Cost Structure of project is mainly depends on server maintenance, rent of cloud service provider and cost of publishing application in Google Play Store.

10.3 Patent Drafting Exercise Report

GTU Innovation Council

Patent Drafting Exercise (PDE)

FORM 1
THE PATENTS ACT 1970
(39 OF 1970)
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(FOR OFFICE USE ONLY)

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Secure It Pro

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Email ID: marmikpatel262@gmail.com

5. Priority particulars of the application(S) field in convention country

Country	Application No.	Filing Date	Name of the Applicant	Title of the Invention
N/A	N/A	N/A	N/A	N/A

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7. Particulars for filing divisional application

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N/A	N/A

8. Particulars for filing patent of addition

Original(First) Application Number	Date of filing of Original (first) application
N/A	N/A

9. DECLARATIONS:

(i) Declaration by the inventor(s)

I/We, the above named inventor(s) is/are true & first inventor(s) for this invention and declare that the applicant(s).
herein is/are my/our assignee or legal representative.

Date : 1 - May - 2015

- | Name | Signature & Date |
|--------------------------------|------------------|
| 1 Nisarg Hiren Shah | _____ |
| 2 Niket Bhogilal Patel | _____ |
| 3 Gaurav
Prakashkumar Shah | _____ |
| 4 Marmik Navinchandra
Patel | _____ |

(ii) Declaration by the applicant(s) in the convention country

I/We, the applicant (s) in the convention country declare that the applicant(s) herein is/are my/our assignee or legal representative.applicant(s)

(iii) Declaration by the applicant(s)

I/We, the applicant(s) hereby declare(s) that:-

- I am/We in possession of the above mentioned invention.
- The provisional/complete specification relating to the invention is filed with this application.
- The invention as disclosed in the specification uses the biological material from India and the necessary permission from the competent authority shall be submitted by me/us before the grant of patent to me/us.
- There is no lawful ground of objection to the grant of the patent to me/us.
- I am/we are the assignee or the legal representative of true & first inventors.
- The application or each of the application, particulars of each are given in the para 5 was the first application in the convention country/countries in respect of my/our invention.
- The application or each of the application, particulars of each are given in the para 5 was the first application in the convention country/countries in respect of my/our invention.
- I/we claim the priority from the above mentioned applications(s) filed in the convention country/countries & state that no application for protection in respect of invention had been made in a convention country before that date by me/us or by any person
- My/Our application in India is based on international application under Patent Cooperation Treaty (PCT) as mentioned in para 6
- The application is divided out of my/our application(s) particulars of which are given in para 7 and pray that this application may be treated as deemed to have been filed on _____ under section 16 of the Act.
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- (h) Declaration of inventorship on Form 5
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I/We hereby declare that to the best of my /our knowledge, information and belief the facts and matters stated herein are correct and I/We request that a patent may be granted to me/us for the said invention.

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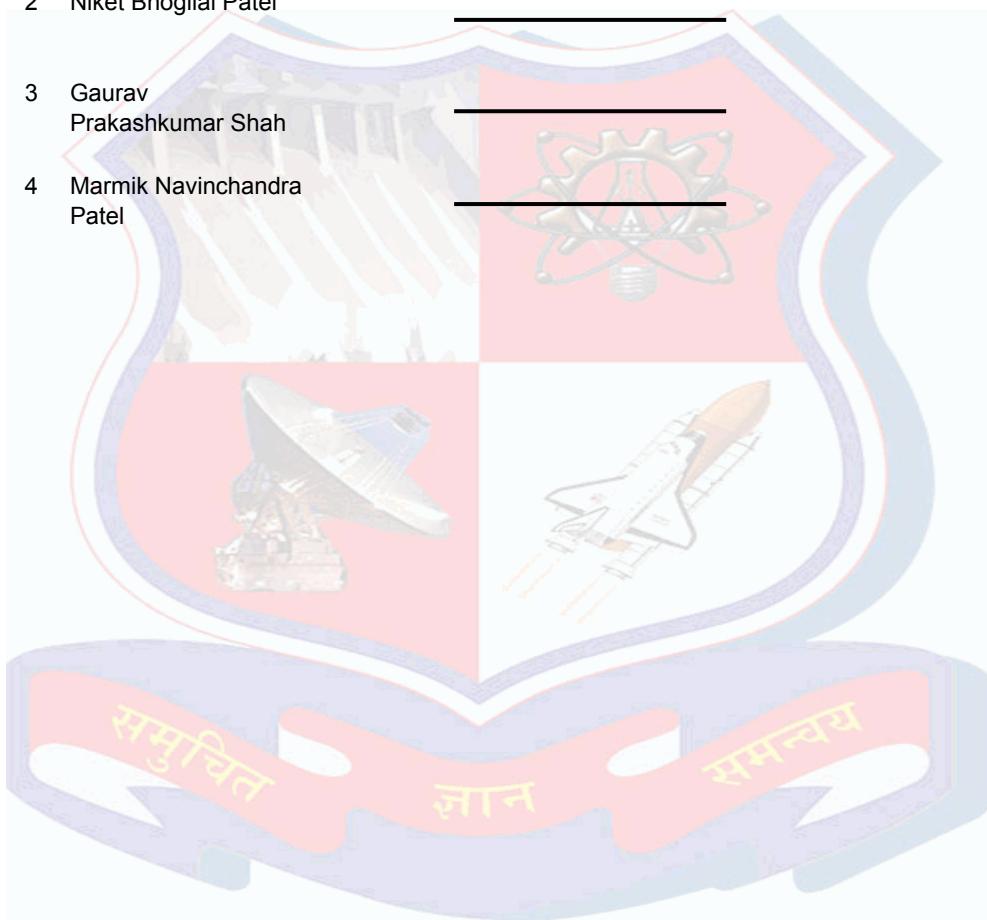
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4 Marmik Navinchandra
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3. Title of Invention/Project:

Secure It Pro

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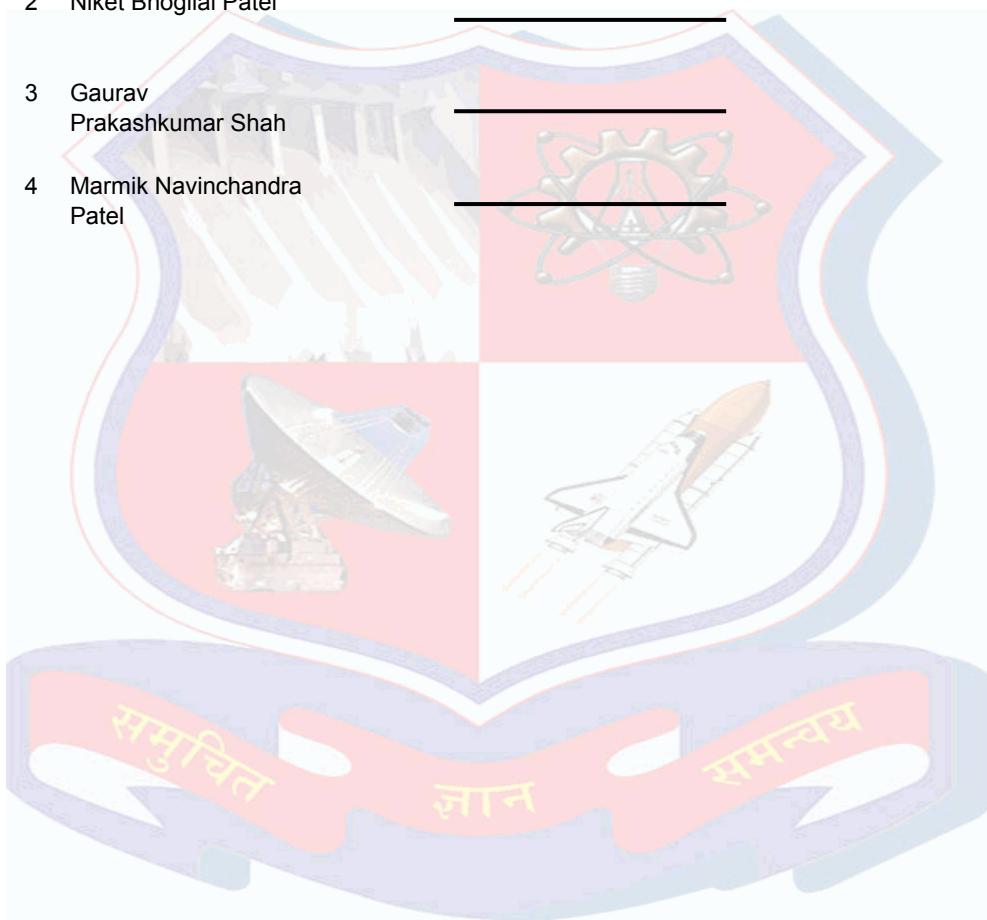
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1. Applicant(s) :

ID	Name	Nationality	Address	Mobile No.	Email
1	Nisarg Hiren Shah	Indian	Computer Engineering , L. D. College Of Engineering, Ahmedabad , Gujarat Technological University.	9408133443	nisargshah_008@yahoo.com
2	Niket Bhogilal Patel	Indian	Computer Engineering , L. D. College Of Engineering, Ahmedabad , Gujarat Technological University.	8460243949	niketpatel2525@gmail.com
3	Gaurav Prakashkumar Shah	Indian	Computer Engineering , L. D. College Of Engineering, Ahmedabad , Gujarat Technological University.	8460530522	gaurav38shah@gmail.com
4	Marmik Navinchandra Patel	Indian	Computer Engineering , L. D. College Of Engineering, Ahmedabad , Gujarat Technological University.	8460141161	marmikpatel262@gmail.com

2. Inventor(s):

ID	Name	Nationality	Address	Mobile No.	Email
1	Nisarg Hiren Shah	Indian	Computer Engineering , L. D. College Of Engineering, Ahmedabad , Gujarat Technological University.	9408133443	nisargshah_008@yahoo.com
2	Niket Bhogilal Patel	Indian	Computer Engineering , L. D. College Of Engineering, Ahmedabad , Gujarat Technological University.	8460243949	niketpatel2525@gmail.com
3	Gaurav Prakashkumar Shah	Indian	Computer Engineering , L. D. College Of Engineering, Ahmedabad , Gujarat Technological University.	8460530522	gaurav38shah@gmail.com
4	Marmik Navinchandra Patel	Indian	Computer Engineering , L. D. College Of Engineering, Ahmedabad , Gujarat Technological University.	8460141161	marmikpatel262@gmail.com

3. Title of Invention/Project:

Secure It Pro

4. Address for correspondence of applicant/authorized patent agent in india

Name: Nisarg Hiren Shah

Address: Computer Engineering , L. D. College Of Engineering, Ahmedabad , Gujarat Technological University.

Mobile: 9408133443

Email ID: nisargshah_008@yahoo.com

5. Priority particulars of the application(S) field in convention country

Country	Application No.	Filing Date	Name of the Applicant	Title of the Invention
N/A	N/A	N/A	N/A	N/A

6. Particulars for filing patent co-operation treaty (pct) national phase Application

International application number	International filing date as allotted by the receiving office
N/A	N/A

7. Particulars for filing divisional application

Original(First) Application Number	Date of filing of Original (first) application
N/A	N/A

8. Particulars for filing patent of addition

Original(First) Application Number	Date of filing of Original (first) application
N/A	N/A

9. DECLARATIONS:

(i) Declaration by the inventor(s)

I/We, the above named inventor(s) is/are true & first inventor(s) for this invention and declare that the applicant(s).
herein is/are my/our assignee or legal representative.

Date : 1 - May - 2015

- | Name | Signature & Date |
|--------------------------------|------------------|
| 1 Nisarg Hiren Shah | _____ |
| 2 Niket Bhogilal Patel | _____ |
| 3 Gaurav
Prakashkumar Shah | _____ |
| 4 Marmik Navinchandra
Patel | _____ |

(ii) Declaration by the applicant(s) in the convention country

I/We, the applicant (s) in the convention country declare that the applicant(s) herein is/are my/our assignee or legal representative.applicant(s)

(iii) Declaration by the applicant(s)

I/We, the applicant(s) hereby declare(s) that:-

- I am/We in possession of the above mentioned invention.
- The provisional/complete specification relating to the invention is filed with this application.
- The invention as disclosed in the specification uses the biological material from India and the necessary permission from the competent authority shall be submitted by me/us before the grant of patent to me/us.
- There is no lawful ground of objection to the grant of the patent to me/us.
- I am/we are the assignee or the legal representative of true & first inventors.
- The application or each of the application, particulars of each are given in the para 5 was the first application in the convention country/countries in respect of my/our invention.
- The application or each of the application, particulars of each are given in the para 5 was the first application in the convention country/countries in respect of my/our invention.
- I/we claim the priority from the above mentioned applications(s) filed in the convention country/countries & state that no application for protection in respect of invention had been made in a convention country before that date by me/us or by any person
- My/Our application in India is based on international application under Patent Cooperation Treaty (PCT) as mentioned in para 6
- The application is divided out of my/our application(s) particulars of which are given in para 7 and pray that this application may be treated as deemed to have been filed on _____ under section 16 of the Act.
- The said invention is an improvement in or modification of the invention particulars of which are given in para 8.

10. Following are the attachments with the application:

- (a) Provisional specification/Complete specification
- (b) Complete specification (In confirmation with the international application) / as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies), No. of pages.. claims.....
- (c) Drawings (In confirmation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies), No. of sheets....
- (d) Priority documents
- (e) Translations of priority documents/specification/international search reports
- (f) Statement and undertaking on Form 3
- (g) Power of Authority
- (h) Declaration of inventorship on Form 5
- (i) Sequence listing in electronic Form
- (j) Fees Rs.XXX in Cash /Cheque/Bank Draft bearing No.XXX Date: XXX on Bank.

I/We hereby declare that to the best of my /our knowledge, information and belief the facts and matters stated herein are correct and I/We request that a patent may be granted to me/us for the said invention.

Dated this 1 day of May , 2015

Name

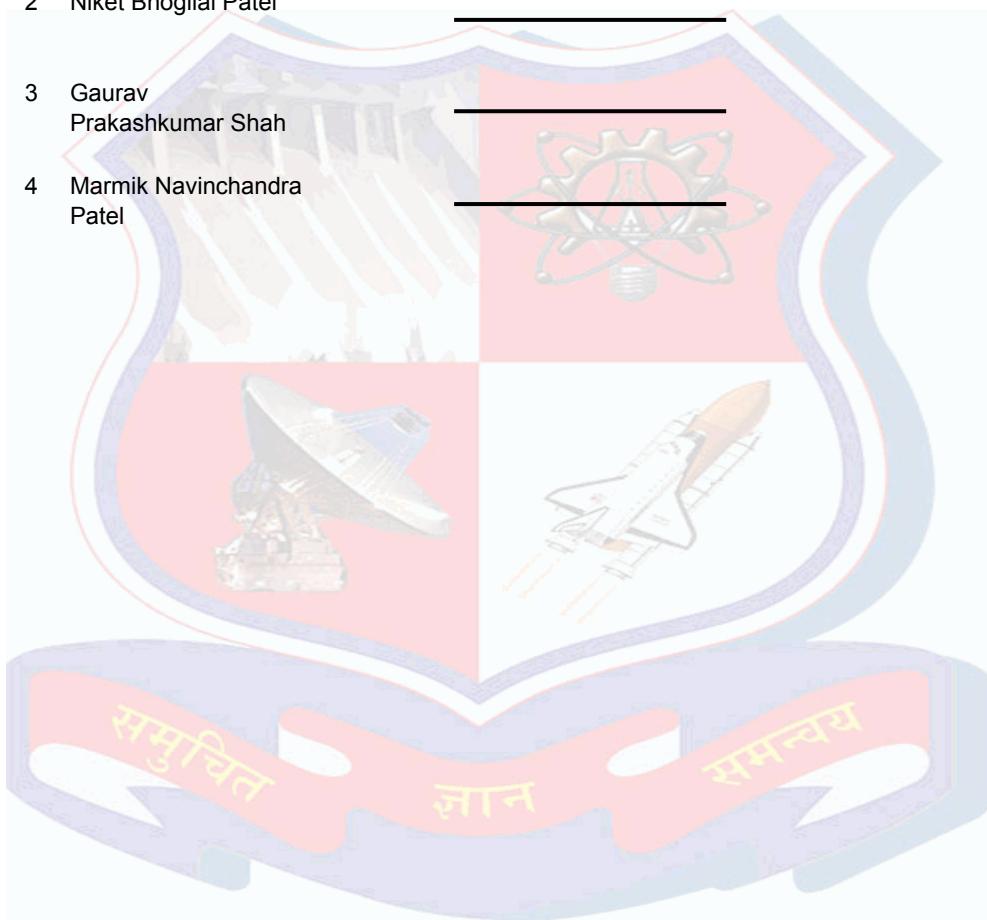
Signature & Date

1 Nisarg Hiren Shah

2 Niket Bhogilal Patel

3 Gaurav
Prakashkumar Shah

4 Marmik Navinchandra
Patel



FORM 2
THE PATENTS ACT, 1970
(39 OF 1970)
&
THE PATENTS RULES, 2003
PROVISIONAL SPECIFICATION

1. Title of the project/invention :

Secure It Pro



2. Applicant(s) :

Nisarg Hiren Shah , (Indian)

Address :Computer Engineering , L. D. College Of Engineering, Ahmedabad , Gujarat Technologycal University.

Niket Bhogilal Patel , (Indian)

Address :Computer Engineering , L. D. College Of Engineering, Ahmedabad , Gujarat Technologycal University.

Gaurav Prakashkumar Shah , (Indian)

Address :Computer Engineering , L. D. College Of Engineering, Ahmedabad , Gujarat Technologycal University.

Marmik Navinchandra Patel , (Indian)

Address :Computer Engineering , L. D. College Of Engineering, Ahmedabad , Gujarat Technologycal University.

3. Preamble to the description :

The following specification describes the invention.

4. Description :**a. Field of Application / Project / Invention :**

Secure It Pro

b. Prior Art / Background of the Invention / References :

Secure It pro is a android application which provides four functionality,which are as follow: antitheft,applock,data hiding,one touch calling.

c. Summary of the Invention/Project :

Secure It pro is a android application which provides four functionality,which are as follow: antitheft,applock,data hiding,one touch calling. Antitheft protects android device from theft. It provides live tracing of device. Applock protects android application installed in mobile from unauthorized user.Data Hiding prevents user files and data from being access by unauthorized user. One touch calling provides widget which call to registered number in emergency situation.

d. Objects of the Invention/Project :

In the world of smartphones, there are many android apps for security of data, mobile and apps, but main disadvantage of these apps are that they are needed to install separately. They are not available in single app and individual apps consumes more RAM.

Imagine, if all these features are available in a single application then the user need not to install all the applications separately. Our project is about develop such application.

e. Drawing(s) :**f. Description of the Invention**

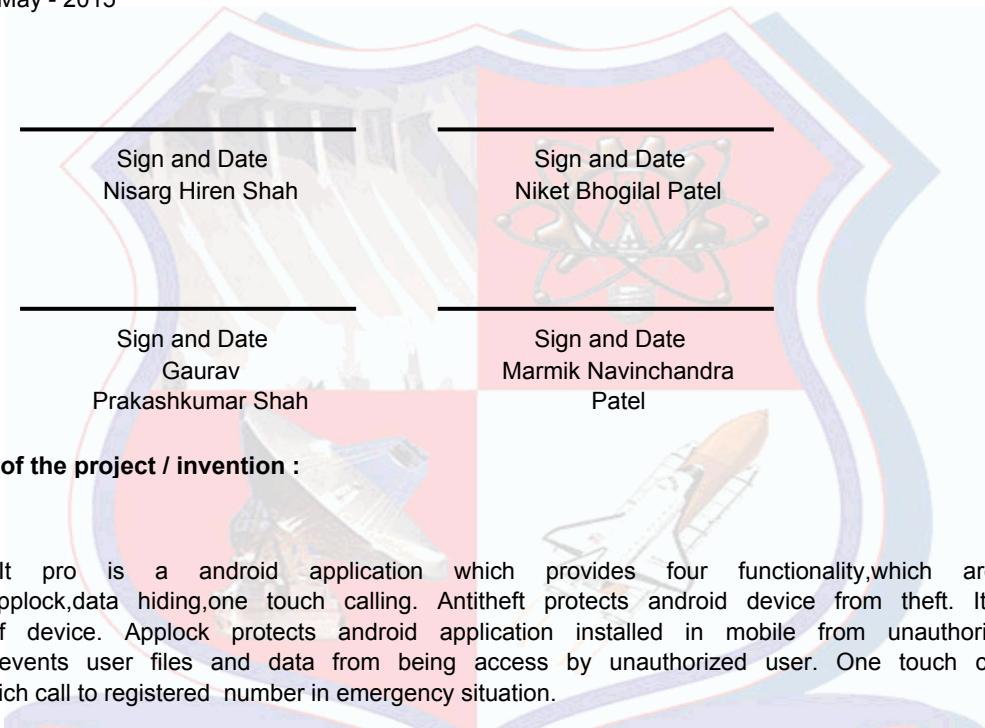
Secure It pro is a android application which provides four functionality,which are as follow: antitheft,applock,data hiding,one touch calling. Antitheft protects android device from theft.User can track his device using our website. It provides live tracing of device. Applock protects android application installed in mobile from unauthorized user.For this user have to pre register his application which he wants to protect by providing PIN number.Data Hiding prevents user files and data from being access by unauthorized user.User can also unhide his data. One touch calling provides widget which call to registered number in emergency situation.

g. Examples**h. Unique Features of the Project**

Live Tracing Of device
Less RAM Consume
Less Memory Consume
Free of cost
Consistent UI

5. Date & Signature :

Date : 2 - May - 2015

**6. Abstract of the project / invention :**

Secure It pro is a android application which provides four functionality,which are as follow: antitheft,applock,data hiding,one touch calling. Antitheft protects android device from theft. It provides live tracing of device. Applock protects android application installed in mobile from unauthorized user.Data Hiding prevents user files and data from being access by unauthorized user. One touch calling provides widget which call to registered number in emergency situation.



Drawing Attachments :



Note : This is just a mock Patent Drafting Exercise (PDE) for semester 8, BE students of GTU.
These documents are not to be submitted with any patent office.

FORM 3
THE PATENTS ACT, 1970
(39 OF 1970)
&
THE PATENTS RULES, 2003
STATEMENT AND UNDERTAKING UNDER SECTION 8

1. Declaration :

I/We, Nisarg Hiren Shah ,
 Niket Bhogilal Patel ,
 Gaurav Prakashkumar Shah ,
 Marmik Navinchandra Patel ,

2. Name, Address and Nationality of the joint Applicant :

Nisarg Hiren Shah (Indian)

**Address : Computer Engineering , L. D. College Of Engineering, At
 , Gujarat Technological University.**

Niket Bhogilal Patel (Indian)

**Address : Computer Engineering , L. D. College Of Engineering, At
 , Gujarat Technological University.**

Gaurav Prakashkumar Shah (Indian)

**Address : Computer Engineering , L. D. College Of Engineering, At
 , Gujarat Technological University.**

Marmik Navinchandra Patel (Indian)

**Address : Computer Engineering , L. D. College Of Engineering, At
 , Gujarat Technological University.**

Here by declare:

- (i) that I/We have not made any application for the same/substantially the same invention outside India.
- (ii) that the right in the application(s) has/have been assigned to,

Name of the Country	Date of Application	Application Number	Status of the Application	Date of Publication	Date of Grant
N/A	N/A	N/A	N/A	N/A	N/A

- (iii) that I/We undertake that up to the date of grant of patent by the Controller , I/We would keep him inform in writing the details regarding corresponding application(s) for patents filed outside India within 3 months from the date of filing of such application.

Dated this 2 day of May , 2015.

3. Signature of Applicants :

Sign and Date
Nisarg Hiren Shah

Sign and Date
Niket Bhogilal Patel

Sign and Date
Gaurav Prakashkumar
Shah

Sign and Date
Marmik Navinchandra
Patel

To
The Controller of Patent
The Patent Office, at **Mumbai**.

