

# **SECURITY ANDROID APPLICATION**

(HelpAtHand)

**A PROJECT REPORT**

*in partial fulfilment for the award of the degree*

*of*

**BACHELOR OF TECHNOLOGY**

**IN**

**COMPUTER SCIENCE AND ENGINEERING**

*Under the Guidance of*

***TUHIN SHUBRA POLLEY***

*Project Carried Out At*



**5th Floor, Vaibhav Building, 4, Lee Road, Sreepally,**

**Bhowanipore, Kolkata, West Bengal 700020**

*Submitted By*

**SNEHA MANNA**



*(Note: All entries of the proforma of approval should be filled up with appropriate and complete information. Incomplete proforma of approval in any respect will be summarily rejected.)*

1. Title of the Project: **SECURITY APP(HelpAtHand)**
2. Project Members: **SNEHA MANNA**
3. Name of the Guide: **MR. TUHIN SHUBRA POLLEY**
4. Project Version Control History

Version	Primary Authors	Description of Version	Date Completed
Final	SNEHA MANNA	Project Report	26 <sup>th</sup> july,2017

1. **SNEHA MANNA**

Signature of Team Member

Date:

Signature of Approval

Date:

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**MR. TUHIN SHUBRA POLLEY**

Project Proposal Evaluator

☐ **Approved**

☐ **Not Approved**

## PROJECT RESPONSIBILITY FORM

### HelpAtHand (Security App)

GROUP NO.	SL.NO.	NAME OF MEMBER	RESPONSIBILITY
1	1	Sneha Manna	Project Leader, Coding ,Coding & Designing, System Analysis, Testing

Date: 26<sup>th</sup> july,2017

Name of the Student: SNEHA MANNA

## DECLARATION

We hereby declare that the project work being presented in the project proposal entitled **“SECURITY APP(HELPPATHAND)”** in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING** at **WEBTEK LABS PVT. LTD, KOLKATA, WEST BENGAL**, is an authentic work carried out under the guidance of **MR. TUHIN SHUBRA POLLEY**. The matter embodied in this project work has not been submitted elsewhere for the award of any degree of our knowledge and belief.

Date:

## CERTIFICATE

This is to certify that this proposal of minor project entitled “**SECURITY APP**” is a record of bona fide work, carried out by **SNEHA MANNA** under my guidance at **WEBTEK LABS PVT LTD**. In my opinion, the report in its present form is in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING** and as per regulations of the **WEBTEK LABS**. To the best of my knowledge, the results embodied in this report, are original in nature and worthy of incorporation in the present version of the report.

**Guide / Supervisor**

---

**Mr. Tuhin Shubra Polley**

(Android Domain)

5th Floor, Vaibhav Building, 4, Lee Road, Sreepally,

Bhowanipore, Kolkata, West Bengal 700020\

## **ACKNOWLEDGEMENT**

Success of any project depends largely on the encouragement and guidelines of many others. We take this sincere opportunity to express our gratitude to the people who have been instrumental in the successful completion of this project work.

We would like to show our greatest appreciation to Mr. Tuhin Shubra Polley, Project Manager at Webtek Labs, Kolkata. We always feel motivated and encouraged every time by his valuable advice and constant inspiration; without his encouragement and guidance this project would not have materialized.

We wish to express our deep sense of gratitude to our internal guide developers.[stackoverflow.com](https://stackoverflow.com), [android.com](https://android.com) these are the sites which helped us a lot in doing our project.

Words are inadequate in offering our thanks to the other trainees, project assistants and other members at Webtek Labs Pvt. Ltd. for their encouragement and cooperation in carrying out this project work. The guidance and support received from all the members and who are contributing to this project, was vital for the success of this project.

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## **WEBTEK LABS PVT. LTD.**

- WebTek Labs Pvt. Ltd. is recognized as a leading IT solution providing organization with a dynamic and fast growing team of diversely talented individuals. Incorporated in 2001, in our aim to provide the best talent, we initially started with Recruitment & Staffing services. We paralleled this by providing knowledge and skill development certification training programs. WebTek Certified Tester (WCT) Program that aims to provide IT companies trained software Testers has reached soaring heights of recognition over the years. Few years later after its inception, WebTek Labs added Software development & testing services to the portfolio.
- Having partnered and worked with some of the leading names across Education, IT, ITES, Banking, Insurance, Aviation, Retail, Healthcare, Hospitality, Media, Manufacturing and FMCG sectors, WebTek Labs has explored business opportunities in software solutions with the Government, Corporate and Institutes.

## 1 ABSTRACT

Nowadays, security and safety are the main issues and the challenge to reduce the violence against everyone, be it women, men, children and the elderly is needed immediately. The fear inside women for sexual abuse, in children for kidnaps, in elderly for robbery or even hostage situation is incessant due to hiking rate of crime at every moment. Keeping these mishaps in mind, an idea of developing a security application based smartphone is taking into account. The application development is the main consideration as increased Smartphone users, with the sensitivity of inclusion of everyday information useful in day to day activities and even for security. So, this paper presents an Android Smartphone application “HelpAtHand” and the way by which it acts as a 24x7 personal safety and security. It is primarily developed a unique approach for strengthening one’s personal security and safety. This application is helpful for older people, senior citizens and children. This app contains unique features such as if the user is in trouble and doesn’t have internet connection at that time the text message will be sent to the registered contacts with the user’s current location using SOS technique. This app can also be used in case of emergency, the user can trace the location and contacts of nearby hospitals and police stations using GPRS.

## **2 INTRODUCTION**

The rapidly increasing population of elderly people has been accompanied by a number of challenges to the elderly, communities, and the state. The frequency of victimization of the elderly through various crimes has escalated with the criminal justice system facing increasing pressure to curb this trend. According to the results of a recent study, the elderly people are facing an increasing frequency of abuse including widespread cases of financial exploitation and domestic violence.

Crime against women has been on increase. It has existed in the past in almost all countries, regions, cultures and communities. The crime has much to do with the existing low status of women prevalent in our society. The violence is at various levels. It is at physical, mental, emotional, domestic and public. They are the most oppressed, subjugated section of society. Though various measures at education, economic independence have been taken but they are far from improving their status which directly or indirectly help at increasing crime against women. Today even children and men are also not safe enough from being kidnapped, beaten up for bribery or robbery.

In an emergency situation a helping hand would be a relief for them. The best way to minimize your chances of becoming a victim of violent crime (robbery, sexual assault, rape, domestic violence) is to identify and call on resources to help you out of dangerous situations. Whether you're in immediate trouble or get separated from friends during a night out and don't know how to get home, having these apps on your phone can reduce your risk and bring assistance when you need it. Although several were originally developed to reduce the risk of sexual assault, or kidnapping or robbery, they are suitable for everyone. In the light of recent outrage in Delhi which shook the nation and woke us to the safety issues for our daughters, people are gearing up in different ways to fight back. A host of new apps have been developed to provide security systems to women on their phones. Here we introduce an app which ensures the safety of everyone, including women. This helps to identify and call on resources to help the one out of dangerous situations. This reduces risk and brings assistance when we need it and help us to identify the location of the one in danger.

### **2.1 PURPOSE**

The main feature of this application is to provide security to everyone. The proposed system is based advanced sensors, Microcontroller and GSM. The basic aim of the system is to develop a low cost solution for GPS based tracking system. The main objective of the

system is to track the current location of the person which has an android enabled mobile by extracting the longitude and latitude of that target person. This app will send a text message to the recipient numbers that includes the current position of the victim using SOS service. They can find the nearby police-station and hospital details by using GPRS.

## 2.2 **OBJECTIVE**

The objective is to build an application that can come handy to every individual during the time of distress. Android usage has increased over the years and today nearly everyone has a smart phone most of which run on the android platform. Thus an application built on such an exposed platform will give it more exposure and will be well utilised. Today crime dwells in every sector of society in various forms, be it eve-teasing, snatching, bribery, kidnapping etc. And victims of such heinous crimes can be anyone, from a child to a senior citizen, man-woman alike. Therefore to provide a helping hand to one in trouble is the intention of building an application as HelpAtHand.

## 2.3 **SCOPE**

This application allows a victim to send out his/her location to caregivers in no time. Location based security application allows pinpointing the exact position of the victim and can be shared over internet or other offline medium, can also be viewed on maps. To scare away offenders built in siren and whistle are provided. Such features can also be used to reach out for help. Thus, such an app can prove useful to anyone in distress.

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<b>Project Profile</b>	
Project Title:	<b>HelpAtHand</b>
Organization:	<b>Webtek Labs Pvt Ltd,</b> 5th Floor, Vaibhav Building, 4, Lee Road, Sreepally, Bhowanipore, Kolkata, West Bengal 700020
Developed By:	Sneha Manna
Duration:	July 17,2017 to August 13,2017
Internal Guide:	Mr. Tuhin Shubra Polley( <b>Webtek Labs Pvt. Ltd.</b> )

<b>Project Tools</b>	
Front-end Tools:	Android Studio
Back-end Tools :	SQLite
Platform:	Android

<b>Hardware Requirements (Recommended)</b>	
Application Installation	Android enabled GSM/CDMA phone
CPU	366 Mhz.
Version	2.1
Memory	128MB

<b>Software Requirements</b>	
Application Frontend	Android Studio
Database Backend	SQLite

## 3 ANALYSIS

### 3.1 OVERALL ANALYSIS

#### 3.1.1 EXISTING SYSTEM

Keeping the same concern in mind many developers have come up with innovative applications. Few of such applications

are as follows-

##### 1. VithU

Channel V has named the application “VithU” and it is accessible on the Google Play Store essentially VithU is the crisis and emergency application that, at the click of the power button of your android cell phone two times successively starts conveying cautious messages like clockwork in every two minutes to your contacts that you bolster into the application as the designated receivers. The VithU application does not take even a penny for download so assuming that you might want to be secured; this is the most ideal way. The message that is sent from the app to the guardian says that “I’m in a risk, I require assistance”, if its not too much trouble take after my area. The recipient will get a connection to your area like clockwork in every two minutes giving them your upgraded area locations.

***Disadvantages of VithU:*** It doesn’t provide features like abstracting information about Police Stations & Hospitals.

##### 2. SHE (Society Harnessing Equipment):

It is a garment designed by three engineers from Chennai. This garment has an electric circuit that can generate 3800kv of current which can help the victim to escape. In case of multiple attacks it can send upto 82 electric shocks. Since the fabric is bilayer, the user is not affected. It can also send emergency messages.

#### 3.1.2 PROPOSED SYSTEM

The proposed system is not especially for women safety only, it can be used by everyone and overcomes the disadvantages of existing system:-

This proposed system is ‘GSM & GPS Based Security System’. It consists of GPS device ie. Any Android Phone and an emergency button. GPS device must to be placed inside the device (Android Phone). The device will provide the position information such as latitude, longitude of victim. An emergency button is fixed on the device at a particular position.

Whenever anyone is in any kind of trouble one will press the emergency button and an alert will be immediately sent to the selected contacts. The primary objective is to build a fully pledged android application that is simple to operate.

- 1) This project presents an alert system for Safety Detection.
- 2) The system provides a realizable and efficient.
- 3) The application is easier to use by all.
- 4) The application is normal budget.
- 5) For user there is no need of external hardware or software to use this application
- 6) This application is free for user, which does not affect user's cost
- 7) User only need a Smartphone or tablet which has Android OS to the work.

### **3.2 SYSTEM MODULES**

This project contains the following five modules:

***I. Registration Module*** Registration is an important component to users, which helps the users to add his/her personal details: Name, Email Id, Mobile Number.

***II. Emergency Module*** The user gets to contact the police, hospital and fire station in single tap.

***III. Emergency Buttons*** When one senses any danger, we can escape by using emergency buttons to play siren or whistle.

***IV.SOS*** When there is danger one can send sos text messages to the selected emergency contacts in 10secs.

### **3.3 SCOPE OF PROPOSED SYSTEM**

Scope of this project is very broad in terms of other tracking system. It is online as well as offline system. This application also used Location-Based Services (LBS) are the services that let us find the device's current location. They include technologies like GPS and Google's cell-based location technology. We can specify which location-sensing technology to use explicitly by name, or implicitly by defining a set of criteria in terms of accuracy, cost, and other requirements. The Application uses GPS so the user can get information about the Current location and the user can get the best suited routes to reach at destination location. Upcoming devices are facilitated with GPS and 3G connectivity which is used in this

application which enhances great scope of use of this application. User can share his/her location to his/her friend to know where is it and how to reach there using direction provided by Google navigation. Location along with a panic message will be sent either by SMS or can also be shared over other chatting apps in no time.

### 3.4 **LIMITATIONS OF PROPOSED SYSTEM**

- This project only works on devices, which have android operating system.
- If internet is disabled then user cannot view the location and share it to friends.
- If GPS is disabled the location will not be resolved into address, only latitudes and longitudes will be fetched.



### 3.5 SYSTEM DESIGN

#### 3.5.1 STATIC VIEW

- ***Object Diagram:***

**What is Object Diagram?** Object diagrams represent an instance of a class diagram. The basic concepts are similar for class diagrams and object diagrams. Object diagrams also represent the static view of a system but this static view is a snapshot of the system at a particular moment. Object diagrams are derived from class diagrams so object diagrams are dependent upon class diagrams. Object diagrams are used to render a set of objects and their relationships as an instance. The purpose of a diagram should be understood clearly to implement it practically. The purposes of object diagrams are similar to class diagrams. The difference is that a class diagram represents an abstract model consisting of classes and their relationships. But an object diagram represents an instance at a particular moment which is concrete in nature. It means the object diagram is more close to the actual system behavior. The purpose is to capture the static view of a system at a particular moment.

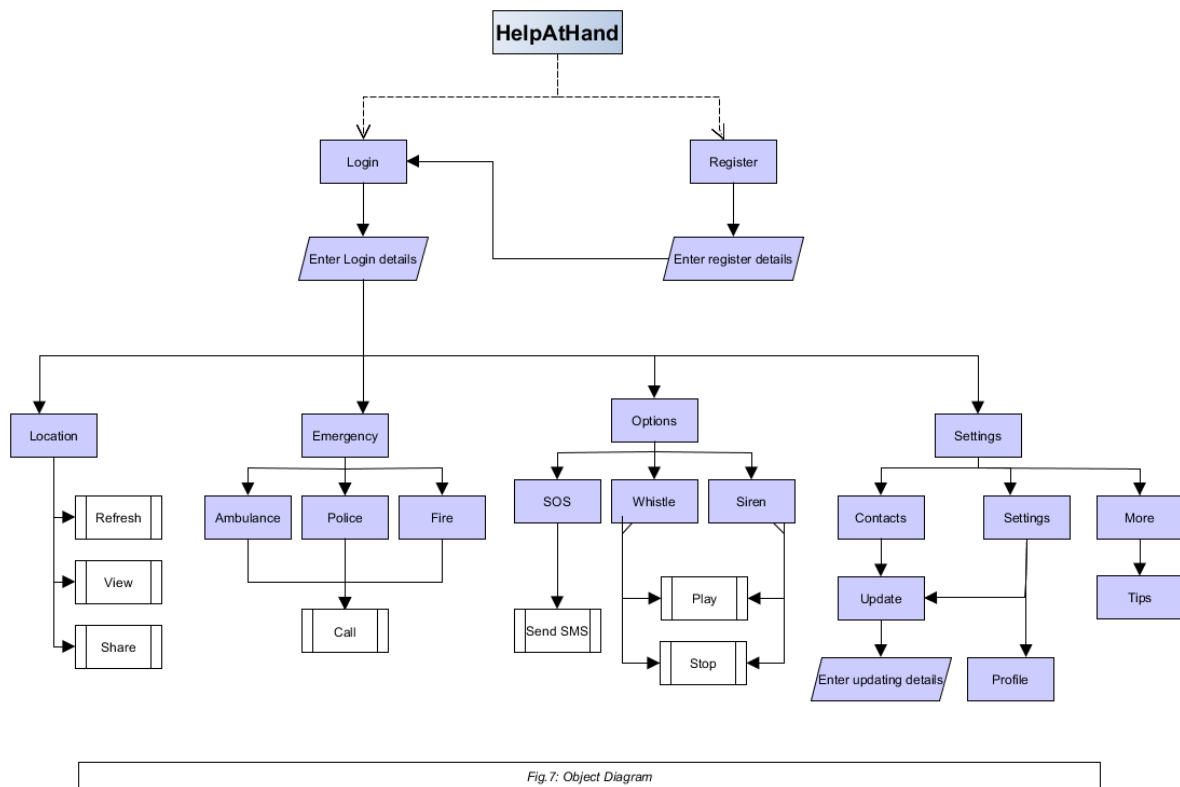


Fig. 7: Object Diagram

### 3.5.2 DYNAMIC VIEW

- **DFD**

**I. Level-0 DFD** Shows outline of the system models.

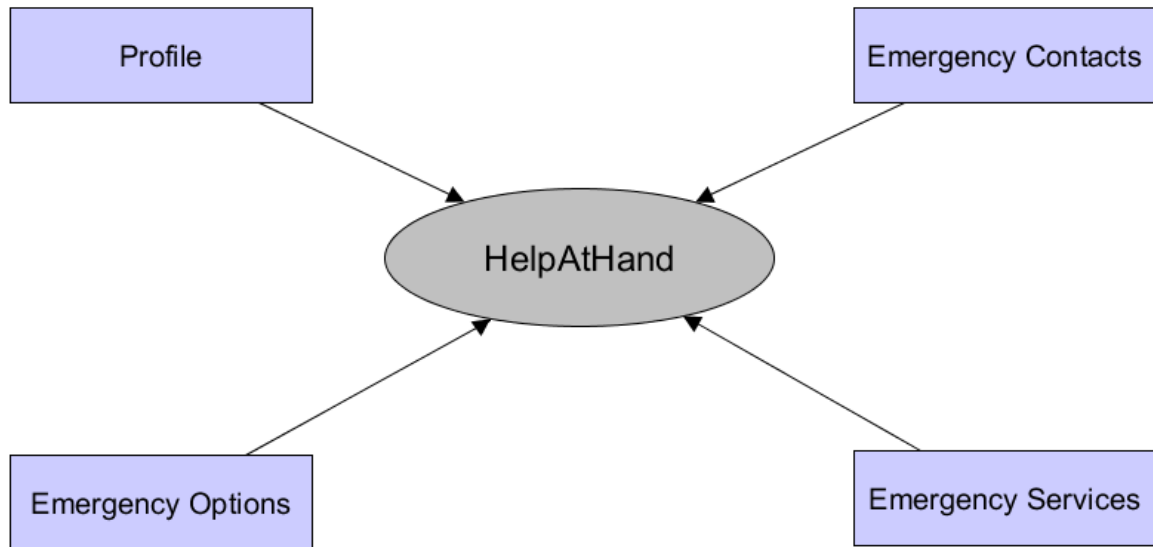


Fig.1:Level 0 DFD

**II. Level-1 DFD** This Shows the separation of all external modules, relationship between those modules and the application.

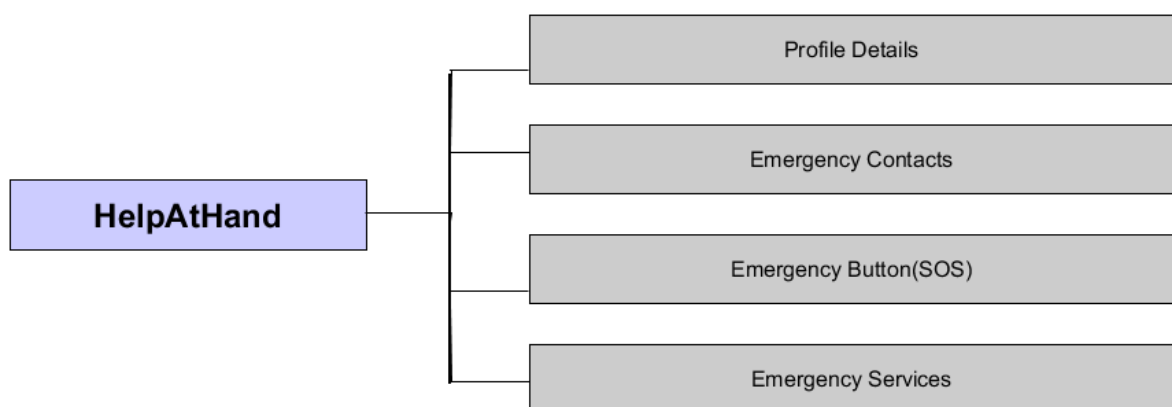


Fig.2:Level 1 DFD

**III. Level-2 DFD** This differentiates the modules frontend and backend

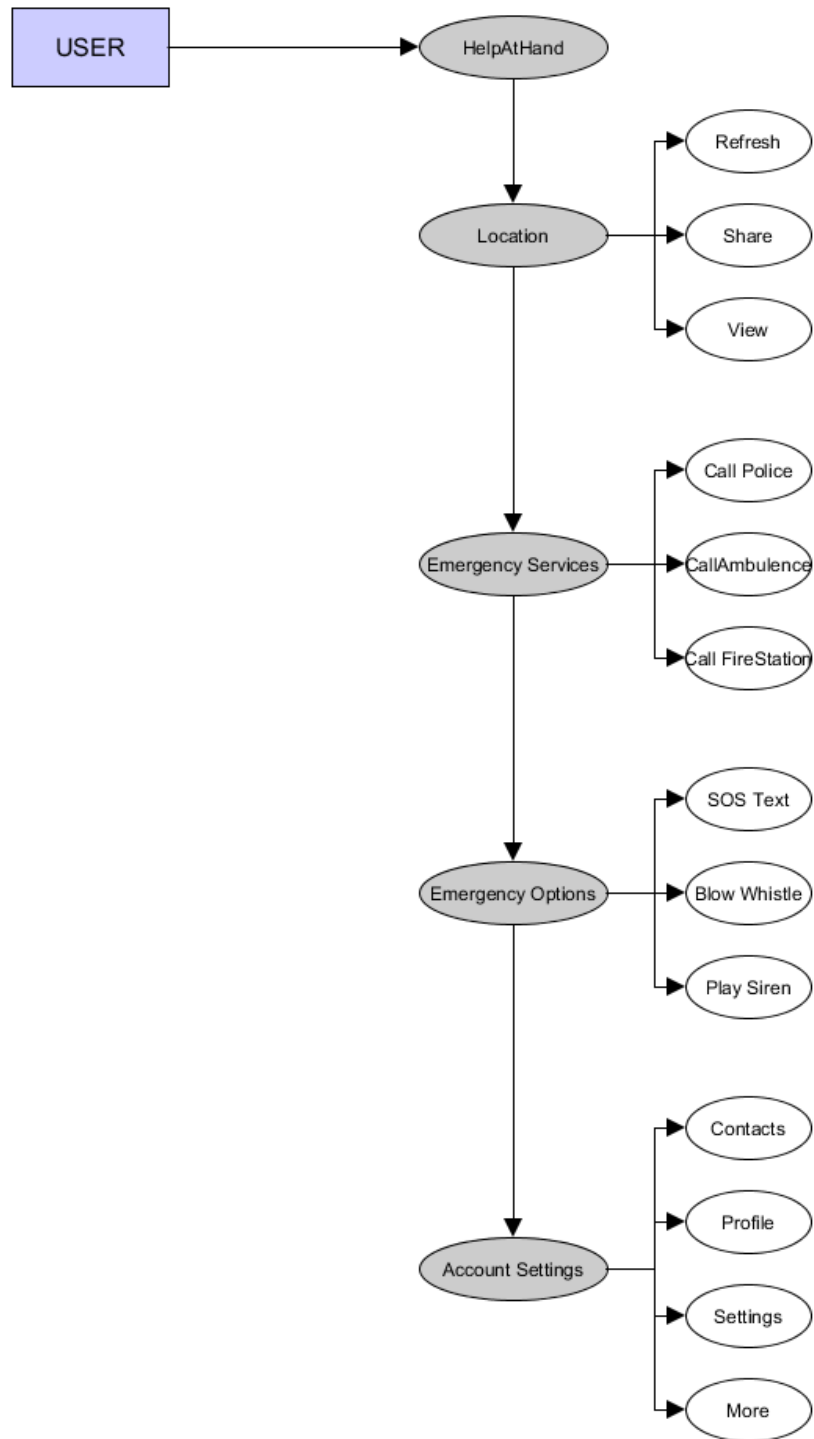


Fig.3:Level 3 DFD

- **Use Case:**

**What is use case?** The Use Case diagram models the users' expectation for using the system. The people and systems that interact with the target system are called actors. The features of the system that the actors use are called use cases. Some use cases interact with other use cases, a relationship modeled using dependency arrows. The goal of the Use Case diagram is to identify all the features that the clients expect the system to support, but it does not reveal any details about the implementation of these features. Use cases can be written several ways but the most common is to represent a view of the system from outside the system. Use Case diagrams are valuable because they

- Identify the clients' expectations for the system.
- Identify specific features of the system.
- Identify shared behavior among system features.
- Provide a simple and easily understood way for clients to view their requirements.

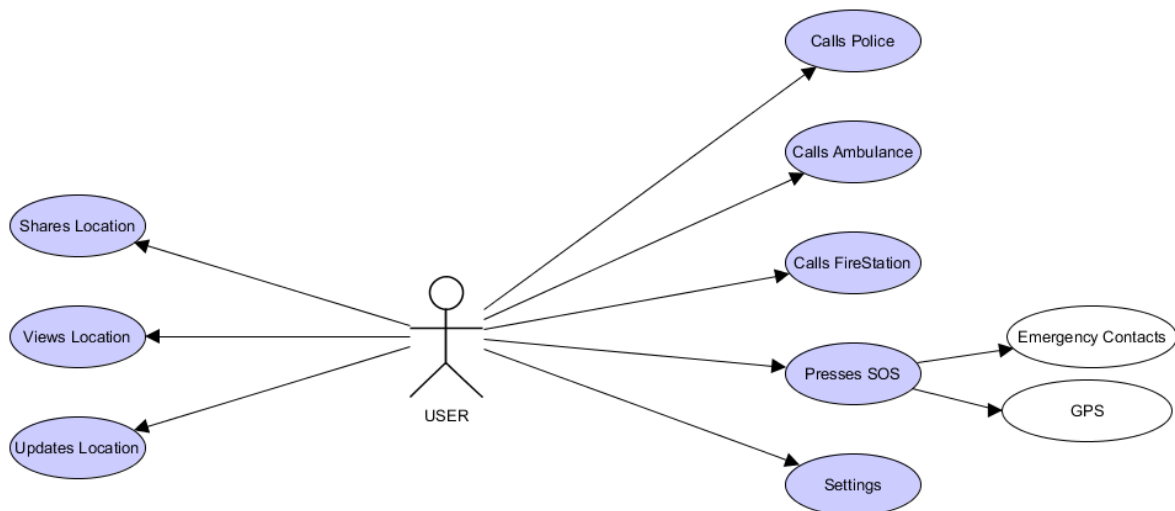


Fig. 4: Use Case

## • **ACTIVITY FLOWCHART:**

**What is Activity Diagram?** The Activity diagram models logic-any logic-from work flow to use cases to methods. It borrows most of its notation from flowcharts, but has added the concept of concurrency to support many modern applications. Activity diagrams are valuable because they

- Represent the logic required to implement system behaviours.
- Represent logic at any level the design needs, from system workflow to individual method implementations.
- Are simple enough to learn quickly.
- Are relatively familiar to users since they are often used in business training and procedures manuals.

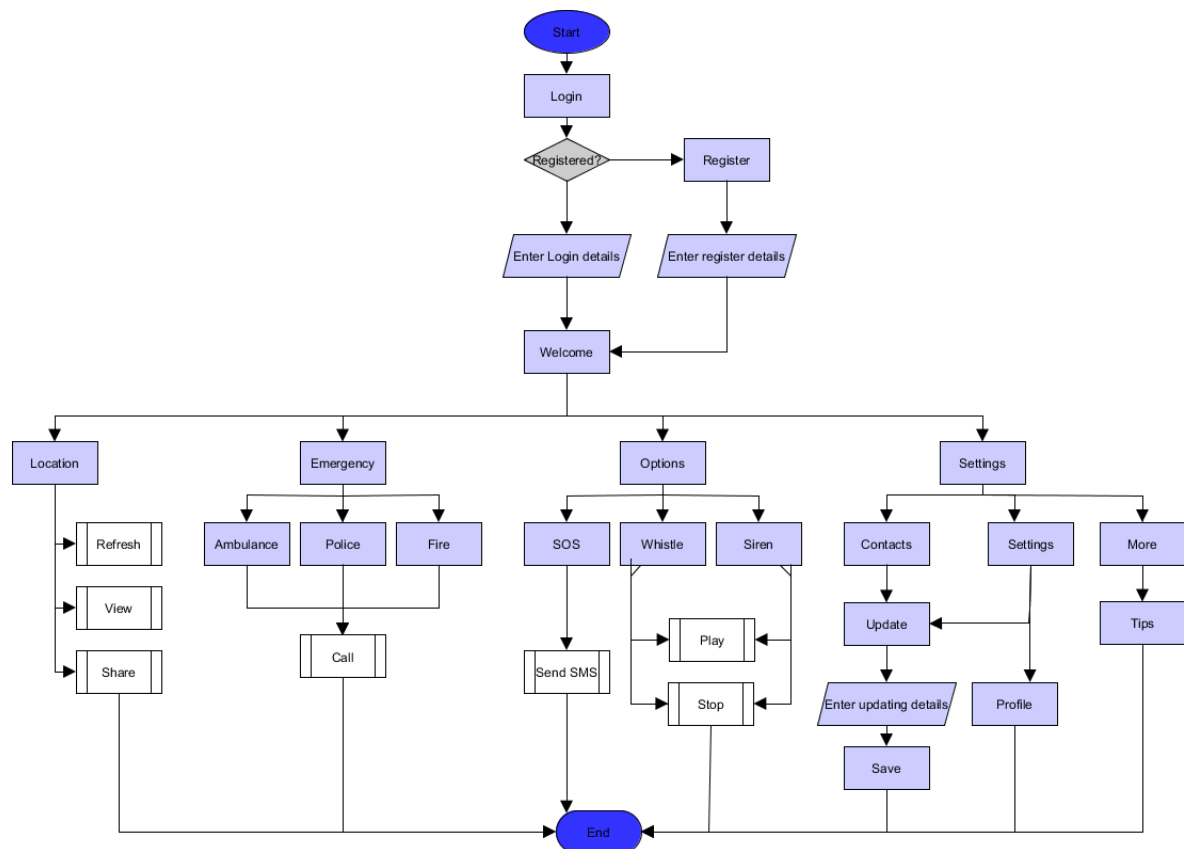


Fig.5: Flowchart

### 3.6 **TECHNOLOGY USED:**

#### 3.6.1 **FUNCTIONAL EQUIREMENT**

This specification is used to specify the requirements for the initial implementation of the system and update the system in future.

The software requirement specification bridges the gap between client/user and the system developer. This is the document that

describes the user needs accurately

#### 3.6.2 **PERFORMANCE REQUIREMENT**

This document will provide general description of the project product perspective, and overview of requirement, general constraint and user view of the product while using. In addition will also provide the specific requirement and functional needs for this project such as interface, functional and performance requirements. The purpose of this software requirement specification is to properly document the requirement of the user necessary in order to build this application.

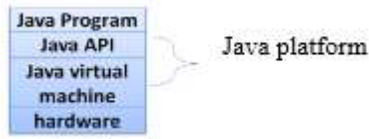
#### 3.6.3 **SOFTWARE REQUIREMENT**

This system compromises an Android Operating System, using Java has a core language, with **Android SDK 2.3** has its version, Implementation of Front end is done by XML and we have used SQLite has back end, the documentation of this system is done using MS-Office.

##### 3.6.3.1 *Java Platform*

A platform is the hardware or software environment in which a program runs. The Java platform differs from most other platforms in that it's a software-only platform that runs on top of other, hardware-based platforms. Most other platforms are described as a combination of hardware and operating system. The Java platform has two components: The Java Virtual Machine (Java VM) and The Java Application Programming Interface (Java API). Java VM is the base for the Java platform and is ported onto various hardware-based platforms. The Java API is a large collection of ready-made software components that provide many useful capabilities, such as graphical user interface (GUI) widgets. The Java API is grouped into libraries (packages) of related components. The following figure of Java Structure depicts a Java program, such as an application or applet, that's running on the Java

platform. As the figure shows, the Java API and Virtual Machine insulates the Java program from hardware dependencies.



**Figure Java Structure** As a platform-independent environment, Java can be a bit slower than native code. However, smart compilers, well-tuned interpreters, and just-in-time byte code compilers can bring Java's performance close to that of native code without threatening portability.

### 3.6.3.2 *Android SDK 2.3*

Android is an operating system based on Linux with a Java programming interface[2]. The Android Software Development Kit (Android SDK) provides all necessary tools to develop Android applications. This includes a compiler, debugger and a device emulator, as well as its own virtual machine to run Android programs. Android is primarily developed by Google. Android allows background processing, provides a rich user interface library, supports 2-D and 3-D graphics using the OpenGL libraries, access to the file system and provides an embedded SQLite database. Android application consists of different components and can re-use components of other applications. This leads to the concept of a *task* in Android; an application can re-use other Android components to archive a task.

### 3.6.3.3 *Android Development Tools*

Android is a widely anticipated open source operating system for mobile devices that provides a base operating system, an application middleware layer, a Java software development kit (SDK), and a collection of system applications. Android mobile application development is based on Java language codes, as it allows developers to write codes in the Java language as illustrated in the below architecture figure of Android structure.

- *Android sdk –api 23*

Android is an operating system based on Linux with a Java programming interface[2]. The Android Software Development Kit (Android SDK) provides all necessary tools to develop Android applications. This includes a compiler, debugger and a device emulator, as well as its own virtual machine to run Android programs. Android is primarily developed by Google. Android allows background processing, provides a rich user interface library,

supports 2-D and 3-D graphics using the OpenGL libraries, access to the file system and provides an embedded SQLite database. Android application consists of different components and can reuse components of other applications. This leads to the concept of a *task* in Android; an application can re-use other Android components to archive a task.

- Android development tools

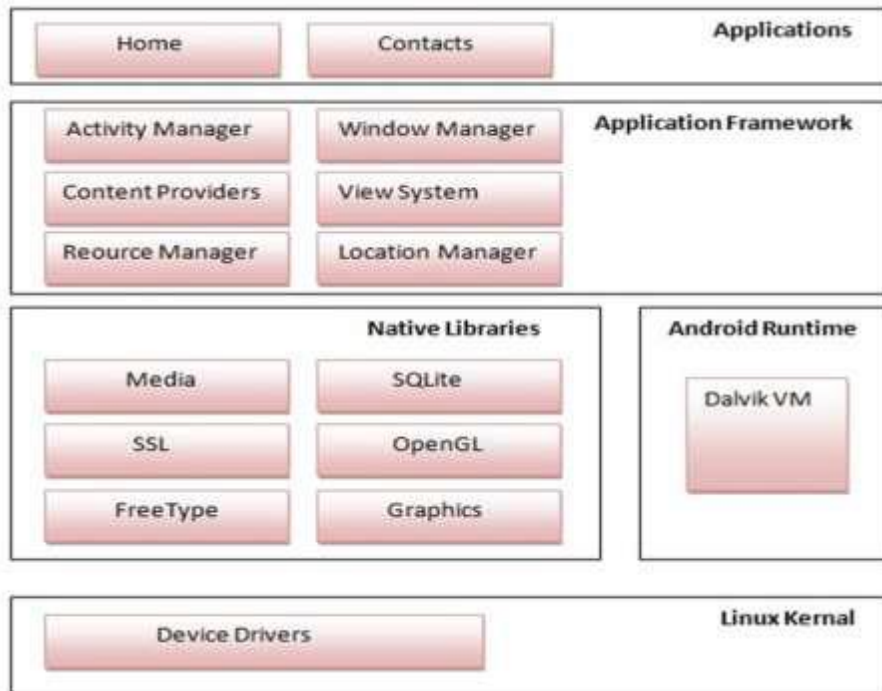
Android is a widely anticipated open source operating system for mobile devices that provides a base operating system, an application middleware layer, a Java software development kit (SDK), and a collection of system applications. Android mobile application development is based on Java language codes, as it allows developers to write codes in the Java language as illustrated in the below architecture figure of Android structure. Android operating system is a stack of software components which is roughly divided into five sections and four main layers as shown below in the architecture diagram.

- Andriod studio 1,3.2

Android Studio is the official Integrated Development Environment (IDE) for Android app development, based on IntelliJ IDEA. On top of IntelliJ's powerful code editor and developer tools, Android Studio offers even more features that enhance your productivity when building Android apps, such as:

- ☐ A flexible Gradle-based build system
  - ☐ A fast and feature-rich emulator
  - ☐ A unified environment where you can develop for all Android devices
  - ☐ Instant Run to push changes to your running app without building a new APK
  - ☐ Code templates and GitHub integration to help you build common app features and import sample code
  - ☐ Extensive testing tools and frameworks
  - ☐ Lint tools to catch performance, usability, version compatibility, and other problems
  - ☐ C++ and NDK support
  - ☐ Built-in support for Google Cloud Platform, making it easy to integrate Google Cloud Messaging and App Engine.
- This page provides an introduction to basic Android Studio features. For a summary of the Android Architecture or Android Software Stack Is Categorized into Five Parts:





- 1) linux kernel
- 2) native libraries (middleware),
- 3) Android Runtime
- 4) Application Framework
- 5) Application

- Linux kernel

It is the heart of android architecture that exists at the root of android architecture. Linux kernel is responsible for device drivers, power management, memory management, device management and resource access.

- Libraries

On the top of linux kernel, there are Native libraries such as WebKit, OpenGL, FreeType, SQLite, Media, C runtime library (libc) etc. The WebKit library is responsible for browser support, SQLite is for database, FreeType for font support, Media for playing and recording audio and video formats.

- *Android Runtime*

This is the third section of the architecture and available on the second layer from the bottom. This section provides a key component called Dalvik Virtual Machine which is a kind of Java Virtual Machine specially designed and optimized for Android. The Dalvik VM makes use of Linux core features like memory management and multi-threading, which is intrinsic in the Java language. The Dalvik VM enables every Android application to run in its own process, with its own instance of the Dalvik virtual machine. The Android runtime also provides a set of core libraries which enable Android application developers to write Android applications using standard Java programming language.

- *Application framework*

On the top of Native libraries and android runtime, there is android framework. Android framework includes **Android API's** such as UI (User Interface), telephony, resources, locations, Content Providers (data) and package managers. It provides a lot of classes and interfaces for android application development.

- *Applications*

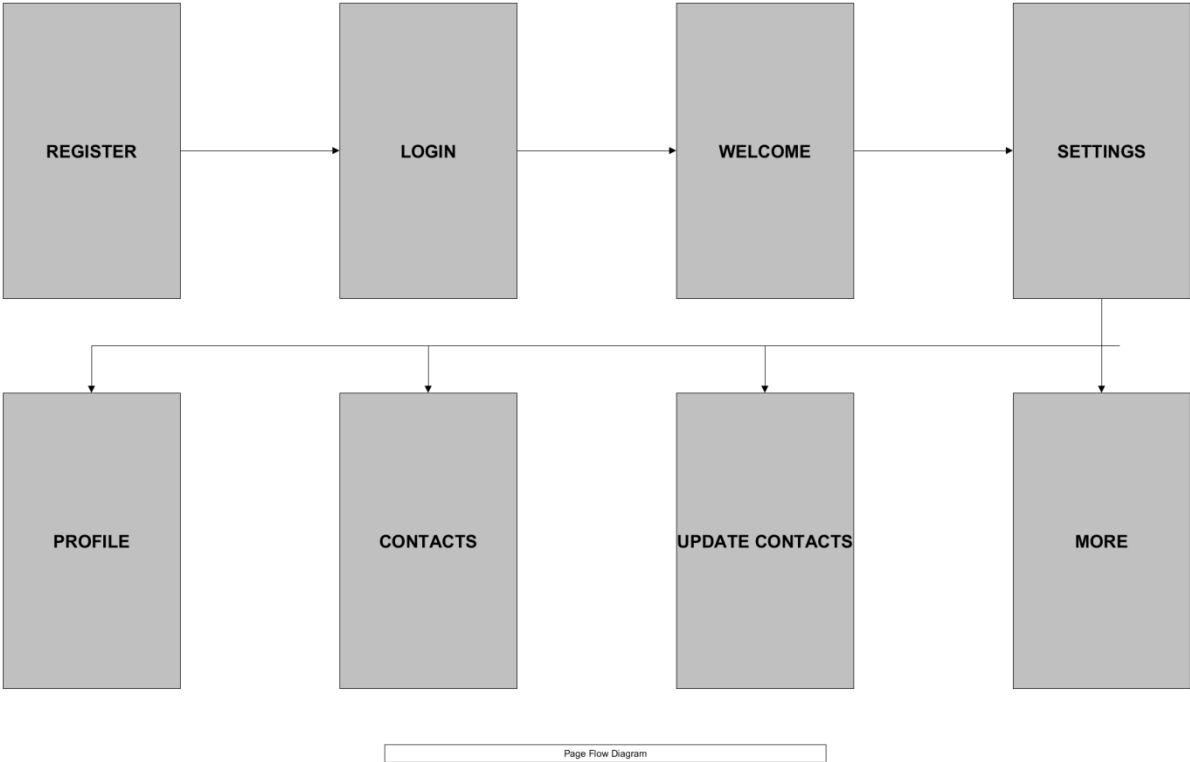
On the top of android framework, there are applications. All applications such as home, contact, settings, games, browsers are using android framework that uses android runtime and libraries. Android runtime and native libraries are using linux kernel

### **3.6.4 HARD WARE REQUIREMENTS**

This System is built on Intel Pentium 4 CPU, having clock speed of 3.0GHz, with RAM size 512MB, 40Ghz of hard disk capacity, display is of 15 inch color monitor, and internet keyboard.

4 IMPLEMENTATION

4.1 PAGE FLOW DIAGRAM



## 5 TESTING

The testing of Android Mobile application is generally done inside the development tools. Initially emulators are used for this and final testing is done with hardware devices. However, for this application the development and testing is extended out on the specific hardware model. It is essential to have android device embedded in the hardware model. The procedure of programming, testing which focuses on functionalities of an application is known as discovery testing. In the present framework, the testing of portable application is carried out by utilizing discovery testing for the improvement work. Fundamentally discovery testing is a system to test the product in which analyzer is not mindful about the inner structures of the module under test. These tests are completed at each step beginning from the establishment of the application on android 4.4.4 HTC desire 820 mobile. The following tables demonstrate a list of tests carried out on the application:

### 5.1 INSTALLATION

Includes the steps and description for test case installation of Vsecure android application.

<b>Assessment ID</b> <b>1.</b>	<b>Assessment Label</b> <b>Installation</b>
Assessment Description	Must Install. apk on Android Phone
Assessment Steps 1.Extract.apk application package file by using eclipse ADT tool	2.Application Installation was Successful
Result	Pass, Successful

### 5.2 LAUNCHING TIME

Represents launching time of the application which is done in a second with no delays.

<b>Assessment ID</b> <b>2.</b>	<b>Assessment Label</b> <b>Launching Time (Life Cycle)</b>
Assessment Description 1. Should be in a second	2. No launching delays
Result	Pass, Successful

### 5.3 **APPLICATION OPENING AND PHONE INTERNET DATA, POSITIONING SERVICES USAGE PERMISSIONS**

Explains the opening of the application and the permission for the usage of phone, internet data, positioning devices and an attention message to turn it on, if discovered off.

<b>Assessment ID</b> 3.	<b>Assessment Label</b> <b>Application opening and phone internet data, positioning services usage permissions</b>
<b>Assessment Description</b> 1. Application Should be exit if internet data is not supporting on device	2. In case Mobile Internet or Location sharing is turned OFF For not supported, then application should prompt are quest to turn it ON
<b>Result</b>	Pass, Successful

### 5.4 **OPERATOR LOCATION DISCOVERING, INDICATION ON GOOGLE MAP AND EMERGENCY BUTTONS DISPLAY**

Describes the discovering of the operator's every exact, changed location with respect to time and its indications on a Google Map. Even it concludes the addition

of emergency contacts, E-mails in the form of the list and emergency buttons, displays on that will be helpful to operator to touch it in case of need.. Location and Emergency buttons indications.

<b>Assessment ID</b> 4.	<b>Assessment Label</b> <b>Operator Location Discovering, Indication on Google Map and Emergency buttons display</b>
<b>Assessment Description</b> 1. Every exact, changed location is identified and indicate on Google Map	2. Indicating emergency buttons for Fake call, Location, Timer and Call & E-Mail
<b>Assessment Steps</b> Add emergency contacts and emails 2. Show added emergency contacts and emails in the list	3. Every exact location is identified, indicate it on Google Map and also displaying emergency buttons
<b>Result</b>	Pass, Successful

## 5.5 . EMERGENCY SITUATION

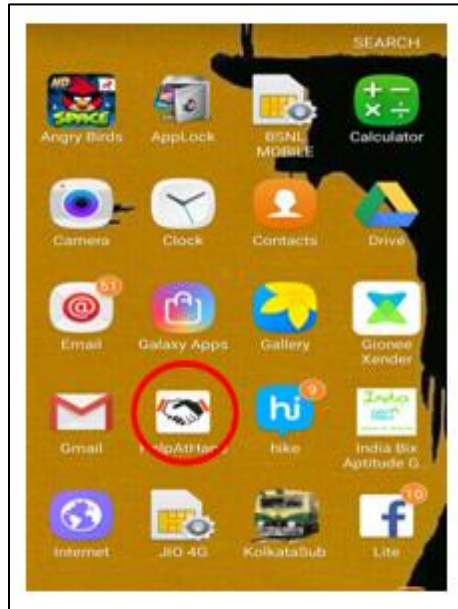
Illustrate the testing of the different emergency situations faced by the operator and its operation to operate the application for assistance. The help is demanded with touching the emergency buttons on application that generates, sends operator's current location and sms message to all the emergency contacts .

Assessment ID 5.	Assessment Label Emergency situation
Assessment Description 1. Launch Application	3. By touching any one emergency Button location, sms is sent to all the emergency contacts and emails.
2. Touch emergency buttons in case of need	Needed calls and SMS will be sent out.
Assessment Steps 1. The emergency situation is understood with the help of location sms.	SMS will be sent to selected contacts and calls to emergency services.
Result	Pass, Successful

## 6 RESULTS AND DISCUSSION

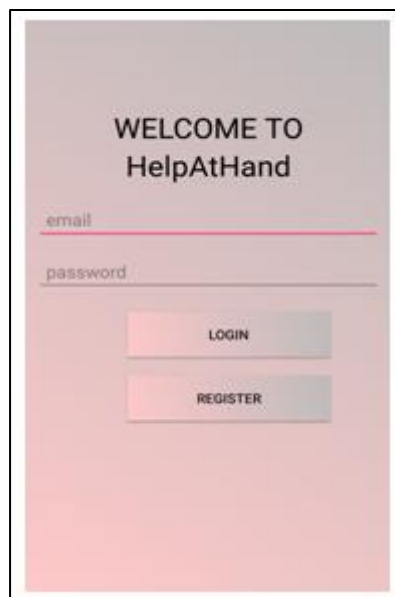
### 6.1 App in the App-List

After successful installation of the app it appears on the All Apps menu. On clicking it, it launches the app.



### 6.2 LOGIN POINT

By clicking on the icon of designing an application, a next window is open for LOGIN of the user for logging into an account and an unregistered candidate can opt for registration as shown in Figure-10.



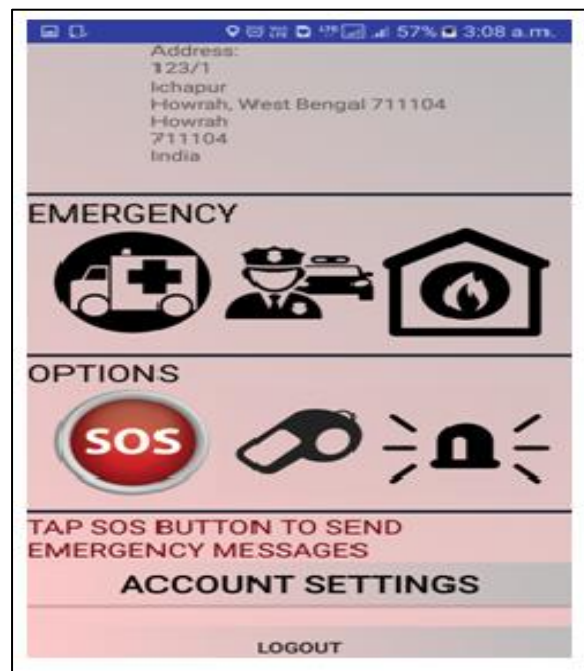
### 6.3 **REGISTRATION POINT**

Clicking on the Registration page launches the this page for the user to add their personal information and login successfully.



### 6.4 **STARTING POINT**

The welcome page looks as shown in (Figure-11). The very first step in this is to determine the Internet connection and positioning usage are available or not, and accordingly a message will be shown as “GPS disabled.” .If disabled then only latitude and longitude will be fetched, else a resolved result will be shown

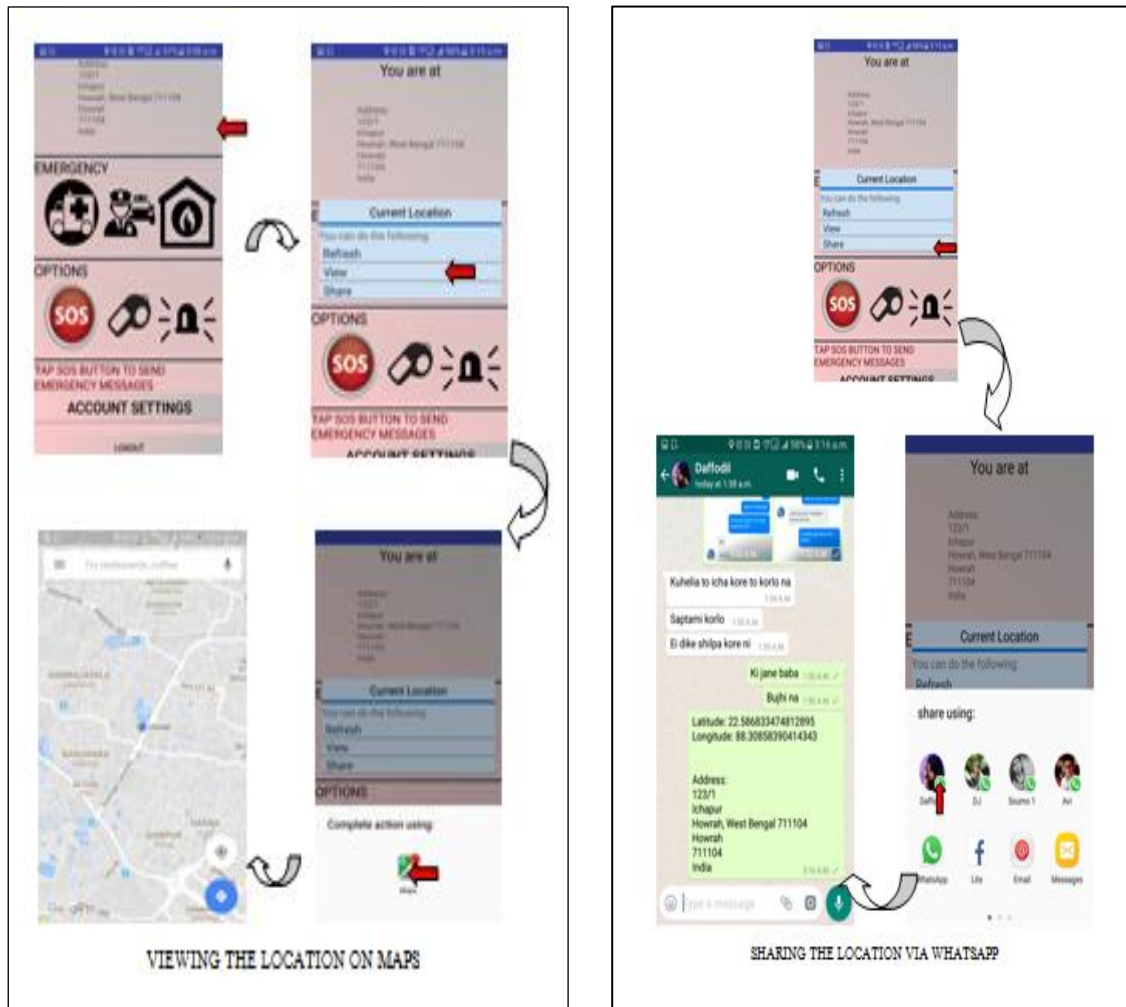




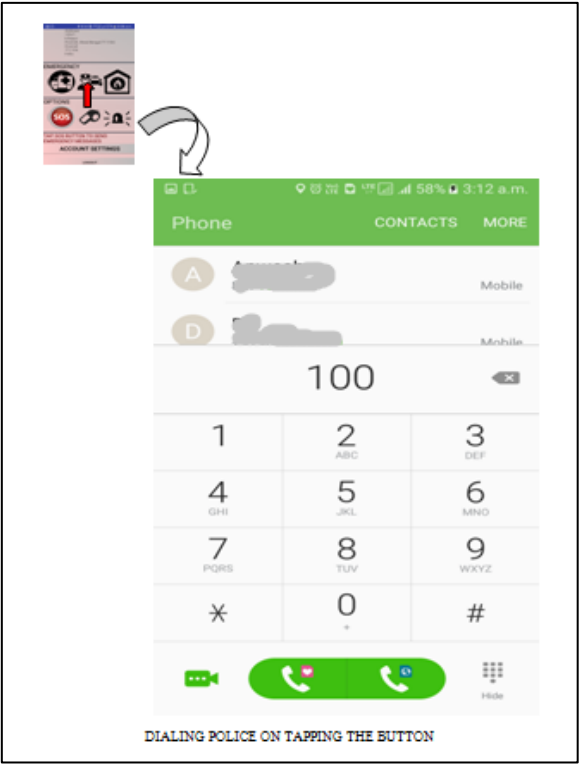
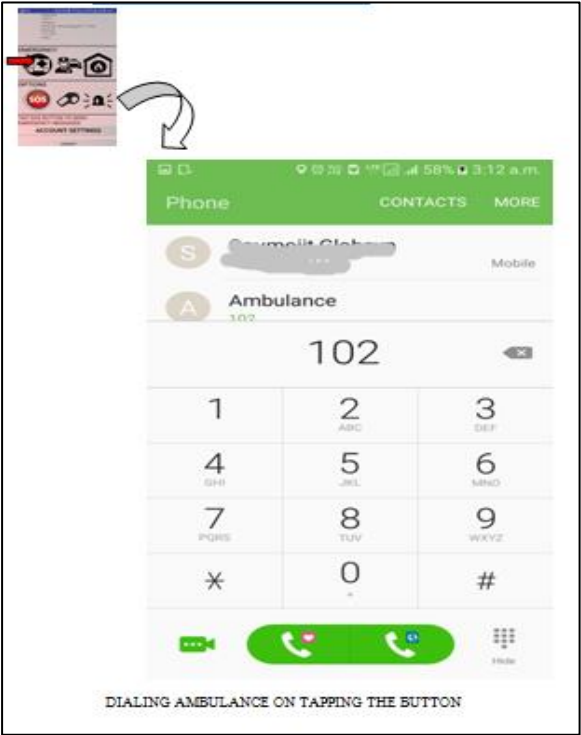
## 6.5 LOCATION INDICATION

With the above step, Application is start-up and current location indication of the user is brought into the picture. Moreover, all the four emergency buttons displayed on the application screen (Figure-12).

On clicking the Location a Pop-up appears that allows the user to share the location, view it or refresh it.



6.6 EMERGENCY BUTTONS DISPLAY



## 6.7 SOS BUTTON

SOS text will be sent to the registered contact after tapping the button. A countdown of 10secs will continue after which an sms will be sent.



## 6.8 WHISTLE BUTTON

A whistle will blow on clicking the button and will continue until stop is tapped.



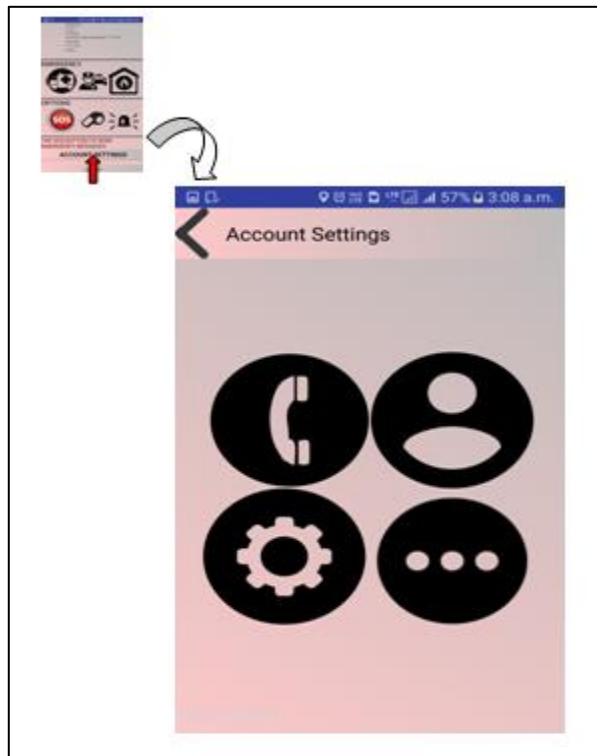
## 6.9 SIREN BUTTON

A siren will play on clicking the button and will continue until stop is tapped.



### 6.10 ACCOUNT SETTINGS

The setting page will open on tapping the account setting button. This page allows the use to alter the emergency messages and contacts.



### 6.11 SETTINGS

Allows the user to update contact information.



## 6.12 PROFILE

The user can view his/her profile that will contain information about his/her current location, logged in email id and emergency contact and message.



## 6.13 MORE

This page gives various useful safety tips to the user



## 7 LIMITATIONS

- This app requires internet connectivity for sharing location over social networks.
- GPS needs to be enabled to allow more accurate location detection and address formulation.
- SMS charges will be applied as per service provider tariffs.
- All three contacts must be provided, so as to facilitate, in case one fails.

## 8 FUTURE SCOPE

In future, I would like to keep working on this project and make new additions to provide users with more advanced features and more detailed information. I have set my sights on the following additions in future-

- SMS sending over internet.
- Power button as the SOS key.
- A floating SOS button.

## 9 CONCLUSION

This project has been appreciated by all the users in the organization. It is easy to use, since it uses the GUI provided in the user dialog. User friendly screens are provided. The usage of lesser clicks/taps increases the efficiency and decreases the effort. It has been efficiently employed as a simple and useful Android Application. It has been thoroughly tested and implemented.

The project “**HelpAtHand**” is the ideal place for everyone, man woman children alike. Anyone can convey their distress through this app at the time of emergency in no time. It will provide the users to send their location to their near ones over any sharing media or even SMS.

The app collects the current location even when internet is not turned on. The app securely keeps the contact details of the users. The app also comes with whistle blowing sound and a siren sound to scare away offender in cases needed or warn others. For any kind of emergency small or large this app is ideal.

## 10 REFERENCES

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- <https://stackoverflow.com>
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- <https://www.scribd.com>
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- <https://www.youtube.com>
- <https://www.github.com>