

“WOMEN SAFETY: ENSURING SAFETY THROUGH SMART DEVICE”

By

Md. Ariful Islam Sunny

ID: 152-15-5984

Subroto Shan Gupta

ID: 152-15-6029

Md. Noor-E-Shams Chowdhury

ID: 152-15-5677

The Project Report is Presented in Partial Fulfillment of the Requirements
for the Degree of Bachelor of Science in Computer Science and
Engineering

Supervised By

Mohammad Masudur Rahman

Lecturer

Department of CSE

Daffodil International University

Co-supervised By

Ms. Zerin Nasrin Tumpa

Lecturer

Department of CSE

Daffodil International University



DAFFODIL INTERNATIONAL UNIVERSITY

DHAKA, BANGLADESH

MAY 2019

APPROVAL

This Project titled “**Women Safety: Ensuring safety through smart device**”, submitted by Md. Ariful Islam Sunny, ID No: 152-15-5984, Subroto Shan Gupta, ID No: 152-15-6029 and Md. Noor-E-Shams Chowdhury, ID No: 152-15-5677 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 02 may 2019.

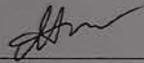
BOARD OF EXAMINERS



Dr. Syed Akhter Hossain
Professor and Head

Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

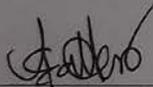
Chairman



Nazmun Nessa Moon
Assistant Professor

Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

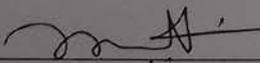
Internal Examiner



Abdus Sattar
Assistant Professor

Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Internal Examiner



Dr. Mohammad Shorif Uddin
Professor

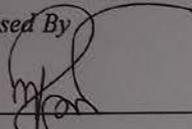
Department of Computer Science and Engineering
Jahangirnagar University

External Examiner

DECLARATION

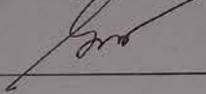
We hereby declare that, this dissertation work entitled “**Women Safety: Ensuring safety through smart device**” has been done by us under the supervision of Mohammad Masudur Rahman, Lecturer, Department of CSE, Daffodil International University. We also declare that the work presented in this report has been generated by us as the result of our own original research and neither the project nor any part of this project has been submitted elsewhere for award of any degree or diploma before the date of presentation. We acknowledge the published and unpublished works of others from which we gathered appropriate knowledge to derive the project.

Supervised By



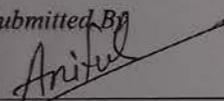
Mohammad Masudur Rahman
Lecturer
Department of CSE
Daffodil International University

Co-Supervised By



Ms. Zerine Nasrin Tumpa
Lecturer
Department of CSE
Daffodil International University

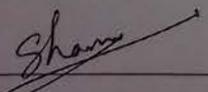
Submitted By



Md. Ariful Islam Sunny
Student ID: 152-15-6029
Department of CSE
Daffodil International University

Submitted By

Subroto Shan Gupta
Student ID: 152-15-6029
Department of CSE
Daffodil International University



Md. Noor-E-Shams Chowdhury
Student ID: 152-15-6029
Department of CSE
Daffodil International University

ACKNOWLEDGEMENT

First we express our heartiest gratefulness to the almighty God for His divine blessings make us possible to complete the final year project work successfully.

We are really grateful and concede our profound indebtedness to our respected supervisor and guide **Mohammad Masudur Rahman**, Lecturer, Department of CSE, Daffodil International University. His deep knowledge & keen interest of in the field of android application development help us to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior draft and correcting them at all stages have made it possible to complete this project.

We would like to express our heartiest gratitude to Prof. Dr. Syed Akhter Hossain, Head, Department of CSE, for his kind cooperation to finish our project and also to other faculty members of CSE department of Daffodil International University.

We would like to thank our course-mates at Daffodil International University for their appreciable assistance and suggestions during the course works and the project.

Finally, we must acknowledge with due respect the constant supports and patients of our beloved parents.

ABSTRACT

Mobile applications are the massive way to connect a user with phone. Enhancement of mobile network gives a fabulous demanding of mobile applications. Nowadays every person using at least one mobile phone for business purposes or communication purposes. Women are also using mobile phone. So mobile applications can be useful to them. They are using phones for many purposes. They are using phones as for learning, communication and as personal computer, which one can use to access the internet for information, to open a document or many others.

The main aim of this project is to build an android application that helps to the women to get the safety. Now a day many occurrences are happening in our country with girls or women. Some time they need emergency contact to their friends or relatives to protect them. This application will help them to do that. As well as they can also contact with police with this app.

TABLE OF CONTENTS

CONTENS	PAGE
Board of examiners	ii
Declaration	iii
Acknowledgements	iv
Abstract	v
Table of contents	vi
List of figures	viii
List of tables	vi
CHAPTER	
CHAPTER 1: INTRODUCTION	1-3
1.1 Introduction	1
1.2 Motivation	2
1.3 Objectives	2
1.4 Expected Outcome	3
1.5 Report Layout	3
CHAPTER 2: BACKGROUND	4-7
2.1 Introduction	4
2.2 Benchmark Analysis	5
2.2.1 VithU App	5
2.2.2 Circle of 6 App	5
2.2.3 I'm Shakti App	5
2.3 Comparative Studies	6
2.4 Scope of the Problem	7
2.5 Challenges	7
CHAPTER 3: REQUIREMENT SPECIFICATION	8-11
3.1 Business process modeling	8
3.2 Requirement collection and analysis	9
3.2.1 software	9
3.2.2 hardware	9

3.3 Use case modeling and description	9
3.4 Logical data model	11
3.5 Design requirement	11
CHAPTER 4: DESIGN SPECIFICATION	12-19
4.1 Front-end Design	12
4.2 Back-end Design	18
4.3 Implementation Requirement	19
CHAPTER 5: IMPLEMENTATION AND TESTING	20-25
5.1 Implementation of database	21
5.2 Implementation of front-end design	22
5.3 Testing Implementation	23
5.4 Test Result and Reports	24
CHAPTER 6: CONCLUSION AND FUTURE SCOPE	26-27
6.1 Discussion and Conclusion	26
6.2 Scope for Further Developments	27
APPENDIX	28-31
Appendix A: XML design code	28
Appendix B: java code	30
REFERENCES	32

LIST OF FIGURES

FIGURES	PAGE NO
Figure2.1 Women harassed in bus	4
Figure3.1 Business process model	8
Figure3.3 Use Case diagram	10
Figure3.4 Data base	11
Figure4.1 Home page	12
Figure4.2 Emergency button is pressed	13
Figure4.3 Menu page	13
Figure4.4 Emergency message	14
Figure4.5 Emergency contact list	14
Figure4.6 Emergency numbers	15
Figure4.7 Remove number	15
Figure4.8 Police number	16
Figure4.9 Call to police	16
Figure4.10 Awareness tips	17
Figure4.11 Process diagram model	18
Figure5.1 Android architecture showing the major components of android OS	20

LIST OF TABLES

TABLES	PAGE NO
Table 1.1 Case filed about women harassment	1
Table 2.1 Comparative table of apps	6
Table 5.1 Testing of all kind of user case result	24-25

CHAPTER 1

INTRODUCTION

1.1 Introduction

The world is developing day by day. The contribution of hard work of people make the world more reliable for us. Previously only men were contributing on the working sector but now women are also taking part on this glorious job. By doing this job they are facing so many problems. Sexual harassment is one of the biggest problem among them. Almost every day we see the same news about woman sexual harassment. Rape, kidnaping girls and harassment women on the road is becoming a big issue. For helping thus woman we make this mobile application. This application contains many option for give safety to women.

a table of case filed in police station for woman harassment is given below.

Table 1.1: Case filed about women harassment.

Year	Number of case
2019	500++
2018	15912
2017	15219
2016	16730
2015	19486
2014	19613

There in Bangladesh different types of women harassment are accruing, as

- Rape
- Child abuse
- Child marriage
- Domestic violence
- Dowry
- Sexual harassment

Now a day mobile phone become a common part of our life. So we thought to help women through this mobile and make this “women safety” application to help and ensure their safety. This application can send an alert message to user’s friends and relative by

©Daffodil International University

pressing only one button and will sent the message that the user is in danger with user's current location. User can also call police through this application.

1.2 Motivation

The primary inspiration of this application is to gain proficiency with the versatile application improvement. And after that we get that idea from media. Women are no safer in our society. Every day a new incident is occurring with girls. We saw many report/news about women harassment in the media. This thing is happening in almost every corner in the world. Specially in India it's very common. Suddenly I saw some of IT engineer developed a software to make sure women safety. And when a see same thing is also happening in our country than I thought I can also make a software to make sure the safety of our county woman. As almost every woman in our country use mobile phone so our team thought to develop a mobile application.

On August 25 a year ago, Rupa, 27, was assaulted and murdered on a transport heading for Mymensingh by three aides of the driver. Her body was tossed out of the vehicle in an unfilled timberland zone on Tangail-Mymensingh street. Subsequent to seeing this news, we thought whether she could utilize our application possibly she could ready to discover some assistance and perhaps her life get spared.

So we start to develop our application.

1.3 Objectives

The objectives of our project can be easily understand by the name of our project titled "Women Safety". The world become dependable on technology. Many more technology is developed every day. So our one of the main objectives is to give safety to woman through this technology. You need not to shout for help when you have technology, just a smart phone in your hand and you can find help easily.

Also have some more objectives, because there is some similar application in the market so we try to make some batter and Bangladeshi user friendly user interface.

The fundamental point of this undertaking is to build up a framework that can deal with and figure out how to send message to the companions or relatives when a young lady/lady in threat for quick help.

1.4 Expected Outcome

We are planned to design the project by using android platform as we try to use mobile phone. We expected a benchmark to achieve our goal to reach the following outcomes:

- Make a straightforward easy to use condition for user.
- Easy process to get .apk file to install Application.
- Give reliable messaging facility for the users.
- Appealing UIs to explore through the framework for the clients.
- Develop the system documentation with details UML specifications.
- Users need not to login, just need to install application.
- User can send message quickly
- Require less time to search.

1.5 Report Layout

In the first chapter of the project report, we have discussed about the overview, motivation of the project. We have discussed about our objective and what are the expected outcomes. The second chapter extensively discusses about our project background. We have also enlisted many of the studies on this field.

Following that, the third chapter is about the Requirement Specification that we have implemented. We have also briefly discussed about the classifier algorithms used in this report. The fourth chapter will tell you about the design specification of our project. And the fifth chapter is all about implementation and testing of our developed project. Finally, the sixth chapter discusses about the summary, future scope of the study and discusses about further areas for study in the similar field.

CHAPTER 2

BACKGROUND

In this chapter we will discuss about the background of our project, we will discuss about what is women safety, how can technology can ensure women safety and many more.

2.1 Introduction

What do we mean by safety: Safety is the condition of being "sheltered" (from French *sauf*), the state of being shielded from damage or other non-attractive results.

So woman safety means keep woman safe or protect them from harm. Our main goal in this application is to save them from harm. Ladies' wellbeing includes methodologies, practices and arrangements which plan to lessen sex based savagery (or brutality against ladies), including ladies' dread of wrongdoing. As indicated by insights, 39% of all ladies in the Netherlands have been the casualties of sexual savagery eventually in their lives. Power awkwardness and generalizations about people are regularly to fault. That is the reason the Dutch government needs people to be on an equivalent and sound balance.

What actually happened when women safety is violate: Women are also free people in the world but men try to take ownership on women. Men rape women, sexually harassment them by doing so the safety of women are not maintaining. The rights of women are violating. Whatever we need to keep our women safe. To protect them we need to help them. To help them we need to know is they in any danger or not. If girls can inform their relative than their relative may can help them.



Figure 2.1: Women harassed in bus

If any woman in a bus and only some other passenger is in the bus and the woman thing the situation is getting worst cause she thing some unwise incident is going to take place in the bus with her than she need to inform someone to help. But if she going to do so the other can harm her immediately. so what can she do? She need to inform her friends or relative her situation and her location to so that they can help her.

2.2 Benchmark Analysis

do many job to ensure the women safety. Almost in every country there is several low to make sure the safety of women, as women can movement on the outside freedom. As technology is also developed so many IT team also try to improve something on it. By google search we find lots A good number of studies have been conducted related to “Women Safety”. So many organizers of similar works on the internet.

2.2.1 VithU App

It's not easy to get the time to dial an emergency number in the time of danger. But the VithU app help on that moment by skip this option and give another option which is just push the power button of your smart phone twice and it will send an sms alert to your selected contacts. It will continuously send your alert message after every two minutes with your current location to your selected number.

2.2.2 Circle of 6 App

It's a unique app which will help you to connect your close friends or familiar up to 6 contacts. It's able to send different saved notification as alert message when it will be needed. And user will face any danger it will send that notification to any of that 6 contacts. It also helps to communicate to 6 close contacts.

2.2.3 I'm Shakti App

The I'm Shakti (IMS) is a mobile application which will connect to your friends and familiar. As they are your power your Shakti that's why its name is Shakti. It sends an emergency message to your saved contacts with your GPS location. The process of send an emergency in this app is press the power button at least 5 time within 2 seconds.

Many more related work is found in online

- Famy Family Chat & Locator App
- Nirbhaya: Be Fearless App
- Watch Over Me App
- Sentinel Personal Security SOS App
- Secure Her App

2.3 Comparative Studies

As there is so many applications for the same purpose and as we want to build a good application that's why we compare so many similar apps. We notice that almost every apps have one common part that is GPS. And yes it is very important for this type of application. For inform the victims current location there must be a GPS system in the apps. And another main thing is power. If this application consume much more power that will not be user friendly. And it will not be helpful rather than it will keep you in more danger too.

The more facility will be given to the user who will use it, so make a table and compare some apps to find out which option must be there in our apps.

Table 2.1: Comparative table of apps

Apps name	GPS	Low power consumption	Work fast	Free app	Risk free	Available in play store
MSMR Women safety app	✓	✗	✓	✓	✓	✓
My safetipin	✓	✓	✓	✓	✓	✓
SOS App	✓	✗	✗	✓	✓	✓
Watch over me	✓	✓	✗	✗	✓	✗
Secure her app	✓	✗	✗	✗	✓	✗

Women safety	✓	✓	✓	✓	✓	✗
--------------	---	---	---	---	---	---

2.4 Scope of the Problem

We notice there is several scope to prevent this women harassment, but as we want to help them by technology so it would be better to do some mobile application to inform their relative to the victim situation. By using this kind of method we can protect many women in Bangladesh especially in Dhaka.

In our country we see that many women pass through a narrow road in night which is note safe for them but they can feel stronger if they use this app in their mobile phone. It will grow a power in their mind that they are not alone on that road, their friends and relative are also with them because she can instantly inform and call them if there is need.

2.5 Challenges

Our fast challenge is to get the mobile network in every corner. Its available in the main city but in some part of our country is outside of network. Second challenge is of our application is to get the update police station mobile number.

We have to make the women awareness about the women harassment, and also teach them when an incident can be happened. If they are not aware when a sudden incident can take place than they will not be able to use this application accurately. And also this application cannot be providing to those women who do not use a smart phone.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business process modeling

Every project requires the analysis of design so that it becomes much of user friendly and our one contains in the same way. For that we just tried to navigate the scenario ordered and well designed and having no complexity in it. We select a high end android version that most of the device can grab it.

A business process model of our project is given below.

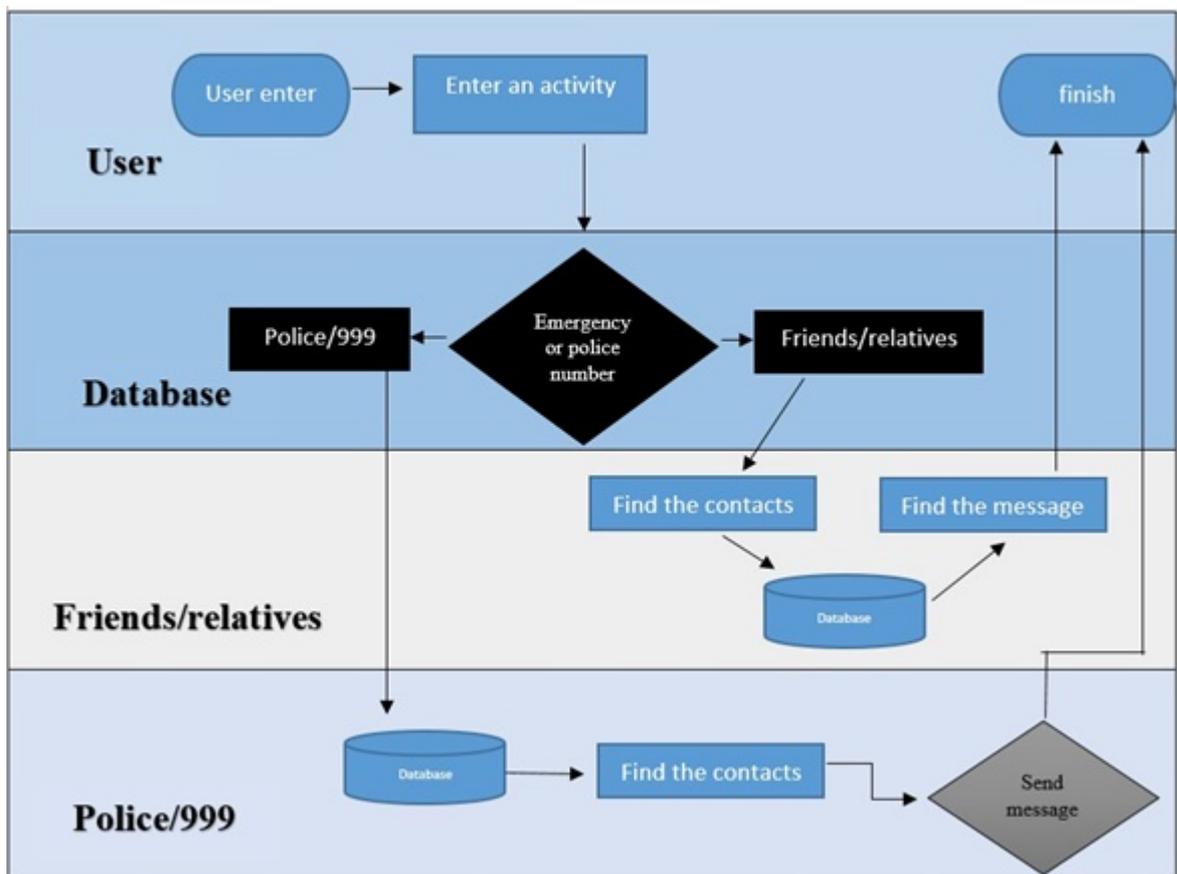


Figure 3.1: Business process model

The user can find the help from two sector one is form her friends or relatives and the other is from police station. For that she need to call on 999 or in police station number.

3.2 Requirement collection and analysis

For our work we have to collect so many requirements. And for build up the application we need some main requirement. We can divide our requirement into two type, software and hardware.

3.2.1 Software

Every project requires the analysis of design so that it becomes much of user friendly and our one contains in the same way. For that we just tried to navigate the scenario ordered and well designed and having no complexity in it. We select a high end android version that most of the device can grab it. Here Android 7.1.2 nougat was chosen.

For building up the application, we need the accompanying Software Requirements:

- Operating System: Windows 8, Windows 7, Windows 10
- Language: Android SDK, Java
- Tools: Eclipse IDE, Android Plug-in for Eclipse
- Technologies utilized: Android, Java

3.2.2 Hardware

For building up the application, we need the accompanying Hardware Requirements:

- Processor: P IV or higher RAM: 2 GB
- Space on plate(disk): least 512MB

For running the application:

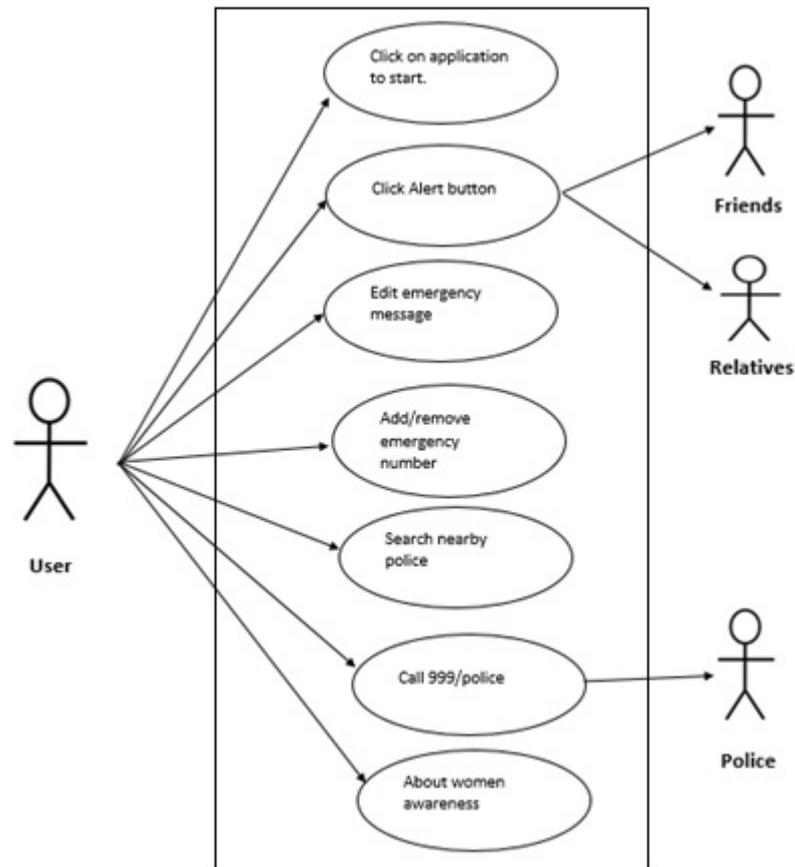
- Device: Android adaptation 3.3.2 and higher
- Minimum space to execute: 20MB
- An advanced cell

3.3 Use case modeling and description

Use case graphs are comprising of performing artists, use cases and their connections. The graph is utilized to demonstrate the framework/subsystem of an application. A solitary use case chart catches a specific usefulness of a framework.

Use case charts are utilized to assemble the necessities of a framework including inward and outside impacts. These prerequisites are for the most part structure necessities. So

when a framework is breaking down to assemble its functionalities use cases are readied and performers are distinguished.



Figures 3.3: Use Case diagram

There are four actors in our project's use case diagram. The main actor is the user. Main everything in this apps is done by the user. User chose all the option. All other actors are connected to the user through any action.

- User
- Friends
- Relatives
- Police

There are so many action that can be perform by the user. the main option is the alert button. User can easily perform on this button from home. For other option user must go to the menu.

All other option is available in the menu which can be performed by the user very easily too.

The option is given below with which user is connected to,

- ❖ Start app
- ❖ Alert button
- ❖ Edit emergency message
- ❖ Add/remove number
- ❖ Search police
- ❖ Call police
- ❖ View some tips

All the activity that can be perform on this application can be easily understand by the use case model that is given.

3.4 Logical data model

We use SQLite for store and call back the important data and which are important to store for us in our apps. We need to store only few information in our apps. One is about emergency contact number and another is the police contact number. And side by side we can also store our emergency message too.

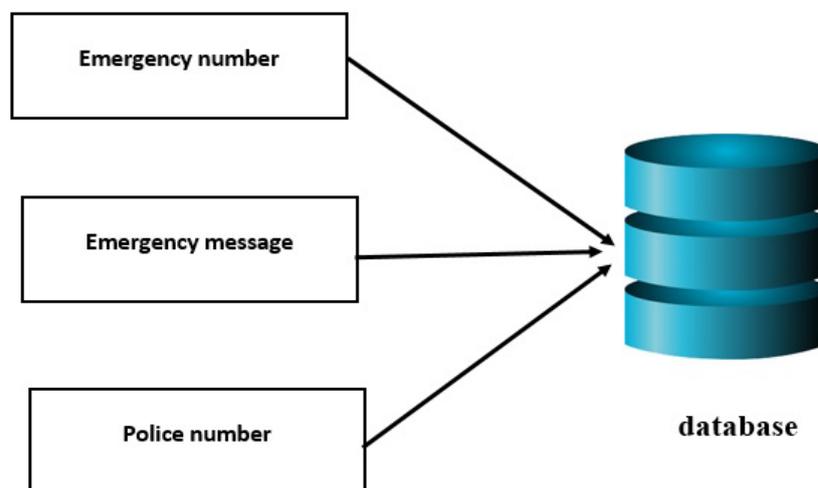


Figure 3.4: Data base

3.5 Design requirement

For developed this project a good design is very important. Every developer tries to do a good job by a good project and a good project depends lots on its look. So we try to do a very user friendly design for our “women safety” project.

CHAPTER 4

DESIGN SPECIFICATION

In this chapter, we will discuss about the front-end and back-end design of our project.

4.1 Front-end Design

Front-end design shows us the outlook of our application. We use HTML, in Layout-Button, list view, text view, web view and CSS for color, padding, letter, widths and other decorative purposes.

Some outlook of our project is given below

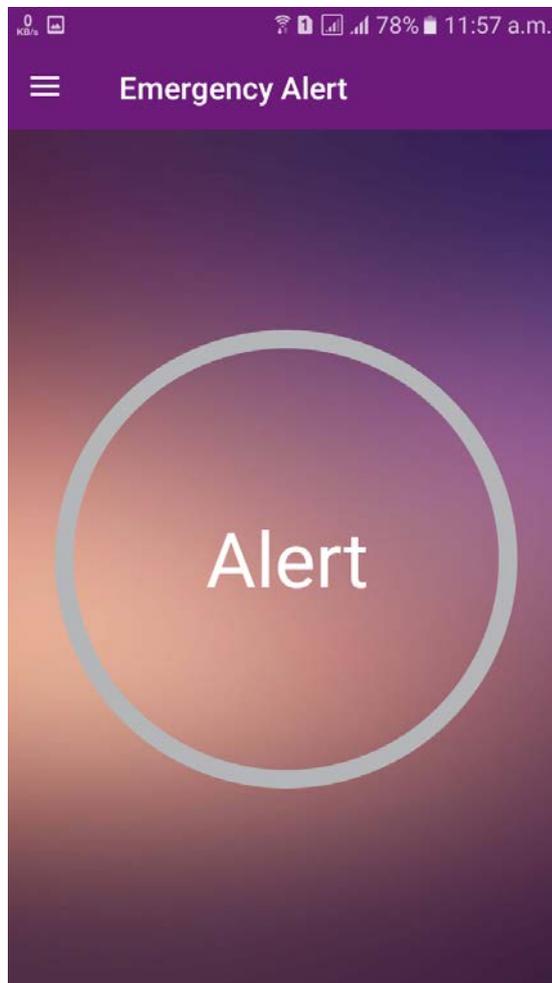


Figure 4.1: Home page

This is the home page, when we start the app we will see this interface.

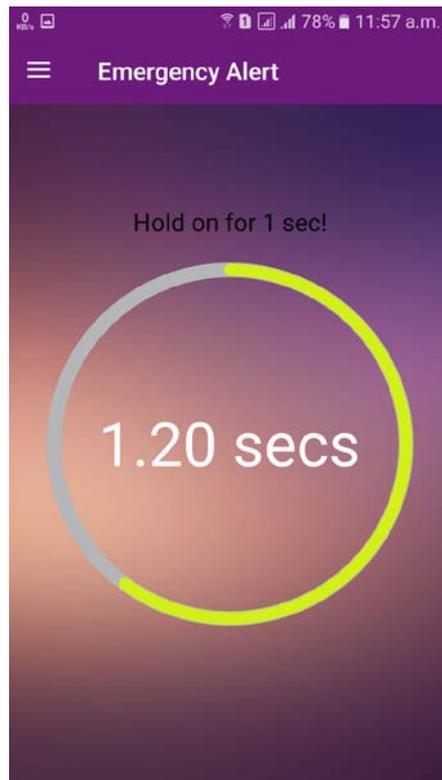


Figure 4.2: Emergency button is pressed
User need to hold the button pressed for 2 minute to send the emergency message.

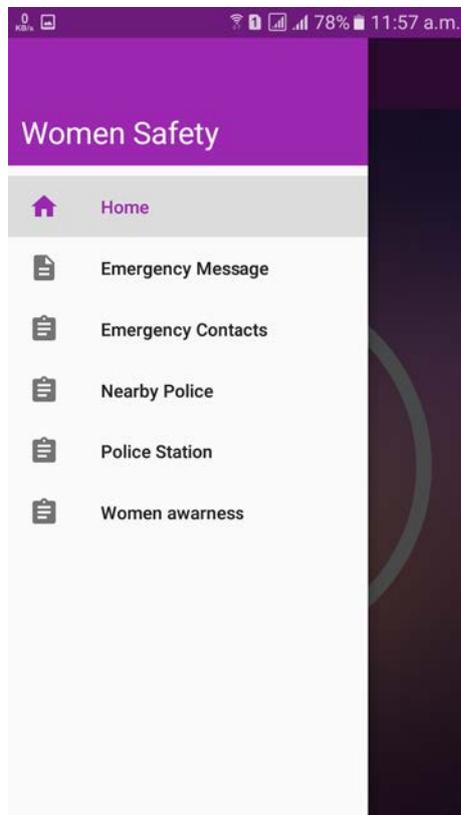


Figure 4.3: Menu page

Here is the menu of our application, from here we can excess in every option.

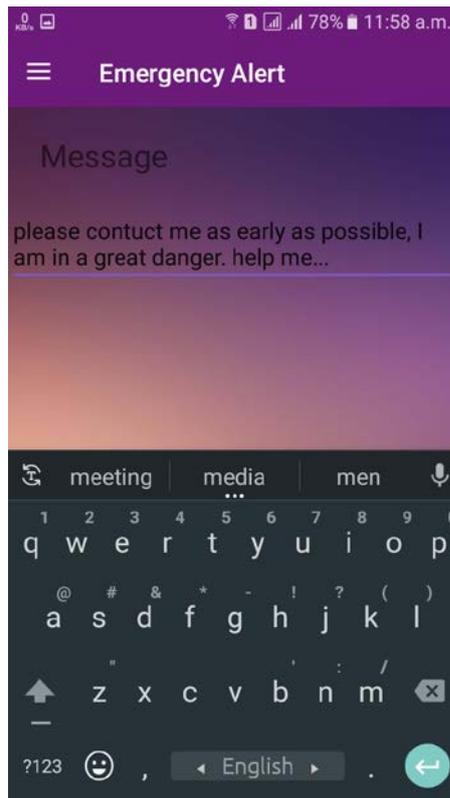


Figure 4.4: Emergency message

From the option emergency message, we can go to this page and edit our message as we want and it will be saved in the data base automatically.

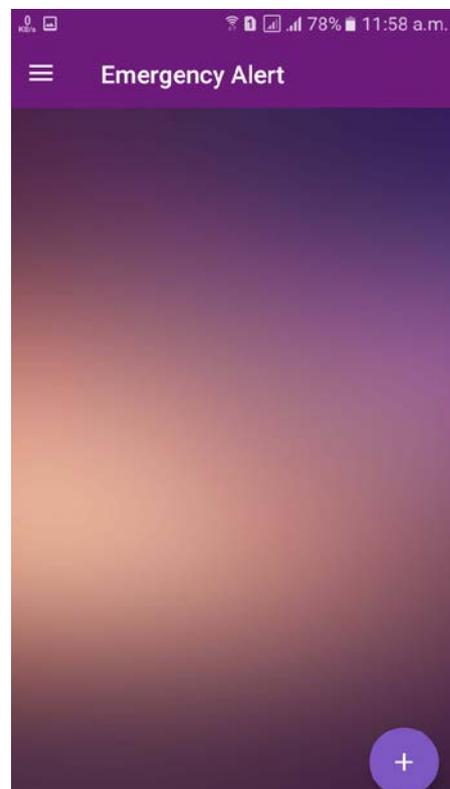


Figure: 4.5: Emergency contact list

Here we can add or remove emergency number.

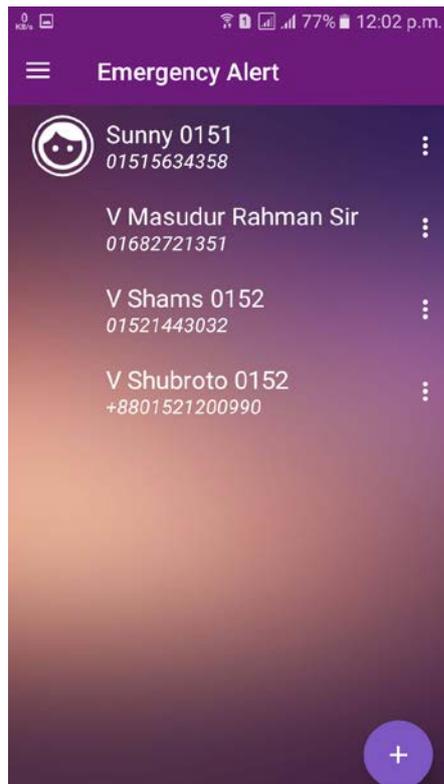


Figure 4.6: Emergency numbers

After adding some number, all the number will be visible like this in this page. And they will be saved in database too.

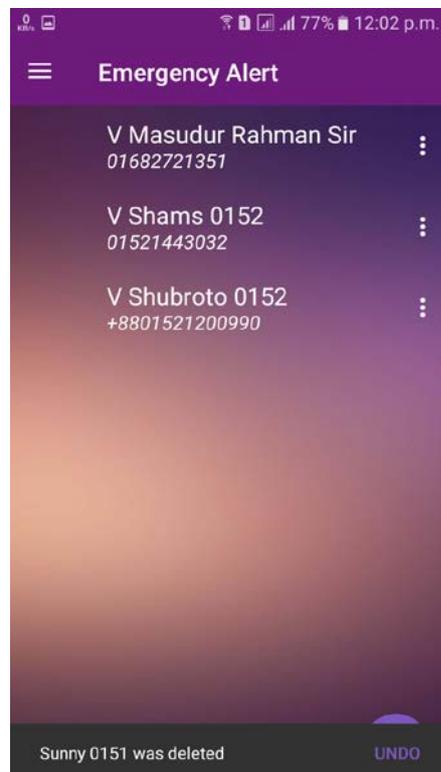


Figure 4.7: Remove number

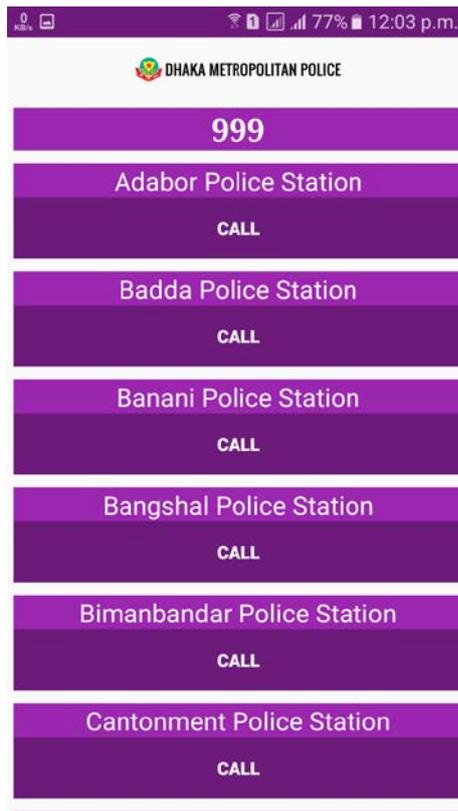


Figure 4.8: Police number

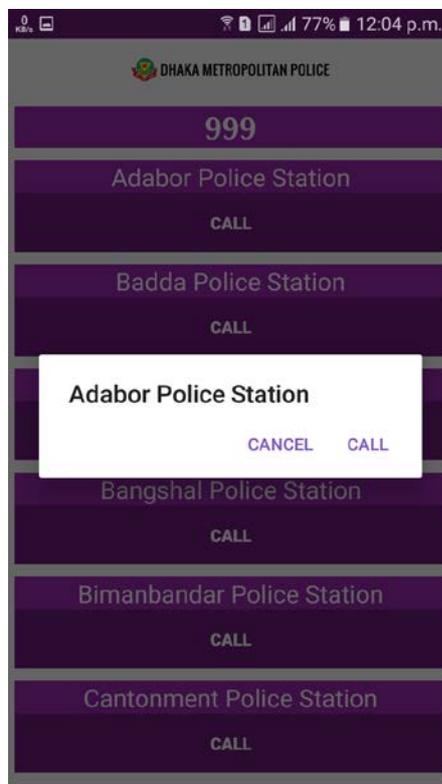


Figure 4.9: Call to police

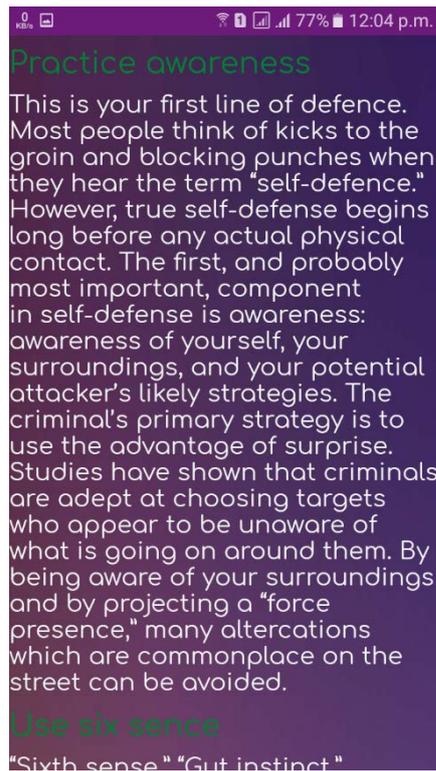


Figure 4.10: Awareness tips

Finally, some awareness tips for women so that they can protect them from violence

4.2 Back-end Design

Class Diagram gives a review of the objective framework by portraying the articles and classes inside the framework and the connections between them. It gives a wide assortment of utilizations; from demonstrating the area explicit information structure to nitty gritty plan of the objective framework.

Figure below illustrates Class diagram of this application.

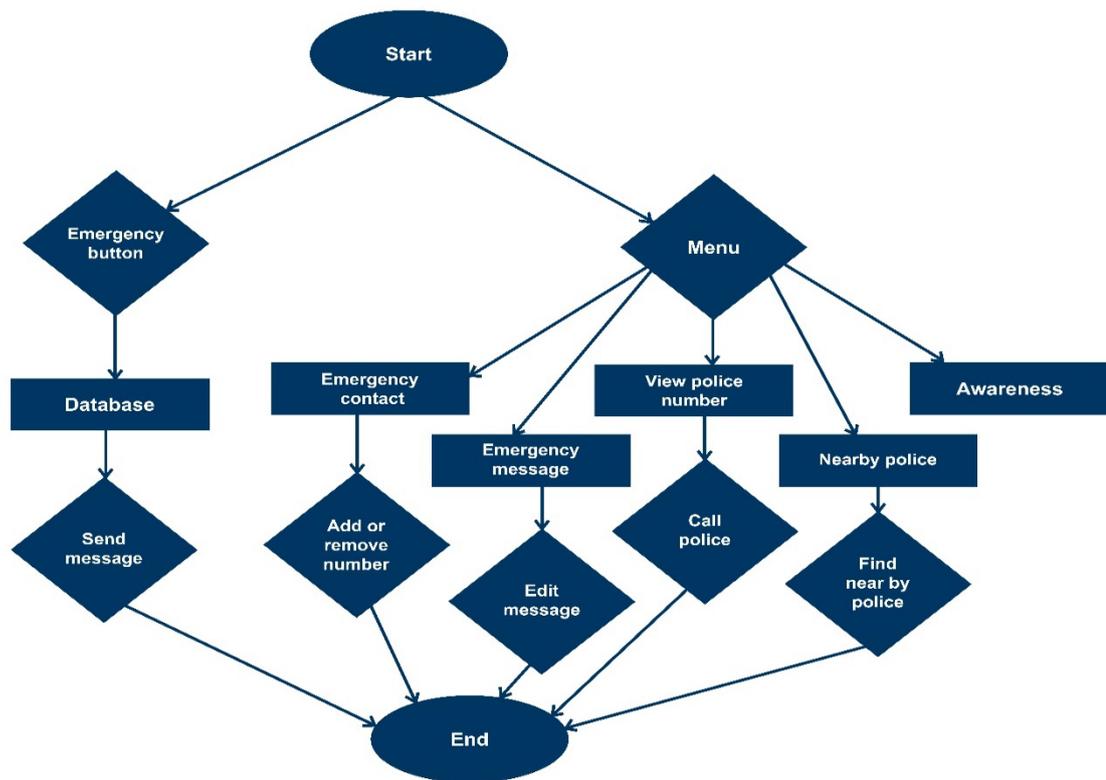


Figure 4.11: Process diagram model

We use a large number of java function to build this application. Back-end design means code are implemented in java code. Side by side some important method is also used in this apps.

4.2.1 Application Role is to:

This section describes the App roles and the roles' responsibilities.

- Check request from user choice.
- Get necessary information from right Activity.
- During loading Result Show web view for waiting.

Responsibilities of the Application:

- Conducts a monthly review of the Application performance.
- Identifies enhancements that need to be applied to the App.
- Determines the prospects for continued use and support.

4.3 Implementation Requirement

This project used following Requirements.

1. Android: In Layout-Button, list view, text view, web view.
2. Java for android coding [5].
3. Html page for GUI.
4. CSS for color, padding, letter, widths and other decorative purposes.
5. a good perform able laptop.

CHAPTER 5

IMPLEMENTATION AND TESTING

System Architecture:

Class Diagram gives a review of the objective framework by depicting the items and classes inside the framework and the connections between them. It gives a wide assortment of utilizations; from demonstrating the area explicit information structure to definite plan of the objective framework. This Android Architecture is not visual for the user, it's a built in function or architecture.

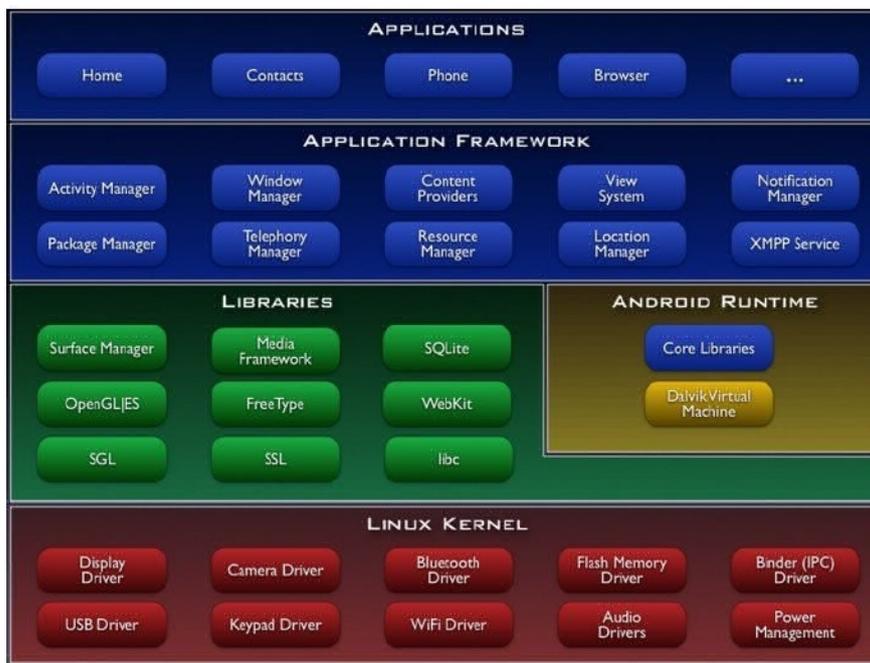


Figure 5.1: Android architecture showing the major components of android OS
(android wiki,2014)

Figure 5.1 shows chart of the Android engineering. Android OS is fundamentally a product stack with different layers with each layer offering distinctive administrations to the layer above it. The layers incorporate a Linux Kernel which is in charge of collaboration with the equipment. Libraries are written in C or C++ and are explicit to the equipment of the framework.

5.1 Implementation of database

We use SQLite for database in our application. all the social database highlights are supported by the SQLite database. It is an open source SQL database that stores information to a content document on a gadget. Android naturally have worked in SQLite database usage. We didn't have to construct any sort of additional association for this database.

The fundamental bundle is android. database. SQLite that have the classes to deal with our own databases.

Creation of database:

to make a database simply need to call this strategy openOrCreateDatabase with the database name and mode as a parameter. It returns SQLite database. Its grammar is given underneath.

```
“SQLiteDatabasemydatabase=CreateDatabase(“womansafety”,MODE_PRIVATE.NULL)
;”
```

1. openDatabase(String path, SQLiteDatabase.CursorFactory factory, int flags, DatabaseErrorHandler errorHandler)
2. openDatabase(String path, SQLiteDatabase.CursorFactory factory, int flags)
3. openOrCreateDatabase(String path, SQLiteDatabase.CursorFactory factory)
4. openOrCreateDatabase(File file, SQLiteDatabase.CursorFactory factory)

Insertion in database:

It can make table or addition information into table utilizing execSQL strategy characterized in SQLiteDatabase class. Its linguistic structure is given beneath.

```
mydatabase.execSQL(“CREATE TABLE IF NOT EXISTS womensafety( Username VARCHAR, Password VARCHAR);”);
```

```
mydatabase.execSQL(“INSERT INTO women safety VALUES( ‘admin’, ‘admin’);”);
```

Database – Fetching:

a method of this class called rawQuery and it will return a resultset with the cursor pointing to the table.

```
Cursor resultSet = mydatabaserawQuery(“ Select * from womensafety”,null);
```

```
resultSet.moveToFirst();
```

5.2 Implementation of front-end design

In front-end design we implement GUI of our project. We design so many layouts to implement and give the original look to our apps.

- Main Action Bar
- View Control
- Content Area
- Split Action Bar

List view is used to design the menu bar where we can find out 6 option in our application.

- Home
- Emergency message
- Emergency contacts
- Nearby police
- Police station
- Women awareness

Index_List_Adapter in menu:

In Index list of menu following methods are used.

- GetCount (): int
- GetView: void

GetCount method counts the total number of index_list.

GetView method arranges the view of listItem.

Awareness Index List Data:

In awareness index list data following methods are used.

- getappraciceawareness_index()ArrayList<String>
- getsixsence index () ArrayList<String>
- getdefence_index()ArrayList<String>

5.3 Testing Implementation

There is so many option in our “women safety” app. For implementation of test we need to short out which option do which work and how it happened. We have to list out expected outcome and expected result and actual result. For that have to check the test manually. the list of option in our app is listed below.

- ❖ Alert button
- ❖ Home page
- ❖ Menu
- ❖ Emergency contact
- ❖ Emergency message
- ❖ Nearby police
- ❖ Police number
- ❖ Women awareness
- ❖ Add/remove contact
- ❖ Edit message

Many more.

So we have to test every option individually. First we have to check is this app start when we open the app. If that's fine than we will check the other option. We want that when user will press the alert button for 2 or more than 2 min it will send a message to all the emergency number that is saved in database. So for test this option we have to check this button in few different ways. First if we press that button less than 2 min what will be happened, secondly if we press that exactly 2 min and thirdly what will be happened if we press that button and hold for more than 2 min.

After that we will check the menu option and all the individual option in the menu list. If we go to emergency message it will give us an option to edit the previous message or add new message. So we will check that by doing manually. If the message is saved automatically after edit than its fine.

Almost same test will be applied in the emergency contact list. We have to check if user able to add or remove the emergency contact in the contact list and are the saved in the database or not.

Do the nearby police show the nearby police or not is another important test? By giving the GPS the excess of user location user can find the information of nearby police of her.

When user will go to police station option it will show the user the number of police. And the testing point is, are user can make call from that option in the police station. Lastly we will open the awareness option from the menu bar to check all the awareness tips.

5.4 Test Result and Reports

We build this “women safety” application with a noble though. We implement this so that we can help all the women and especially our countries women/girls. So after implementation we test our application with a testing algorithm all the user case. So that the user doesn’t miss any option and fell awkward to use this app.

Table 5.5: Testing of all kind of user case result.

Sr. No	Test Input	Expected Output	Actual Output	Result
1.1	Click to App Icon.	Home	Successfully go to Home	Alright
1.2	While clicked on “Alert!” button less than 2 min	Just time count	Just show the pressed time	Pass
1.3	While clicked on “Alert!” button equal or greater than 2 min	Send emergency message	Message send	Pass
2.1	Clicked on side menu bar	Show the list of menu	List shows	Pass
2.2	If Click on home from menu	Show the home page	Goes to Home	Pass

3.1	Click on emergency message	Goes to new page of message	Shows message option	Pass
3.2	Write message to save	Write and save automatically	Save edited message automatically	Pass
4.1	Click on Emergency contacts	Gives option to edit emergency contacts	add/remove emergency contacts.	Pass
5.1	Click on nearby police	Find out nearby police	Give idea about your nearby police	Pass
6.1	If Click on police station	Get Index Lists of police number	Shows 999 and other police station name and number	Pass
6.2	Call in any number	Make the call	Make the call	Pass
7.1	Click on women awareness option	Show the list of awareness	Give user some awareness tips	Pass
8.1	Press back button	Goes to previous activity	Goes to previous activity	Pass

So after analysis the re test result we can report that all the option is working accurately, and user can use this app very fluently. As all the option is working rightly so we can hope that our project will be able to help the use.

CHAPTER 6

CONCLUSION AND FUTURE SCOPE

We began this application with the goal of making something straightforward and identified with security and remote access.

6.1 Discussion and Conclusion

“Women safety” is a user friendly and very necessary mobile application. The outcome of this project is an improved understanding user with formulas. We began this application with the goal of making something straightforward and identified with security and remote access.

Technical Feasibility

“women safety” application is developed for android phones. Now almost everyone uses android phones. For using this service don't net connection always. After installing this app, them don't need any net connection. Data connection is available now And we need it for higher development. So we believe technical support won't be a problem for this project.

Economic Feasibility

- Developer can submit the app on Google play and earn from it.
- Can earn from advertising into the app.
- Trial period may free then it may be premium one.

Behavioral Feasibility

- User can access this any android phone.
- As user can search desired formula of any chapter, so it saves users time.
- As it has Scientists details also it will be more helpful to understands.
- It provides users best formula memorizing way without wasting lots of time to finding and arranging them.

So we, think this application is very much useful to all Students of SSC and HSC.As Students are using phone in large amount, Future Scope of this application is broad.

6.2 Scope for Further Developments

We will continue to develop this app in future. There could be some more option in this app which can make it more batter. In future there will be more progress in our technology by using which we will be able to make it more batter.

Update version will be bringing in the market for user. This project is very essential for women. In future everyone will be highly dependable on the technology, and everyone will be willingly start to like technology that time our project will be more popular among the girls and women.

Already we have some plan to add some features in this app so soon in future.

- a. Nearby friends
- b. Nearby relatives
- c. Keep attention of parents
- d. Keep the camera on

And many more.

APPENDICES

Appendix A: XML design code

This appendix section contains some screen captures of our working procedure.

activity_main.xml

```
<?xml version="1.0"?>
<android.support.v4.widget.DrawerLayout android:layout_height="match_parent"
android:layout_width="match_parent" android:id="@+id/drawer_layout"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:android="http://schemas.android.com/apk/res/android"><LinearLayout
android:layout_height="match_parent" android:layout_width="match_parent"
android:id="@+id/MainScreen"
xmlns:android="http://schemas.android.com/apk/res/android"
android:orientation="vertical"><include android:layout_height="wrap_content"
android:layout_width="match_parent"
layout="@layout/navigation_toolbar"/><FrameLayout android:layout_height="match_p
arent" android:layout_width="match_parent" android:id="@+id/main_content_fl"
android:background="@drawable/background"/></LinearLayout><android.support.desi
gn.widget.NavigationView android:layout_height="match_parent"
android:layout_width="wrap_content" android:id="@+id/navigation_drawer_main"
app:menu="@menu/drawer_design" app:headerLayout="@layout/navigation_header"
android:layout_gravity="start"/></android.support.v4.widget.DrawerLayout>
```

Activity_thana_list.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<LinearLayout android:gravity="center" android:orientation="vertical"
android:layout_height="wrap_content" android:layout_width="match_parent"
xmlns:android="http://schemas.android.com/apk/res/android"><ImageView
android:layout_height="50dp" android:layout_width="wrap_content"
android:src="@drawable/dmp"/><LinearLayout android:orientation="vertical"
android:layout_height="wrap_content" android:layout_width="match_parent"
xmlns:android="http://schemas.android.com/apk/res/android"
android:padding="5dp"><TextView android:gravity="center"
android:layout_height="wrap_content" android:layout_width="match_parent"
android:background="@color/colorPrimary" android:fontFamily="serif"
android:textStyle="bold" android:textSize="25dp" android:textColor="#fff"
android:id="@+id/txt999" android:text="999"
android:maxLines="1"/></LinearLayout><android.support.v7.widget.RecyclerView
android:layout_height="match_parent" android:layout_width="match_parent"
android:id="@+id/thanalistrecycler"/></LinearLayout>
```

activity_thana_maps.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<fragment tools:context=".ThanaMapsActivity" android:layout_height="match_parent"
android:layout_width="match_parent"
android:name="com.google.android.gms.maps.SupportMapFragment"
android:id="@+id/map" xmlns:tools="http://schemas.android.com/tools"
xmlns:map="http://schemas.android.com/apk/res-auto"
xmlns:android="http://schemas.android.com/apk/res/android"/>
```

alert_fragment.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<RelativeLayout android:id="@+id/alert_fragment_id"
xmlns:app="http://schemas.android.com/apk/res-auto"
android:layout_height="match_parent" android:layout_width="match_parent"
xmlns:android="http://schemas.android.com/apk/res/android"><com.natasa.progressvi
ews.CircleProgressBar android:id="@+id/alert_timer" android:layout_height="300dp"
android:layout_width="300dp" android:theme="@style/AppBaseTheme"
android:layout_centerHorizontal="true" android:layout_centerVertical="true"
android:longClickable="true" android:focusable="true"
android:focusableInTouchMode="true" android:clickable="true"
app:progress_width="10dp" app:progress_color="#d3f115" app:progress="0"
app:bar_color="#b5b6b9"
app:bar_width="12dp"/><TextViewandroid:id="@+id/alert_inst"
android:layout_height="wrap_content" android:layout_width="wrap_content"
android:layout_centerHorizontal="true" android:textSize="20dp"
android:layout_margin="20dp" android:layout_above="@+id/alert_timer"
android:text="Hold on for 1 sec!"
android:textAppearance="?android:attr/textAppearanceLarge"/></RelativeLayout>
```

emergency_contacts_fragment.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<RelativeLayout android:id="@+id/emergency_contacts_fragment_id"
xmlns:app="http://schemas.android.com/apk/res-auto"
android:layout_height="wrap_content" android:layout_width="match_parent"
xmlns:android="http://schemas.android.com/apk/res/android"><android.support.v7.wi
dget.RecyclerView android:id="@+id/recycler_list"
android:layout_height="match_parent" android:layout_width="match_parent"
xmlns:android="http://schemas.android.com/apk/res/android"/><android.support.desig
n.widget.FloatingActionButton android:id="@+id/add_contacts_fab"
android:layout_height="wrap_content" android:layout_width="wrap_content"
android:clickable="true" android:layout_margin="16dp"
android:layout_alignParentEnd="true" android:layout_alignParentRight="true"
android:layout_alignParentBottom="true" app:layout_anchorGravity="bottom|right|end"
android:layout_gravity="bottom|end"
android:src="@drawable/ic_add_white_24dp"/></RelativeLayout>
```

©Daffodil International University

Appendix B: java code

```
package electroniccupcake.EmergencyAlert;
import android.app.IntentService;
import android.content.Intent;
import android.support.v4.content.LocalBroadcastManager;
import android.util.Log;
import electroniccupcake.projectalert.R;
public class AlertProcessingService extends IntentService
{
private static String TAG = "TAG";
private double start_time;
private static boolean isTouching;
private double curr_time;
private double final_time;
private double progress;
private Intent progressUpdateIntent;
public AlertProcessingService()
{
super("com.electroniccupcake.EmergencyAlert.AlertProcessingService");
this.start_time = System.currentTimeMillis();
this.curr_time = 0.0;
this.progress = 0.0;
}
@Override
protected void onHandleIntent(Intent intent)
{
this.final_time =
intent.getDoubleExtra(getApplicationContext().getString(R.string.Final_Time),0.0);
start_time = System.currentTimeMillis();
Log.i(TAG,"In on handle intent is touching : " + isTouching);
while (isTouching)
{
```

```

curr_time = System.currentTimeMillis();
if ((curr_time - start_time) / 100.0 > final_time)
{
Log.i(TAG, "Sending Emergency Message!!");
break;
}
else // Update the progress bar
{
progress = (((curr_time - start_time)/100)/ final_time)*100);
Log.i(TAG, "Current Time: " + curr_time);
Log.i(TAG, "Start Time: " + start_time);
Log.i(TAG, "Final Time: " + final_time);
Log.i(TAG, "(Current time - Start time)/100: " + (curr_time - start_time)/100);
Log.i(TAG, "Progress: " + progress)

progressUpdateIntent = new
Intent(main_content.AlertAnimationUpdateReciever.EA_ANIM_REC_ADDR);
progressUpdateIntent.putExtra(getApplicationContext().getString(R.string.Progress_Val),
(float)progress);

LocalBroadcastManager.getInstance(this).sendBroadcast(progressUpdateIntent);
}
}
}

public static void setIsTouching(boolean touching)
{
isTouching = touching;
}
}

```

REFERENCES

[1]. Android guide, <https://developer.android.com/guide>, last accessed on may,27, 2018.

[2]. Android Architecture, https://www.tutorialspoint.com/android_architecture.html, last accessed on may,29,2018.

[3]. Use Case and Class diagram, <https://www.draw.io/>, last Accessed on February,10, 2019.

[4]. Android coding, <https://www.tutorialspoint.com/>, last Accessed on February25, 2019.

[5]. Java coding, <http://www.javatpoint.com>, last Accessed on February20, 2019.

[6]. Use of coding for GPS, <https://www.androidhive.info/2012/07/android-gps-location-manager-tutorial/>, last Accessed on February 20, 2019.

[7]. Data details, https://www.tutorialspoint.com/android/android_sqlite_database.htm, last Accessed on February20, 2019.

[8]. Design code writing, <https://www.youtube.com>, last Accessed on march, 31, 2019.

[9]. Xml code, <https://abhiandroid.com/ui/xml>, last Accessed on January 21, 2019.

[10]. Coding, <https://www.youtube.com/playlist?list=PLshdtb5UWjSrOJfpFOE-u55s3SnY2EO9v>, last Accessed on march 21, 2019.

Women Safety

ORIGINALITY REPORT

13%	12%	7%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	retawprojects.com Internet Source	2%
2	www.tutorialspoint.com Internet Source	2%
3	htmlcss9999.blogspot.com Internet Source	1%
4	github.engineering.zhaw.ch Internet Source	1%
5	www.htzcn.com Internet Source	1%
6	gitlab.citius.usc.es Internet Source	1%
7	www.vibrantnaukri.com Internet Source	1%
8	yuliana.lecturer.pens.ac.id Internet Source	1%
9	78tikkeu5m.download2.org Internet Source	<1%