SELF PROTECT – AN EMERGENCY SAFETY APP

BY

MD. SADDAM HOSSIEN

Id: 161-15-7655

This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science and Engineering

Supervised By

Md. Sadekur Rahman
Assistant Professor
Department of CSE
Daffodil International University

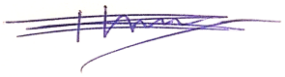
DAFFODIL INTERNATIONAL UNIVERSITY
DHAKA, BANGLADESH
SEPTEMBER 2021

APPROVAL

This Project titled "**Self Protect- An Emergency Safety App"**, submitted by **Md. Saddam Hossien**, ID No: **161-15-7655** 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 **September 11, 2021**.

BOARD OF EXAMINERS

Chairman



Dr. Touhid Bhuiyan

Professor and Head

Department of Computer Science and Engineering

Faculty of Science & Information Technology

Daffodil International University

Internal Examiner

Nazmun Nessa Moon

Assistant Professor

Department of Computer Science and Engineering

Faculty of Science & Information Technology

Daffodil International University

Internal Examiner

Gazi Zahirul Islam

Assistant Professor

Department of Computer Science and Engineering

Faculty of Science & Information Technology

Daffodil International University

External Examiner

Dr. Md Arshad Ali

Associate Professor

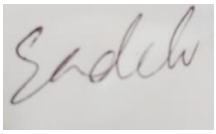
Department of Computer Science and Engineering

Hajee Mohammad Danesh Science and Technology University

DECLARATION

I hereby declare that, this project has been done by us under the supervision of **Md. Sadekur Rahman, Assistant Professor, Department of CSE,** Daffodil International University**,** Daffodil International University. I also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree.

Supervised by:



_____

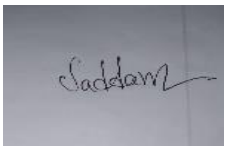
Md. Sadekur Rahman

Assistant Professor

Department of CSE

Daffodil International University

Submitted by:



_____

Md. Saddam Hossien

Id: 161-15-7655

Department of CSE

Daffodil International University

ACKNOWLEDGEMENT

First I express my heartiest thanks and gratefulness to almighty God for His divine blessing makes me possible to complete the final year project successfully.

I really grateful and wish my profound my indebtedness to **Md. Sadekur Rahman, Assistant Professor, Department of CSE,** Daffodil International University, Dhaka. Deep Knowledge & keen interest of my supervisor in the field of web development influenced me 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 stage have made it possible to complete this project.

I would like to express my heartiest gratitude to **Dr. Touhid Bhuiyan**, **Head, Department of CSE,** Daffodil International University, Dhaka, for his kind help to finish my project and also to other faculty member and the staff of CSE department of Daffodil International University.

I would like to thank my entire course mate in Daffodil International University, who took part in this discuss while completing the course work.

Finally, I must acknowledge with due respect the constant support of my parents.

ABSTRACT

One of the most important things in a person's life is his safety. There is a lot of research going on how to further ensure human safety. The right to human life and property and the right to a healthy life are protected by the state and basic human rights of citizens. One of the duties and responsibilities of the state is to keep other people safe and secure. No individual, association, organization, external enemy or state itself may attempt to deprive any citizen of this right; Rather the state will be obliged to ensure the safety of the lives of its citizens at any cost. The 'Self Protect App' is a way to quickly get the services of law enforcement in case of an attack while moving outside.

Users can use the app to receive security services. If the Self Protect app is running on the smartphone, if the user presses the power button of the phone three or four times in a row in case of danger, the necessary messages including location will be sent to the law enforcement members, friends and family. The application also has the facility to know the location of police station, hospital, fire service, ambulance, blood bank. I hope the app will reduce crimes in the society.

TABLE OF CONTENTS

CONTENTS	PAGE
Board of examiners	i-ii
Declaration	iii
Acknowledgements	iv
Abstract	v
CHAPTER	
CHAPTER 1: INTRODUCTION	**1-3**
1.1 Introduction	1
1.2 Motivation	1
1.3 Objectives	2
1.4 Expected Outcomes	3
1.5 Report Layout	3
CHAPTER 2: BACKGROUND	**4-6**
2.1 Preliminaries/Terminologies	4
2.2 Related Works	4
2.3 Comparative Analysis and Summary	5
2.4 Scope of the Problem	6
2.5 Challenges	6
CHAPTER 3: REQUIREMENT SPECIFICATION	**7-11**
3.1 Business Process Modeling	7-8

3.2 Requirement Collection and Analysis 9

3.3 Use Case Modeling and Description 10

3.4 Logical Data Model 11

3.5 Design Requirements

CHAPTER 4: DESIGN SPECIFICATION **12-18**

4.1 Front-end Design 12

4.2 User Interface Design 12

4.3 Back-end Design 18

CHAPTER 5: IMPLEMENTATION AND TESTING **20-22**

5.1 Implementation of Database 20

5.2 Implementation of Front-end Design 20

5.3 Implementation of Interactions 22

5.4 Testing Implementation 22

5.4 Test Results and Reports 23

CHAPTER 6: IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY **23**

6.1 Impact on Society 23

6.2 Impact on Environment 23

6.3 Ethical Aspects 23

6.4 Sustainability Plan 23

CHAPTER 7: SUMMARY, CONCLUSION AND IMPLICATION FOR FURTHER STUDY **24-25**

7.1 Summary of the Study 24

7.2 Conclusion 24

7.3 Impact for Further Study 25

REFERENCES **25**

`

LIST OF FIGURES

FIGURES	Page Number
Figure 3.1: Business process model	8
Figure 3.2: Use Case Model	9
Figure 3.3: ER-Diagram of System	11
Figure 4.1: Sing In and Sing Up Form	12
Figure 4.2: First Option	13
Figure 4.3: Second Option	13
Figure 4.4: Third Option	14
Figure 4.5: Forth Option	14
Figure 4.6: Splash Screen	15
Figure 4.7: Emergency Number giving Option	15
Figure 4.8: Number Verify	16
Figure 4.9: Home Screen	16
Figure 4.10: Complain Screen	17
Figure 4.11: Setting Option	17
Figure 4.12: Emergency Help Request Option	18
Figure 4.13: Back-end of the system	18
Figure 4.14: Three main child of the tree	19
Figure 5.1: Firebase Database	20

LIST OF TABLES

TABLES	PAGE NO
Table 2.1: Comparative analysis Table	4
Table 2.2: Time Scheduling	5

CHAPTER 01

INTRODUCTION

1.1 Introduction

In this day, phone gets lost is a common phenomenon and unfortunately there is no way we can know who is using that device and from where. There is no system being developed by someone that helps us in this situation. We live in different area that far away from Police Station. In very tough situation like attacked by someone dangerous, there is no time for sending help request to PS using phone call or just a message. Else if, there is time but those attackers never give us any chance to call or text Police Station or someone close and that's the reason we cannot get help from our Police when we need it most. Also, finding out nearest Police Station phone number isn't easy that moment. Moreover, there is no automation system which inform Police or can make a normal diary. In Bangladesh, Drug trafficking, Money Laundering, Extortion, hiring for murder, Fraud Activities, Human Laundering, Robbery, Corruption, Black Market Business, Political Clash, Terrorism and Hijacking and many more crimes happening every day. Due to these bad activities it makes very bad impact on common people life.

1.2 Motivation

To make this system several things motivated me several times. The thing motivated me the most is an accident.

It happened in March 2012. I was returning to my village home Meherpur by train from Dhaka. It was evening to reach Chuadanga railway station. I was caught by a group of seven or eight hijackers shortly before catching a bus from the train station. My Mobile-wallet was taken away. There was no money to return home. I could not even communicate with anyone as I did not have a mobile. I was in great danger. I returned home with great difficulty that day.

Many people like me are being kidnapped. In such an unforeseen danger, I keep thinking about how the news can be conveyed to my relatives or the surrounding police administration immediately. Then the idea came in my mind if there was an application on that smartphone, through which the danger could be reported to relatives or the police administration at the push of a button, there would be a possibility of protection. Lost

mobiles can also be recovered. From that idea I built this application to give needed protection immediately.

1.3 Objectives

The objectives of my project are point out below.

- To provide legal service timely.
- To get immediate help if being kidnapped, or facing any illegal harassment.
- To provide necessary information of **Emergency Services** depends on user Location.
    - Police Station
    - Fire Service
    - Hospital
    - Blood Bank

    Information: Name, Address, Distance,

    Contact Numbers, Location with Map.
- To get lost/hijack phone back.
- Digitalize the legal service.
- To provide the complaint services if user face any type of harassment. They can complain to:
    - Police
    - Rab
    - Human Rights
    - Legal Aid
    - Anti-Corruption

    Complain Type: Terrorism, Murder, Robbery, Kidnap, Women abuse, Cyber Crime, Corruption etc.

- To provide necessary information depends on user location
    - Bus Station
    - ATM Booth
    - Bank
    - Restaurant
    - Shopping Mall

    Information: Name, Address, Location with Map.

1.4 Expected Outcome

With the “Self-Protect” app, the location of our lost mobile phone is available, you can also get the serial number of the new sim which is being used on the lost mobile phone. If these information is provided to the law enforcement agency, the user will be able to get his phone back. Whenever if there is a problem, there is no way for sending messages or phone calls, so at that time, if your mobile phone is in the pocket or in the bag or in the hand, only by pressing the power button 3-4 times the law-enforcement organization and victim’s friends and family which is setup in the app will automatically get the victim’s location, the phone’s IMEI, audio sound, 30 second video, picture, Phone number. In the meantime, law enforcement agencies will be able to know the location of the victim and help him. The friends and family will be able to know where the victim is. Through this app, user can submit necessary complaints and reports to Women and Child Repression Prevention Organization, law enforcement agencies, legal aid centers, human rights commission. Through this app, you will be able to get help from emergency services such as hospitals, fire services, ambulances, blood banks etc. will be shown in the app screen and the user can take the necessary service. This app will be running in the background and remain hidden in the mobile phone.

1.5 Report Layout

The This project has six chapters. I will talk in the first chapter of the introduction name Related– Introduction, Motivation, Objectives, Expected Outcome, Project Management and Finance, and Report Layout. I will write in the second chapter of the background title Project Terminologies, Related works, Comparative Analysis, Scope of the problem, Challenges of my project. The Chapter 3 of the Requirement Specification, it contains Business Process Modeling, Requirements collection and Analysis, Use Case Modeling and Description, Logical Data Model and Design Requirement of our project. In the fourth chapter named Design Specification, where I will discuss about Front-end Design, Back-end Design, Interaction Design and User Experience (UX) and Implementation Requirements of project. In the fifth chapter, which is named of Implementation and Testing. Here I will discuss Implementation of Database, Implementation of Front-end Design, Testing Implementation and Test Results and Reports. In my six chapter, also the final chapter named Conclusion and Future scope of our project. In this chapter, we will be told about Discussion and Conclusion and Scope for Further Development.

CHAPTER 02

BACKGROUND

2.1 Introduction

"Self-Protect" is an android Application. This chapter will describe my projects future scope and problems as well as related works and comparative studies with those. My projects time scheduling will be also enclosed here.

2.2 Related Works

I get some applications which are partially related with my one. There are some safety applications available at play store, these provides few facilities which my application will also provide. Most of these applications are designed for women safety though my application focused on public safety along with anti-corruption.

2.3 Comparative Studies

"Self-Protect" is an android application to provide help to get protection. There are some applications which come up with the idea of protecting women by sending alert, but my app will provide more than just an alert. It will help users when they are in danger, it will also help when they lose their mobile, it will also help to get necessary location with my application user can also make complain at against any illegal work.

2.3.1 Comparison with related applications

A comparative analysis of some related applications is shown in table 2.1.

Table 2.1: Comparative analysis Table

	Friend & family locator	Find my Friend	Call of Victims	Funa Family Locator	Self-Protect
1.User Registration	No	Yes	Yes	Yes	Yes
2.Send emergency call in desperate situations	Yes	No	No	Yes	Yes
3.Immediate Notifying friends or police if being kidnapped, or facing any illegal harassment	No	No	Yes	No	Yes
4. Get the victim's phone's IMEI	NO	No	No	No	Yes
5. Law enforcement agencies will be able to know the location of the victim.	No	No	No	No	Yes
6. User can submit necessary complaints Child Repression Prevention Organization	No	No	No	No	Yes
7. User can submit necessary complaints law enforcement agencies	No	No	No	No	Yes
8. User can submit necessary complaints legal aid centers	No	No	No	Yes	Yes
9. User can submit necessary complaints human rights commission	No	No	No	No	Yes
10. Users will be able to get help from emergency services such as hospitals, fire services	No	No	No	No	Yes

2.4 Scope of the Problem

I developed the android application following the soft development process. After completing one part I deal with the next. I am working with this application for a few years but to create the application for the first time it took 6-8 month.

“Self-Protect” Planning and time management schedule is given below.

2.4.1 Time Scheduling

The time scheduling of my project is shown in table 2.2.

Table 2.2: Time Scheduling

Planning	2 weeks
Design and Analysis	1 Weeks
Coding	4 Month
Testing and Implementation	2 Month
Total	7 Month and 2 Weeks

CHAPTER 03

REQUIREMENT SPECIFICATION

3.1 Business Process Modeling

Business process modeling in business process management and systems engineering is the activity of representing processes of an enterprise, so that the current process may be analyzed, improved, and automated [4].

In order to get the service in case of danger, the user has to install the app on the mobile (smartphone) and keep it active at all times.

In case of any danger, pressing the power button of the smartphone 3-4 times in a row will automatically send the required number of messages to the nearest police station mobile number and app server, as well as audio, footage and location Google Map link with the victim's pre-set family number in the app. At this time, the location of the victim can be known by clicking on the Google map link of the message. Even if the mobile phone is lost or the SIM of the phone is changed after the hijacker is taken, the app will automatically send a message with the location of the lost phone, new SIM number used, IEMI of the phone to another mobile number of the previously set family in the app settings. This will make it possible to know the location of the culprit or snatcher and arrest him. The user does not need to have any internet connection or data on to use the app. This means that even if the user's internet connection is off, the message will reach the nearest police station and the Friends and Family number set up in the app through the central message server with the help of the service provider or mobile operator to stay on GPS. In this case SMS charge will be deducted from the user's SIM. This app can also be used to report various complaints and opinions to law enforcement. This app can even take the help of emergency services like hospital, fire service, ambulance, blood bank etc. with one click.

Service, Ambulance, ATM Booth, Bank, Residential Hotel, Restaurant, Shopping Mall etc. You can get the required service with one click from the app. n order to get the service in case of danger, the user has to install the app on the mobile (smartphone) and keep it active at all times.

In case of any danger, pressing the power button of the smartphone 3-4 times in a row will automatically send the required number of messages to the nearest police station mobile number and app server, as well as audio, footage and location Google Map link with the victim's pre-set family number in the app. At this time, the location of the victim can be known by clicking on the Google map link of the message. Even if the mobile phone is lost or the SIM of the phone is changed after the hijacker is taken, the app will automatically send a message with the location of the lost phone, new SIM number used, IEMI of the phone to another mobile number of the previously set family in the app settings. This will make it possible to know the location of the culprit or snatcher and arrest him. The user does not need to have any internet connection or data on to use the app. This means that even if the user's internet connection is off, the message will reach the nearest police station and the Friends and Family number set up in the app through the central message server with the help of the service provider or mobile operator to stay on GPS. In this case SMS charge will be deducted from the user's SIM. This app can also be used to report various complaints and opinions to law enforcement. Whit This app user can even take the help of emergency services like hospital, fire service, ambulance, blood bank etc. with one click. Users can get the required service with one click from the app. BPM of Self-Protect is shown in figure 3.1.

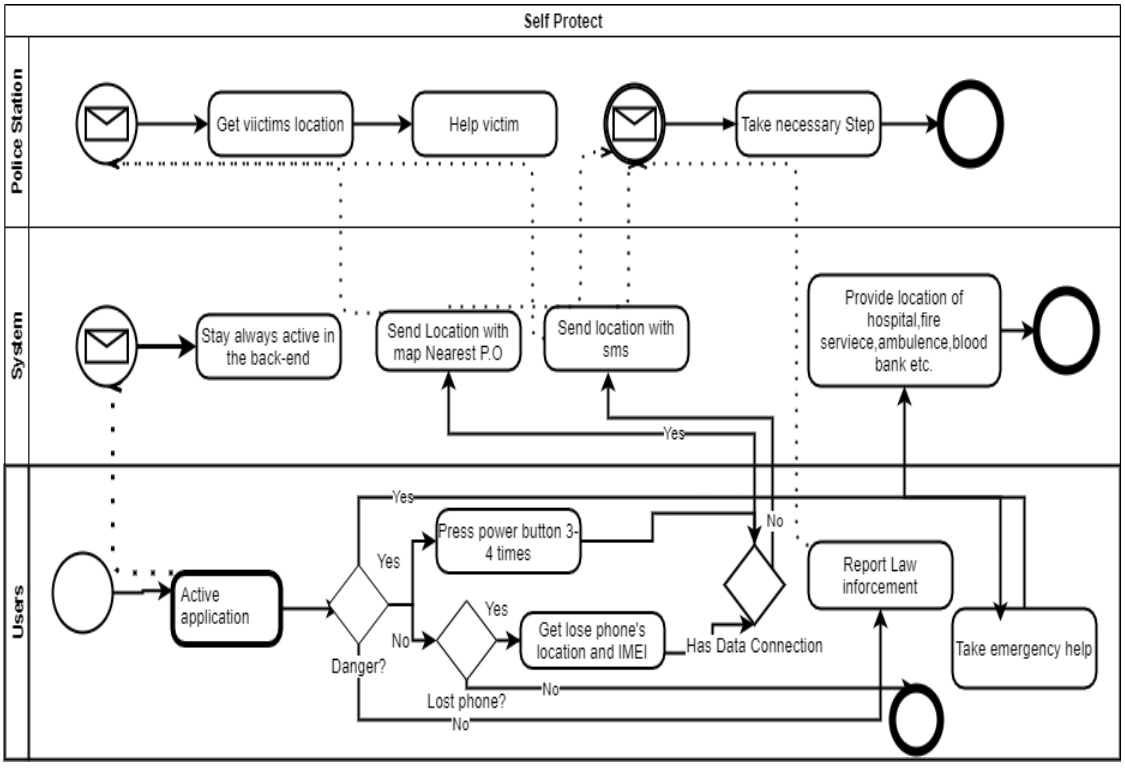


Figure 3.1: BPM of how users and admin will work will the app

3.2 Requirement Collection and Analysis

3.2.1 Software Requirements

To develop this application, we used following Software Requirements:

- Operating System: Windows 8.1, Windows 10.
- System Design: Visio, draw.io, Lucidchart.
- Language: HTML5, CSS3, JavaScript, JQuery, Ajax, PHP, Laravel.
- Database: Mysql.
- Tools: PhpStorm, Sublime Text 3.
- Debugger: The Laravel Debugger by Barry vd Heuvel.
- Internet Browsers: Microsoft Edge, Firefox, Chrome.

Software Requirements, for running the application:

- Operating System: Any Operating System because it is a Web Application.
- Network: Wi-Fi or Cellular Network
- Compatible Browsers: Microsoft Edge, IE10, IE11, Firefox, Safari, Opera, Chrome.

3.2.2 Hardware Requirements

To develop this application, we need the following Hardware Requirements:

- Processor: Intel Core I3
- RAM: 4GB
- Space on disk: minimum 10GB

3.2.3 Functional Requirements

- Graphical User interface which the application user.
- Give ease of understanding to the application through Wi-Fi or cellular network MySQL that stores the data or information to be displayed to the user.

3.3 Use Case Modeling and Description

3.3.1 System Model

- Users Module
- Admin Module

3.3.2 Use Case Diagram and Description

A use case diagram is a graphic depiction of the interactions among the elements of a system [5]. Figure 3.2 shown Self-protect system use case diagram.

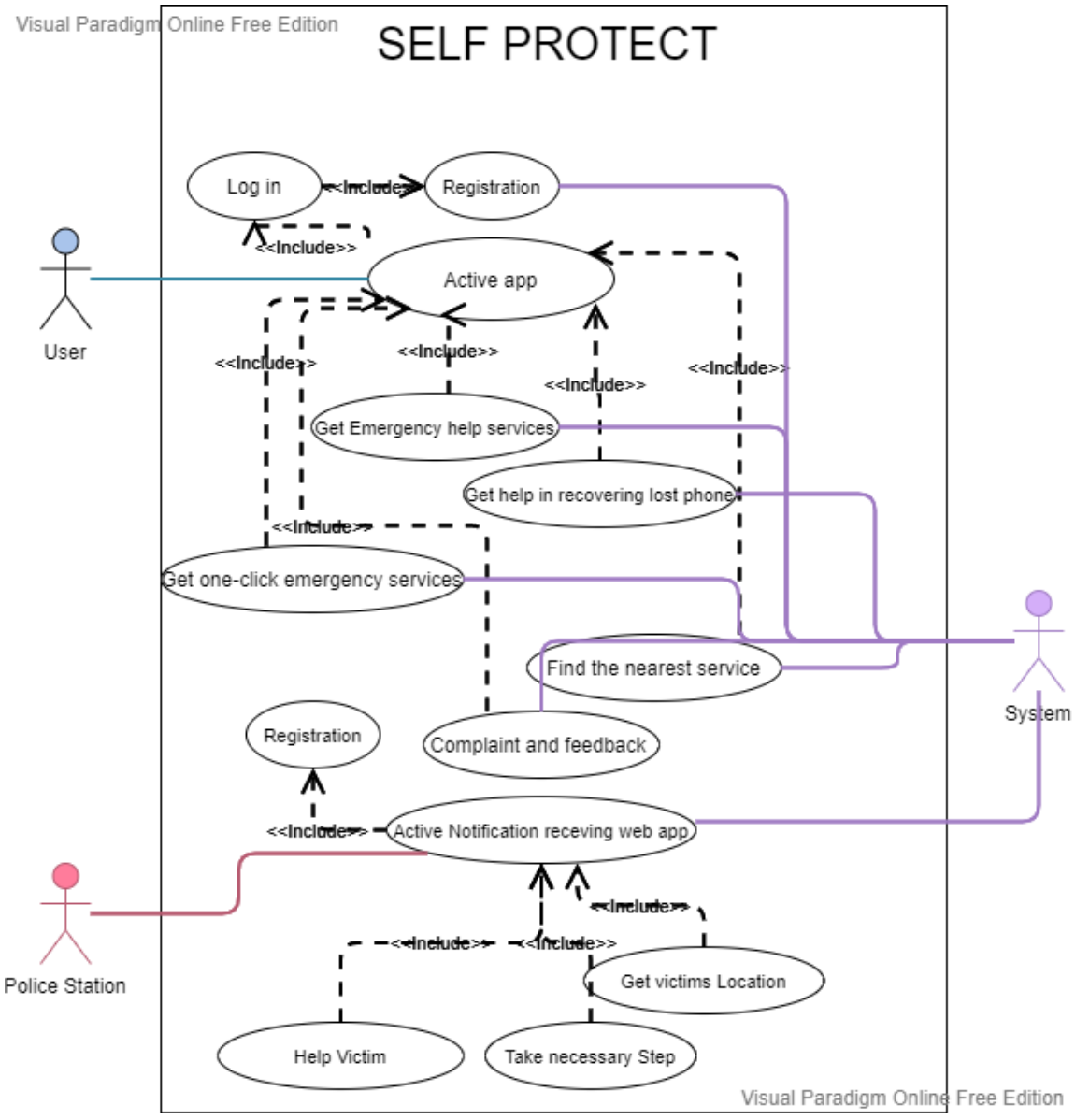


Figure 3.2: Use Case Diagram of System

Logical Data Model

Relationship Diagram/Model represents the logical data model, shown in figure 3.3.

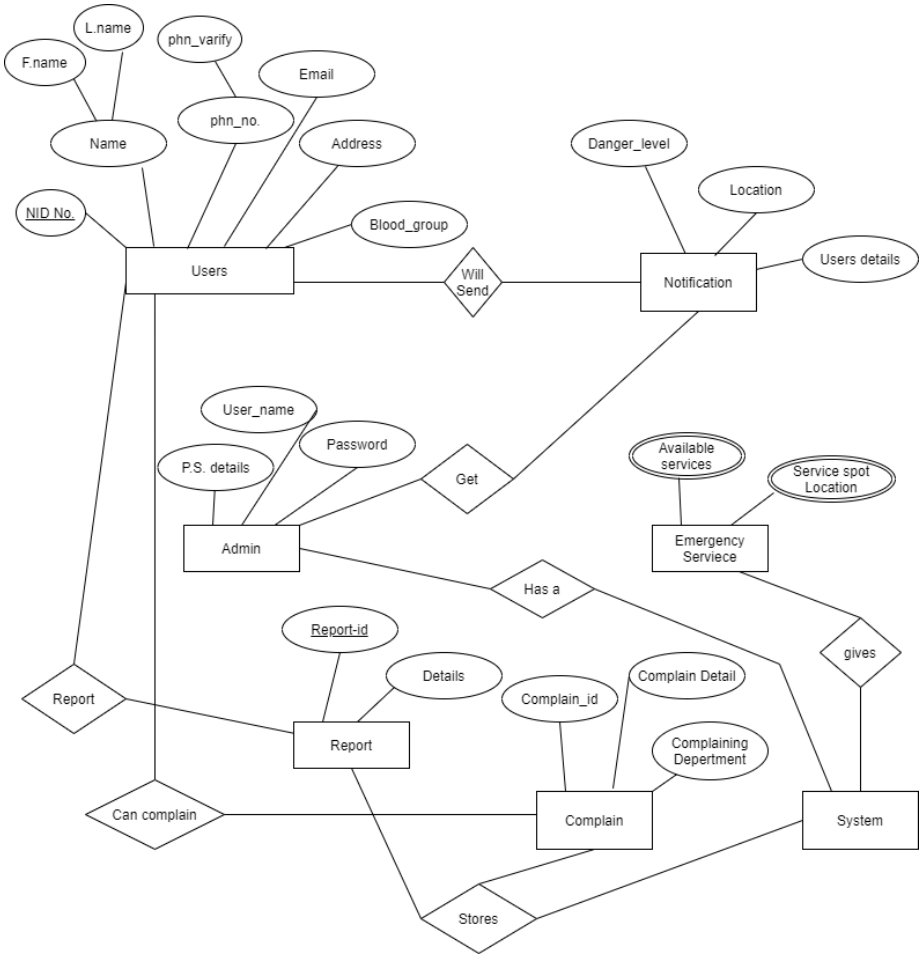


Figure 3.3: ER-Diagram of System

CHAPTER 04

DESIGN SPECIFICATION

4.1 Front-end Design

Front-end Design is the main allure of an application. It attracts the users most to use an application It need to be user-friendly. My application which is designed in beautiful front-end Designing way. I also tried to make it user-friendly.

4.2 User Interface design

4.2.1 Sign Up from

For a new user, the user has to register to be a user. Users have to complete the registration at sign up from. In the sign up form there are some option/field required. Some basic information has to fill in the form like Name, Gender, Age, Phone number, District, E-mail, Password are required. After fill up the field a user account will be created.

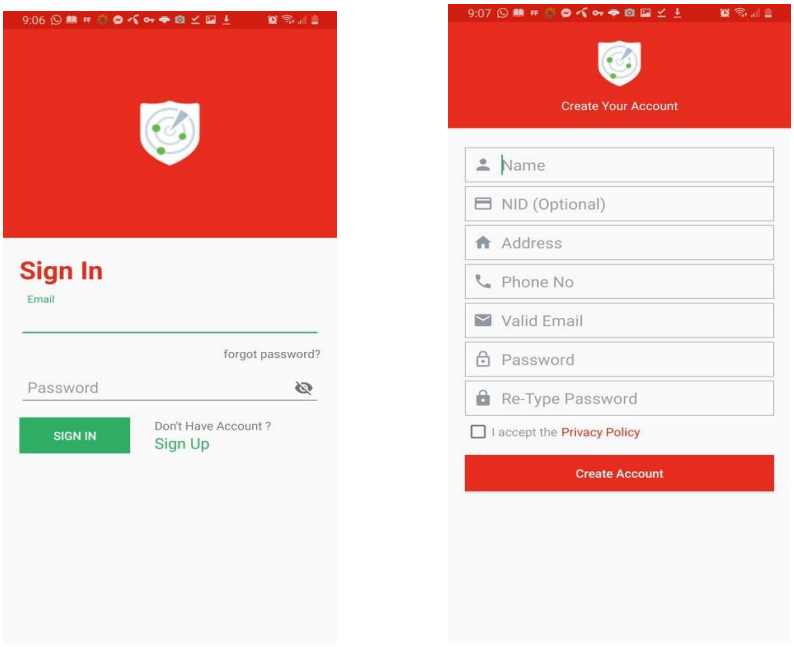


Figure 4.1: Sing In and Sing Up Form

4.2.2 User Guide

After sign up the app will show some guiding information to the user. What kind of work how to do, this all kind of information will be shown one by one.

4.2.2.1 Send Help Request

By pressing power button 3-4 times emergency help request can be sent.

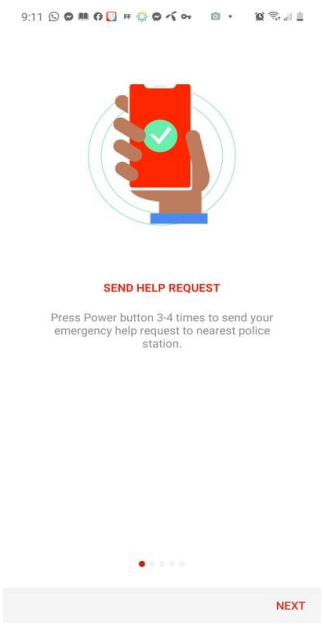


Figure 4.2: First Option

4.2.2.2 Send SMS if SIM Changed

The app will ask users to enable sending sms. By enabling it user will be able to find their device if sim card gets changed.

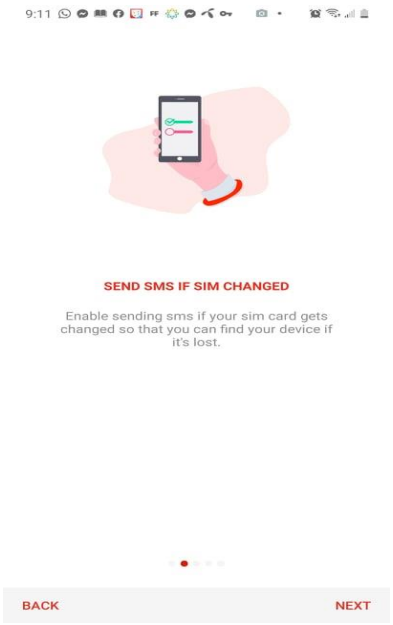


Figure 4.3: Second Option

4.2.2.2 Find Emergency Place

The app will find emergency app location for users. App will also provide the phone number of the emergency place.

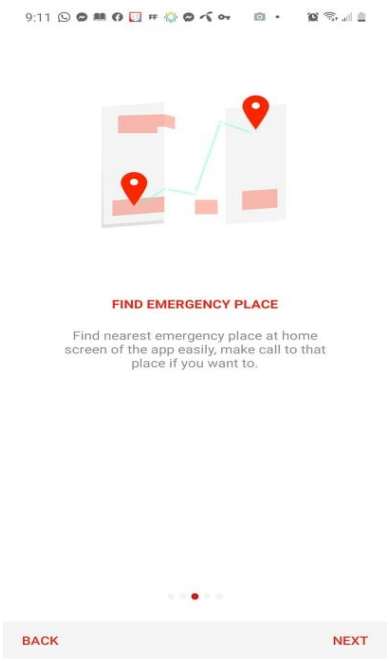


Figure 4.4: Third Option

4.2.2.2 Enable App IN BACKGROUND

The app will ask for keeping the app enable in the background. Without enabling the app can't help users.

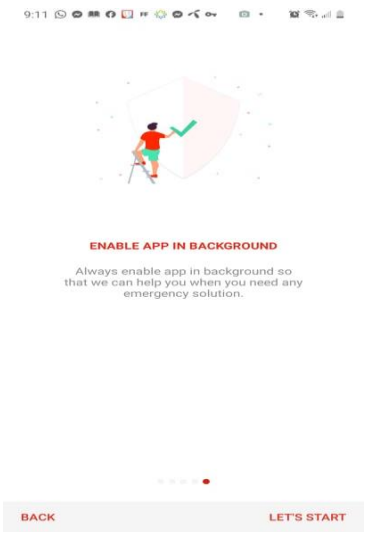


Figure 4.5: Forth Option

4.2.3 Splash Screen

This application will open with a splash screen that first contains the application logo and the logo of the authorities.

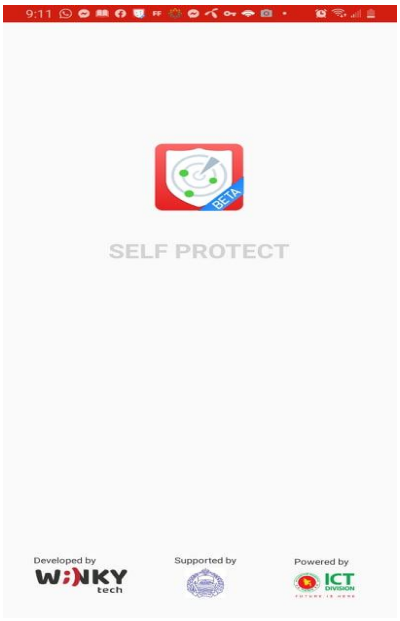


Figure 4.6: Splash Screen

4.2.4 Manage Emergency Number

The app will ask to give two emergency number. In case of emergency the app will send notification in the numbers.

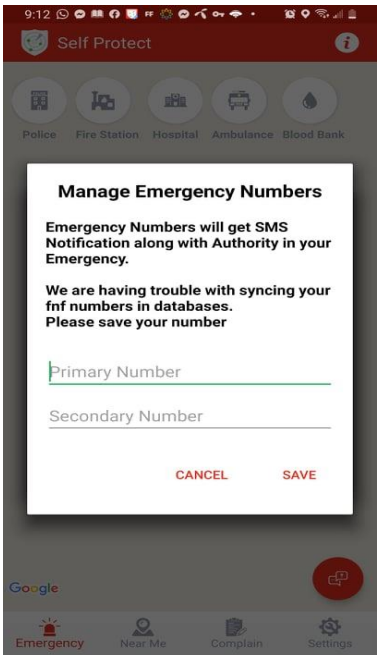


Figure 4.7: Emergency Number giving Option

4.2.4 Verify Phone Number

User will have to verify their phone number to go through the app.

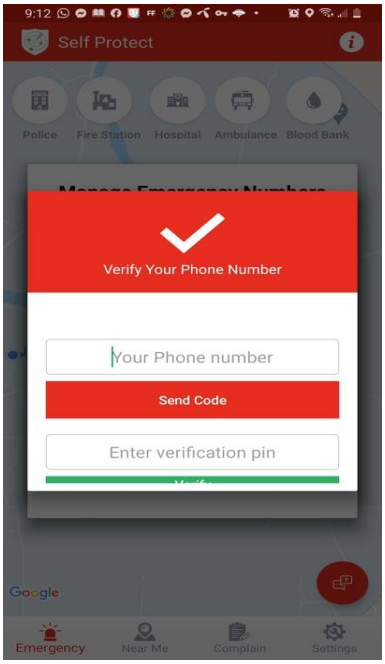


Figure 4.8: Number Verify

4.2.4 Home Screen

The home screen will show icons for emergency location on the top and it will also show users location through whole screen, at the bottom: Emergency, near me, Complain and Setting icons will be shown. By clicking those users can go through by that.

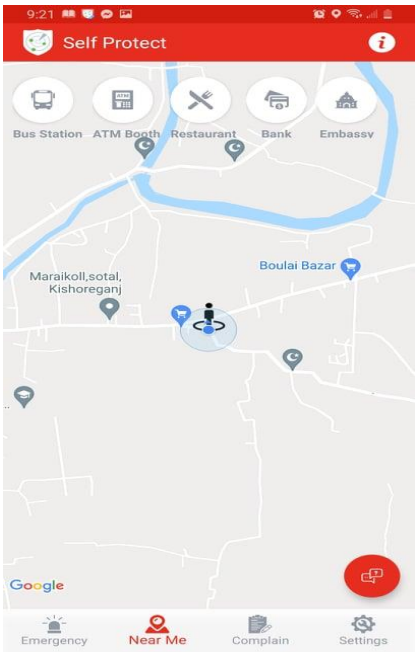


Figure 4.9: Home Screen

4.2.4 Complain

Complain page will show an interface for complaining. By submitting information user can complain to get help from law enforcement.

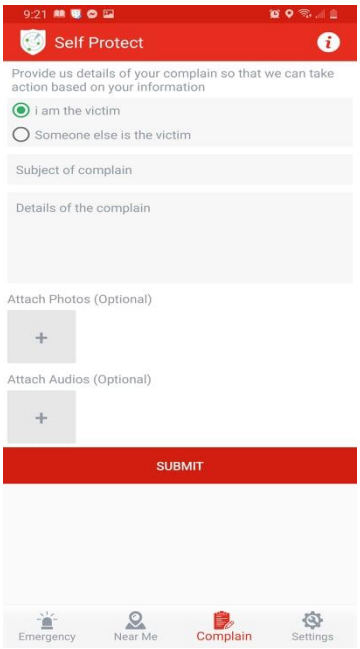


Figure 4.10: Complain Screen

4.2.4 Setting

From this place user can change the whole information what they provided, also can disable the app if want. About us and log out option is also here.

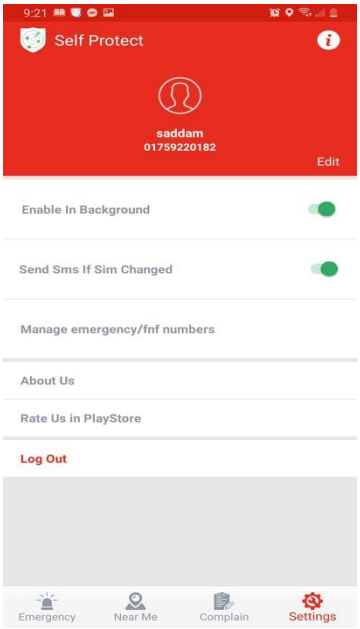


Figure 4.11: Setting Option

4.2.4 Emergency Help

This text will be shown if user want to ask for an emergency help.

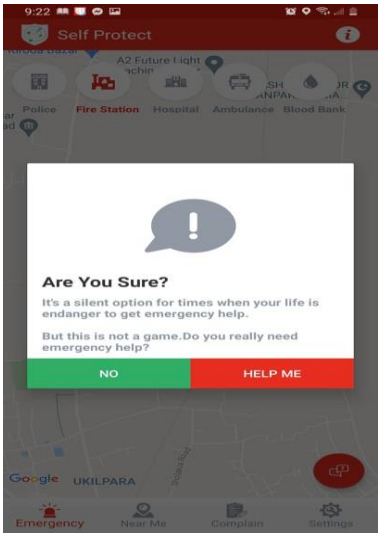


Figure 4.12: Emergency Help Request Option

4.3 Back-end Design

In an android app, the back-end is the important part that is responsible for data storage, security, and business logic. An app backend is much like a server for mobile apps, as it stores and sorts the important information that the end user does not see [8]. Our App data is stored in the firebase database. Figure 4.16 shows the Authentication Page of our firebase project. Here, all admin emails and passwords are saved here.

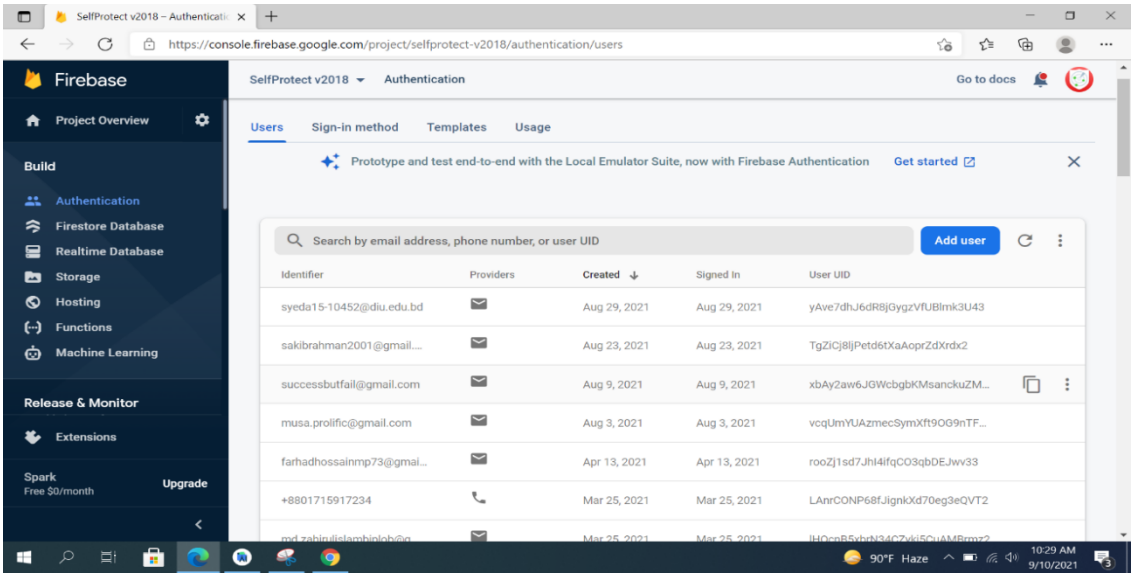
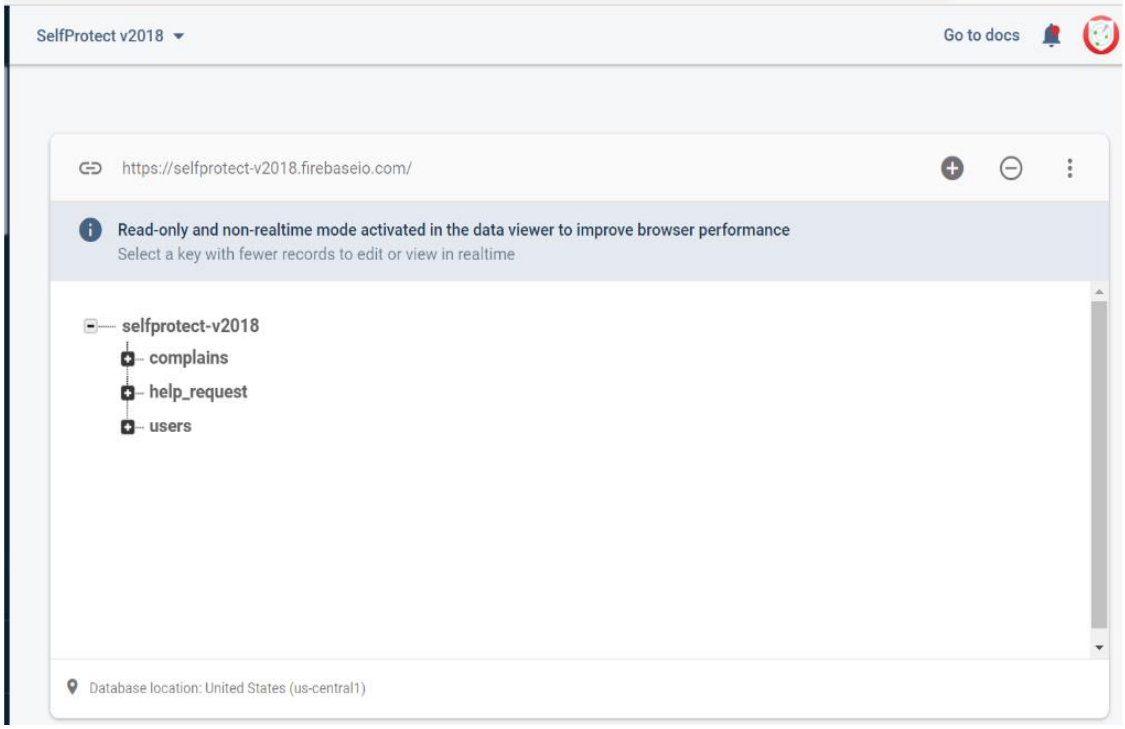


Figure 4. 13: Back-end of the system

We know that firebase is a cloud hosted NoSQL database. As a result, we need to set the tree of the real-time database so that we can easily pursue them by calling the parent and child. Therefore, we separated our main tree into two sections, which are the complaints, help_request, users which are shown in figure 4.14.



4.14: Three main child of the tree

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

We will detail our entire development process as well as the screenshot in this area. The challenge of implementation is really difficult. Each module must be checked out to remove any mistakes, implying that all demo designs have been tested. The Demo modules are then put together to generate the system's final shape. After the integration is complete, the entire system is tested.

One of the most crucial aspects of any system or software is testing. System testing is the process of verifying that the user requirements are met by evaluating the behavior of the entire program/system as stated in the software requirements specification (SRS). After integration testing is completed, system testing is performed. System testing should cover both the software's functional and non-functional needs.

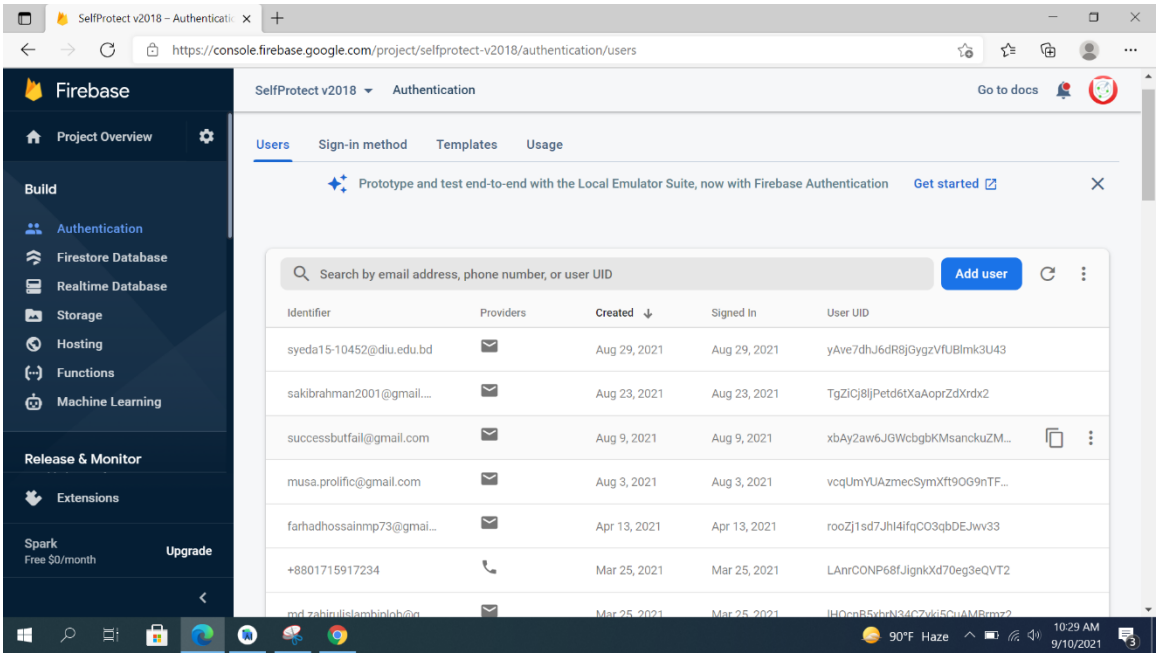


Figure 5. 1: Firebase database

5.2 Implementation of Front-end Design

Self Protect using the following Language and Database.

Language: Java, Php

For Design: XML, HTML, CSS, JavaScript

Platform Android Studio**,** Laravel Framework

5.3 Implementation of Interactions

In this chapter, we'll talk about our development project and, finally, how to test our app and website. After developing each module, run it in Android AVD first, and then execute the APK file on an Android device. And the website should be run on a local host first, then on a web host. Different tests were used to detect, address, and eradicate issues such as nonsensical data, a muddy field, and inconsistent movement and performance.

In usability testing basically, we as testers tests the ease with which the user interfaces can be used. It is tests that whether the application or the product built is user-friendly or not. Usability Testing is a black box testing technique so, our suability testing also reveals whether users feel comfortable with our application according to different parameters – the flow, navigation and layout, speed and content especially in comparison to prior or similar applications.

Usability Testing tests the following features of the App.

- How easy it is to use the software.
- How easy it is to learn the software.
- How convenient is the software to end user

So, at the end we can carry out the results as the benefits of usability testing to the end user or the leaner:

- Better quality software
- Software is easier to use
- Software is more readily accepted by users
- Shortens the information for new users
- Better UI

Innovative idea for the traveling environments.

5.4 Testing Implementation

Black Box Testing treats an application as if it were a black box, only looking at the outputs produced by certain inputs. The black box tester doesn't need to know why the

code works the way it does, and they shouldn't have access to the application's source code. Test cases are used to confirm that the correct software is being built, and requirements are used to establish the correct outputs of black box testing [7].

5.5 Test Results and Reports

The project has been tested as Black Box Testing by some users and gathered some positive and negative feedback. Those feedbacks are below **Positive Feedback:**

i. The interface of the application is simple and good.
ii. The search option is also simple and very effective.
iii. Friendly to use.

Negative Feedback:

i. There should control form offline.
ii. Should add more services.

CHAPTER 6: IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY

6.1 Impact on Society

Every person on the earth has a right to live a safe life. Though at times it may sound an impossible task to provide safety to all, we should never stop fighting for reaching that goal. If we all can strive for that only in that we can achieve that goal. My app is a little contribution to that eternal war.

6.2 Impact on Environment

This app will play a positive impact in the environment. From the ancient time people are using different weapons to protect himself or their beloved one. But in modern civilization, there are special force those are served by the taxes of people, are responsible to take care of innocent public. So, they need not to carry any weapons. But, unfortunately, all the specially trained forces are not around always to help us. Therefore, one has to carry any option with them if he or she feels unsecured. This app can be best substitute to these weapons.

6.3 Ethical Aspects

Definitely this app is going to play a positive impact in every human's ethic if he or she use it. It will boost their morale and will make less dependent of life-threatening weapons.

6.4 Sustainability Plan

I am highly committed to carry on this project to further level. No doubt I would feel proud if any life can be saved with help of my app. In course of time new opportunities and scopes will be available to incorporate in my system and I do believe that with my relentless effort I will be able to keep on improving this app to mitigate the demand of every user.

CHAPTER 06

CONCLUSION AND FUTURE SCOPE

7.1 Discussion and Conclusion

For the grace of **Almighty ALLAH**, I have successfully completed my project and documentation. I won Joy Bangla Youth Award 2020 from CRI, Young Bangla. The Department of Information and Communication Technology of the Ministry of Posts, Telecommunications and Information Technology of the Government has recognized and provided innovative grants as innovative projects in the field of innovative technology in the financial year 2016-2017. In 2016, I received a copyright certificate from the Bangladesh Copyright Office as its intellectual property. Note that in 2016, the Access to Information Program (A2I) organized by the Prime Minister's Office selected one of the top 10 people in the country for solving innovative solutions to 10 problems across the country. I was selected the top 10 innovator Among the inventors of the country. Achieved the award of Best Innovator and Young Inventor in Digital Innovation Fair held in Meherpur District in 2016 and 2017 and at the same time Best Young Innovator in 2017 Khulna Divisional Digital Innovation Fair.

So, within few years my project did more than my expectation. In future, I hope it will be a part of human life. It will reduce corruption. Will build a beautiful world with technology.

7.2 Scope for Further Developments

I want to add some more features in this Application. In future I will add the function of sending images, video, audio when users fall in danger.

References

[1] Friend & family locator, available at <<https://play.google.com/store/apps/details?id=de.nr.android.app.locator.second>>, last accessed on 08-14-2021 at 12:10am.

[2] Find my Friend, available at << https://play.google.com/store/apps/details?id=com.fsp.android.friendlocator>>, last accessed on 08-14-2021 at 12:10am.

[3] Nirbhaya: Be Fearless, <<https://play.google.com/store/apps/details?id=com.smartcloud.nirbhaya>>, last accessed on 08-14-2021 at 12:10am.

[4] Nirvoy, <<https://play.google.com/store/apps/details?id=com.revesoft.mobiledialer.air1voip.nirvoy>>, last accessed on 08-14-2021 at 12:10am.

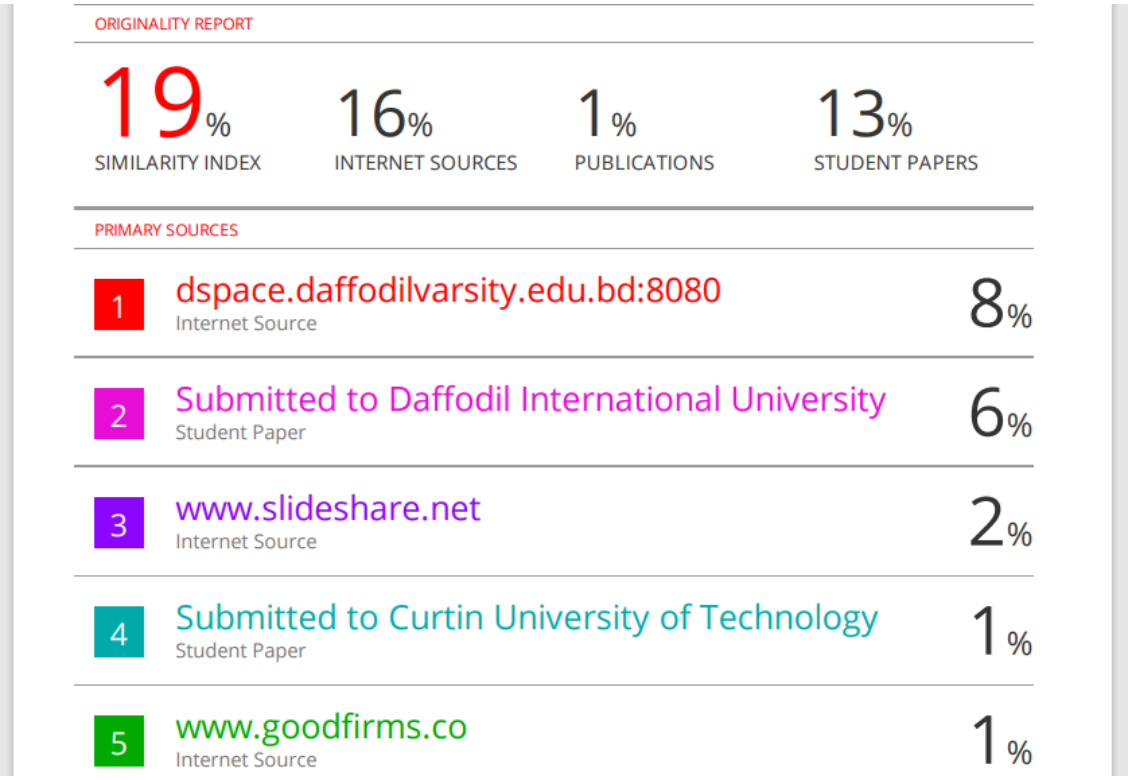
[5] Life360 Family Locator - GPS Tracker, <<https://play.google.com/store/apps/details?id=com.life360.android.safetymapd>>, last accessed on 08-14-2021 at 12:10am.

[6] What is business process modeling? available at <<https://en.wikipedia.org/wiki/Business_process_modeling>>, last accessed on 08-14-2021 at 12:10am.

[7] Definition of use case diagram, available at <<https://en.wikipedia.org/wiki/Use_case_diagram>>, last accessed on 08-12-2021 at 08:10am.

[8] Entity Relationship Diagram, available at <<https://www.smartdraw.com/entity-relationship-diagram/>>, last accessed on 08-14-2021 at 04:00pm.

Self Protect – An Emergency Safety App

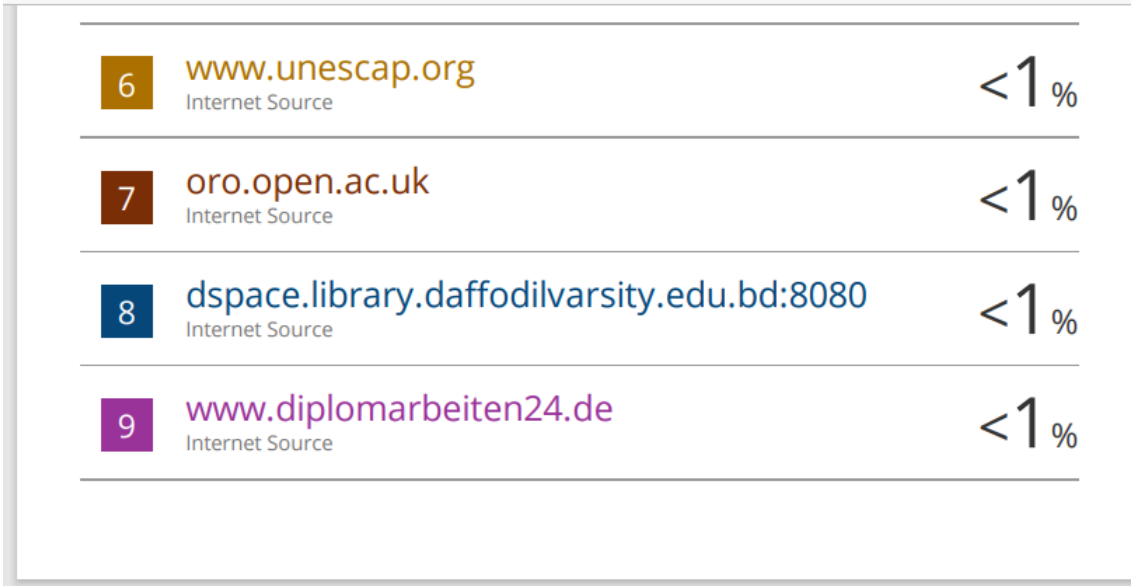


ORIGINALITY REPORT

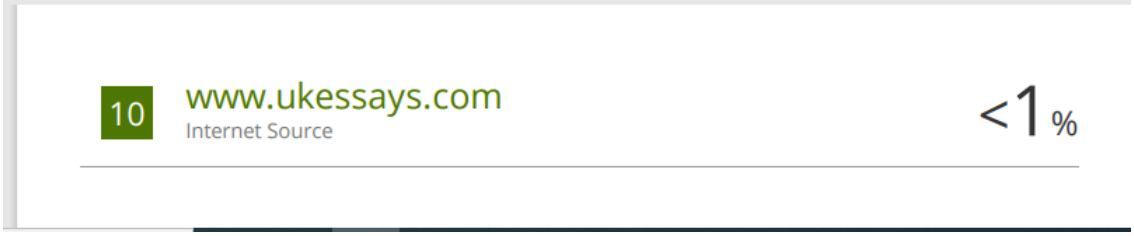
19%	16%	1%	13%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	dspace.daffodilvarsity.edu.bd:8080 Internet Source	8%
2	Submitted to Daffodil International University Student Paper	6%
3	www.slideshare.net Internet Source	2%
4	Submitted to Curtin University of Technology Student Paper	1%
5	www.goodfirms.co Internet Source	1%



6	www.unescap.org Internet Source	<1%
7	oro.open.ac.uk Internet Source	<1%
8	dspace.library.daffodilvarsity.edu.bd:8080 Internet Source	<1%
9	www.diplomarbeiten24.de Internet Source	<1%



10	www.ukessays.com Internet Source	<1%