

TRACKER – AN ANDROID BASED SMART KID TRACKER APPLICATION

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

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APPROVAL

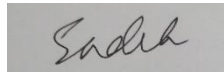
This Project titled “**TRACKER-A SMART KID TRACKER**”, submitted by Naiem, ID No: 161-15-7065 and Md Rasel Mia, ID No: 163-15-8509 and Md Shohag Uddin, ID No: 163-15-8488 to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the 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 8/10/2020

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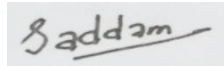
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DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Dewan Mamun Raza, Lecturer, Department of CSE** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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ABSTRACT

Every day we are going through the new technology. By using these new technologies, it is easier to move our life so fast. This 21st has been remembered and famous for these dynamic invention. Besides these type of invention has been affected our regular life cycle specially for the children. Because children are not much concerned about what they are seeking on internet. Besides the easy access of browsing helps the children to do illegal uses of network. So we have decided to make an alarming service project that is called **TRACKER**. It is an alarming android based application After creating a account, It will help parents to observe the activity of the children whom they have been passing time more or if they are doing any abnormal activity. Besides parents can also the weekly Report of their Children. **TRACKER** has ensured the children browsing safety with potential monitoring. It contains real location data, call logs, app usages that will help parents to check the children activity easily. To detect the crime or investigation we can use **TRACKER**. Because it will help to see the abnormal activity whom you want to investigate. To make our application we have applied Opt-in policy. Actually **TRACKER** is an application that is much useful, necessary and also efficiency for those people who do not know about their children activity and wants to ensure the children safety and privacy.

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CHAPTER 1

INTRODUCTION

1.1. Introduction

TRACKER is a monitoring-based application that help parents to monitor their children activity and movement what they are doing and where they are going in real time. It is mainly developed to make more concern the parents about their children activity and to detect the crime or abnormal activity in the society. Today children use different types of mobile application where there is no constrains. So, parents are always concerned about the effect of technology explosion on their children development.

A tracker can be a better way to monitoring to help in overcoming of those type of worries. This application will raise awareness in society. When a children continuously go out for a place outside the school that is not perfect to go then there will be made a red alert for this location by using real time . Then parents can handle this situation and abstain their children not to go those type of places. And it will make awareness at society and other children will also refrain to go there. Parents can get an idea where theirs children are passing their time to talk regularly. In this same type of scenario, it will also helpful to detect the crime by using call logs. Though we are using opt-in policy to make the parents more concern so when the account will create then those regular permission of activity will be given on at the application. This application will help parents to take necessary step and better decisions for their children development.

1.2. Motivation

To make this application, there are many motivations has been worked. In our country, if we see the present situation we can get an idea that parents are too much thinking about to control their children activity. Because of the usages of higher level technology, they cannot control their children daily life activity. Specially at Dhaka city, parents are not known about their children's daily activity where they are going or with whom they are going.

So, many of them are become involved with real time based crime and with also cybercrime that parents are not concerned. For this those children will become demotivate and they are not perfect to build a better social community. So these types of social violence are the main reason to build this application that can remove these kind of violence from the society. Also how to control the children activity and monitoring them are the reason to develop this project.

I wanted to make a mobile application so that about 18.5% people uses smartphone[1] where 58% people uses internet regularly[2] in those smartphone user and where 94.71% people are android user[3]. So I have decided to make an android based mobile application so that people can easily install the app and get access so quickly. It will help parents to monitor their children that they are committed crime or not. After LOGIN, parents can easily get an idea about their children activity that will very much helpful for children mind development. Parents can also refrain their children from not commit with cyber crime, real time based crime with also illegal works.

1.3. Objectives

There have some objects to make something .as so we have also some objects to make our project. -

- To make smart or digitalize the whole system for easy monitoring.
- To do monitoring kid movement what they are doing .
- To detect the crime or abnormal activity of kids through their movement .
- To develop a better community.
- To gain to able for a weekly report. To able to see the children friendliest.
- To make an idea how much time children are giving by using applicatios.
- To know about the friend whom the children are passing so much time.
- To concern the parents if the children uses unauthorized apps.
- To know that what types of mobile app are mostly used by the children.
- To protect the children from harm abuse of society.

1.4. Expected Outcome

Every people want to go with an easy and understandable way. So, **TRACKER** will provide an easy interface that will so much understandable. Besides money and time will also save. The following outcome of our project is given below:

- To make a better place for human.

- To decrease the crime at society.
- To concern about the physical awareness.
- Time/cost will be saved.
- To handle the social crime by using the footsteps of people at particular area.
- To take a better decision about children development.
- To make a knowledge about the activity of people in a week.

1.5. Report Layout

To realize the project easily different parts are divided into different categorize. Our report is divided into 7 chapter and the chapter describe is given below:

Chapter 1: Introduction

In introduction chapter what project mainly contains are being described. Besides object of the project, motivation, expected outcome have also described in this chapter.

Chapter 2: Background

The project related works and scopes have discussed in this chapter. The key challenges of this project have also described as well.

Chapter 3: Requirement Specification

In this chapter, it has been discussing about the Use case diagram, data model, Business process modeling (BPM), and requirement collection.

Chapter 4: Design Specification

In Design specification chapter the back-end design, interaction design, front-end design has been discussed.

Chapter 5: Implementation and Testing

The testing result and report, implementation of database has been discussed in Implementation and Testing chapter.

Chapter 6: Impact on Society, Environment and Sustainability

In this chapter it has been discussing, Impact on Society, impact on Environment and discussing why our project is Sustainability.

Chapter 7: Conclusion and Future Scope

This chapter has discussed about the future scope of this project and conclusion on this project.

CHAPTER 2

BACKGROUND

2.1 Introduction

TRACKER is an android-based application that helps parents those who are in worried with the development of children. In this chapter, we have discussed about our project related works, comparative analysis, comparison. Showing comparison with other application that related based our application.

2.2 Related Works

Whenever an idea comes to your mind search it google, see such idea have been already build up. Just think, what do you want to create in today world. so you are not the first person. so our project special controlling of kids perspective has been created there is already some application created that perspective. Like Find my kids,Famisate child tracker, Family Locator. We have three unique features that we can show application user data at a time. That is also different from other project We want to show differs our application from other application will be discussed in section 2.3.

2.3 Comparative Studies

Our project relates some of similar project comparative analysis below in table 2.1

Table 2.1: Comparative Analysis Table

Features	Find My Kid	Famisate Child Tracker	Family Locator
Registration	✓	✓	✓
Reset Password	✓	✓	✓
Location Tracking	✓	✓	✓
App Usage Info	✗	✓	✗
Call Logs Info	✗	✗	✗
Weekly Report	✗	✗	✗

2.4 Scope of the Project

A TRACKER app is designed for children safety and controlling. Already we have mentioned all the features in table 2.1. We have three unique features which will differ from other similar projects and be made easy to control. So we have developed this application to be used easily for everyone, especially those who want to monitor their children's activity. Since 96% of people use Android phones in our country [4], so maximum people can use this app and our application would be an easy way of installing then features can be easily accessed.

2.5 Challenges

Sometimes a single error took a much time to fix it in an Android-based application, so we have also. In our project, location-based permission is a core feature. Challenges occur when working on location background permission features, and when presenting call log and location data in a pie graph. Also we have faced some problems when we were testing our project in different Android versions, especially copy button and it took a too much time, things just frustrating.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Modelling

Business Process Modelling (BPM) is a graphical representation or workflow and also activity of representing process that analyzed the current process and improved the efficiency[5]. BPM for the application TRACKER is appeared in Figure 3.1

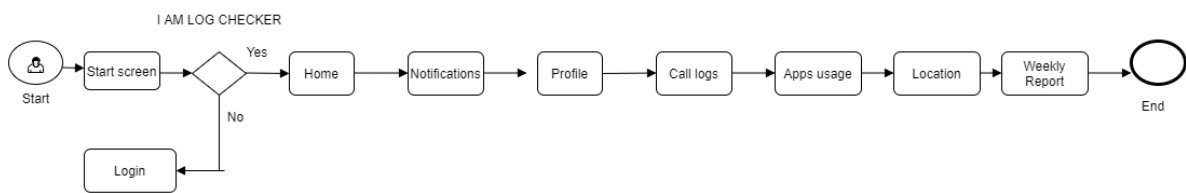


Figure 3.1: Business Process Model

3.2 Requirement Collection and Analysis

Any application, Requirement collection and Analysis is the process that defining user expectations for a new software being built or modified. Also is a strategy used to that assemble requirements during the requirements elicitation period of a application . we want to show our project perspective requirement collection will be discussed in given below.

3.2.1 Software Requirements

For develop this application, we need to use the following software's requirements:

- Operating System: Windows or Linux or Mac.
- System Design: Adobe Photoshop, Illustrator.

- Language: Java, XML.
 - Database: Cloud Firebase.
 - IDE: Android Studio.
 - Tools: JDK, Genymotion, draw.io.
- Debugger: Java debugger and LLDB.

Software Requirements for running the application:

- Network: On Wi-Fi or Cellular Mobile Network.
- Compatible Device: Any Android smartphone device (Real Android device) that runs on android version 6.0 or above.

3.2.2 Hardware Requirements

To develop the application, we need to use the following hardware requirements:

- Processor: Intel Core i3
- RAM: 4GB
- Space on disk: minimum 0.2GB

3.2.3 Functional Requirements

- Graphical interface for user.
- Used Firebase as an online database and also for real-time database which continually updates the location .

3.3 Use Case Modeling and Description

A use case is a defined the proposed usefulness of the new system. also discrete unit of collaboration between a client (human or machine) and the framework. The Use Cases are ordinarily identified with 'actors'. An actors is a human or machine element that cooperates with the framework to perform important work. In our project perspective ,we want to show use case modeling has shown below.

3.3.1 System Model

- User Module

User Module

User have the following these functions.

i. Registration

To get to the user application, user needs to enlist himself on the application by entering the details.

ii. Login

Once have successfully registered then user can login to the application. Once the

registration is complete, then can login directly with email and password.

iii. Home

After login or registration user direct see her home page and this page will show list of person which he followed.

iv. Notifications

Can see whether any tracking request coming.

v. Profile

All account information will be displayed and also display invited code number. Also can edit the information.

vi. Setting

It will show call log,apps usage,location switch to permission the button.User can permit whose activities they want to track.

vii. Call Logs

Call log information will be display here and show real time call details history. .

viii. Real Time Location

Show Will real time location. Exactly where he is.

ix. Apps usage

Show will apps usage history and also Shows which app has been in use for how long times..

x. Weekly Report

Can see the weekly report of all the activities those he or she did. This will show the details information about call log,location,apps usage..

3.3.2 Use Case Diagram and Description

A use case diagram is a simple graphic representation of the interaction the element of a system and it is a technique that used in system analysis to clarify and identify organize system requirements[6].Use case diagram has shown below in figure 3.2

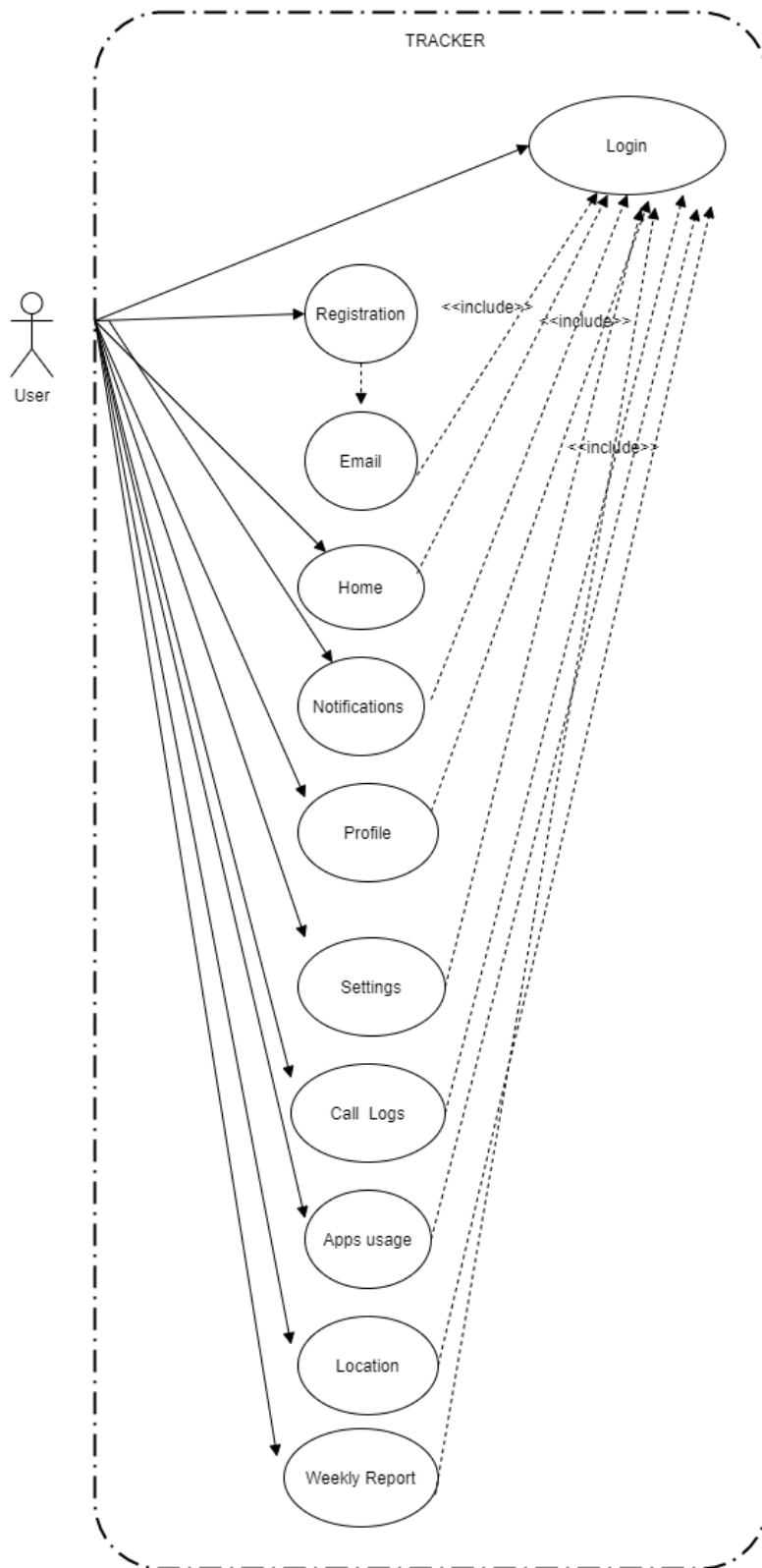


Figure 3.2: Use Case Diagram for User

Actor: User

Steps of work

- a) This Use case starts when a user enters the system of **TRACKER**.
- b) User can create registration,login,see the call logs, real time location ,apps usage,weekly report.

i. Registration

Brief Description: User can register the system.

Actor: User

Steps of work

- a) This use case starts when a User successfully registered.

ii. Login

Brief Description: Users can login to the system after registration.

Actor: User

Steps of work

- a) This use case starts when a user login to the system.
- b) User can see his profile and enjoy all the features.

iii. Home

Brief Description: Users can see his followed user.

Actor: User

Steps of work

- a) This use case starts when a user login to the system.

iv. Notifications

Brief Description: Users can see any track related notifications .Like request accept or not.

Actor: User

Steps of work

- a) This use case starts when a client login to the system.
- b) Can see the notifications when request accept or not.

v. Profile

Brief Description: Users can see her profile and update it.

Actor: User

Steps of work

- a) This use case starts when a client login to the system.
- b) Can see her invite code.

vi. Setting

Brief Description: Users can see all switch activity permission button..

Actor: User

Steps of work

- a) This use case starts when a client login to the system.
- b) User can permit whose activities they want to track.

vii. Call Logs

Brief Description: Users can see real time call logs.

Actor: User

Steps of work

- a) This use case starts when a client login to the system.
- b) Can see the call logs when tracking.

viii. Location

Brief Description: Users can see real time location.

Actor: User

Steps of works

- a) This use case starts when a client login to the system.
- b) Can see the location when tracking.

ix. Apps usage

Brief Description: User can see apps usage history and Which apps have been used more time.

Actor: User

Steps ofwork

- a) This use case starts when a client login to the system.
- b) User can see which apps have been more based on time.

x. Weekly Report

Brief Description: User can see weekly report and understand where to spend more time.

Actor: User

Steps of work

- a) This use case starts when a client login the system
- b) This User can see weekly report with Graph of all activity.

3.4 Logical Data Model

The logical data model is model that represents the data processing unit. also used to analysis data. The (ER Model) Entity-Relationship Model is represent the logical data model. ER Diagram for TRAKER is shown in figure 3.4

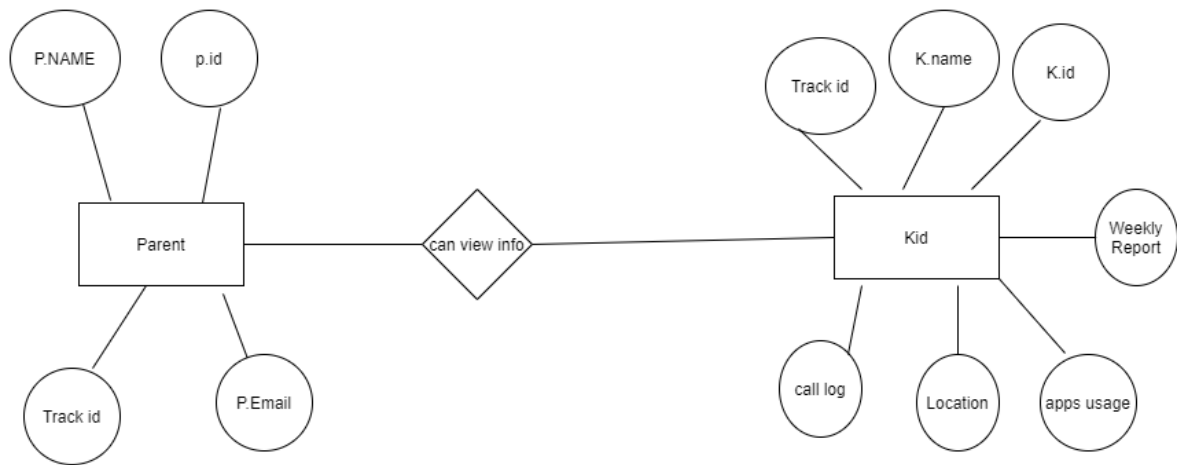


Figure 3.4: ER Diagram of the System

3.1 Design Requirements

Appropriate design of the principle capacity of the application is significant. In spite of the fact that our application is a tracking application. Thus, ought to need to execute legitimate plan. Following figure 3.5 describing how the function works with a flow chart diagram.

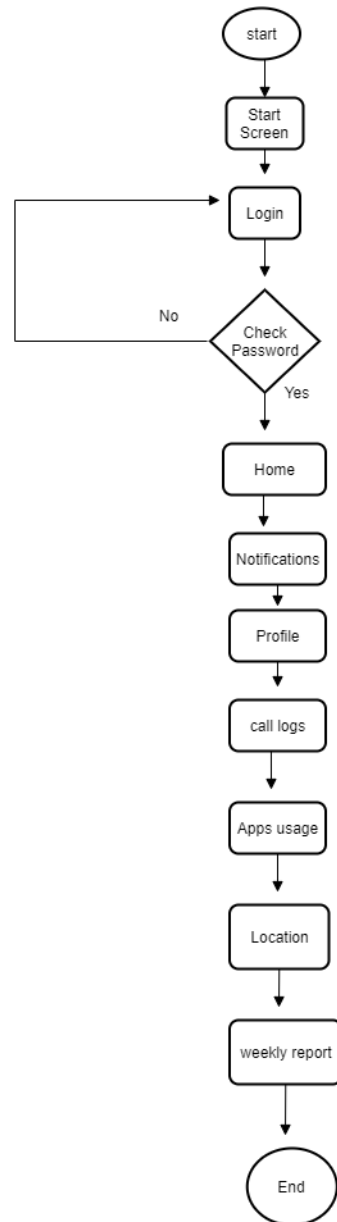


Figure 3.5: Full Process for TRACKER

CHAPTER 4

DESIGN SPECIFICATION

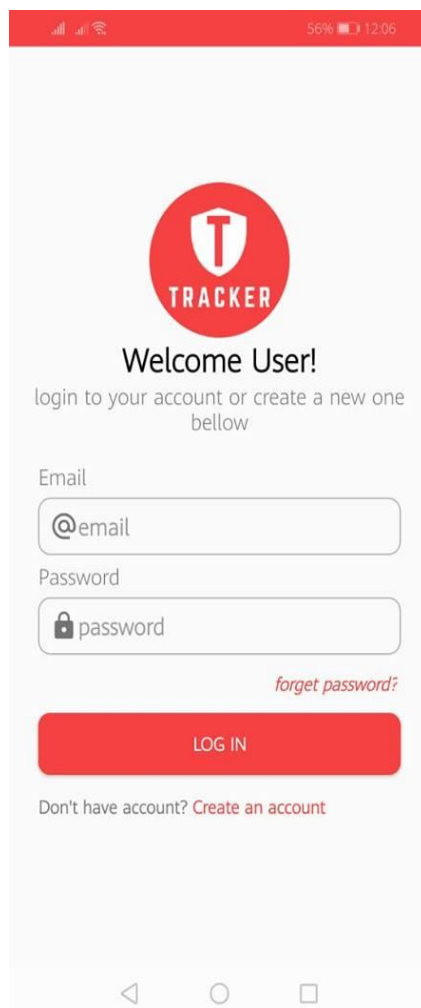
4.1 Front-end Design

Front-end Design is GUI that means in an application this is the main things of people attract. when front-end design is easy and attractive then people will use . If front-end design is not attractive no one used it. we are trying to do a better front-end design for our application ,so that people are attractive. These things described below.

Table 4.1: Activity List for the User

Serial No.	Design Screens
1	Registration
2	Login
3	Home
4	Notifications
5	profile
6	Setting
7	Call logs
8	Apps usage
9	Location
10	Weekly Report

The Front end design table for the application TRACKER is shown below:



4.2 Back-end Design

Back-end Design refers to the server side, that means how the application and everything connects to the between the database server and browser.

How the users get output frome back-end design describe below with a figure 4.1 and 4.2

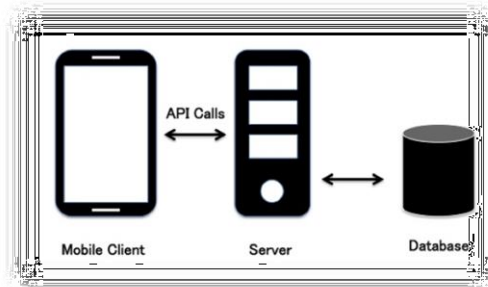


Figure 4.1: Server and Database Connection

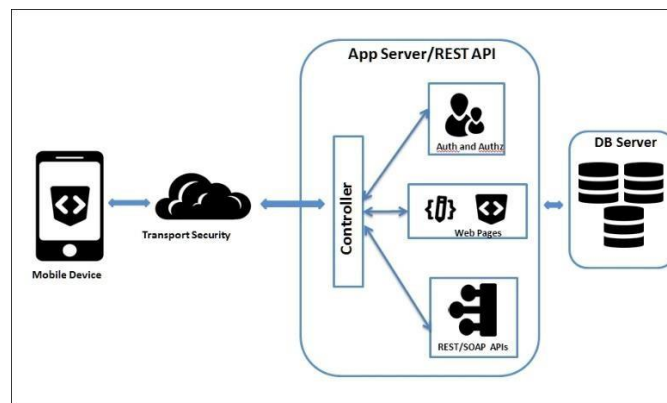
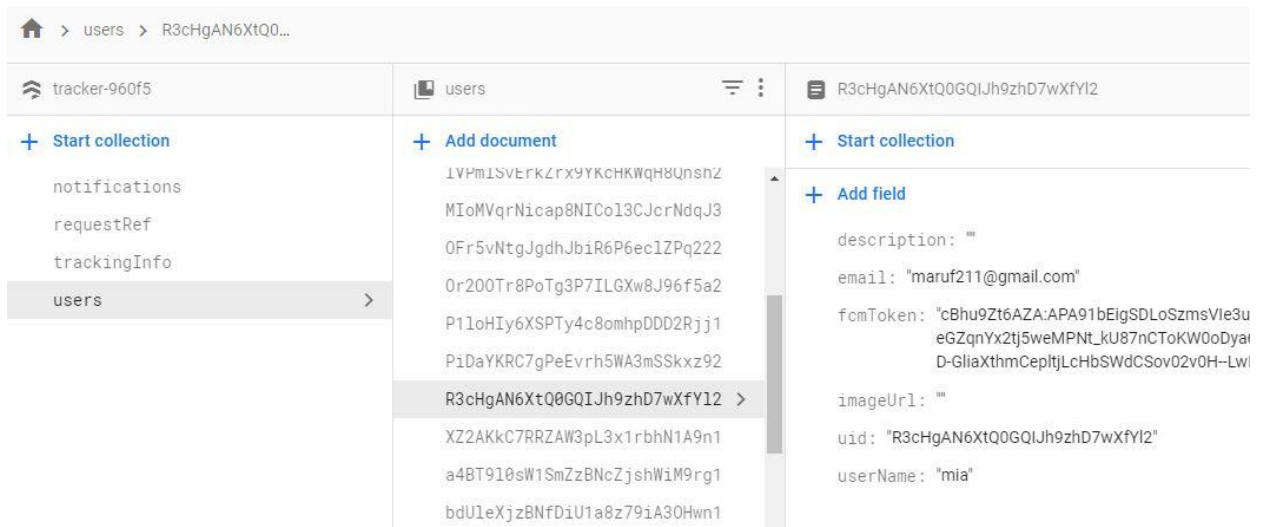
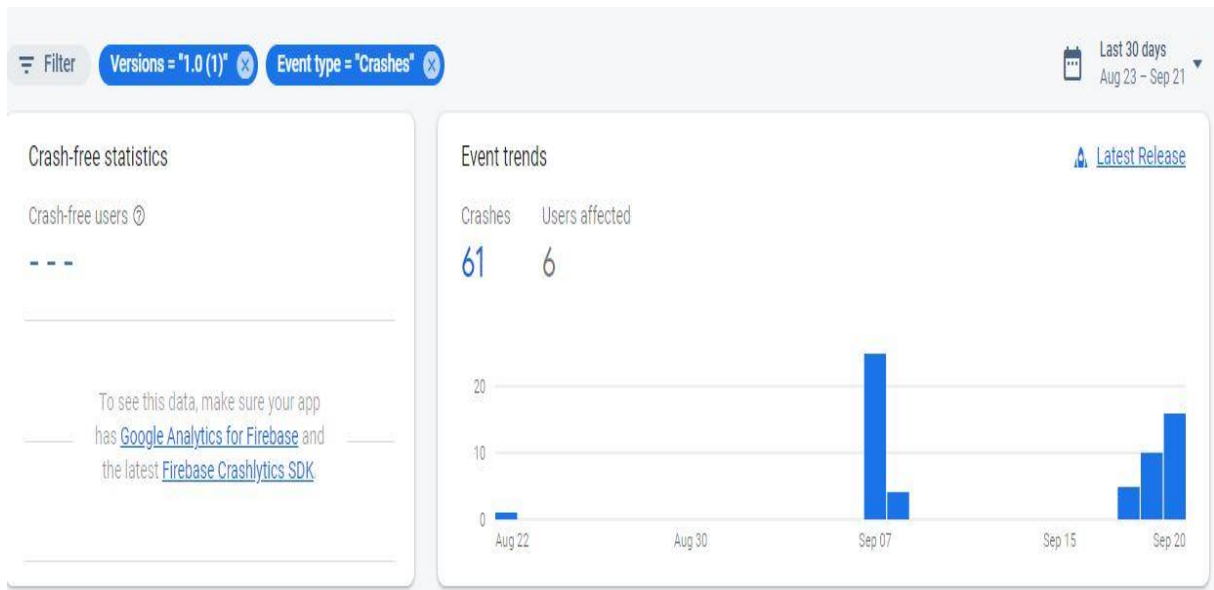


Figure 4.2: Server Request and Responding System

The Database table for the application TRACKER is shown below.



The Crashlytics database for the application TRACKER is shown below



4.3 Interaction Design and UX

Interaction Design is a part of Ux which User Experience is the overall experience in the system that provide meaningful and relevant experience to users[7] . Interaction Design explore how a user and system interact each other. In application based, what users think and how to interact with it. Instead of a good experience is one that satisfy a specific user need, which is a specific context. Basically there are seven factor that affect user experience. Shown below in figure 4.3. The application is designed based of these factors. We have designed our application remembering these important factors as shown below in figure 4.3.



Figure 4.3: 7 Factors Influencing UX

Start Screen Interaction Design and UX:

In Home screen contains just the login screen .This is very simple and easy design so that user can easily able to login or register .

Registration Screen Interaction Design and UX:

New user has been create registration Option. So that they can easily register, should provide some information like name, Email, etc etc.

Login Screen Interaction Design and UX:

This is very simple design and easy. To login just have to provided Registration email and password then user can able to the login .

Profile Screen Interaction Design and UX:

From the My profile Page, users can able to see his/her information. They can also change or update the information.

Call log Info Design and UX:

This design very simple,able to see a log information. By using invite code , he or she will be able to see call logs information of the person that he or she wants to track .

Location Info Interaction Design and UX:

It's also same easy design of call logs. Using invite code ,able to see real time location whom he or she wants to track or not.

Weekly Report Interaction Design and UX:

This screen will show All activities reported are weekly in summary form. This feature is the main core feature of our project. User able to see can easily , Which Social apps are using more or Who has been talked to more, More views on any location in weekly summary report.

4.4 Implementation Requirements

List the requirement for implementing our project TRACKER is shown given below :

1. Java

2. XML
3. Genymotion
4. Android Studio
5. JDK
6. Cloud Firebase

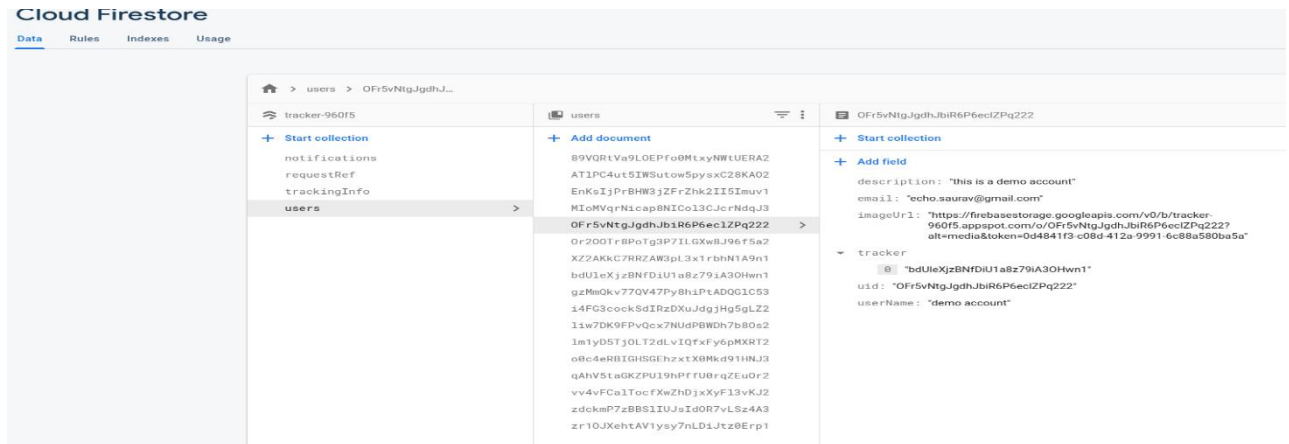
CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

The database runs on a server and is a back-end system of any application. we have used Cloud Firestore for database that provided information such as real time location and also store information .Authentication used for registration or login information store. Through we have used cloud base implementation database so that we can search a user individually. We can see the real time data by tracking the location, Through the Firebase connectivity.

Our database table have been discussed show below figure 5.1.



Our Database Authentication table for user have been discussed show

Search by email address, phone number, or user UID				
Identifier	Providers	Created	Signed In	User UID ↑
rasel034@gmail.com	✉	Sep 20, 2020	Sep 20, 2020	08JT7HnPnSb0vOnOshG4rv2NVm...
imran12@gmail.com	✉	Sep 18, 2020	Sep 18, 2020	3hYxtPFwnuRXCiDvkoh8i3p80IT2
khan2935@gmail.com	✉	Sep 20, 2020	Sep 20, 2020	4vBCwJumE0FjN7o9ugjGMtqG44j1
akhter12@gmail.com	✉	Sep 19, 2020	Sep 19, 2020	6uhUOMSzOuQp5CTXqyQZ1MHpe...
nahid1@gmail.com	✉	Sep 20, 2020	Sep 21, 2020	7zRB1YRnNqZEs8CHeccEB6XhBB2
rahul@gmail.com	✉	Sep 8, 2020	Sep 8, 2020	89VQRtVa9LOEPfo0MtxyNWtUERA2
bappi12@gmail.com	✉	Sep 19, 2020	Sep 19, 2020	973XtmQGeuZqHawZDQZedwv7O...

Figure 5.1: Database Structure

Implementation table of Users

This user contains the database table some necessary field such as name, Email,password,photo,etc. The user can login the system through this database table data, which he or she provided data in registration page. This data is in the Firebase user table, Whenever a user wants to login with his user data then check it with the firebase user data then go to the next activity if data is matched

Implementation table of Users Authentication

This table contains user identifier and user id. And show exact time ,when User creates gmail and show real signed In time. Basically when user try to login ,then Authentication Check the user email and password.

5.2 Implementation of Front-end Design

we have used XML to design different layout the user interface (UI) for implementation our front -end design .we have used different .xml file for different layout. some of front -end design have been shown below.

5.2.1 User Application

5.2.1.1 Registration Page

Have to register to get the access of the system of this application. whenever you click registration button then new page will come and asks to enter information. For registration have to put the require information .

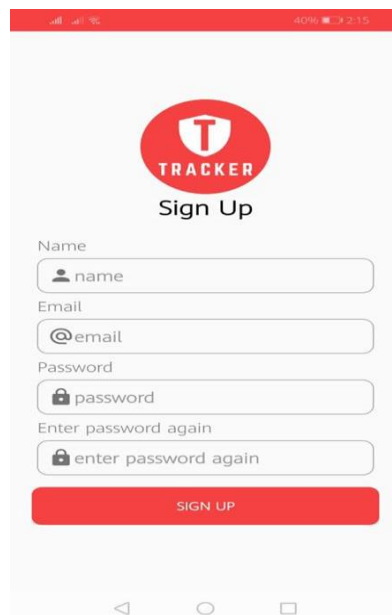


Figure 5.2: Required Field for Registration

5.2.1.2 Login Page

To get access or use the features of the application, users have to login. after successfully registration user can easily login to the application app.

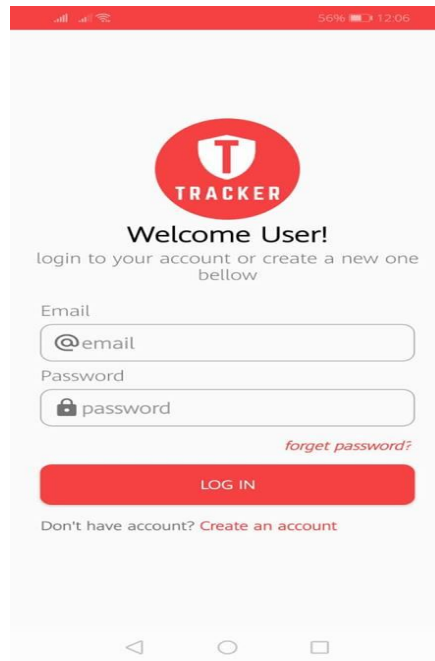


Figure 5.3: Login page

5.2.1.3 Home

After Login user can see Home page that contains Followed user and user can request by invite code.

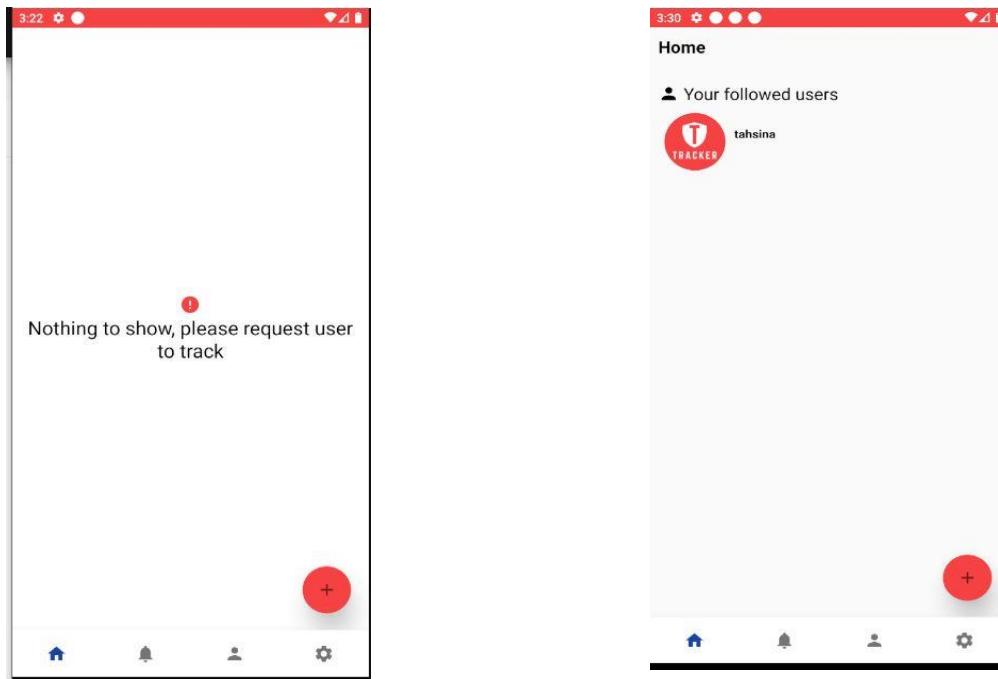


Fig:5.4 Home page

5.2.1.4 Notifications

After login user can see the notifications when other user request accept or not.

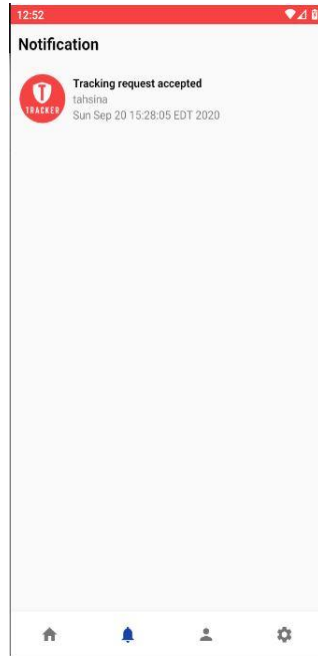


Fig 5.5 Notifications page

5.2.1.5 Setting Page

This page will show All Activity Permission Options, Which he wants to see.

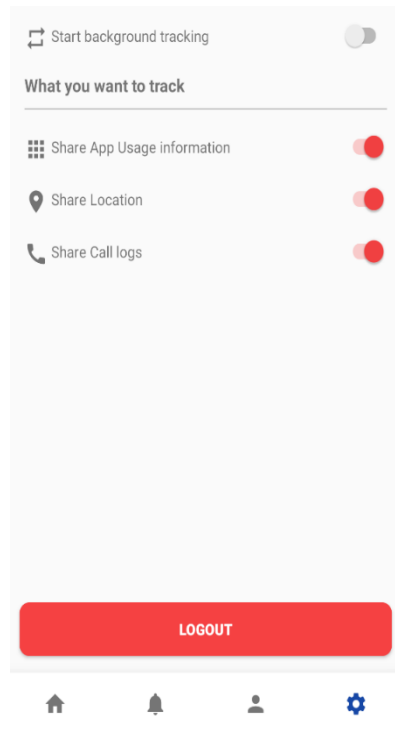


Figure 5.6: Setting Page

5.2.1.6 Profile Page

This page contains of the user's information and they can edit/update the information. Also see her tracking Info.

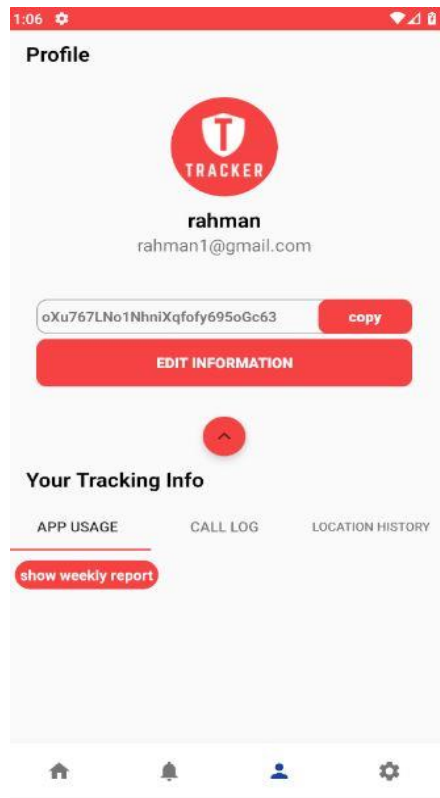


Figure 5.7: Profile Page

5.2.1.7 Call Logs Page

Call log information will be display here and show real time call details history .

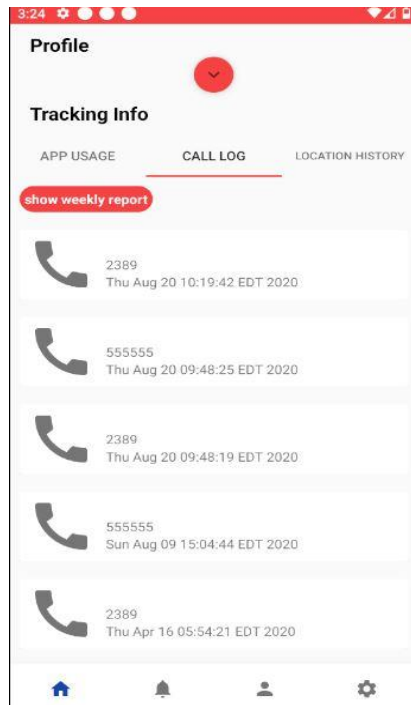


Figure 5.8: Call Logs Page

5.2.1.8 Location Info Page

Whenever location is permitted then This page Show Will real time location on .

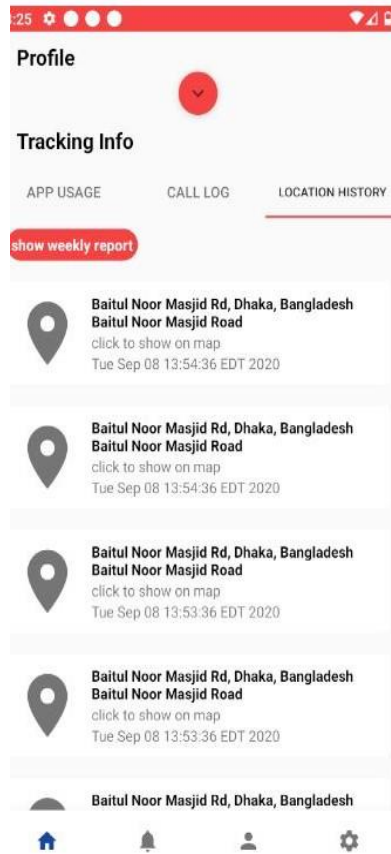


Figure 5.9: Location info Page

5.2.1.9 Apps Usage Page

As user can see apps usage history and Which apps have been used more .

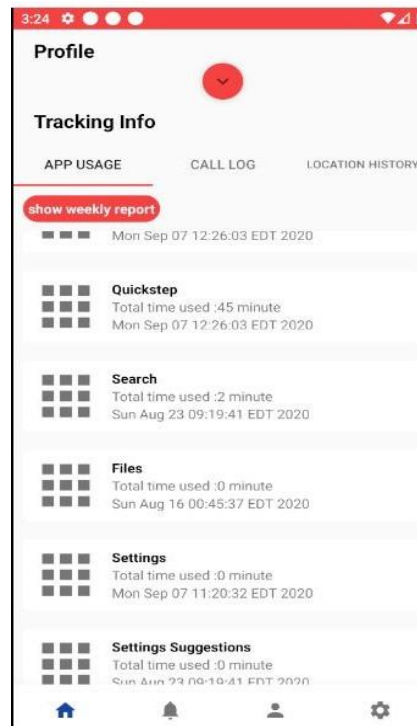


Figure 5.10: Apps usage Page

5.2.1.10 Weekly Report Page

This will show the details information about call log,location,apps usage with Graph.

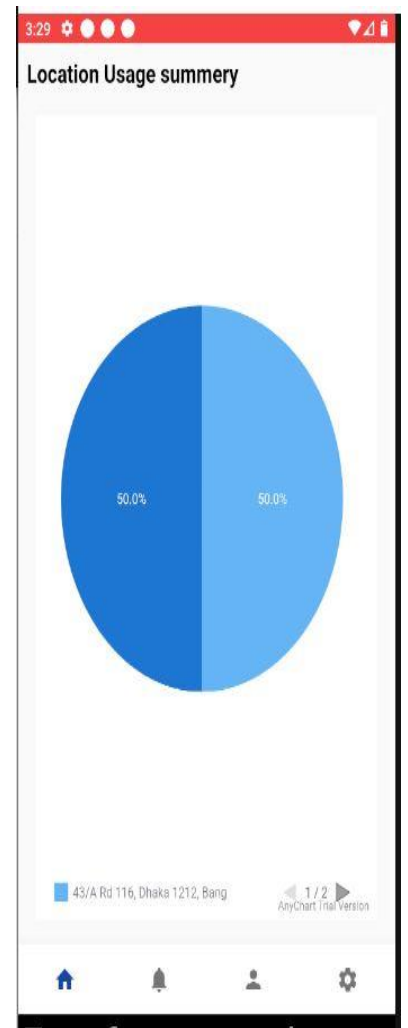
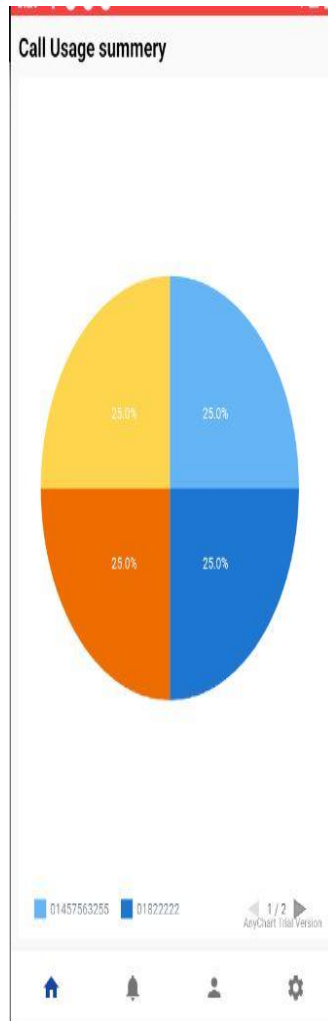
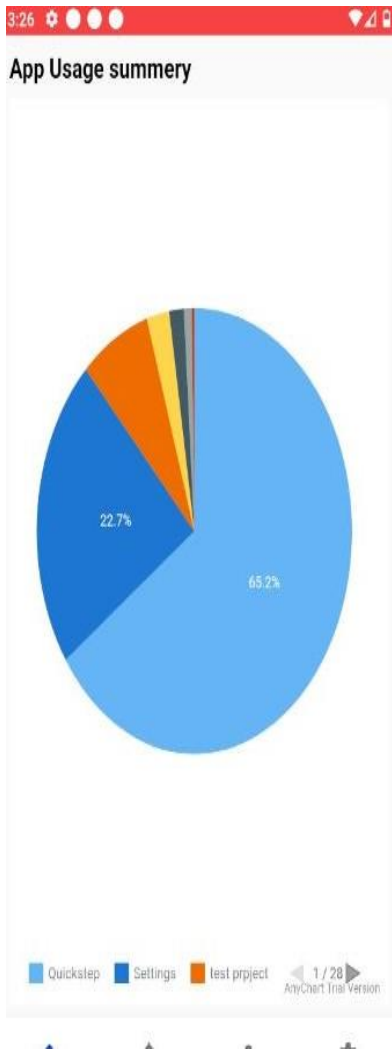


Figure 5.11: Weekly Report

5.3 Implementation of Interactions

Interaction refers how they are interacts one activity to other activity. The design of the pages and The data passes is the most important key of any success application and same important UX. we have develop our application interactions design that users can easily or feel comfortable and user experience good.

5.4 Testing Implementation

Testing is a key process of evaluating a system. Test Implementation is practical practice that in order to identify any errors[8]. For better performance testing must be require. The more will be tested, Accordingly The performance of the system will increase . we have tested some features ,shown listed below .

1. Registration
2. Login
3. Location Tracker
4. Call Logs
5. Apps usage
6. Weekly Report .

5.5 Test Results and Reports

Tested this application on different android device.specailly location tracker has been a tested a lot. Tested many people for user Experience (UX).The following table 5.1 shows results .

Table 5.1: Test Results and Report

Test Case ID	Date	Tester	Design	User Experience	Recommendation for others
1	29/8/20	nahid	Good	Great	Yes
2	8/9/20	fahid	Great	Average	Yes
3	10/9/20	sadekur	Great	Great	Yes
4	11/9/20	Akash	Grood	Good	Yes
5	15/9/20	tanjina	Great	Great	Yes
6	16/9/20	tahsina	Great	Great	Yes

CHAPTER 6

IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY

6.1 Impact On Society

TRACKER is an checking based application that help guardians to screen their youngsters action and development what they are doing and where they are going continuously. It is principally evolved to make more concern the guardians about their kids action and to distinguish the wrongdoing or irregular movement in the Society . We tried to minimize guardians worried about their children development through this apps. It will have a good positive impact on the society and will raise awareness in society .Some of like , With better tracking children would be safe in digital entertainment. The guardians to take care of the web perusing use of their own kids what they are more Interest to browse and Parents can get an idea where theirs children are passing their time to talk regularly. There may be some negative impact on society .such like ,Some times Children's relationships with their parents can become noise type.

6.2 Impact On Environment

We have built up the application as this can be helpful for everybody those individuals who don't think about their youngsters movement and needs to guarantee the kids security and protection. Since, there are a great deal of android phone clients in Bangladesh, so the application would be a simple way simply installing a basic Application. All environmental thoughts are positive. There is no bad impact in home Entertainment totally safe.

6.3 Ethical Aspects

Ethical aspects refers that Conduct features moral qualities, for example, trust, trustworthiness, obligation regard and reasonableness. Trust, genuineness,

obligation regard and decency are basic qualities that make amicability and polished methodology in groups, which thusly prompts venture achievement.[9]. In our project perspective it helps make a wise decisions and children tracking is totally safe. Which is why we have succeeded Complete project TRACKERS. And this application ready to use .

6.4 Sustainability Plan

Sustainability refers ability or quality of projects that continue far into future .The main thing is how to ensure quality of the application far into future. We try put our efforts to make it useful and ensure quality of service in far future. Our TRACKER have to end eventually but the project impact should continue., we have maintaining our project outcomes, and goals that means sustainability .It will have a good positive impact.Someof thing are given below :

- apps bug fixing
- Update code immediately for consistent quality

CHAPTER 7

CONCLUSION AND FUTURE SCOPE

7.1 Discussion and Conclusion

Since, we have dealt with the project for a long time while lastly the application is prepared to utilize. By the finesse of Almighty God, the task has been effectively finished. Presently, anybody can download and introduce it to appreciate all the highlights features.

TRACKER apps will be valuable for the individuals of those people who do not know about their children activity and wants to ensure the children safety and privacy.

This can spare time/cash, has a sense of safety. Building up the application, we have confronted such issues and some way or another, we have figured out how to understand it. We have faced some problem, Specially at code for copy button. It makes occurred at different Android version. So we have uploaded Firebase Function in cloud database that solve this problem. We have used Crashlytics service where it will possible to see the design. Where we can detect the problem in which part of design are not working with Android version. And also can be observed the hit count by user.

Toward the start, we want to work For those gardeners who didn't know about children's activities, And there were worried about monitoring children. Finally we can say, we have succeeded.

7.2 Scope for Further Developments

We attempt put our endeavors to make it helpful and agreeable for everybody particularly for who didn't know about kids' activities.

In future, we plan to work with it to bring more features, improve the User interface (UI), and make it simpler and to execute the unimplemented features. A portion of the further extensions are below:

- Improve User Interface (UI)
- Bring more features
- Connect with Criminal Investigation Department (CID).

REFERENCES

- [1] Total Number of Internet users in Bangladesh, available at <<https://en.wikipedia.org/wiki/Internet_in_Bangladesh >>, last accessed on 10/09/20 at 1:30pm.
- [2] Total Number of Smartphone users in Bangladesh, available at <<https://en.wikipedia.org/wiki/List_of_countries_by_smartphone_penetration>>, last accessed on 10/09/20 at 5:50pm.
- [3] Total Android Phone users in Bangladesh, available at <<<https://www.statista.com/statistics/528256/mobile-operating-system-share-in-pakistan>>>, last accessed on 11/09/20 at 10:30pm.
- [4] Definition of Business Process Model, available at <<https://en.wikipedia.org/wiki/Business_process_modeling>>, last accessed on 12/09/20 at 11:00pm.
- [5] Definition of Use Case Diagram, available at <<<https://whatis.techtarget.com/definition/use-case-diagram>>>, last accessed on 14/09/20 at 07:00pm.
- [6] 7 Factors influencing the User Experience (UX), available at << <https://intersectiononline.com/7-factors-that-influence-user-experience-the-iconic-honeycomb-model>>>, last accessed on 14/09/20 at 11:20pm.
- [7] Definition of test Implementation, available at <<<http://tryqa.com/what-is-test-implementation-advantages-disadvantage-of-early-implementation/>>>, last accessed on 15/09/20 at 03:00pm.
- [8] Definition of sustainability,available at <<<https://www.undp.org/content/undp/en/home/sustainable-development-goals.html>>>, last accessed on 15/09/20 at 05:23pm

APPENDIX

Appendix: Task Reflection

The advancement of TRACKER was a long excursion to make it visible. We have confronted issue When working with background location permission to execute the principle capacity of our application. Presently, individuals can see Real time location attaching the applications. Also can see real time call log .The advancement of the application was fun, here and there risky. We had attempted our best to actualize the application with best Features. Subsequently, we may not bring a few includes however we would like to take a shot at these Features in future improvement of the application.

TRAKER -A SMART KID TRACKER

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