

**DIU SUPERVISOR SELECTION FOR PROJECT/THESIS SUPERVISION**

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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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**DAFFODIL INTERNATIONAL UNIVERSITY**

**DHAKA, BANGLADESH**

**MAY,**

**2019**

## **APPROVAL**

This Project titled “**DIU Supervisor Selection for Project/Thesis Supervision**”, submitted by Md. Zakaria Hossain, ID No: 152-15-5729, Syed Sabbir Rahman, ID No: 152-15-5688, Mehedi Hashan, ID No: 152-15-6103 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 03 May 2019.

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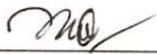


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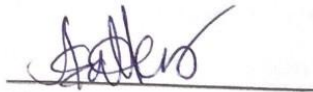
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## DECLARATION

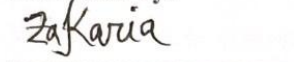
We hereby declare that, this project has been done by us under the supervision of **Mr. Abdus Sattar, Assistant Professor of CSE Department**, Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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## ACKNOWLEDGEMENT

First we express our heartiest thanks and gratefulness to almighty God for His divine blessing makes us possible to complete the final year project/internship successfully.

We really grateful and wish our profound our indebtedness to **Mr. AbdusSattar, Assistant Professor of CSE Department, Daffodil International University**. Deep Knowledge & keen interest of our supervisor in the field of “*Android App Development*” 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.

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

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

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

## **ABSTRACT**

Whenever we were to select Supervisor in our University, then huge problems had to be faced for selecting the supervisor. Then we decided that this problem needs to be a solution. That's why we took the initiative to create an App which will provide all these facilities. . This interactive app is totally free to student and supervisor. Which is useful for students as well as the university faculty members. Previously used a google site based system that all the works are done manually. Google site based system is time consuming. The main objective behind the use of University Final Year project/thesis Management System is easy of the Institute. Through our application students can search their topic idea and supervisor information using Android mobile. Students will not be able to find any project idea and will be able to get some help from this app through video and get a lot of ideas. You can easily see if the supervisor is selected and notify by notification whether the supervisor has been selected. There are many other facilities of this app, such as supervisor can see from all information details training experience and research etc. Then it will be helpful to select his/her supervisor.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

As of late Internet is most famous for all age. The fundamental objective of us this application gives diverse offices to the two clients. An application is a program that keeps running on a mobile with a web server, while its clients communicate with it through an internet browser or comparable client specialist. Work area applications run totally on the Phone they are being kept running on. Site then again, the work between two Phones. One called the server is the mobile that is dependably on the app and it gives a simple to get to this connect. DIU Supervisor Selection (DSS) is an Android app based Application. With this app, our university students can easily select supervisor. And all the information about sir can be easily understood. You can get ideas about who works in a field.

### 1.2 Motivation

During the supervisor selection, we had to suffer a lot of trouble. We were not sure whether the supervisor selection was made. We select a sir but he has not been selected. The problem of repeated application in it. At that time, just then we got an idea that an app can be prepared for this supervisor selection. This idea is unique and extremely will be useful for everyone.

### 1.3 Objectives

This application is aimed to develop to maintain the semester to semester activities of the university, which includes registration of title defense, supervisor list, supervisor selection and profile and project topic idea etc. It is designed to get the following objectives:-

- To computerize all details. With the details of Supervisor, student, project topic.
- To provide some facilities for user such as Selection of user, Detail supervisor information Etc.
- Notify by notification whether the supervisor has been selected.
- Supervisor can observe and give suggestion for their error and better result.
- Can search project by category and get idea about final year project.
- Supervisor's id and password provided by the admin.
- All user can be used feedback option by send mail.
- Admin panel maintenance student and supervisor.

Supervisor can be give accepted group list send mail and call.

- All user provide some facilities without registration rules and regulation, topic details with video& supervisor option call, send mail.

#### **1.4 Expected Outcome**

- Supervisor Solution Services is an Android application and all users can access at any time.
- In this application, Different types of managers have been given access rights and they are restricted up to their functionalities, so that the data is maintained securely and redundant data is prevented.
- The Data is stored electronically, it is necessary to have a Mobile and Network connection to access the Application.
- The main goal is that the students of the Daffodil International University can easily select supervisor and learn all the rules and regulation of the title defense.

The proposed project is a DIU Supervisor Selection (DSS) that provide different facilities of user movement. It is a very easy way to collect information about Supervisor and Title defense.

This app based application safe huge time and energy according to user's choice demand. Hens this app based project offers a very much effective solution where clients can view each and every details and get different opportunity by using this amazing Application.

## 1.5 Report Layout

All reports are broadly organizing in three sections:

- Initial matter
- Test
- Back matter

The Initial matter consists of the title page, approval page, abstract summary, Acknowledgements, table contents, list of tables, list of figures, other lists and the Preface etc. Initial pages are paginated independently from whatever remains of the content. We have organized our report as follows:

**Chapter 2:** Discuss the background circumstances of our project. I also advise about the related work, the scope and challenges of the project and I am compared too many other candidate systems.

**Chapter 3:**Decide the requirements of the project. I am defined the data flow diagram, use case diagram and design requirements. I also discussed about the requirement collection and analysis process.

**Chapter 4,** Specified the front end and the back end design of the project.

**Chapter 5,** Exhibited the implementation of the whole project and I am tested every section of the project weather the application is working as expected.

**Chapter 6,** Discussed about conclusion and the scope for further development of the project. At last of all report I give the related reference to ensure that the information in the report are must be correct.

## **CHAPTER 2**

### **BACKGROUND**

#### **2.1 Introduction**

Many people and institution today have a new or renewed interest in project management application. In the past, hazard administration basically concentrate around giving schedule and commodity information to top administration in only a pair of businesses, for example, the military and development enterprises. The current commitment administration includes outstandingly more, and individuals in each labor and each nation take care of ventures. New technology has mature among a ticklish factor in many organizations, and the utilization of interdisciplinary and global work groups has fundamentally changed the workplace. In this chapter we try to give an overall idea about DIU Supervisor Selection. Here we have discussed about DIU Supervisor Selection.

#### **2.2 Related Works**

At our University, there are many huge Apps organized for several types of events, including DIU Smart Student, DIU Question Bank, DIU Project Evaluation etc. And the need a great place for these preparation. Where there is such a place, there is no system finding data is easy?

Students are easily online for beep. There is no same for inquiries about DIU Smart Student, DIU Question Bank, DIU Project Evaluation etc. So we are creating this DIU Supervisor Selection App so that students can easily get solutions of different events while sitting in the mobile.

This maintained by 2 level of users:-

- Admin (Project committee)
- User level (Supervisor/student)

Project Committee level: Admin is one who has the complete authority of operating the web application. The admin can Create, read, update, delete the data that is stored.

Student Users: From Team formation to Final Defense, see the rules and regulations.

Students can't login and register without University Email. They can apply for title defense. We Users only sees the menu that is provided by the admin. That do not have any authority to read, create, delete, update etc.

Supervisor User: Supervisor can't Login easily. ID will be made from the admin panel.

Here we can see feature without login.

This is application which is user friendly and easy to use. The implementation of this system is very easy. It will work in almost all configurations. Here the most import thing is "Data". Here the data is arranged and store in a proper way for a long time. Some needs are as under:-

- Searching of each Supervisor.
- Allocated for supervisor.
- Project topic idea knows with video content.
- Supervisor of initial, working history,publication, training experience
- Minimize data redundancy
- Summary
- Reduces paper work

### **2.3Comparative Studies**

DIU Supervisor Selectionprovides a means for people to arrange their Supervisor can be selected, Project topic idea and any project of details info and video idea of any project.This system is undergoing from volume- to value-based service, with an emphasis on quality.

### **2.4 Scope of the Problem**

Nowadays world scenario is quickly changing and demanding.The system demands a better communication between students to supervisor, supervisor to project committee to have optimum use their easy system. For this reason the students, supervisor, project committee will survive a lot. University and institutions generate creative students. DIU Supervisor Selection is a system of fulfilling these demands and enacting as a bridge of to finding their event place too short time and if they want they can Selection of add easily.

This type of Apps is suitable for all mobile device system. Separate section is provide to maintain people.

- Approachable: Accessible to visit, selection their type of supervisor, compare each other supervisor, collect information about Supervisor and Title defense.
- Multiple Participant: Multiple user participant.
- Searchable: Easy Search for supervisor, any Project idea with video content.

## 2.5 Challenges

There is a challenge in all the work. No work can be successful without the challenge. Similarly, in our project we also faced some challenges. First of all, we are trying to invent this system with user inspiration resource so we have to complete this system with full fill of user's requisite and it's a very challenging for us to encourage user and inspire them. Although, our apps is approachable users based, however it will be difficult to do the task for us.

This Challenge crave to define user-centralize technologies that can raise user performance by discretely monitoring and analyzing activity in the home. The outcomes of these technologies will enable highly personalized user experiences and thinking and also may lead to reduced time, improved the quality of services, enhanced speed of services, and/or improved access to services. That's DIU Supervisor Selection is so much necessary at Daffodil University students.

In this case, my user will be able to notify me of any problem and can also inform me of any new service. It is helpful to know the size of the services or problem and I will try to solve the problem.

It requires very low system resources and it will work in almost all configurations. They are:

- Security of data
- Data exactitude
- Admin panel control
- Efficiency of working
- Manual data entry minimized
- Time required have to be minimum
- User friendly

- Effective

## CHAPTER 3

### REQUIREMENT SPECIFICATION

#### 3.1 Business Process Modeling:

Business process modeling in business is the 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. BPM is typically performed by business analysts, who provide expertise in the modeling discipline; by subject matter experts, who have specialized knowledge of the processes being modeled; or more commonly by a team comprising both. Alternatively, the process model can be derived directly from event's logs using process mining tools.[1]

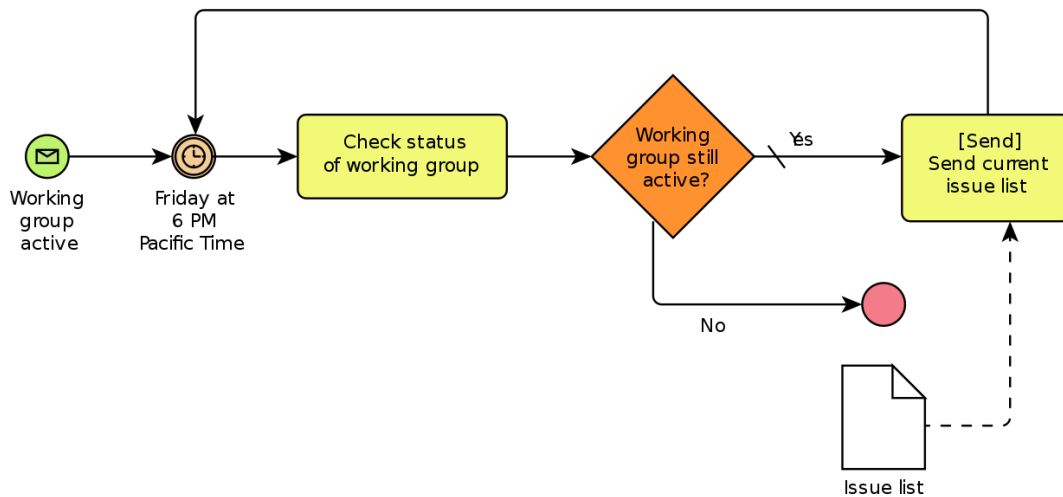


Figure 3.1.1: Business Process Modeling

Description:

This table shows the some basic ideas on Business Process Modeling. It will give us an overall idea on Business Process Modeling.



Table 2: Business Process Modeling

Rank	Issue	Description
1	Method Prosperity	Greater capability to prosper business method.
2	Perception	Exalted and compatible perception.
3	Communication	Exalted communication of business method.
4	Redaction Method	Redaction on the basis of the models.

### 3.2 Use Case Modeling and Description:

They can be user. Here user can have used the overall system. [1]

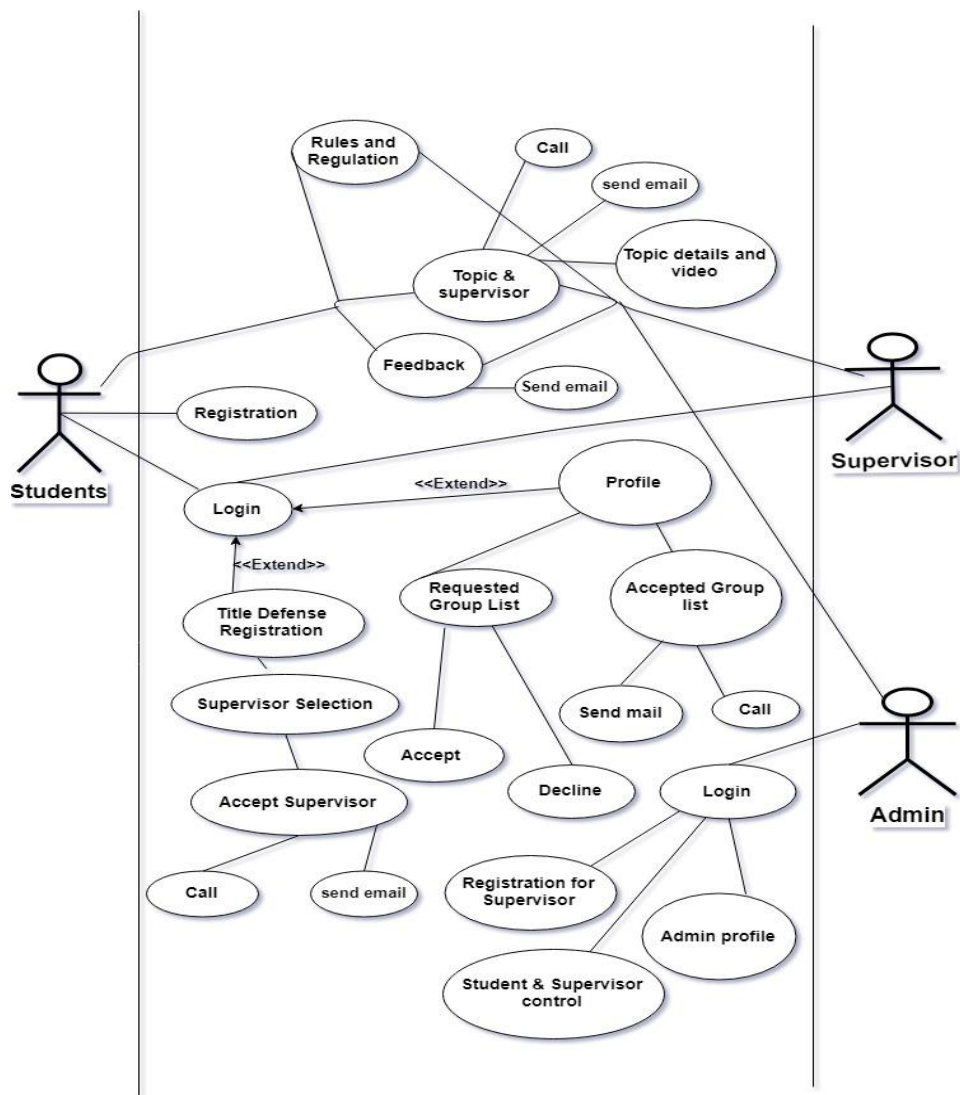


Figure 3.2.2: The full use case model of DIU Supervisor Selection.

### **3.3 Requirement Collection and Analysis:**

This is an application which can be implemented easily. It requires very low system resources and it will work in almost all configurations.

#### Hardware configuration required:

- Processor: Dual core or above.
- Memory: 250 GB or above.
- HDD: 100 GB or above.
- I/O: Keyboard, Mouse, Monitor.

#### Software configuration required:

- OS: Windows 10 or above.
- Tool: android-studio-ide.
- DB: Phpmyadmin.
- Framework: Codeigniter.
- Server: Localhost.

#### It also ensures following requirements that is required:

- Data accuracy
- Admin panel control
- Efficiency of working
- Manual data entry minimized
- Time required have to be minimum
- User friendly
- Effective

### **3.4 Design Requirements**

- Login and Registration
- Admin Panel
- Student's Option
- Supervisor's Option
- Notice board.
- Topics with video.

#### **3.4.1 Features:**

In the proposed system we have several feature here. These are the main feature.

- Home.
- Rules and Regulation.
- Topics and Supervisor
- Title Defense Registration.
- Profile.
- Share.
- Feedback.
- Search system.

## **CHAPTER 4**

### **DESIGN SPECIFICATION**

In this chapter I exhibit the design of our system. I also reveal the implementation of all the tools and technology to make this system. Here we have exhibited that how we have tested our system after building it in representation.

#### **4.1 Front-end Design**

As usual front-end or user interface worked in presentation layer. It illustrated to user it is only the way to interact with our system. Front-end or user interface design also play a vital role for the user experience of the user. The main objectives of designing a site or app is that how user easily contact with the UI for their necessary option. For example, from Wikipedia or the stack overflow app which is jump to: navigation, search, show the default necessary option that most of the user needed. Front-end or UI development also known as client-side or user-site development is the practice of provenance default and custom XML. The developers or designers create constitutive components and features that are indirectly entranced by a user through a front-end app or system.

For front-end or UI design what we needed:

- Need XML layout designing like Liner layout, Relative layout, Coordinator layout, Constraint layout etc.
- Need knowledge of google material design
- Need a good XML preview editor
- Need knowledge of custom layout design
- Need knowledge of HTML, CSS at a plus point

##### **4.1.1 XML**

XML is a markup language similar to HTML. It stands for Extensible Markup Language and is a deliberate earmarked as a general-purpose markup language. This means, unlike other markup languages, XML is not predefined, so you must define your own tags. The primary intention of the language is the sharing of data across different systems, such as the Internet.

There are many languages based on XML. Some examples are XHTML, XUL and XBL. You can also create your own. XML tags are not predefined in XML. We must define our own Tags. Xml as itself is well readable both by human and machine. Also, it is scalable and simple to develop. In Android we use xml for designing our layouts because xml is lightweight language, so it doesn't make our layout heavy.[2]

#### 4.1.2XML Layout

The whole concept of Android user interface is defined using the hierarchy of View and View Group objects. A View Group is an invisible container that organizes child views. These child views are other widgets which are used to make the different parts of UI. One View Group can have another View Group as a child element as shown in the figure given below: [3]

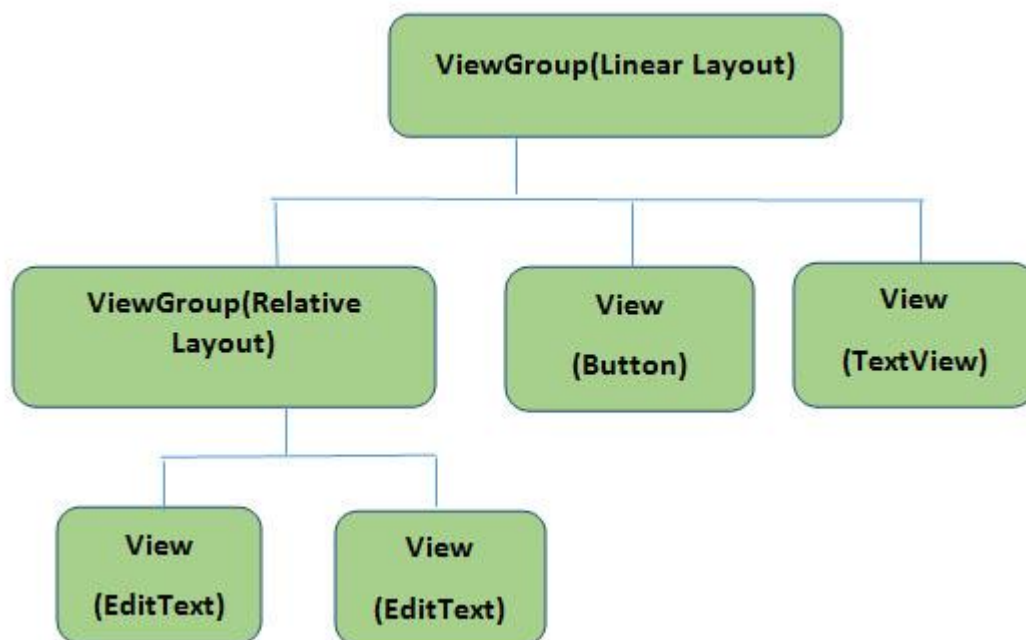


Figure 4.1: Android UI Layout

#### 4.1.3HTML

Hypertext Markup Language (HTML) is the standard markup language. HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings,

paragraphs, lists, links, quotes and other items. HTML elements are delineated by *tags*, written using angle brackets. There are many times have we used `Html.fromHtml(...)` while trying to display markup like interface on Android? If you look at the source code of HTML class, you'll realize that the tags are decomposed into spans which are then applied onto the Text View.[4]

#### **4.1.4CSS**

CSS Stands for "Cascading Style Sheet. Cascading Style Sheet are utilized to design the format of Site pages. They can be utilized to characterize content styles, table sizes, and different parts of Pages that already must be characterized in a page's HTML. The fundamental reason for CSS is to isolate the substance of a web archive (written in any markup dialect) from its introduction (that is composed utilizing Falling Templates). There are bunches of advantages that one can separate through CSS like enhanced substance availability, better adaptability and additionally, CSS gives a level of authority over different introduction attributes of the archive. It likewise helps in decreasing the intricacy and aides in sparing introduction time. CSS gives the alternative of choosing different style plans and guidelines as per the necessities and it additionally permits a similar HTML report to be exhibited more than one shifting style.[5]

#### **4.2 Back-end Design**

In general, the back-end is the machine that runs a site the client doesn't see it or specifically associate with it similarly as with customer side innovation, yet it's continually running out of sight. Convey smooth usefulness and data from the database into the program. The foundation is the blend of database and a product essayist in a server-side dialect, which keep running on web servers, cloud-servers. But in android app development the things are not the same all time. There are two types of back-end service for android app development which is offline storage or back-end system and online back-end system. And we develop this backend system using Java or Kotlin language and Flutter or React Native framework with Android framework. And now Kotlin is the official language of android application development which is introducing by google. But most of the developer prefer Java over Kotlin till now because of the lack of resources of Kotlin for android app development.

### **4.2.1 Java**

Java is an object-oriented programming language developed by Sun Microsystems, which is now owned by Oracle. Being such an old language, Java does a whole lot more than just develop Android apps. So, if you know your Java, you have a lot more job opportunities. You may not want to develop only Android apps all the time. Java lets you spread your wings wider. But if it's specifically about Android app development that you want to talk about [6].

### **4.2.2 Kotlin**

Kotlin came when Android development needed a more modern language to add to the qualities of Java and aid in mobile development. JetBrains, the people who created IntelliJ, the integrated development environment also created Kotlin. It is an open-source, statically typed language based on Java Virtual Machine (JVM). The advantage with Kotlin is that you can compile it to JavaScript and interoperate it with Java. This allows developers to not only easily update old Java apps to Kotlin, but also carry on their old work in Java to Kotlin[6].

### **4.2.3 Flutter**

Flutter is a mobile app SDK that allows you to write an app in one codebase and compile to both Android and iOS. Firebase is a mobile development platform that provides a back end to support your apps, and Cloud fire-store is a NoSQL document database where you can store, sync, and query data for your mobile apps. Together, this trio of Google solutions can eliminate many of the more tedious aspects of mobile development, helping you take your apps from concept to deployment at rapid speed [7].

### **4.2.4 React Native**

React Native is a JavaScript framework for writing real, natively rendering mobile applications for iOS and Android. It's based on React, Facebook's JavaScript library for building user interfaces, but instead of targeting the browser, it targets mobile platforms. In other words: web developers can now write mobile applications that look and feel truly

“native,” all from the comfort of a JavaScript library that we already know and love. Plus, because most of the code you write can be shared between platforms, React Native makes it easy to simultaneously develop for both Android and iOS.[8]

### **4.3 Interaction Design and UX**

For ensuring better User experience, in 25 June 2014 google announce new designing pattern for android app developing which is called Material design. From material design any one can learn that what should do or shouldn't do for better UX. Material design responsibility to demonstrate and practice implementation to how a user can interaction with this design or UI.

### **4.4 Goals:**

- Learn what a front-end or UI structure is and how it avails to be valuable.
- See how to validly incorporate XML, HTML, CSS and start pinching.



## **CHAPTER 5**

### **IMPLEMENTATION AND TESTING**

#### **5.1 Implementation of Database**

The usage stage is the place you indicate the DBMS on the requisite ingredient, upgrade the database to run best on that ingredient and programming stage, and make the database and load the information. Make the database and tables. Load the information. The database usage steps are: -

- SDLC – Agile Model
- Database Life Cycle.
- Requisite gathering.
- Analysis and exploration.
- Logical Design.
- Implementation.
- Perceiving the design.

#### **5.2 Implementation of Front-end Design**

App of front-end embodiment called user side headway is the act of creating XML and some HTM-CSS for an android application, so a client can see and interact with this specifically. Most of the cases, we used XML for front-end or UI design because of Rather than integrating them into the HTML document, they are stored in separate XML files. Since XML stores data in plain text format, the storage is independent of your platform and your data can be exported, imported, or simply moved much easier. And we used various type of XML layout in our project like Liner layout, Relative layout, Coordinator layout, Constraint layout etc. Because, there are so many sizes of devices present in world-wide market. If we used only one xml layout for the designing of whole app then it will be difficult to manage different types and sizes of screen. That's why we use various kind of XML

layouts. And through the XML layout, user can interact to the app directly. The target of constituting an app design is to ensure that when the clients or users open the app they see the data in an organization or something else that is anything but easy to peruse and adequate.

### **5.3 Implementation of interactions:**

It is well documented that module of collaboration design is a vital part of user experience (UX) design, positioning on the communication between users and products. The goal of communication design is to produce a product that yields a well-organized and amusing end-user practice by allowing users to accomplish their purposes in the best way potential.

### **5.4 Testing Implementation**

Implementation is the scheme upon on the part of placing an activity for the schematic provision. Before we actualize, the provision obligation to have been finished and our objectives obligation to be clear. Testing every one of those activities ascertained in the provision. Test content is additionally used to delineate the directions to a test redaction device. A computerization content is composed in a programming idiom that the apparatus can get it. The tests that are expected to be run physically as opposed to utilizing a test execution apparatus can be called as manual test content. The test methods, or test contents, are then framed into a test execution plan that indicates which strategies are to be run first – a sort of superscript. Composing the test System is another chance to organize the tests, to guarantee that the best testing is done in the time accessible.

#### **5.4.1 Framework and Libraries**

We can be done developing android application using a lot of frameworks like Android official fragment with Kotlin or Java, React native framework, Flutter framework etc. But google recommended to use android official framework with Kotlin or Java because flutter and react native is not a native approach to develop android application. And to develop android application using react native or flutter is not stable than the native approach. And when we are developing app then we need some important and must needed libraries:

#### **Retrofit:**

Retrofit is a very useful network calling library. Whenever we need to send a data to the server or to bring any data from the server, when to call on the server side, we must face many problems with our buggy, repulsions, and so on. And we use retrofit's Libraries to solve these problems easily.

### **Recycler View:**

List view, which we usually create in the layout of different layouts, create views. To show the list first, we use the list view. But there is some limitation which is if your list view is so long or complex then it will create some user experience problem. So, if you need to show a lot of data in a list, then using Recycler view will work very well. For these reasons we need the Recycler view library.

### **Glide:**

Glide is an image loading library. We must load large and different types of images in our time. And most of the mobiles have all the resources in a lot less, so there are many problems to load images of many big or different types manually. So, we use the Glide library to solve all this.

## **5.4.2 Database Server and Administration Tools**

### **AWS Mobile:**

Now a days we need more storage to handle our data. For this, amazon web service mobile is a great platform to store your data. A lot of functionalities including Notification, Authentication, Cloud Storage, data warehousing, Device Farm etc. SDK for a lot of platform including iOS, Android, Xamarin, React Native, Unity. It is a free plan to begin with.

### **Firebase:**

Firebase also a great data storage server. And it is recommended by google for android app development. A lot of features handle automatically by firebase SDK that's why android developers really love it. A lot of functionalities including Realtime Database, Crash Reporting, Authentication, Cloud Storage, Hosting, Test Lab for Android. And it is also a free plan to begin with.

### **Back4App:**

It is promulgated cloud hosted parse server. A lot of fervidities including Live Query Real Time Database, Analytics Dashboard, Version Control, Command Line tool, Multi-App Tenancy, Teams & Collaboration. It is also a free plan to begin with.

### **MySQL:**

Instead of using AWS, Firebase, Back4App as a database server, you can use your own hosting database like MySQL. MySQL is an open source database management system. And to you MySQL database as your server for your app, you have to create a Rest API to communicate with MySQL database into your app. And we use this for our app because, it is a free and open source database management system.

## **5.5 Test Results and Reports**

Test report is expected to reflect testing results formally, which gives a chance to appraise testing result rapidly. It is a report that records information got from an assessment explore in a sorted-out way, depict the natural or working conditions, and demonstrates the examination of test results with destinations. So, toward the end, we can do the outcomes as the advantages of ease of use testing to the end once we have characterized the general engineering for connection protests, the issue is then how to plan the arrangement of its occurrences to make them accessible to designers of UIs. The communication can find all over the place. Association is the way to make a framework dynamic and alluring to client. It's exceptionally important to make a framework intuitive and we likewise attempt to. As referred to in before, we additionally incorporate some one of a kind of components to collaborate our framework.

I have planned our framework as easy to understand that client can fulfill to visit our site. I am indicating solid level of nearby network inclusion in our arranging, and usage.

### **5.5.1 Home page and app navigation**

Figure5.1 shown the home page of DIU Supervisor Selectioncontaining with basic title

defense registration instructions and processes. And figure5.2 also shown the app navigation option for that user can easily access and select the app option.



Figure 5.1: Home page

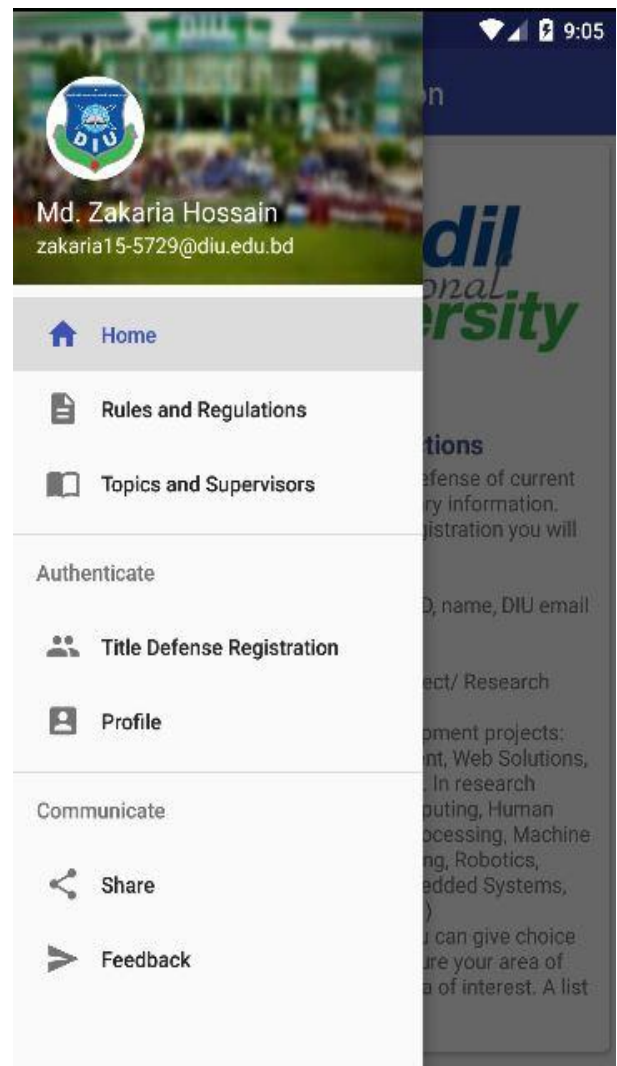


Figure 5.2: App navigation

### 5.5.2 Rules and regulations with feedback

Figure5.3exposed the details information of title defense rules and regulations. And figure 5.4 also exposed the feedback option for the user that user can send their any kind of feedback about this app and for the must have installed Gmail into the user mobile.

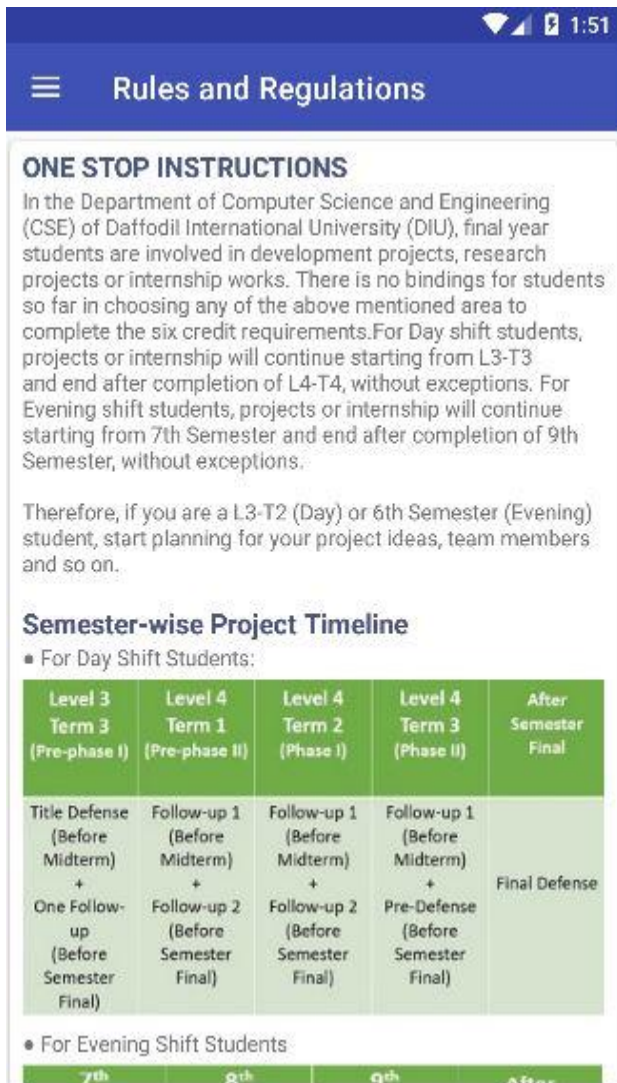


Figure 5.3: Rules and regulations

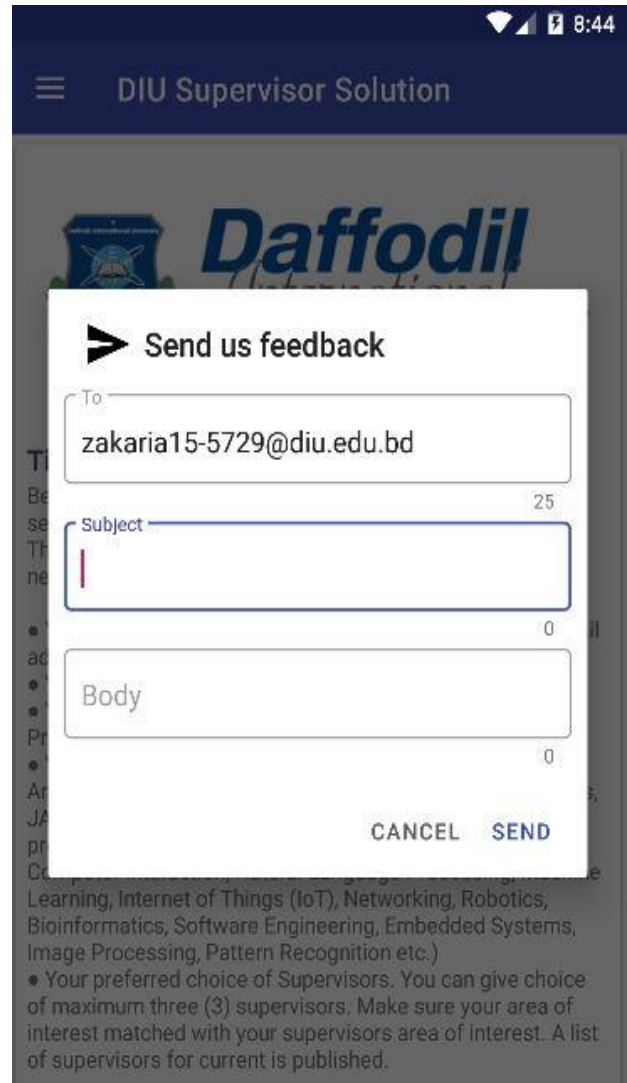


Figure 5.4: Feedback

### 5.5.3 Topics and Supervisors

Figure 5.5 appeared the list of topics for title defense with the initial name of supervisors for this topic. And figure 5.6 also appeared the list of available supervisors for that student can find supervisor all kind of information.



Figure 5.5: Topic list

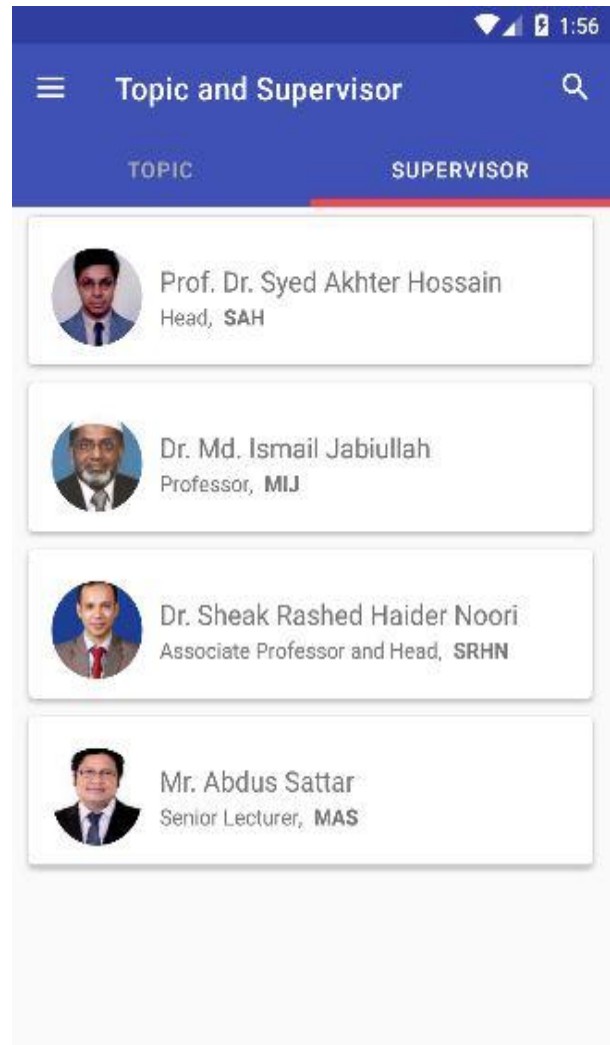


Figure 5.6: Supervisor list

#### 5.5.4 Topic and supervisor details

Figure 5.7 and 5.8 shown topic and supervisor details. From the topic details page, student can find all the supervisor initial name related to this topic and find overview of this topic. Student also can view a video demonstration about this topic to get a basic idea of this topic. And From the supervisor details page student see the supervisor all the details.



Figure 5.7: Topic details



Figure 5.8: Supervisor details

### 5.5.5 Phone call to the supervisor

Figure 5.9 and 5.10 show the phone call option in the supervisor details section. Our app gave all the freedom to the user for any kind of permission. After giving the phone call permission, the student can call a supervisor from our app directly.



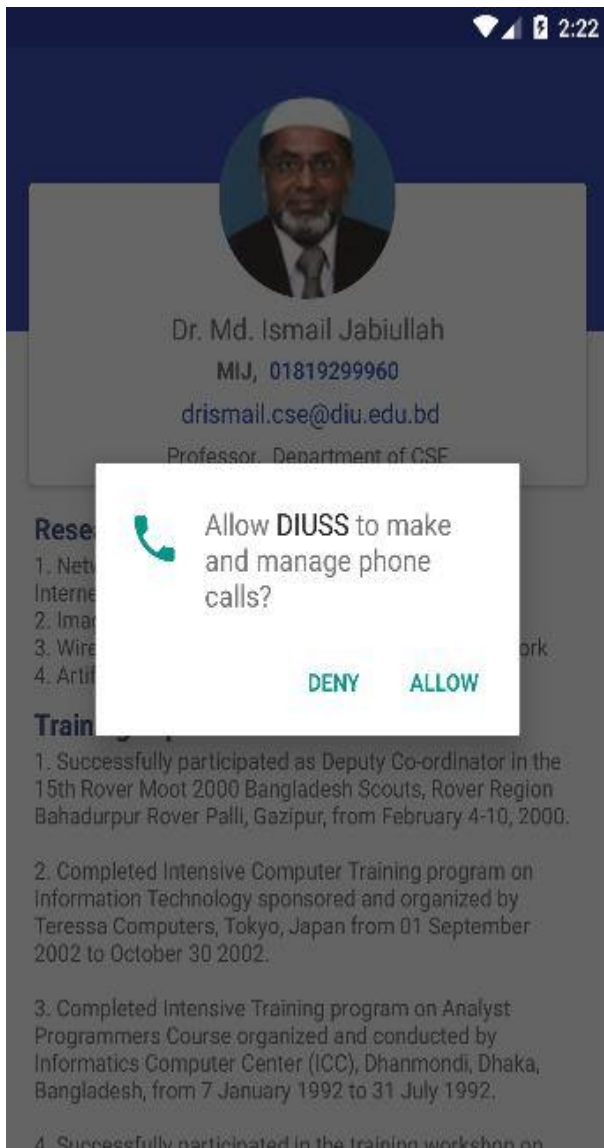


Figure 5.9: Phone call permission

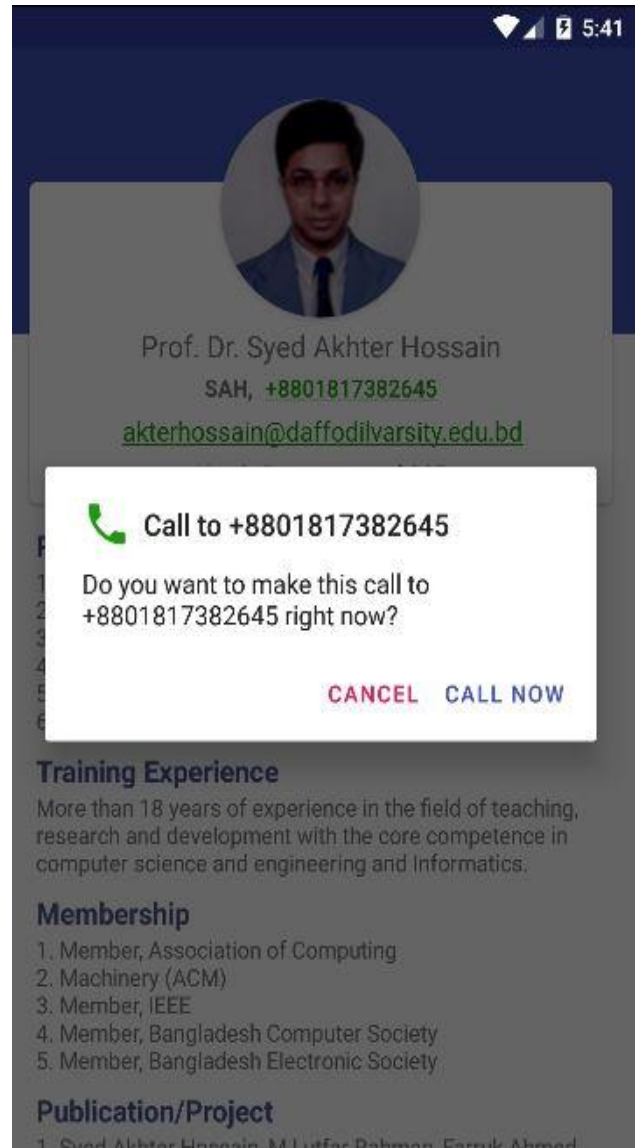


Figure 5.10: Phone call to supervisor

### 5.5.6 Send email and web link of supervisor

Figure 5.11 shows the send email option into the supervisor details section. And figure 5.12 shows that if a student needed more information about a teacher then he can get this information through this supervisor web profile link.

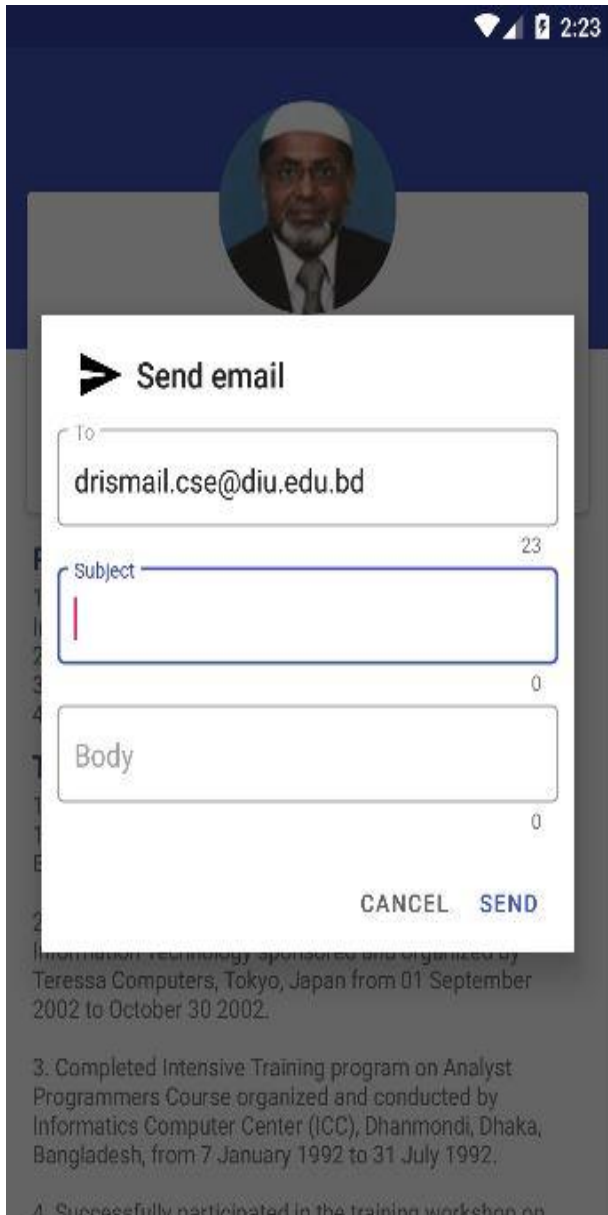


Figure 5.11: Send email to supervisor

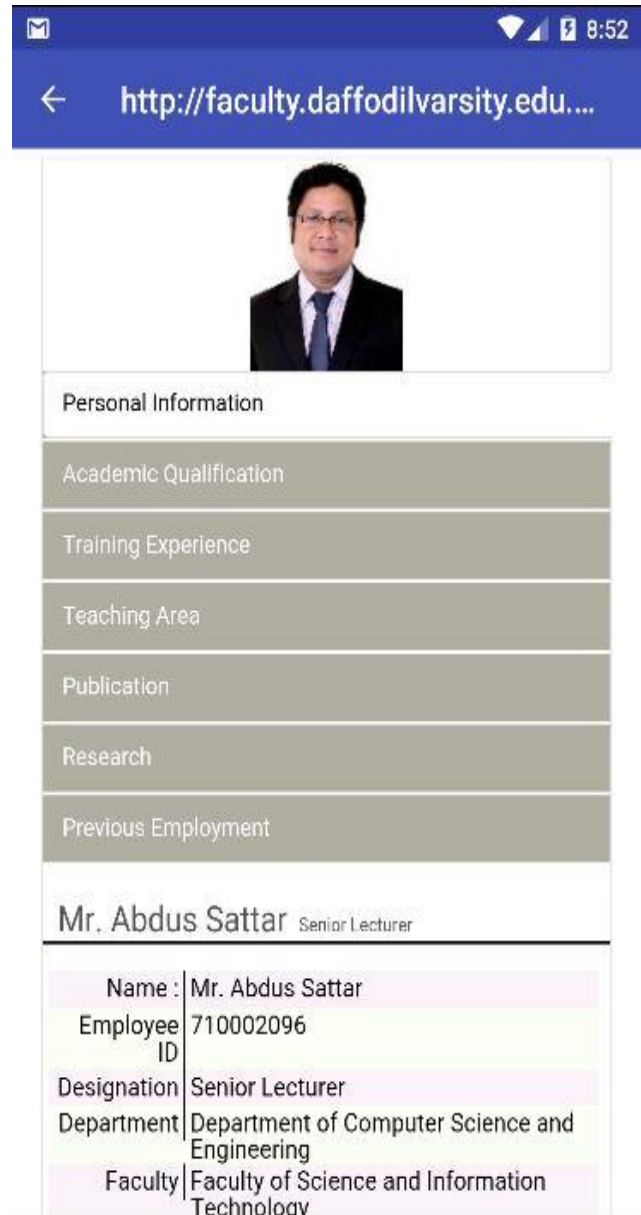


Figure 5.12: Supervisor web-view details

### 5.5.7 Sign up and Login

Figure 5.13 exposed the sign-up option for a user and for sign up user must be given a name, a DIU email, a at least 8-character long password with combination of alphabets, numbers and symbols and a confirm password. And figure 5.14 exposed that user can login using their previously signed up email and password and they also sign in with a google account option. For the login or sign up option they must be choose a login role as a student or supervisor.

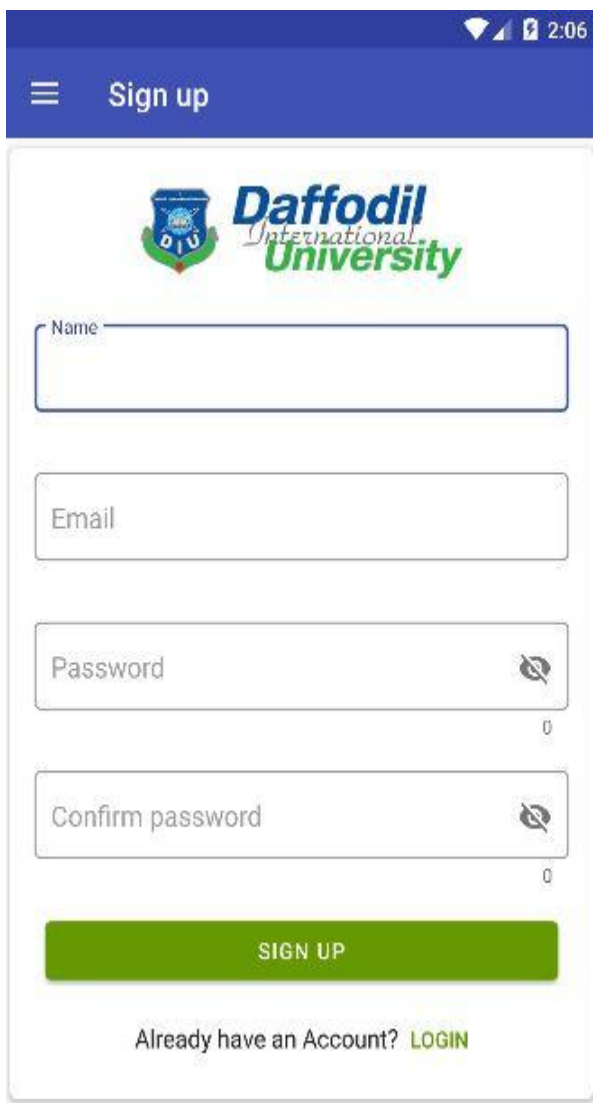


Figure 5.13: Sign up

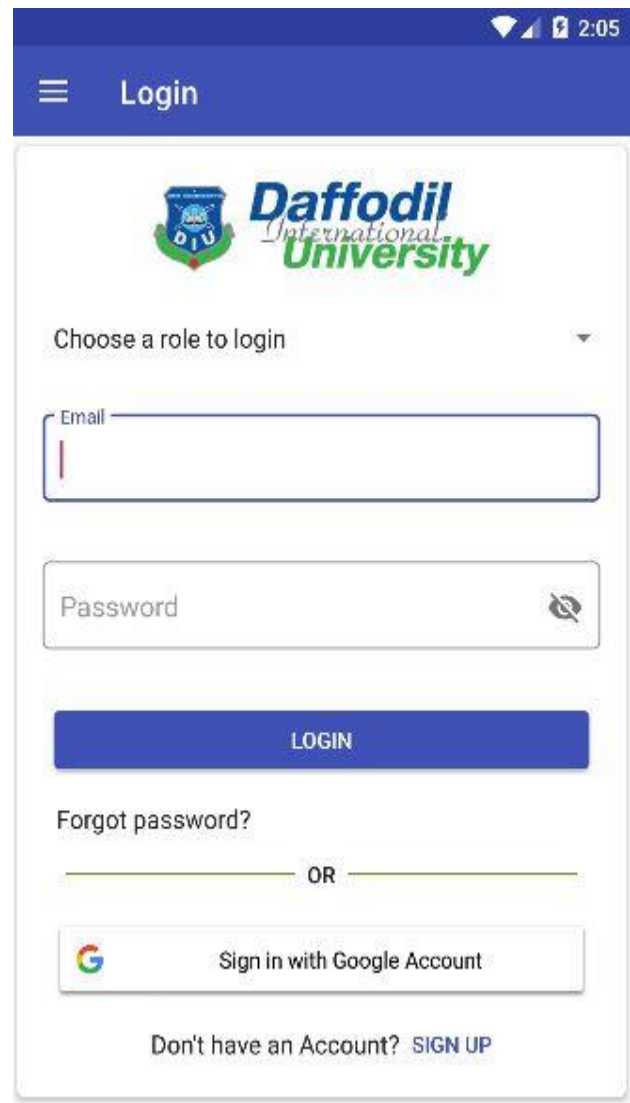


Figure 5.14: Login

### 5.5.8 Sign in with google account and email verification

Figure 5.15 exposed the google sign in popup. And you must select a DIU email for the completion of google sign in option. If you have already an account with this email, then simply login to your account other it can create an account then go through the profile page directly. Figure 5.16 also exposed that the email verification when the user first time login into his account and for verifying that your given email is valid or not. And this UI also helps you when you forgot your password and try to recovery or reset your password.

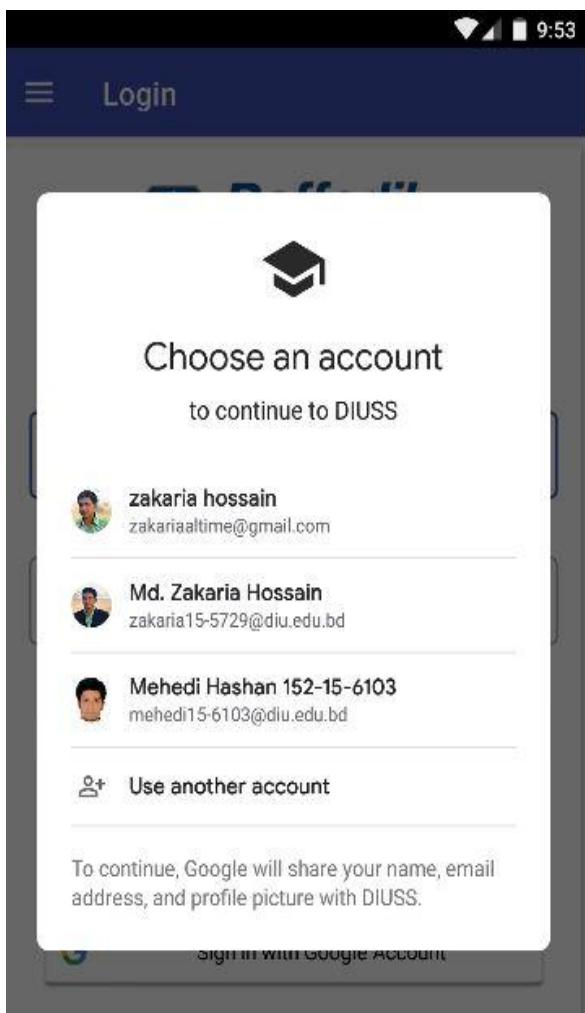


Figure 5.15: Sign in with google account

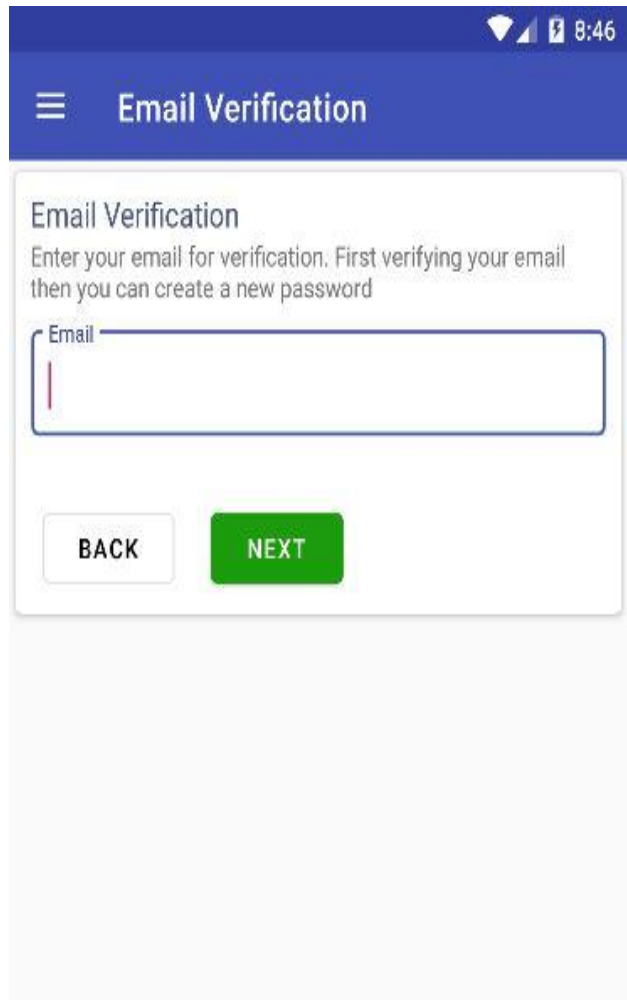


Figure 5.16: Email verification

### 5.5.9 Reset password and user profile

Figure 5.17 shows a reset password option. This is needed when a user forgets his password and tries to reset it. The user enters their email, and if it is valid, the app sends an 8-digit long verification code to their email. The user then checks their email inbox and resets their password with this verification code. The right-side figure 5.18 shows a user profile page. When the user successfully enters a valid email and password, this option appears to them.

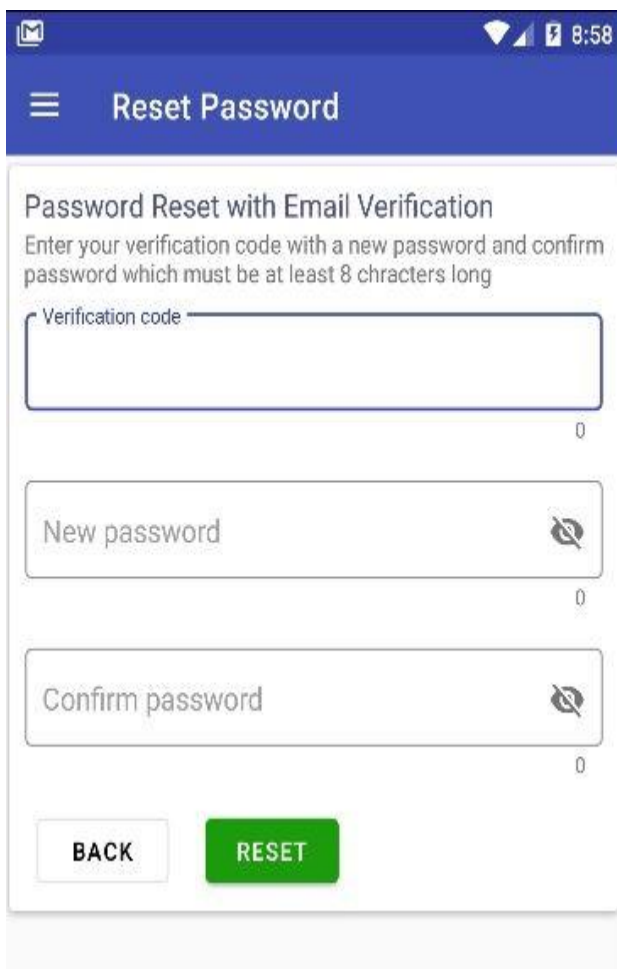


Figure 5.17: Reset password

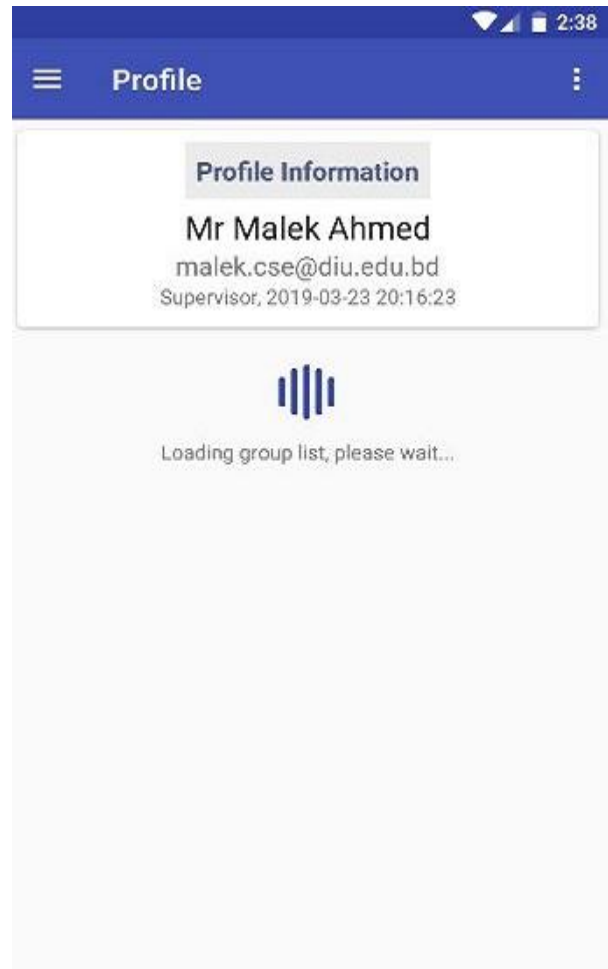


Figure 5.18 User profile

### 5.5.10 Change current password and check course completion

From the left side in Figure 5.19 we can see that this is a change password option. Sometimes you may need to change your current when you already logged in then you can change your password using these three-input text which is current password, new password and confirm password. And figure 5.20 exposed a popup of course completion when you want to enter the title defense registration page. If you agree these terms, then you can go through the title defense registration otherwise you can't.

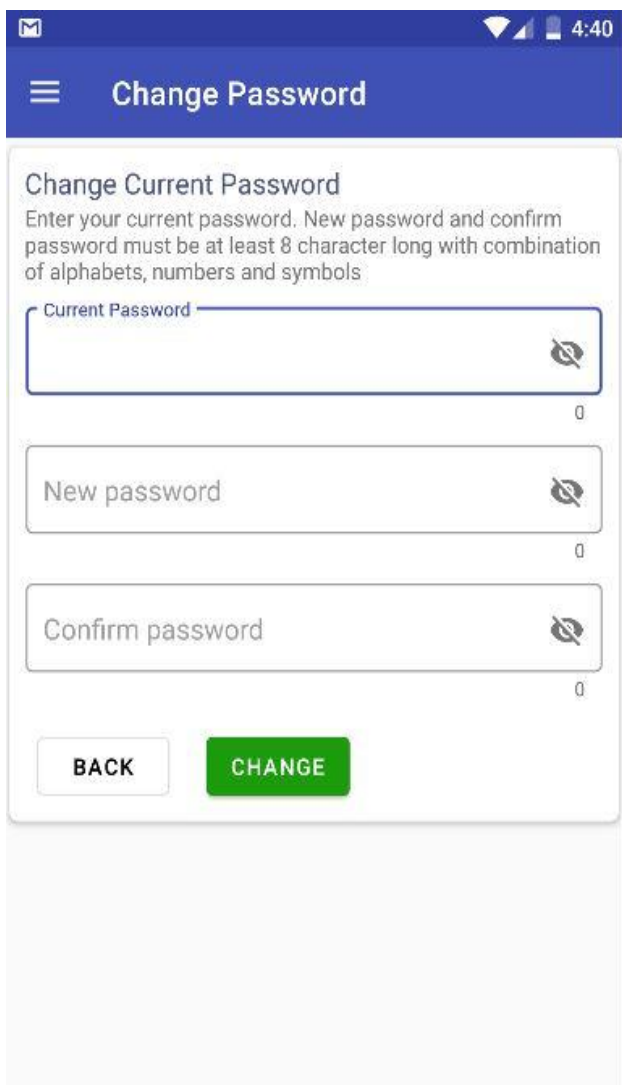


Figure 5.19: Change current password

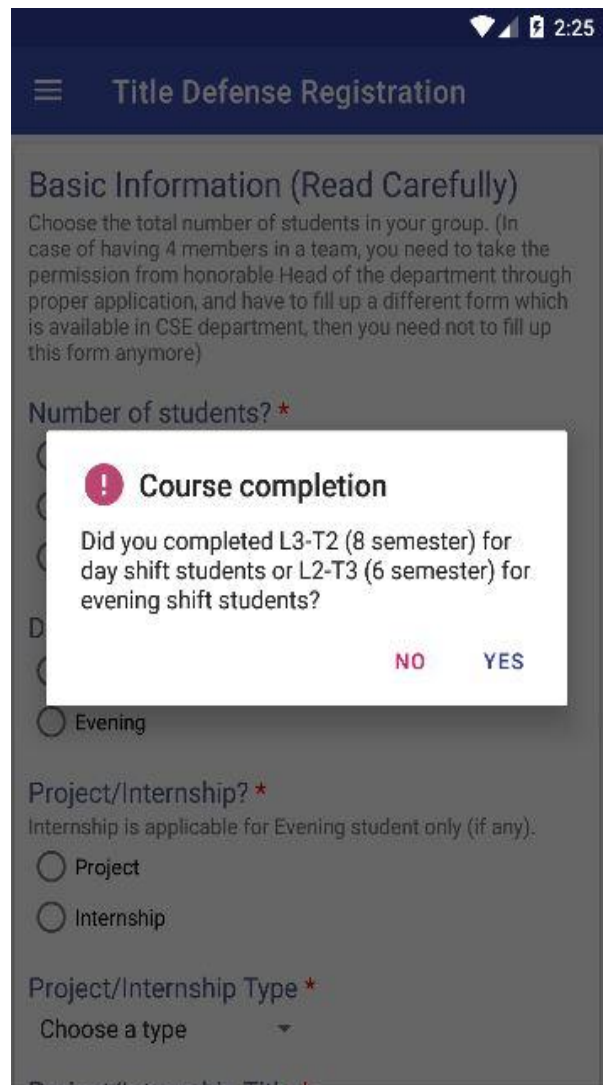


Figure 5.20: Check course completion

### 5.5.11 Title defense registration page 1 and 2

From the left side in Figure 5.21, we can see the title defense registration process. Title defense registration process takes three parts or pages. The first page contains the number of students, day or evening shift, project or internship type, project or internship title. And the below figure 5.22 shows the second page. The second page contains the number of students with student ID, student name, student email, student phone number.



The screenshot shows the first page of the 'Title Defense Registration' process. It features a blue header with a hamburger menu icon and the title 'Title Defense Registration'. The main content area includes several sections with radio button options and a text input field. At the bottom, there is a green 'NEXT' button and the text 'Page 1 of 3'.

**Title Defense Registration**

Number of students? \*

1

2

3

Day/Evening? \*

Day

Evening

Project/Internship? \*

Internship is applicable for Evening student only (if any).

Project

Internship

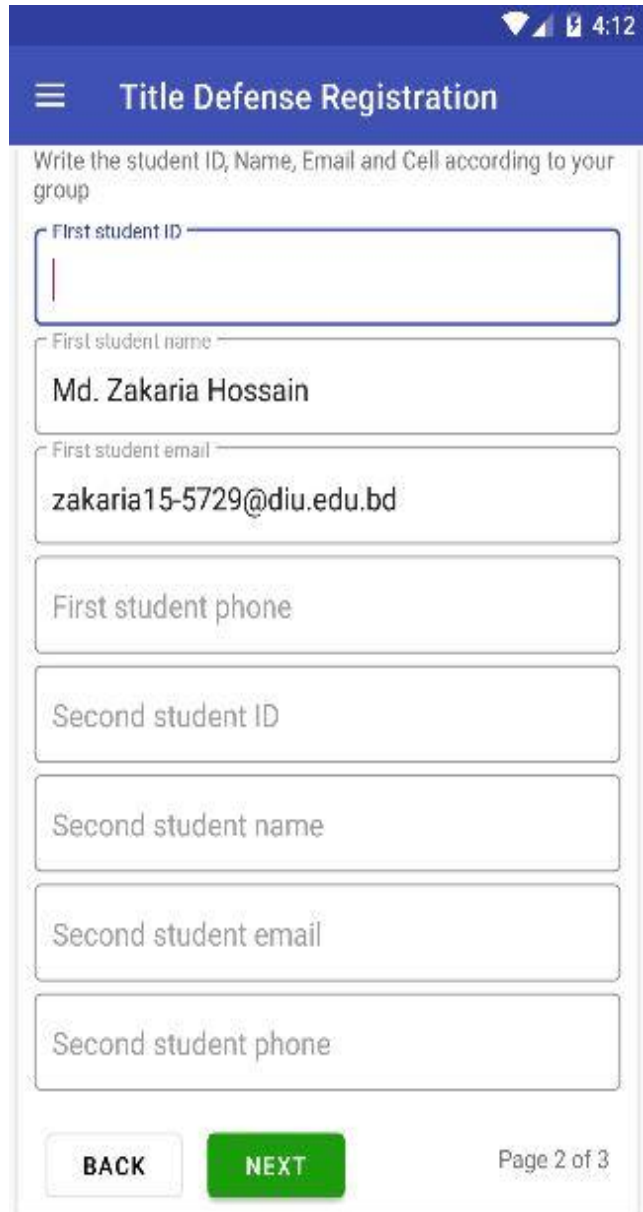
Project/Internship Type \*

Choose a type ▾

Project/Internship Title \*

Title

**NEXT** Page 1 of 3



The screenshot shows the second page of the 'Title Defense Registration' process. It features a blue header with a hamburger menu icon and the title 'Title Defense Registration'. The main content area includes a text input field for the student ID, followed by text input fields for the first student's name, email, and phone number. Below these are text input fields for the second student's ID, name, email, and phone number. At the bottom, there are 'BACK' and 'NEXT' buttons and the text 'Page 2 of 3'.

**Title Defense Registration**

Write the student ID, Name, Email and Cell according to your group

First student ID

First student name

Md. Zakaria Hossain

First student email

zakaria15-5729@diu.edu.bd

First student phone

Second student ID

Second student name

Second student email

Second student phone

**BACK** **NEXT** Page 2 of 3

Figure 5.21: Title defense registration page 1      Figure 5.22: Title defense registration page 2

### 5.5.12 Title defense registration page 3 and Student profile

From the left side in Figure 5.23, we can see the title defense registration process last part or page. The last page contains area of interests and supervisor choices. Every group can be chosen 3 supervisors at a time. And the below figure 5.24 shows student profile, where student can see their supervising request progress.

**Title Defense Registration**

Bioinformatics

Human Computer Interaction

Robotics

Embedded System

Other

Write down your area of interest

**Supervisor Choices \***  
Write the three different initial of the supervisors according to your choice! **Only Initial with Capital letter, do not write full name.** Note: It is not confirmed that you will get the supervisor if you give his/her initial in all three choice.

First supervisor email

Second supervisor email

Third supervisor email

I/We do hereby agree that, assigning supervisor according to the choice is not guaranteed always.\*

**BACK** **SUBMIT** Page 3 of 3

Figure 5.23: Title defense registration page 3

**Profile**

**Profile Information**

**Md. Zakaria Hossain**  
zakaria15-5729@diu.edu.bd  
Student, 2019-03-14 04:23:54

**Group List Status**

aktarhossain1@daffodilvarsity.edu.bd  
Accepted

malek.cse@diu.edu.bd  
Pending

eses@gmail.com  
Accepted

Figure 5.24: Student profile



### 5.5.13 Notification in supervisor device and Supervisor profile

Figure 5.25 appeared the notification of supervisor device. When any group request to a supervisor then the notification comes up to this supervisor mobile. And the right-side figure 5.26 appeared a supervisor profile page. Where supervisor can see the accepted or requested group list. Also, the can send a mail to all accepted group lists.

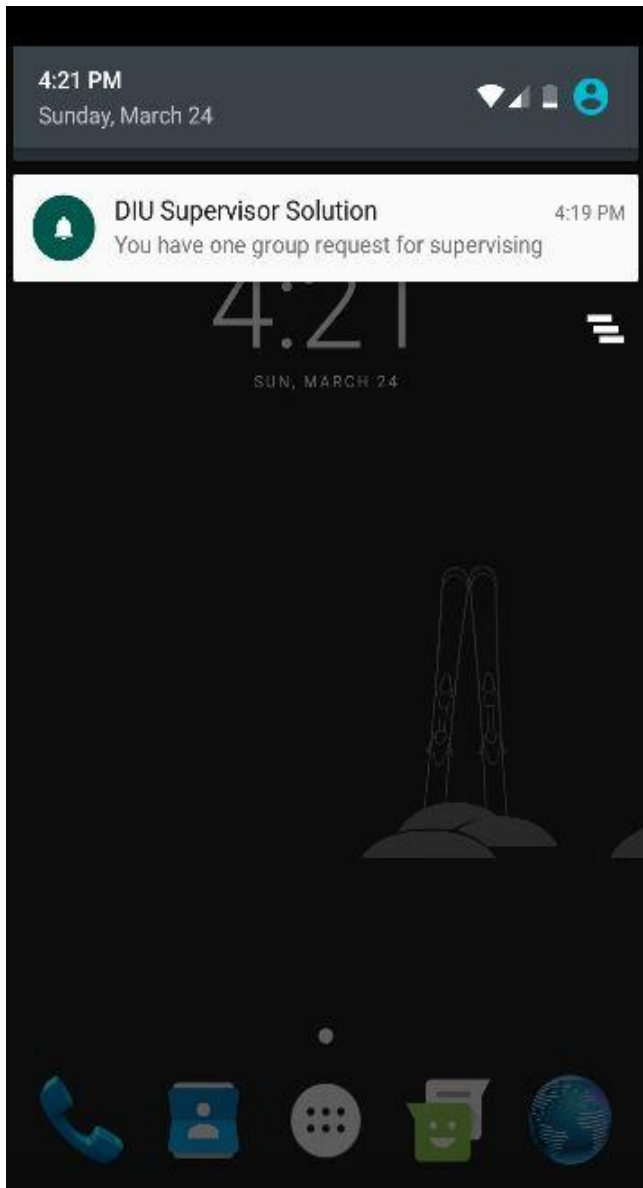


Figure 5.25: Notification in supervisor device

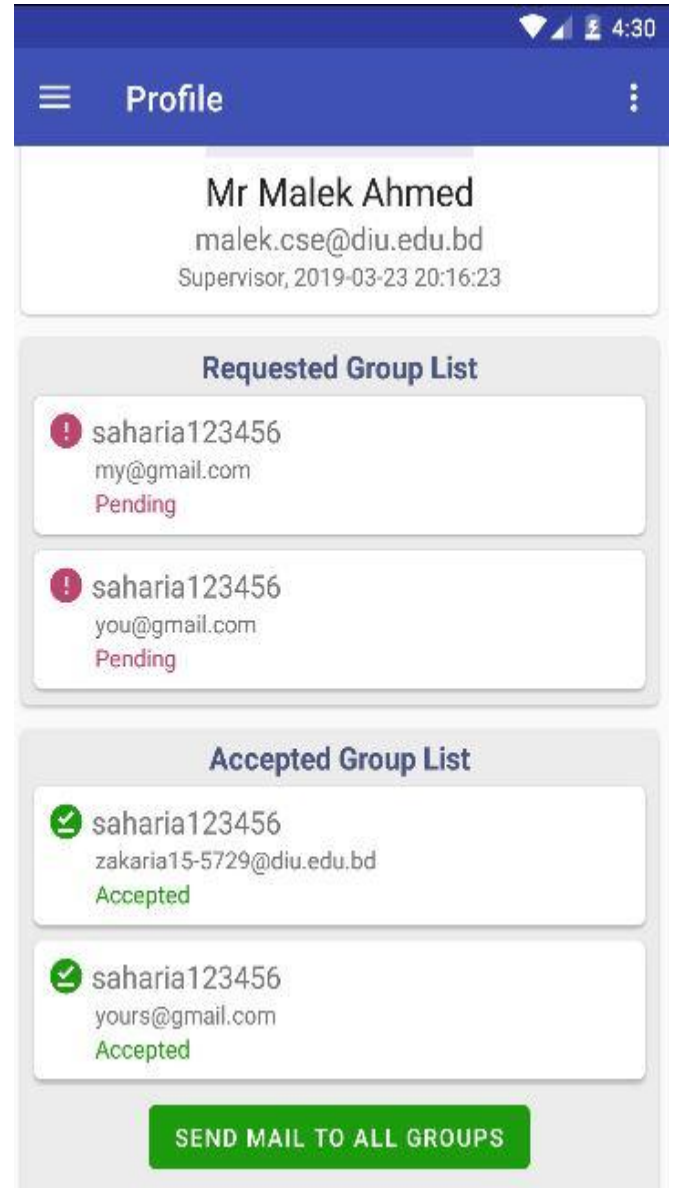


Figure 5.26 Supervisor profile

### 5.5.14 Requested group details and Accepted group details

Figure 5.27 appeared the requested group details. In this section, supervisor can accept or decline a group. And the right-side figure 5.28 appeared the accepted group list where supervisor can call a students individually or send a mail to this group.

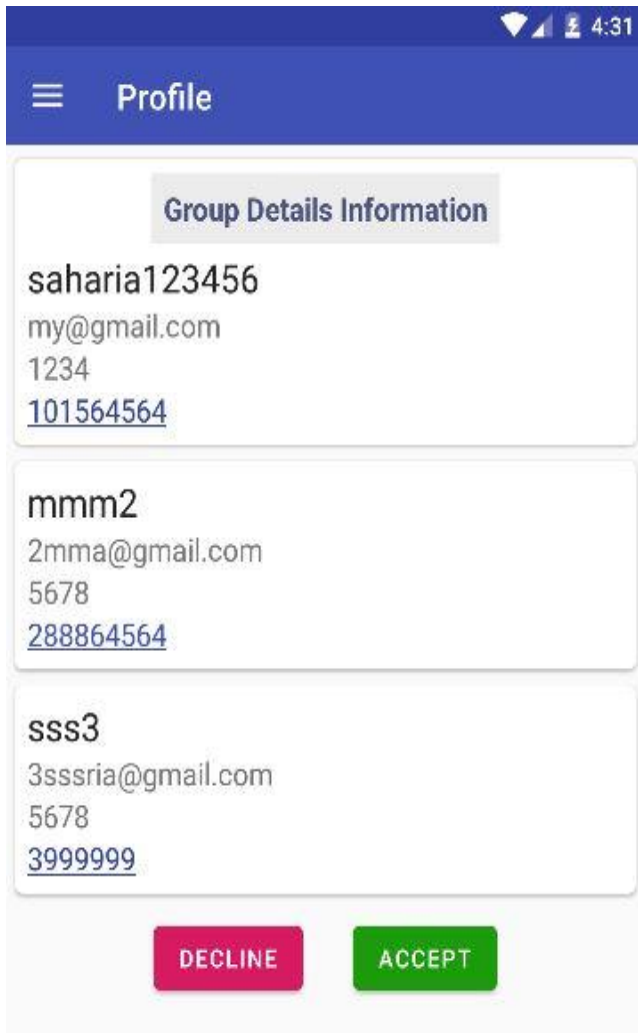


Figure 5.27: Requested group details

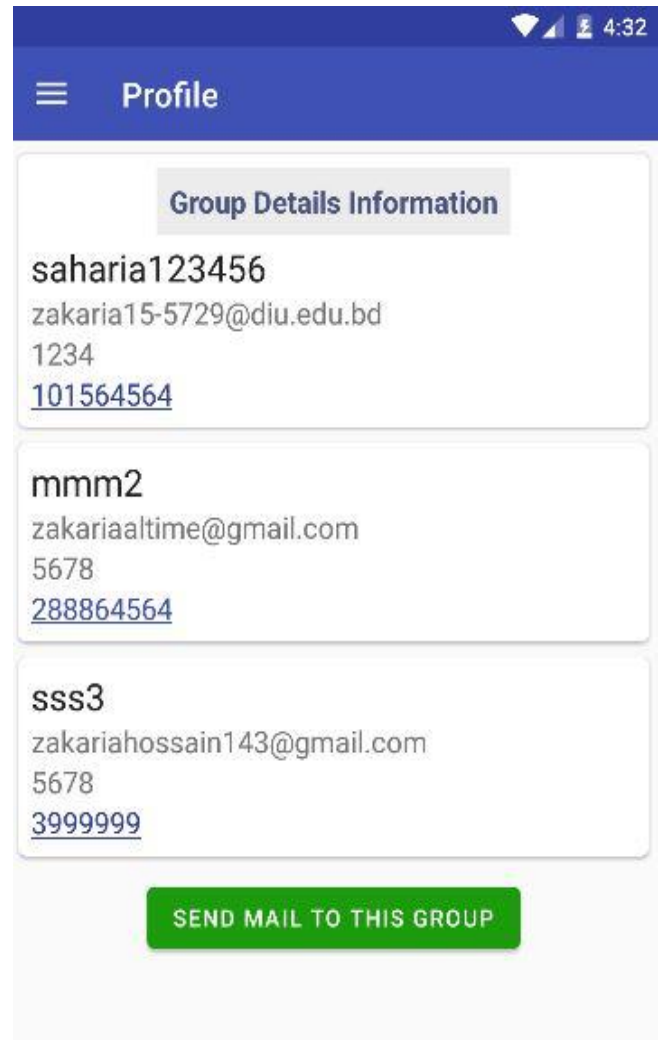


Figure 5.28: Accepted group details

## **CHAPTER 6**

### **CONCLUSION AND FUTURE SCOPE**

#### **6.1 Discussion and Conclusion**

Finally, our work has been completed. . It was the rise of time to create a DIU Supervisor Selection in our University. We want to create successfully. This is especially made for our University students. The testing some piece of this was to create a simple to use framework that limits the work for the client. It is also capable of providing easy and effective storage information that includes student registration, student to supervisor selection, supervisor info's, project committee both control easily and extra benefit of students any project details easily get it with video content etc.

#### **6.2 Future work and Further Development:**

We have plans to adding more facilities to this system. This system has a lot of future scope to make it more users friendly. Firstly we will make a web based application arranged in it. Now, this system is working for only CSE Students. In future development, our system will be work to whole Department.

## **APPENDIX**

### **Appendices A**

**Projection Reflection:** From Spring-2018 semester we started our journey for make a DIU Supervisor Selectionfor public. We followed the project for improvement to implement and monitor our invention, and were able to reach our aim.

### **Appendices B**

#### **Abbreviations and Acronyms**

XML: Extensible Markup Language

XHTML: Extensive Hypertext Markup Language

XUL: XML User Interface Language

XBL: XML Binding Language

HTML: Hypertext Markup Language.

CSS: Cascading Style Sheets.

PHP: Hypertext Preprocessor.

UX: User Experience.

UI: User Interface.

NoSQL: Not only SQL.

Rest: Representational State Transfer.

API: Application Programming Interface.

SDK: Software Development Kit.

iOS: iPhone Operating System.

SDLC:The systems development life cycle.

DBMS: Database Management System.

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