

**BACHELOR HUB: AN ANDROID APPLICATION FOR RENTING  
ROOM/SEAT FOR BACHELORS**

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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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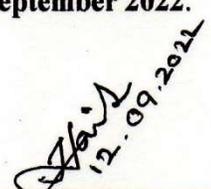
**DAFFODIL INTERNATIONAL UNIVERSITY  
DHAKA, BANGLADESH  
SEPTEMBER 2022**

## APPROVAL

This Project titled “Bachelor Hub: An Android Application for Renting Room/Seat for Bachelors”, submitted by Md. Rezwanul Karim, Md. Muied Hossain Himu and Mahbuba Islam Shanta, ID No: 183-15-11894, 183-15-11935 and 183-15-11893 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 12 September 2022.

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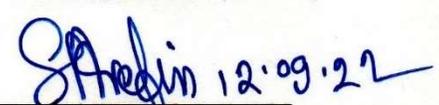
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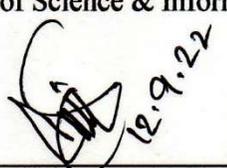
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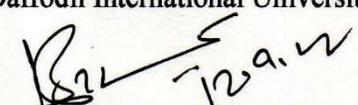
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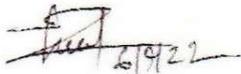
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## DECLARATION

We hereby declare that this project has been done by us under the supervision of **Md. Jueal Mia, Assistant Professor, Department of CSE Daffodil International University.**

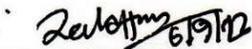
We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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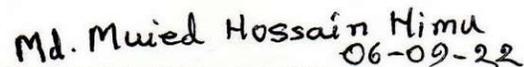


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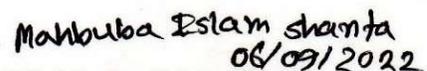
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Finally, we must acknowledge with due respect the constant support and patients of our parents.

## **ABSTRACT**

In this era, everyone is using android. They depend on technology. It has made our life easier and more reliable. On the other hand, android based applications are becoming popular at this time. From the literature review we get to know that these apps are two types. Most of the apps are web based and very few are android based. As most of the people are comfortable with android and they have knowledge about it. So we are trying to develop an android based application for renting a house. From the perspective of our country renting a house is a big challenge for bachelors. Renting a house is like a hassle for them. To help each other in the midst of hardship, we wish to make an organization of individuals. Time can be saved in light of the fact that the client will not need to ask physically for the course to the ideal area. When somebody needs to find a motel or other room rental, he/she will contact the lodging's chief through phone and go to the spot straightforwardly. This action requires some investment and exertion. To make it simpler, an android application is created to enhance the interaction. Talk components and pop-up messages are significant elements of the application to empower clients to get extra and exceptional data from the board. Be that as it may, until this day, there is no portable application for room/house rental which consolidates work in visiting and the pop-up message highlights. The reason for this study is to foster a portable application integrating talk and message pop-up elements to give data about lodgings and assess it. Highlights created in this application are login, view boarding rooms list, view detail, survey, view guide, talk, and broadcast data. An assessment shows that the application is valuable to give motel data and to convey between room searchers and building directors.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction:

Lodging is an essential human need that is put soon after food and dress. However, finding a permanent spot for a solitary individual is substantially more troublesome than it is for a family. That is on the grounds that there are a few obsolete and pointless social impressions of any individual who is single. In this modern era, we need a modern solution. Nowadays people have smartphones. 98% of people have phones in our country. And 80% of people are smartphone users. If we count 80% as 100%, in this 100% of the people 80% people use android phones. These days, we use mobile applications on a regular basis. Numerous features have been added to the field of mobile computing as a result of the revolution. This Android app was created to help bachelors quickly find seats or rooms in his desired position. So that we can spread the availability of easily accessible renting system and so that bachelor people can get their desired care. By this, we can also reduce the traveling time and those bachelors who are not able to travel also can find their needed house virtually very easily.

### 1.2 Motivation:

I have seen how hard it is to find a desirable room and how much time it takes for a bachelor person. I'm a student and for my study purpose, I've to find a house/room to live in. But I couldn't find it on time. Nobody is ready to rent their house/room for bachelors. I found it very difficult to find a house/room. On the other hand, the location was far away, so I couldn't find one around me. So I wanted to create an application that would find a house/room around the user and in a very short time.

### 1.3 Objective of Project:

We have put forth a couple of objectives to achieve our goals. This will propel much more clearly. Objective is pointed underneath.

- To be able to achieve a sustainable and continuous addition of houses or rooms.
- To allow the probable bachelors to search and match their desirable house/rooms.

- To cultivate a caring attitude towards communities that need a suitable home, apartment and rooms for bachelors.
- If someone can't find the appropriate rooms then we will try to collaborate with house owners so people can find their desirable rooms.
- With the help of our apps a bachelor can get help to find their desirable rooms.
- To make requests for a house/ rooms, as they needed.

#### **1.4 Expected Outcome**

We are wanting to offer this help all over the country. In a perfect world, it will work honorably.

- An easy and useful android based house/room renting system mainly for bachelors.
- Provide desirable house/rooms ads in a short time.
- Saving time and work pressure.
- Reduce the paperwork system.
- Making a swift and easy way for both users and house owners.

#### **1.5 Project Management and Finance**

As we've developed our own project so we've no extra cost for developers. But if we want to hire a developer then it will cost 30,000 - 1,00,000. On the other hand we've some cost for data collection, maintenance & other cost that is 10,000 taka.

#### **1.6 Report Layout:**

- Chapter 1 has illustrated an Introduction to the project with its introduction, inspiration, objectives and proposal.
- Chapter 2 will have "Background" consisting of preliminaries, related work, problems, research summary and challenges.
- Chapter 3 will have Requirement Specification.
- Chapter 4 will have System Analysis & Design Specification.
- Chapter 5 will interpret Implementation Testing & Result.
- Chapter 6 will have Impact on Society, Environment and Ethics Aspects.
- Chapter 7 will discuss Conclusion & Future Scope.

## **CHAPTER 2**

### **BACKGROUND**

#### **2.1 Preliminaries/Terminologies:**

The writing survey gives an outline of the relevant information in light of a specific subject in an insightful distribution. It ensures that a subject is totally perceived. It supports finding related work in the picked field, likely issues, and necessities for an undertaking's turn of events. In this manner, it is essential to the improvement of an undertaking. Large number of individuals migrate to Dhaka consistently determined to get a new line of work, examination, or something different. Every one of them searches for a spot to lease. Subsequently, there is consistently a popularity for lease, and that request is steadily developing. Nonetheless, the inventory of homes to lease is as of now not exactly the interest. In this way, with the shame of bachelors continuously approaching over their heads, house owners can direct the terms of leasing. This outcomes in a perpetual cluster of abnormal circumstances and inquiries for bachelors. Issues with lodging for bachelors in Bangladesh in perpetual. In any case, that doesn't mean individuals shouldn't search for arrangements. In the first place, individuals need to change their view of them. The disgrace should be dispersed. Furthermore, bachelors need to speak loudly. The issues with lodging for bachelors in Bangladesh are ever-present yet in every case away from the bright lights. Except if and until individuals realize they are being aggrieved as far as lodging, insights won't begin evolving. We hereby took a step forward to build an Application (BACHELOR HUB) to create a network of people who can help each other. We are living in a developing country. Everything is converted to an android based application. In this era, finding a house or apartment is very hard. Individuals lose their valuable time searching for a house. It is basically impossible to reject that landowners have had a terrible involvement in single occupants every once in a while. They needed to persevere through numerous issues because of unreliable single inhabitants, which has significantly soured their view. Nonetheless, the demonstrations of a couple of modest bunches of horrible people have brought about the defamation of a whole group of individuals. Today, single individuals need to confront abnormal inquiries, embarrassment, and an entire host of other

undesirable circumstances each time they need to view it as a home. The time has finally come to understand the issues with lodging for single individuals in Bangladesh should be addressed. Most single occupants have no other choice than to persevere through these circumstances with expectations of dealing with a home. Frequently enough, this leaves a mental effect upon the "person in question" of such circumstances. For youthful personalities, such experience can have an enduring impression which shapes future discernments and their own ways of behaving. Be that as it may, and still, at the end of the day, there are heaps of single individuals who can't track down a respectable spot to remain. On the off chance that they can't lease their very own position, they are happy with wrecks or inns as more financial lodging choices, where various people share a room absent a lot of security. While many individuals favor such housing because of monetary reasons, some need to make this split the difference because of an absence of elective choices.

That's why we wish to develop a renting house application. The framework is planned and created keeping in view that it ought to be user friendly, Searching ought to be basic, and it ought to have a high-grade and light presentation given to the user. The Interface of the framework is created remembering that it ought to be gorgeous, interesting, from the start, simple to comprehend and clear as crystal. In these circumstances, we analyze some problems and try to make a solution to get rid of the problem.

In this section, we provide some related study and describe some renting house applications in our country and also different countries.

## **2.2 Related Work**

Numerous versatile applications are being made today to do different scholastic assignments. This is utilized by various instructive foundations universally. Coming up next are a few instances of exceptional commitments made to this subject:

Apartment managerXp [9] is a cloud base property the board framework that focuses all the domain business in one system accessible whenever anyplace. Rent the board programming upholds both property manager and inhabitant. It gives a powerful way to track land for basic monetary and detailing needs. It has many highlights that empower chiefs to refresh information dynamically and furthermore permits proprietors and

property supervisors to adjust to a large number of possibilities that happen in managing property. It coordinates with Accounts Receivable, and Accounts Payable framework. Essential highlights of this framework incorporates Recurring and manual inhabitant charging, handling of receipts, estimation of safety stores, Reporting of deals over-age charging, Processing revenue expenses, surveying charges and interest, making rent projections, among others.

Airbnb [15] is a site that offers restrictive convenience in a house, condo, boat, or room. It is free for hosts to create listings. The host chooses the amount to charge each evening, each week or each month. Each posting permits hosts to advance properties through titles, depictions, photos with subtitles and host's profile where potential visitors can get to know a piece about the host.

HAYBOL [11] is an Android based Apartment Locator Application. It tends to be utilized to handily find lofts and boarding houses as well as to assist proprietors with advancing their organizations.

Hosing.com [17] is a well-known application for hunting a house. With The help of this application, clients can post a level available to be purchased, track down another loft to lease or purchase, look for a lodging, and gaze upward at new localities. This application has definite information and photos of each and every property. Clients can channel and look through unambiguous subtleties if necessary.

HomeSnap [8], frequently called the Snapchat of land, is an application for realtors that sources data from the MLSlistings, and permits specialist to send private messages to clients, in any event, when the clients' don't have the application on their devices. Moreover, the application gives unimaginably viable area following component. Notwithstanding, eminent inadequacy of the application is need of advanced channel choices, and failure to show all properties on map.

Specifically, [22] Zhang and Jia have explored the affecting elements of private lease in Guangzhou city utilizing 2845 exchanges of information. Their outcomes showed that many variables, including the structure region, age, all out floors, lifts presence, number of rooms, angle, embellishment quality, grade of the kindergarten and the essential school

close by, and the separation from the rail route station and the business place have a higher effect than different factors on private lease.

Because of the social and occupation elements that can happen, in the city of Beijing (China) in 2016, quantile relapse of lodging rent was led by [19], and the outcomes demonstrated that more extravagant leaseholders liked to reside in recently constructed houses with a bigger residing region, more rooms, in a higher school quality participation zone, which is more like a work place, park, and school, than lower-estimated tenants.

Joshua Adegoke has analyzed basic factors that impact the rental upsides of private properties in the three densest areas of Ibadan city (Nigeria) by showing that number of restrooms, the quantity of lounge rooms, and the presence of robber cautions are basic to cottages, while number of latrines is basic to duplex typology. In low-thickness regions, all things being equal, the private area emphatically affected the rental worth of lodges. [18]

Overall terms, the rental upsides of private properties are impacted by different lodging attributes which are connected with the actual residence, as well concerning the property area and neighborhood. [17]

Concerning the outward attributes connecting with the metropolitan region wherein the private property is found, i.e., the area and the area, a few Authors have widely investigated the effects of neighborhood factors on lodging rental costs, with specific respect to ecological perspectives and public administrations. [21]

Our effort aims to provide information about renting rooms for bachelors. The software program updates the recipient who is eager to rent his/her room for bachelors. This can be a perfect choice for a bachelor.

### **2.3 Comparative Analysis:**

In light of the data we have gotten from the study, these necessities are more significant in the renting room system's framework. Dealing with all renting room frameworks in a manual framework is both tedious and hazardous. So despite the fact that we can't satisfy every one of the prerequisites referenced above, we have given answers for a portion of the serious issues in this application like Online base arrangement, online base charging

framework. This will decrease crafted by the humble exercises as well as the renter will be much benefited.

## **2.4 Scope of the Problem**

This project's main goal is to develop an online house renting management system. Location search, Room, Live chat, Post among other things, are all included in the system.

## **2.5 Challenges:**

At the point when we begin working, we will confront a couple of obstructions. We've no idea how we can start our planning. We just generate our ideas then make a plan. To finish our venture, we should initially beat a couple of difficulties. Making something quite new is generally a test. At the point when we first pitched our organization, we were found out if it had any showcased values. This question demotivated us since we were not capable.

As our country is a developing country, it is quite impossible to make a perfect decision. On the other hand, the management system of our country is not so good. So it has become a big challenge for us to implement it.

We're endeavoring to assemble data with no edge for blunder. Since our program is android based and dynamic, we want to keep a great deal of data state-of-the-art. We are the architects, and we are here to help.

As a general rule, the backend of our endeavor is isolated into three segments, one server, one informational collection or more every one of the one application. For example: If you book an air ticket in a movement administration, you ordinarily open the ticket booking site and collaborate with the frontend because the frontend contains supportive courses to investigate a client. Right when the data client needs is inputted, the application saves it to an informational index made on a server. Thus, in our back-end system we make an informational index to store the data that the server traverses the clients. We included JAVA for our application progression.

## **CHAPTER 3**

### **REQUIREMENT SPECIFICATION**

#### **3.1 Business Process Modeling**

An information stream outline is a graphical or visual depiction using a standardized arrangement of pictures and documentations to portray a business' undertakings through data improvement. They are as a rule parts of a legitimate way of thinking like Structured Systems Analysis and Design Method. It simplifies it to depict the business necessities of uses by tending to the gathering of cooperation steps and stream of information using a graphical depiction.

##### **3.1.1 Data Flow Model**

There are two kinds of DFD models. For example, Logical DFD and Physical DFD. Sensible DFDs address genuine information streams in fairly extraordinary terms. This suggests that they will separate general cycles, structures and activities anyway not give advancement detail. Actual DFDs show more genuine information stream detail, particularly nuances of information systems, applications and databases. They will similarly regularly have more parts to all the more promptly depict what information is streaming, what moves are started on or with the data and the resources related with those exercises.

For our project, we are trying to develop our country day by day. But our management system is not so good so that the local people face different types of problems. It is a matter of sorrow that they couldn't share their problem with the government. If we think from another perspective, we waste a lot of time traveling to the office and getting appointments very hard. It also kills people's valuable time. Some people do not have that good condition to go to the government office for their complaints.

Our DFD model is given below:

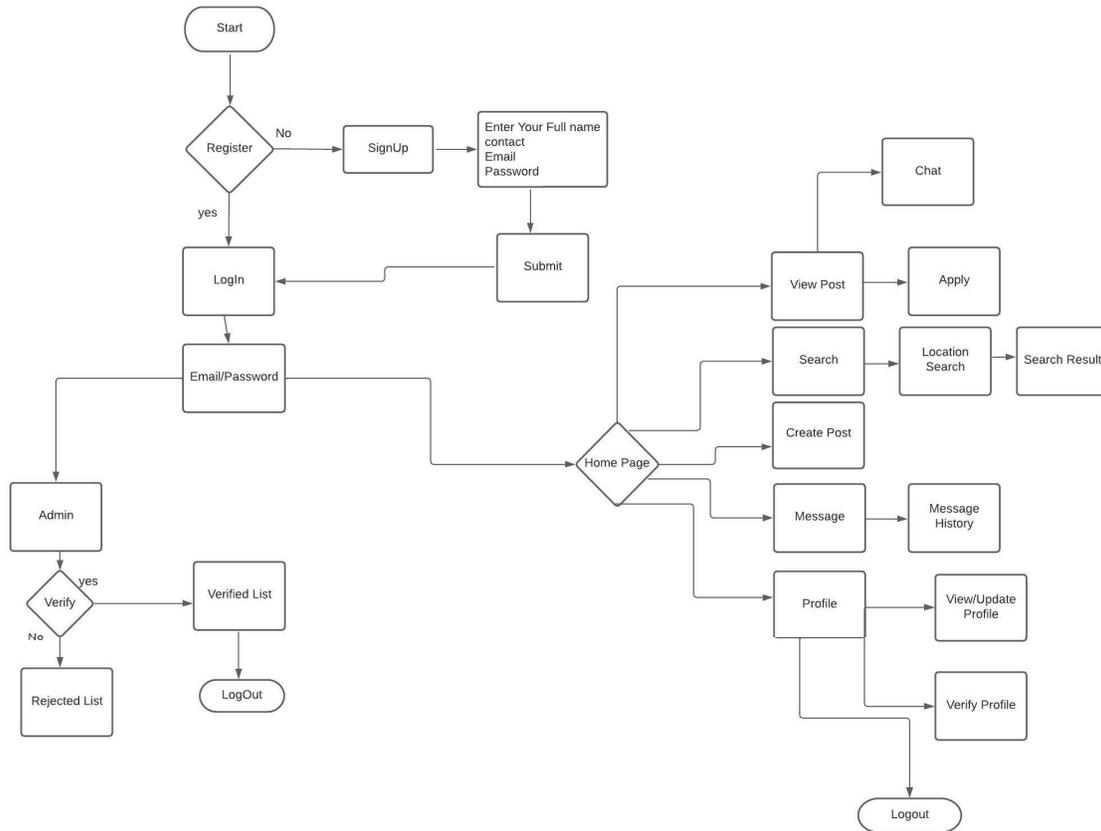


Figure 3.1.1.1: Data flow chart

### 3.1.2 Block Diagram

When we speak to the vital parts or capacities of a framework by pieces associated by lines is called a square graph. Usually a graph of a framework which is utilized to appear the relationship of the squares. It contains the working of the framework, what are its impalpable or inputs agreeing to the given inputs, what are the yields and the foremost imperative thing is how the data, discoveries or materials stream through it. The block diagram of our application is displaying below- This scholastic action application features a client server engineering. All the data of the users is kept within the Real-time database server. Presently the address is what a real-time database server is. This is often a database framework which employments an extraordinary way to handle the information and the extraordinary way is Real-time preparing. In this case in case the state is continually changing, there's no impact on database get to. Besides, this data can be gotten to by clients but some time recently that they must introduce the application on their smartphone.

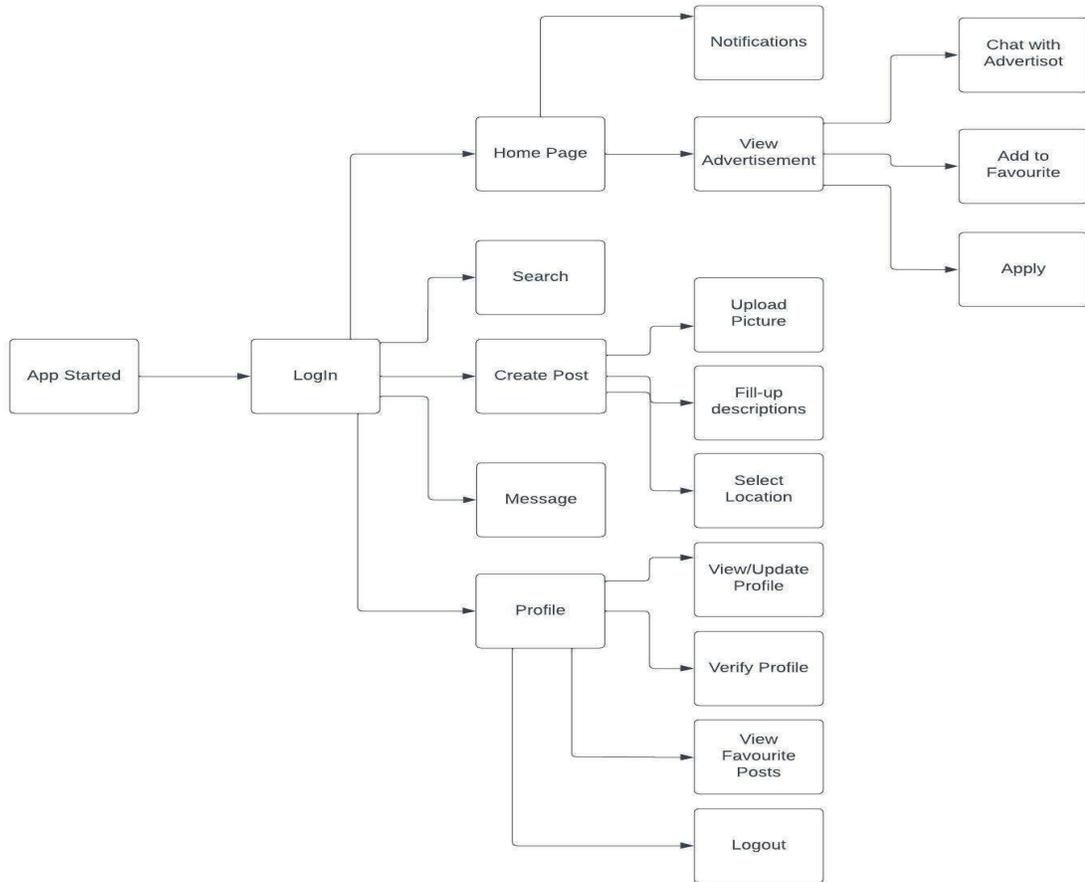


Figure 3.1.2.1: User's block diagram

### 3.1.2.2 Admin's Block Diagram

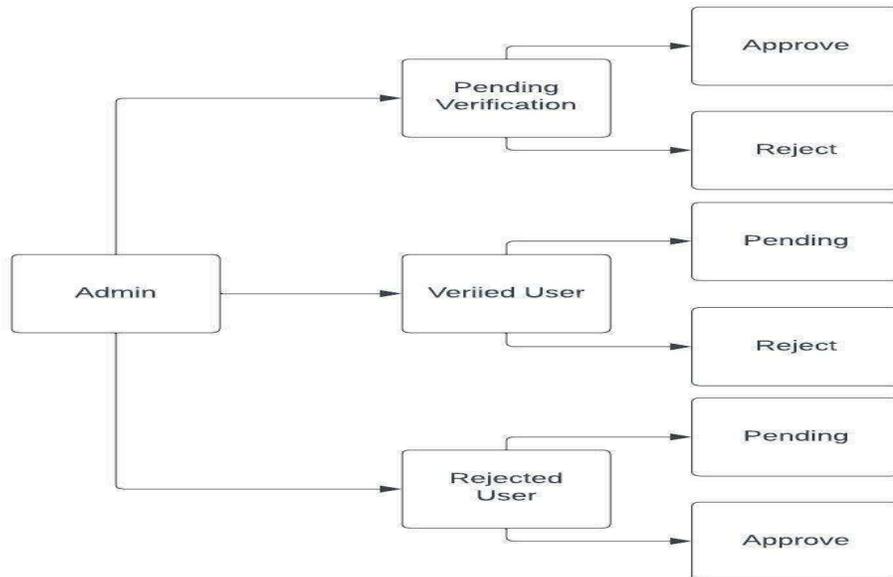


Figure 3.1.2.2: Admin's block diagram

### 3.1.3 Our Proposed System

The proposed technique is to make an android application in which the renters and owners can be benefited. The contributor who registers in this application is recorded in the contributor's part. The enrolled Recipients can ready to see the renting post and can likewise see the closest benefactor and closest rent house utilizing google maps API. We utilized Google map API to get the quickest close by reaction from the server. The reason for this application is to conquer the challenges looking during the accessibility of the intriguing blood gatherings. We save time by fast data whenever, anywhere.

### 3.2 Requirements Collection and Analysis

To create a menial process to an online base process, we need to do some analysis and field research to understand the problem better and find problem's deep. To understand the problem we set up some online based research, and filed research. We set up some questions for the local public. Through the survey, we find some big problems with this offline system. So, we noted the problem and tried to solve this offline base problem by an online based system. Based on the data we have gotten from the overview, these necessities are more imperative within the issue tackling framework. Overseeing all frameworks in a manual framework is both time-consuming and perilous. So indeed in spite of the fact that we are not able to fulfill all the prerequisites said over, we have given arrangements to a few of the major issues in this application such as. This will diminish the work of the humble exercises as well as the individuals will be much benefited. Our venture is an android based application. We've utilized java to create our application. It has a few requirements. Those are:

- Hardware Configuration:
  - Figure 3.1.1.1: Data flow chart, an android phone with internet connection.
  - Figure 3.1.2.1: User's block diagram, an android phone with internet connection.
  - Figure 3.1.2.1: Admin's block diagram, an android phone with internet connection.
  - An android smartphone with Android 5.0 or higher.

- Software Configuration:
  - JAVA
  - Tools: Android Studio IDE (2021.2.0.0 version)
  - Database: Firebase
- Features:
  - Sign up function. For this the user will have to fill up the information. Such as: Email, Phone number and password registration.
  - Sign in function. After registering, users could log in by using their email and Password.
  - Users can update their profile information.
  - Users can post renting post for bachelors.
  - Users can view apply to available renting posts.
  - Users can also live chat with each other through an active post.
  - Users can search for renting post in their desired locations.
  - Users can request for profile verification.
  - Admin can review profiles according to provided information.
  - Users will get alert notifications.
  - Log out option for users privacy.

### **3.3 Use Case Modeling and Description**

These days numerous portable applications are being created to perform distinctive sorts of scholastic exercises. Which is utilized by numerous instructive educate around the world.

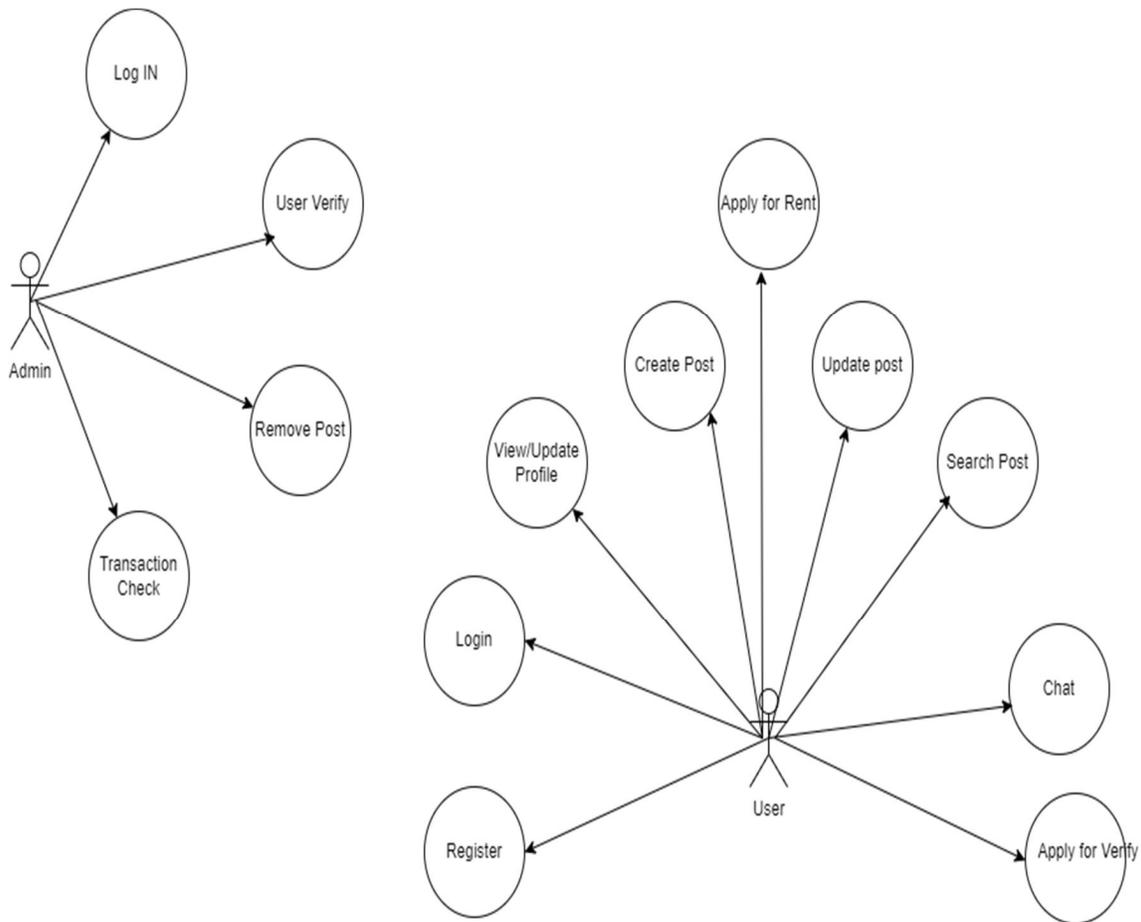


Figure 3.3.1 Use case model

### 3.4 Design Requirements

Programming configuration is the cycle by which a specialist produces a detail for a product that is intended to accomplish objectives and depends on a bunch of crude parts and limitations. "All the cycles engaged with imagining, outlining, executing, authorizing, and in the long run modifying complex frameworks" or "the movement following necessities definition" are two methods for depicting programming plans.

### 3.5 Conclusion

The entire part has been committed to the framework examination and plan that will be used to build this application. This application's framework involves an exhaustive assessment of a framework to find regions for development and, whenever required, make updates. At the point when a framework examination is done accurately, it

guarantees that the suitable course is taken as far as applications and assists with diminishing errors, which lessens future IT prerequisites for critical thinking. In the event that the above cycle is followed accurately, it won't just set aside the organization cash temporarily, yet it will likewise guarantee that the right application way is taken the initial time, that development and business charge contemplations have been considered to oblige likely arrangements, and that mistakes are kept to a base, diminishing the requirement for future IT redesigns, which is more affordable, productive, and adaptable. Legitimate framework configuration, for example, block graphs and flowcharts, empowers further developed organizations by permitting the product to be changed to meet any business changes, bringing about a totally controlled finished result. Assuming updates or overhauls are required, the prerequisite to revamp the whole programming will be disposed of, which is generally costly.

# **CHAPTER 4**

## **DESIGN SPECIFICATION**

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

The method of characterizing, making, or actualizing a framework based on framework examination and plan is known as framework advancement or framework improvement. Since it is the common structure of how a framework is created or kept up, it is an imperative structure within the field of computer program advancement. Any data system's victory is subordinate on each stage of its improvement.

Android Studio, Visual Studio, and Droid Script are just a few of the IDEs available for designing Android apps. We utilized Android Studio in our project. Because one of the greatest IDEs for Android programming is Android Studio. Google created this development tool, which has been praised by mobile app developers all around the world. The advantages of utilizing Android Studio as an Android development environment are numerous. Front-end and back-end development may be done in a fluid environment using this software.

### **4.2 Functions:**

There are eight functions of our system. We've tried to develop our application as much as possible. The functions are: Sign up, Login, Message, Search, Favorite, Verification, Profile and Notification. We've also tried to add a function which is totally different from the existing app. That is Search function. If some user wants to search for a house then he/she can Search that with all the information.

#### 4.2.1 Welcome Message:

When someone starts the app then three interesting messages will be shown.

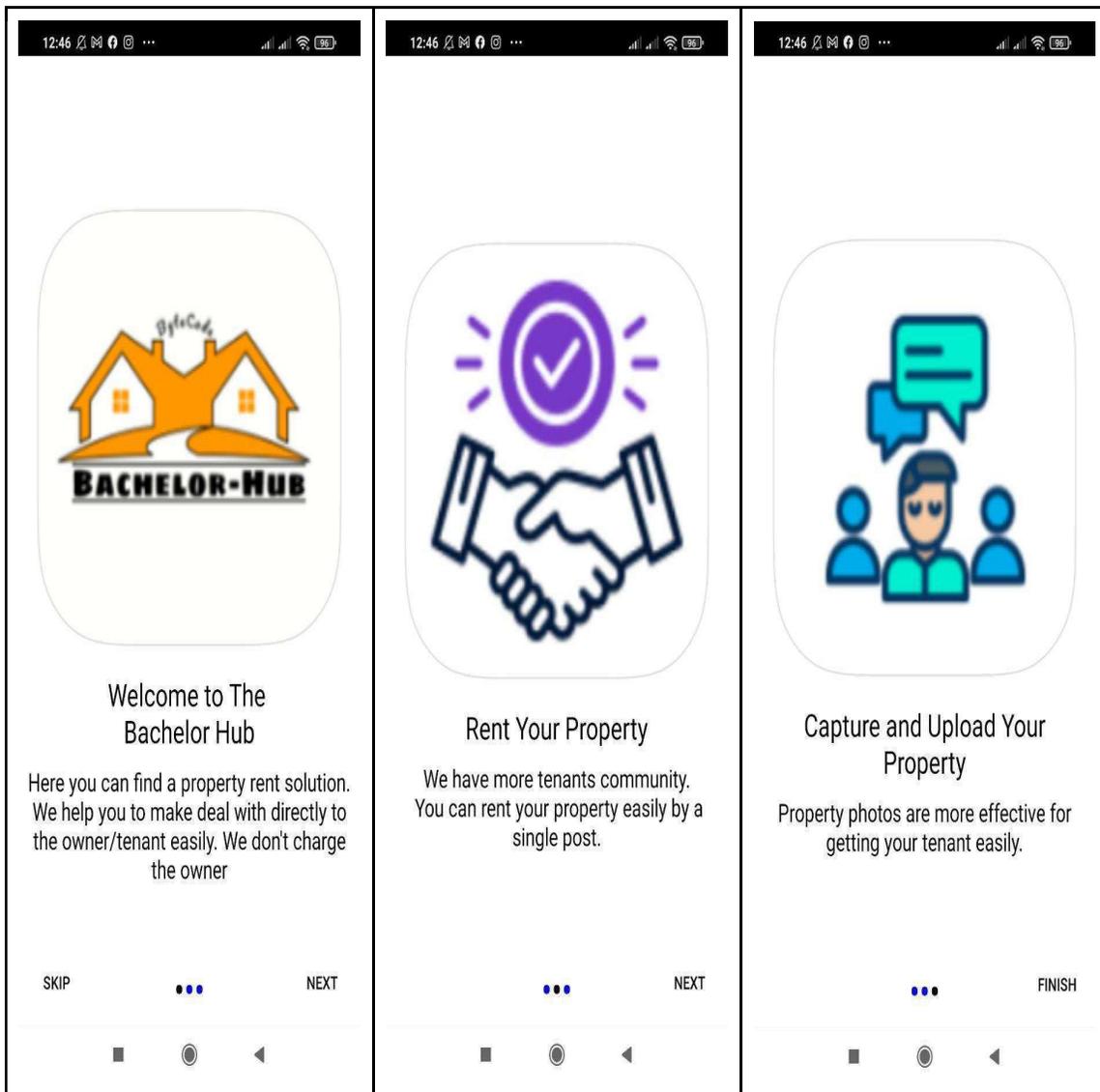


Figure 4.2.1.1 Welcome messages

#### 4.2.2 Signup Function:

This part is for those who are trying to enter the app. First they'll fill up the sign up part. There all information of a user will be all inserted. The user must enter the information like: Full name, email address, password, confirm password, mobile number. After signing up they'll be able to log in their account.

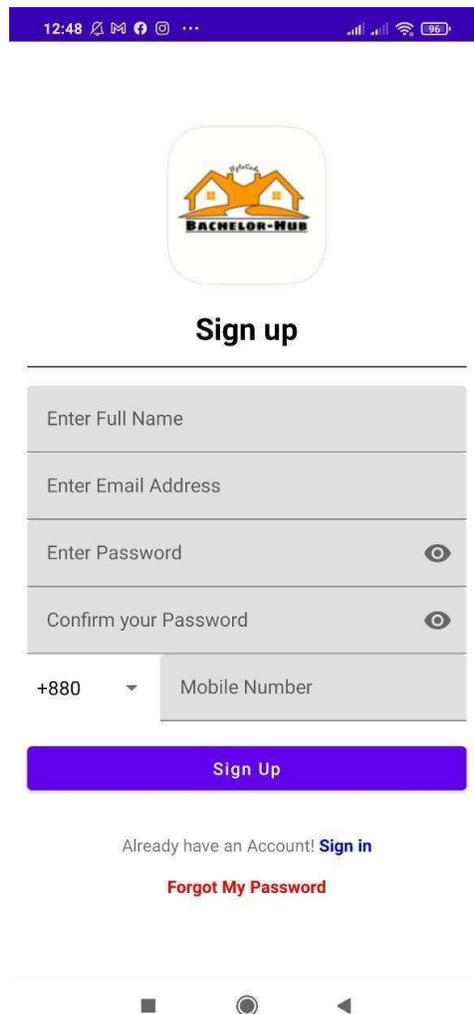


Figure 4.2.2.1: Sign-up function

### 4.2.3 Log in Function

After signing up, the user has to log in by entering email address & password. There is an option that if he/she forgets the password then can change it. The user must mention he/she is a renter or owner.

6:02 6:02 100%



### Sign In

Enter Email Address

Enter Password 

Sign in

Need an Account! [Sign Up](#)

[Forgot My Password](#)

Figure 4.2.3.1: Sign in function

#### 4.2.4 Admin:

There is a unique part which is verification. After login the user has to complete the verification part by their NID. After approval from admin the user's account will be verified.

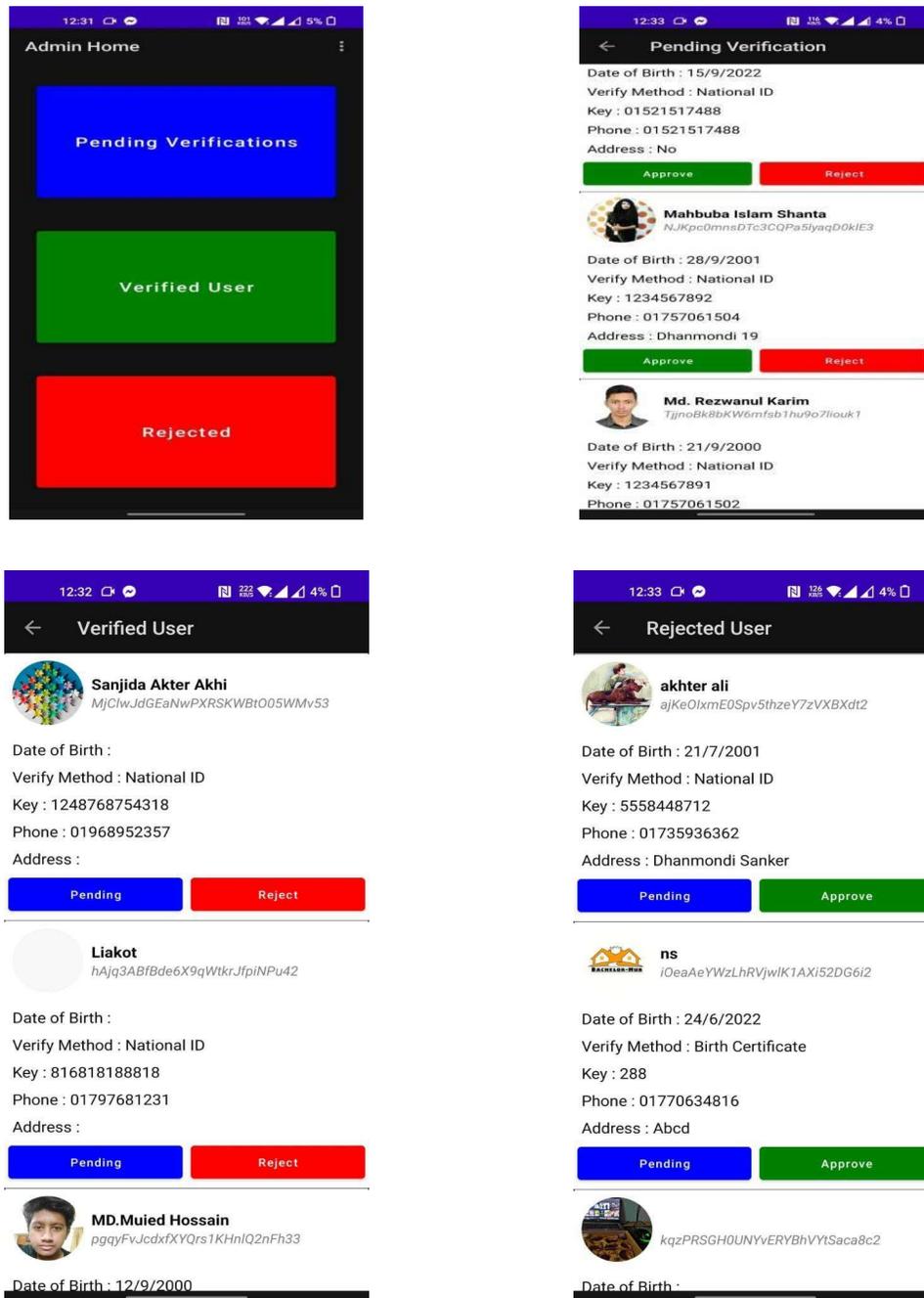


Figure 4.2.4.1: Admin functions

#### 4.2.5 Filter Function:

This is the most interesting part. Here a user can search his/her room. For this they'll have to insert place, price range, type, gender, bedroom range. After inserting they'll find their house.

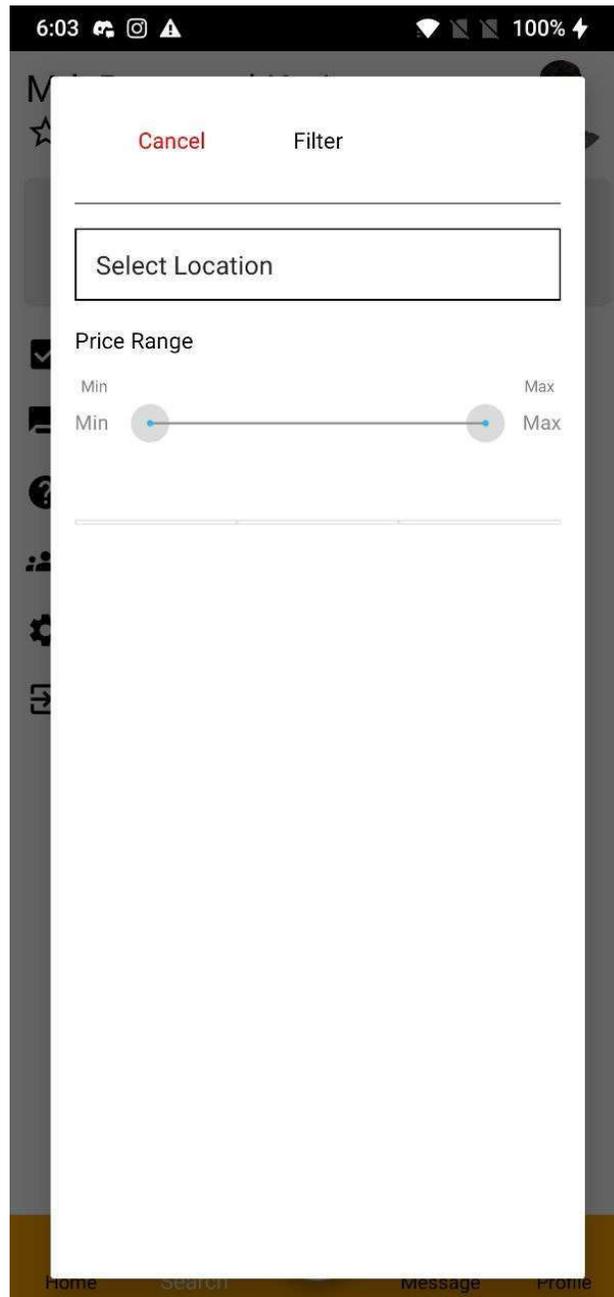
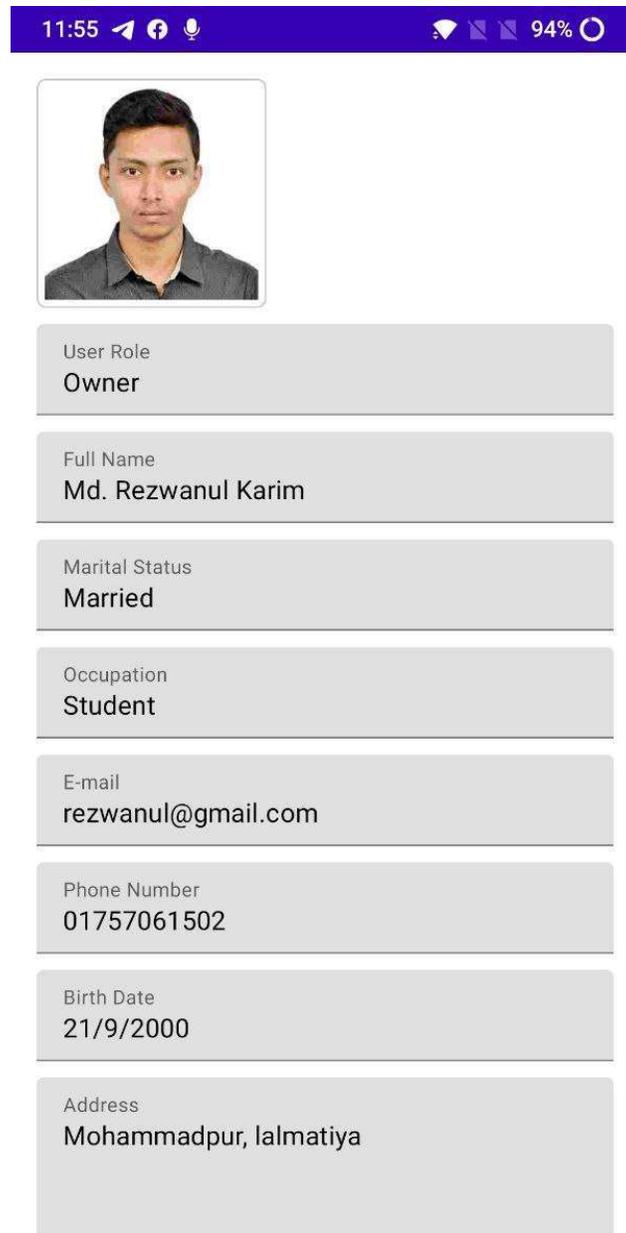


Figure 4.2.5.1: Filter function

#### 4.2.6 Profile Function:

If a user wants to change his/her information then can edit it.



The image shows a mobile application interface for a user profile. At the top is a dark blue status bar with the time 11:55, navigation icons, and a 94% battery level. Below the status bar is a square profile picture of a man with short dark hair wearing a grey button-down shirt. The profile information is presented in a vertical list of light grey rounded rectangular boxes, each with a label and a value:

- User Role: Owner
- Full Name: Md. Rezwatul Karim
- Marital Status: Married
- Occupation: Student
- E-mail: rezwatul@gmail.com
- Phone Number: 01757061502
- Birth Date: 21/9/2000
- Address: Mohammadpur, lalmatiya

Figure 4.2.6.1: Profile function

#### 4.2.7 Live Chat Function:

With the help of this the user can directly chat with a house owner who has submitted the post for the renting house and can also make a direct call.

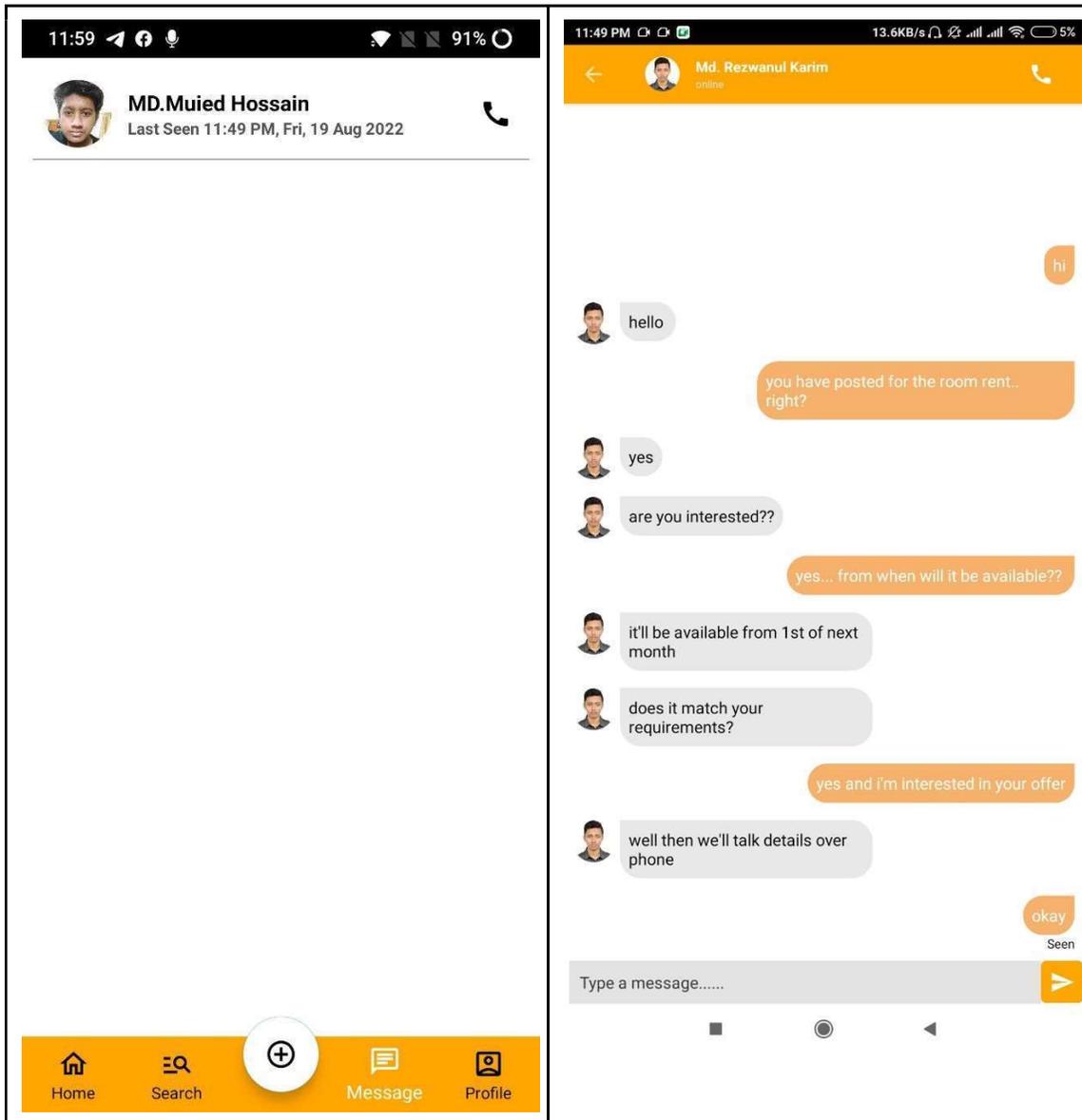


Figure 4.2.7.1: Live chat function

#### 4.2.8 Favorite Function:

If the user chooses two or more posts then he/she can add these in his/her favorite function.

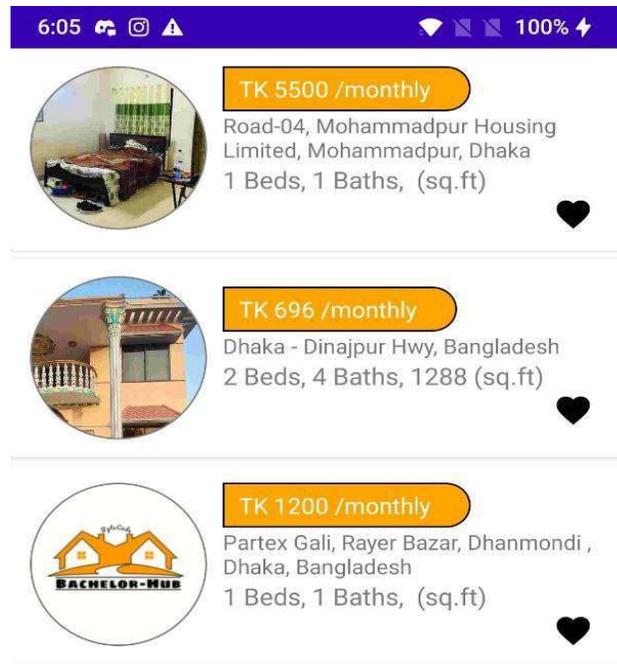


Figure 4.2.8.1: Favorite function

#### 4.2.9 Notification Function:

In this part a user will be able to see all notifications. If a person uploads a post for a house renting. All over it'll work like Facebook.



No notifications to show

Figure 4.2.9.1: Notification function

#### 4.2.10 Create Function

This is the totally different part that is making our application different from other's application. Here the user could search home by searching.

12:04 88%

Add at least one photo (max 5):

ADD A PHOTO

Owner Name

rezwanul@gmail.com

Owner Mobile

Hide my phone number:

Rooms

Boys

\$500

1

1

Square Footage

Facilities

WASA Connection

DESCO Connection

TITAS GAS Connection

Balcony

Roof Top Garden

Generator

Lift

Guard's Rooms

Additional Basement Car-Park

Mohammadpur

Road-04, Mohammadpur Housing Limited, Mohammadpur, Dhaka

Description

+ POST AD

Figure 4.2.10.1: Create function

### **4.3 Back End development**

We used the JAVA programming language to manufacture the funeral director's back end. We understand that Java is an arranged programming language. It is a phase fair-minded, class-based generally valuable programming language. It is very noteworthy that it expects as few conditions as could be expected. The Java Virtual Machine executes the run-time code as incorporated code (JVM). Normally, Android applications are made utilizing the Java programming language and the Android SDK. It is the most notable and frequently utilized programming language for making Android applications.

The critical goal of the Android expansion application was to build a phase application environment that could deal with any device. Changing your item into a strong framework is incredibly fundamental. Since Java has this kind of standard, it was picked for Android progression.

### **4.4 Interaction Design and User Experience (UX)**

XML was utilized to foster our undertaking's connection point. We're discussing the Extension Markup Language when we say xml. It's a markup language for information portrayals that is practically identical to HTML. People and robots the same can promptly peruse Xml. On Android, we use xml to make our formats since a lightweight language keeps our designs light. Truth be told, the whole idea of xml is characterized by the progressive system of endlessly view Group objects.

A ViewGroup is a secret compartment for orchestrating kid sees. These youngster sees are extra gadgets that are utilized to make different UI parts. The UI fluctuates relying upon the client. To exhibit this application, we have two distinct kinds of connection points. Since their positions are unmistakable, the perspectives on a patient's action and a specialist's movement are totally unique. At the point when a client registers for the assistance in this application, he should pick the sort of enlistment. This classification will be utilized to arrange the client types. By and large, the UI is genuinely instinctive.

## CHAPTER 5

### IMPLEMENTATION AND TESTING

#### 5.1 Implementation of Database

A data set is a reliably mentioned variety of composed data set aside in a PC structure electronically. The security of informational indexes and the safeguarding of individual information are both severely controlled. The focal point of a computerization system is a safeguarded database. To store data in our application, we use a Firebase informational collection behind a room informational index.

Firebase is a backend programming structure. A piece of programming permits clients to team up with an informational index in a social design. It's a Google stage for making canny flexible applications and online applications. Subsequently, we could bunch it as a Google backend application that conveys splendid organizations, for instance, application crash objective, examination uncovering, and following. An informational collection in Firebase is kept in a single record, which isolates it from different informational index engines.

The critical goal of embracing Firebase is to make the application as constant as could be anticipated. Since Firebase is the initial stage through which we could get continuous scrutiny and create organizations. Since the informational collection table is taken care of in an ever-evolving way, getting to the chief key is basically essentially as fundamental as arriving at the root data. It does, in any case, have a couple of undeniable parts, for instance, approval, limit, cloud firestore, and continuous data base.

We've similarly integrated a report issue decision using the Firebase advantage. Any client who encounters a fundamental issue or unlawful bugs can report it to the fashioners. He ought to give the subject's name and nuances for this. His ID will be sent with the report proficiently with certifiable time and date inside the methodology. The creator could recognize the individual and tackle the issue by utilizing the ID. We can essentially portray the specifics in the going with informational index review.

For additional improvement we can utilize application informing administration from this firebase.

The most common way of characterizing, making, or carrying out a framework in view of framework examination and configuration is known as framework advancement or framework improvement. Since it is the general construction of how a framework is delivered or kept up with, it is a significant design in the field of programming improvement. Any data framework's prosperity is reliant upon each period of its turn of events.

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

Android Studio, Visual Studio, and Droid Script are only a couple of the IDEs accessible for planning Android applications. We used Android Studio for our task. Since one of the best IDEs for Android writing computer programs is Android Studio. Google made this advancement instrument, which has been adulated by portable application designers from one side of the planet to the other. The benefits of using Android Studio as an Android advancement climate are various. Front-end and back-end improvement might be finished in a liquid climate utilizing this product.

## **5.3 Testing Implementation**

Programming testing is a technique for concluding whether the genuine programming thing meets the typical measures and ensuring that it is without distortion. Rather than certified necessities, programming's trying will most likely track down misunderstandings, openings, and missing essentials.

In our endeavor, the testing result is by and large based on the informational index's authentic exchange. As recently expressed, understudies could involve the inquiry as the reason for their questions. Thus, whenever individuals search or post a question, the information in the data set ought to be changed utilizing SQL orders. At the same time, a strong validation framework is introduced. In this way, the testing result is absolutely dependent upon the approval system. During testing, all exclusions should work regardless of what slips up. All toasts and error messages ought to be shown perfectly.

There are a couple of parts of our undertaking that ought to be executed impeccably for it to succeed. For example, the affirmation system, the part presented, the button crowd's ideal tuning in, the reason beginning with one activity then onto the following, and so on. The main viewpoint is trustworthy web access. Our structure cannot get to it without an Internet affiliation. The assent was obtained from the Android Studio manifest archive. Application illuminating, test backing, and overview past requests all require web access. Since we've recently said that we're using a live server for our consistent informational collection. Clients can't get to the informational index expecting their web affiliation is down. As a result, they will not get helpful notification at the fitting second.

We'll examine how to set the testing that achieves movement in this section. Mixed up Login Credentials, for example. It might, for example, be a direct result of the leaderboard being gotten to with the incorrect login record and mystery key. If your login authorizations are actually unique, you cannot get to your informational index using the previous capabilities. Hence, the most compelling thing you should do is twofold check that the login capabilities you're using are correct. To make a record in our endeavor, clients ought to give a few essential information as well as a few extraordinary information. An exceptional case notice will appear if somebody won't supply the right information or gives mistaken information. Ensuring to wrap the sign-up process, you will be drawn nearer to enter your username and secret key during the sign-in process. If someone gives counterfeit genuine information, an exceptional case notice will appear. If a client neglects to recollect their mystery key, they can use the memorable neglect secret key decision. The client ought to give their email address, and an email will be transported off that area at the same time.

#### **5.4 Test Result and Reports**

The undertaking is not completely permanently established by the outcomes of all testing and the execution stage. These occasions, including question glancing through by proper inquiry, going before question with game plan, and gift, are recorded clearly in the informational index. Particularly because of a responsibility system, the client ought to at first sign up for, then, supply the significant data of the request in the responsibility piece, preceding scrutinizing the request from his device's hard drive. Directly following

moving to the informational index, it becomes perceptible to all clients, allowing them to search for data or get information from the informational index. This is the application's certified computation.

Expecting that the UI is immediate and extraordinary, the tasks should be undeniably completed even more clearly. The UI in this adventure is significantly simple to utilize, and there is similarly a client guide where the client can get every one of the information about the system. There is moreover an association with the power's contact action, which clients could use to contact them in case they have any issues using the program.

We most certainly have some experience with the room informational collection from the last segment, which uses convenience remarks to save dreary and erroneously slanted standard code. This is a breathtaking chance for the undertaking's development. It clears out the necessity for an originator to make a ton out of it to spread out and regulate data bases. SQL requests can similarly be endorsed at collect time. The notices are completely referred to in another piece class. Over CustomAdapter, the admonitions will be completely shown in a listview.

Connector is an Android part that interfaces a UI part to a data source and allows us to populate data into the UI part. It keeps the data and sends it to an Adapter view, which may then take the data from the connector view and show it in alternate points of view like ListView, GridView, and so on. In any case, we can without a doubt involve ArrayAdapter for this present circumstance. Our critical goal was to make the application as interesting as could be anticipated, which is the explanation we utilized CustomAdapter.

A client's underlying feeling of an application is critical. Thus, we have focused on making an easy to understand (UI). So clients can exploit our application's maximum capacity without waiting to be educated. Besides, we have placed our application on various proportions for the ideal UI execution kinds of contraptions.

Table 5.4.1: Testing Result & Report

<b>Test Case</b>	<b>Test Input</b>	<b>Obtained Outcome</b>	<b>Result</b>	<b>Testing date</b>
Install	Test in different version of Android phone	Installed	Passed	05/08/22
Register	Enter invalid email	Not Log in	Passed	15/06/22
Log in	Without mail verification	Not Log in	Passed	15/06/22
Password	Wrong Password	Invalid	Passed	15/06/22
Log in	After all registration	Go to home page	Passed	15/06/22
Sign out	Successfully	Go to home page	Passed	15/06/22

### 5.5 Conclusion

Generally, various fundamental undertaking related subjects have been explained in this part. From the first sub point, we're discussing useful and certifiable programming testing, and what it means for real achievement. Practical bugs can normally be fixed, yet certifiable bugs can't, which is a phenomenal special case. Slip-ups can here and there darken further mistakes. For that reason intensive testing is basic. The execution interaction ought to be finished after the module, as per the testing convention. It was referenced in the second place of this section.

## **CHAPTER 6**

### **IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY**

#### **6.1 Impact on Society**

By using this app bachelors can find their desire room. So it can be a wonderful opportunity for a bachelor. By solving the problems in less time, people can find harmony in society. Also they can gain more faith in android application, people will become more productive and positive and time will also be saved by both sides.

#### **6.2 Impact on Environment**

Basically this app will help the bachelors to reduce the time wasting if the bachelor get their room then they'll not passing here and there. They'll be more careful for the environment/ Such as by cleaning the garbage on the roadside it will reduce air pollution. Also the plastic garbage will not contact directly with soil and water. Also the authorities can recycle the reusable products from detecting it. Which is also eco-friendly.

#### **6.3 Ethics Aspects**

We believe that everyone in the world has the same right to live a harmonious and peaceful life but we also believe that only by useful step it is quite impossible to provide the same facilities to everyone for their binding and limitations. So for the betterment of the society we, people have to come forward to help people who are suffering from basic problems. And they are tired of complaining and sorting the problem out. From that perspective we found out the loophole and we figure out a solution.

## CHAPTER 7

### CONCLUSION AND FUTURE SCOPE

#### 7.1 Discussion and Conclusion

In this innovation subordinate world, since the appearance of android the world of versatile application has seen a gigantic alter. The major reasons behind that are android being an open-source OS. In spite of the fact that in each division android apps are accessible, this computerization framework can without a doubt alter the viewpoint of conventional frameworks.

In this development subordinate world, since the approaching of android the universe of flexible application has seen a monstrous change. The critical purposes for that are android being an open-source OS. Anyway in every space android applications are available, in our country it's truly missing in the clinical benefits region. This computerization system can indeed change the perspective of regular structures. This renting house framework cannot stop because of any circumstance. With the help of this android based application anybody can find their preferable room. As a user (owner) uploads everything about house rent, so it'll be very easy for a user (renter) to choose his/her room.

#### 7.2 Scope for Further Development

We have found some lacking in the current system. Now we are using the real-time database of firebase. In the future we will use a dedicated server for the project. We'll also develop it with the help of AI. AI will help us to notify the user's to get the result about another suitable room by suggesting him a different location. On the other hand we'll also work on its security for payment & user identification. Now, in the project, we are using a room finding system. Then again, this framework is an android Operating framework based application IOS client will be denied. Thus, sooner rather than later we will form this framework into responsive web programming. Additionally, for guaranteeing different cell phones and assortment of clients we will foster this framework.

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