

GHOR CHAI: A SMART SOLUTION FOR RENTING AND BUYING HOUSES

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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

JANUARY 2023

APPROVAL

This Project titled “GHOR CHAI: A SMART SOLUTION FOR RENTING AND BUYING HOUSES”, submitted by **Md. Jishanul Ahasan Fahim, ID: 191-15-12596; Anik Hasan Joy, ID: 191-15-12540; Kazi Masum Billah, ID: 191-15-12549** 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 *29th January 2023*.

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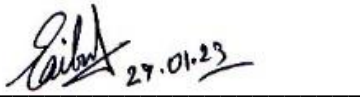


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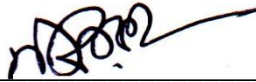
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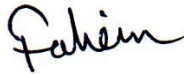
We hereby declare that this project has been done by us under the supervision of **Mr. Narayan Ranjan Chakraborty, Associate Professor Department of CSE** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of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

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ACKNOWLEDGEMENT

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

We are really grateful and wish our profound indebtedness to **Mr. Narayan Ranjan Chakraborty, Associate Professor**, Department of CSE, Daffodil International University and Dhaka. Deep Knowledge & keen interest of our supervisor in the field of “*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 drafts and correcting them at all stages have made it possible to complete this project.

We would like to express our heartiest gratitude to **Prof. Dr. Touhid Bhuiyan and Head**, Department of CSE, for his kind help to finish our project and also to other faculty members 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 discussion while completing the course work.

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

ABSTRACT

In This project, we have built an amazing android app called GHOR CHAI. We have created an app, where people can easily find house when they shift their houses or go to a new place. In this app they can search house, they can buy house and also they can also get rent out houses. And for owner they can give rent their houses and sell their lands. In our “Ghor Chai” we created two different sections, one for the admin panel and one for the user’s panel. Here, users can post the rent house and they can sell the house. Also they can listed their post in top wanted with the help of admins. The users who wants to get rent houses they can have a short preview of houses. They can also buy house and get rent out. After completing the advance payment they can shift their house to their choices house. Customers can use digital payment of their choice for payment. For example: bKash, Rocket etc. Users can also search for their preferred accommodation according to their category. The most important feature of our application is road mapping. The location of the user and the location of his preferred house will be automatically shown on Google Maps through which the user can easily go to his preferred house and that will help the user for finding houses easily. The “Ghor Chai” also have other features like contract number of Electrician and plumbers with locations which is helpful for the new arrivals. And yes “Ghor Chai” giving the facility to contract with admin by phone call or mailing for any kind of help. Our main aim is to find safe and accessible housing for people so that they can easily find their desired housing without any hassle.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Find the best accommodation near you. "GHOR CHAI" is a platform that has your choice of homes across the whole world. With the help of "GHOR CHAI" houses, flats, plots, hostels, and hotels can be found nearby by a user or anywhere. It's time killing by going here and there and finding some shelters. "GHOR CHAI" has an advanced feature called direction which will redirect the user's google and navigate the user to the destination. This feature will help the renter to find the best root where they won't get rent. A payment gateway to advance pay for rent. "GHOR CHAI" also has some features like where there will be a way to find out "Plumber" and "Electrician" nearby. Login and Register system to secure our application's environment.

1.2 Motivation

We face lots of problems when we go somewhere or we shift to a new place. One of them is shelter. It's hard to find out a perfect shelter for staying in and its direction. It's become tough to go there. And how the flat looks like etc. The House owner face some issues while advertising their houses. Sometimes the owner struggles to advertise their lands, houses, hotels, etc. And it is difficult to confirm rent because of advance payment. And basically, bachelors suffer a lot for searching shelters. So here is the solution "GHOR CHAI" where can find shelter in any place if the owner register and make a post ad for rent. And a navigation option that will guide us to the destination. The owner can give rent their houses, hotels, and hostels and sell their lands. For advancing there is a payment gateway method.

1.3 Objectives

The objective is which features we have in our App. In this section, we are going to show some list objectives. They are:

- To help renters and owners.
- To show the available flats, houses, hotels, hostels, and plots.
- To find the best shelters nearby or favorite places.

- To get the navigator to reach the destination.
- To get a short view of the shelter.
- To reduce the waste of time and money.
- To secure the environment of the application.

1.4 Expected Outcomes

When we were planning our project, we expected some outcomes. For better work, we need to plan. Showing some expected outcomes below:

- Available and top post home page.
- Adding videos and multiple photos.
- Adding features of any houses, hostels, hotels, and plots.
- History of view post.
- Direction to the destination.
- Category-wise rent/sell post.
- User-friendly rent add posting.

1.5 Report Layout

This is the summarization of this project report format.

Chapter 1: Here we have given the overview of this project. At first, we discussed the introduction and motivation, then we discussed the objectives and expected outcomes of the project.

Chapter 2: Here we have talked about the base of our project. We have also discussed the related works, problem areas, and challenges of the project. And compare it with another competitor system as well.

Chapter 3: To make a successful project we need some diagrams to implement it properly. Here we will use some diagrams to make our work easier.

Chapter 4: Here we use, how to apply the back-end work and database system.

Chapter 5: Here we show the outcome of the project and the user interface

Chapter 6: Here we describe the impact on society, the environment, and sustainability
Impact on Society, Environment, and Sustainability.

Chapter 7: Here we have mainly focused our planning on this application. Mainly how
far we will fork in the future is described here.

CHAPTER 2

BACKGROUND

2.1 Preliminaries/Terminologies

It is difficult to advertise the rent on walls and also hard for the tenants to find an advertisement for rent and the solution is “GHOR CHAI” where the renter will find their beloved shelter. If the renter wants to see the shelter they have to go there then they have to see that have to go there but “GHOR CHAI” will let them to a short view of their home. Don’t need to go there to pay in advance for booking rent because we have a payment gateway for payment. We bring all this kind of trouble in a simple solution and we build the app “GHOR CHAI”.

2.2 Related Works

We can find so many similar applications in the play store and app store but we have more advanced features and our “GHOR CHAI” is the best. We observe their incomplete applications. Some of these are:

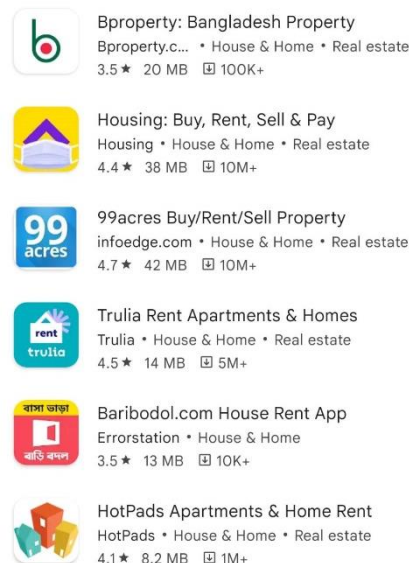


Figure: 2.2: Comparison

2.3 Comparative Analysis

We research how should we provide our best in our “GHOR CHAI” which will help the users both owner and renter. We collected some useful information that made our app the best. None of them have a navigator to destiny but we have that feature. We also added the electrician and plumber contract numbers so that renter gets some facility from our app. Our app will take low storage and consume the uses of mobile data. The payment gateway for booking advance the rent house. We have to learn flutter, and dirt to implement our app. Learned firebase as a database which we needed to learn. Using all this kind of knowledge we finally made our “GHOR CHAI” user-friendly and functional.

2.4 Scope of the Problem

After finishing our app we are facing some issues in our app. Some of them are for payment issues and some of them of general issues. Listing some scope of problem below:

- We use a dummy payment gateway.
- If any user does something often or posts a fake rent post admin cannot block them but they can delete the post.
- If the owner wants his post on a top list they cannot do that on their own.
- We cannot add multiple photos to a post.
- Without a data connection, user cannot browse any house rent post
- Contract numbers of Plumbers, Electricians have to add manually.

2.5 Challenges

During making the application we faced lots of challenges. We have a hard try to facing the challenges. “GHOR CHAI” is based on rent base project where we used firebase, back-end, and Flutter as database, authentication, and logic part and we face some issues they are:

- Connecting the firebase as a database
- Connecting the payment gateway to this application.
- Login authentication.

- Available rent/sell while making this application.
- Connecting Google Maps.
- User interface.
- Admin access to all kinds of data.
- Using email authentication.

CHAPTER 3

REQUIREMNET SPECIFICATION

3.1 Business Process Modeling

Sometimes it is very hard to understand the workflow of a website from its coding structure. That's why we need Business Processing Model (BPM) for visualizing the entire business model.

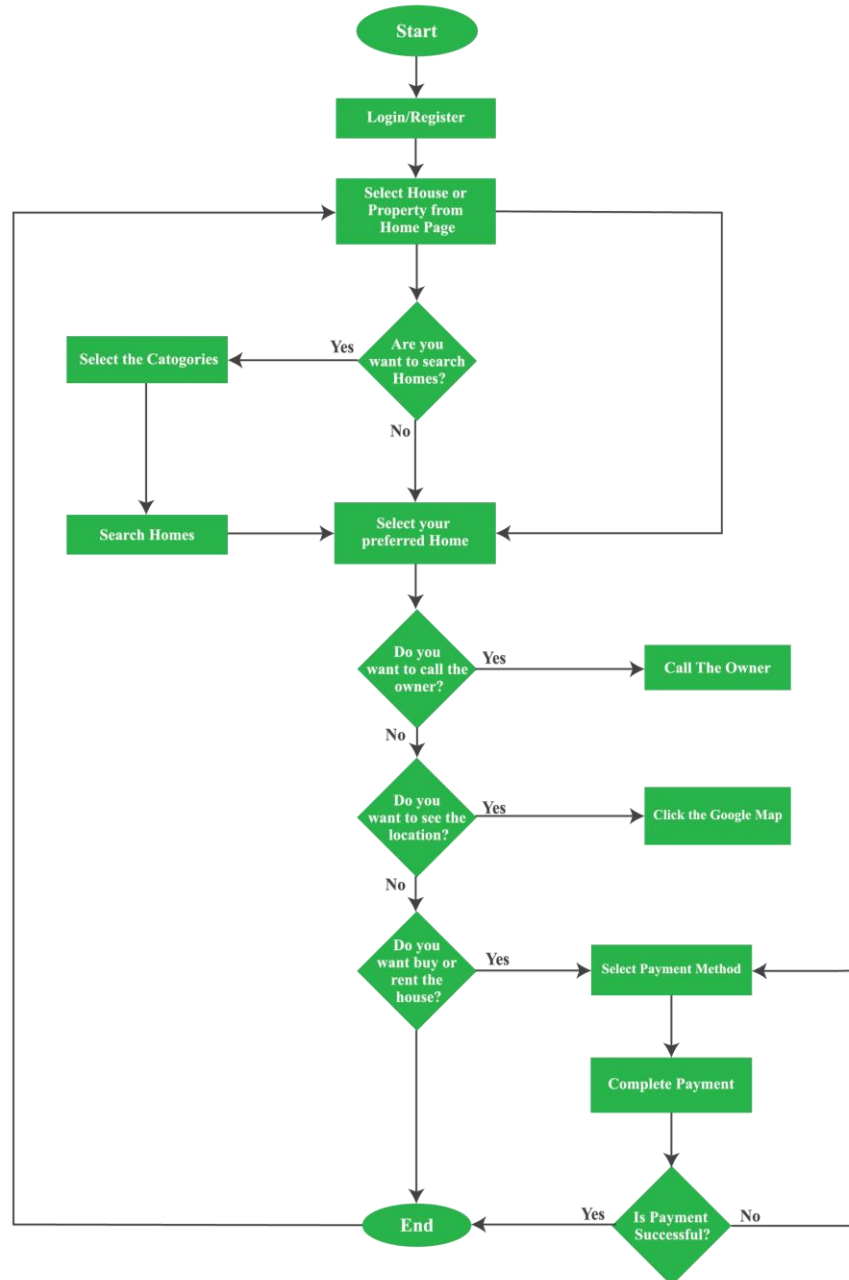


Figure 3.1: Business Process Modeling

Graphical presentation of a workflow is much easier to understand and analyze. According to our model, we have the main parts of the apps. When the user wants to search for the house he/she can search on our app. everyone can search for the house in their area. If anyone wants to buy or rent out the house then they have to login into the app. But if they don't have the account then they have to register an account and have to create an account. Then they can buy or rent the house. When they open the house details, they can call and get directions to the house. Then finally, after the payment, the app will come to the home screen and the system will show the payment success bar. Thus, the full process will end after buying and renting out the house.

3.2 Requirement Collection and Analysis

This is an android application. So for this application, we need an android smartphone user. For smooth work, this application needs a very simple configuration. There are 2 simple functions called Functional and Non-Functional. In this category, there is application configuration. The configuration is:

3.2.1 Functional

1. User Registration
2. User Login
3. Payment
4. Contact
5. Verify Email

3.2.2 Non-Functional

1. Wi-Fi or Data Connection
2. Real User
3. Build a good profile
4. Google Map Location
5. House Images

3.3 Use Case Modeling and Description

3.3.1 Use Case Modeling

Ghor Chai Application with eCRM System Use-Case Diagram

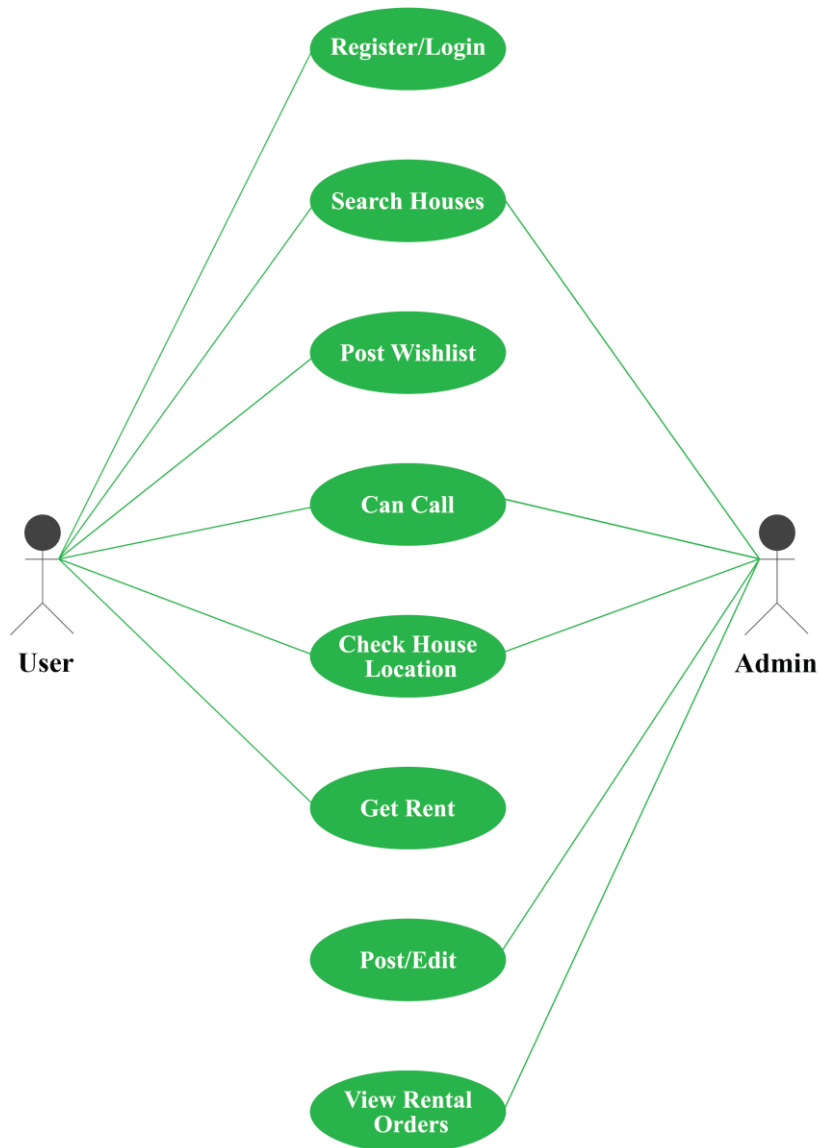


Figure 3.3.1: Use Case Model

A use case is a diagram showing the interconnections between system components. Use cases are methods used in system analysis to identify, describe, and plan system requirements. Use Case has only 4 major elements, that's are Actor, Use Case, System, and Relationship.

3.3.2 Use Case Details:

1. Use Case of Register/Login:

Table 3.3.1: Use Case for Register/Login

Use Case Name	Register/Login
Use Case Details	A user need to register to the application for post and get rent.
Pre-Condition	User logging in and registration is a must before booking packages and services.
Actor	“User”
Post-Condition	An Internet connection is needed for using this website and viewing all.

2. Use Case of Post Edit:

Table 3.3.2: Use Case for Post Edit

Use Case Name	Post Edit
Use Case Details	Admin Can Edit the post and can get pic the post on home page.
Pre-Condition	Admin must check before booking packages and services.
Actor	“Admin”
Post-Condition	Before confirming any bookings must verify the user.

3.4 Logical Data Model

This is a visual representation of the Entity Relationship Diagram which helps us to understand the concept and relationships of the entire system where we can have an idea about users, objects, admin are available in this data table.

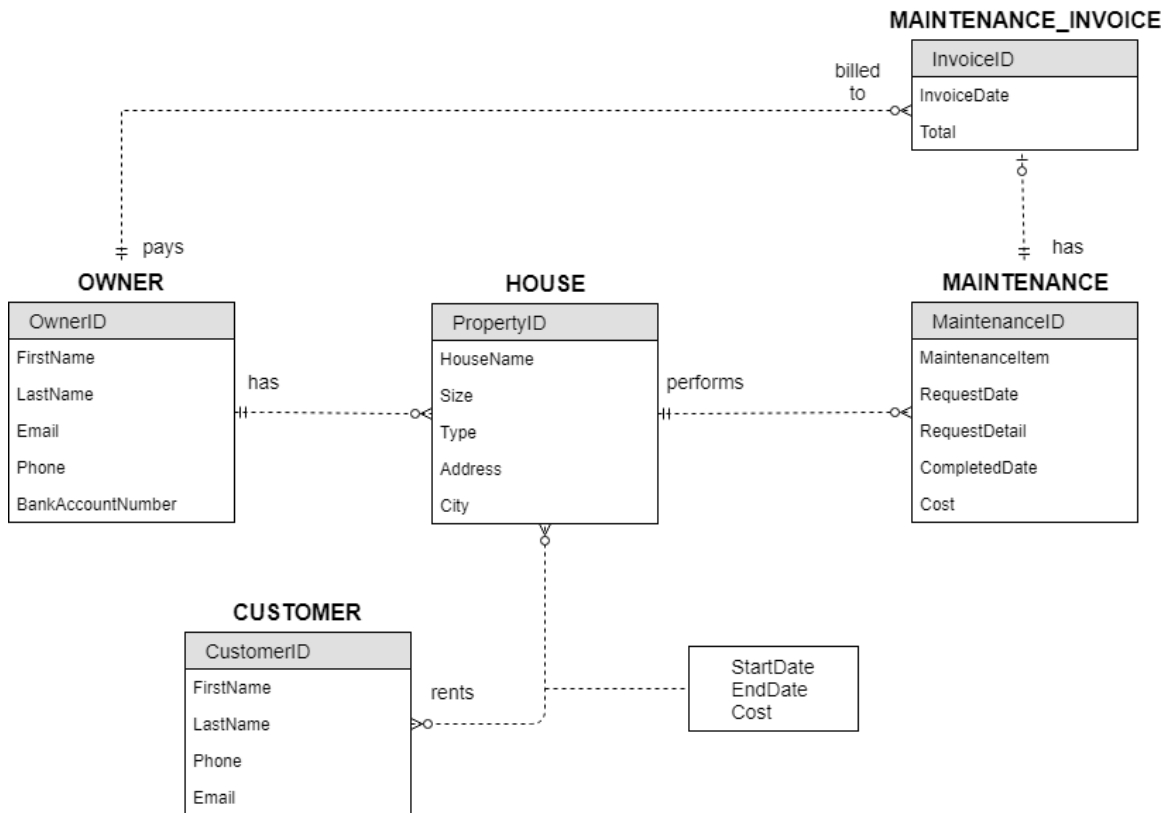


Figure 3.4: Logical Data Model

According to this diagram, each user has a unique id and they can order multiple products and each product has a unique id. Users also can book multiple packages and services.

3.5 Design Requirement

In Design we just used only flutter, because flutter is Google's UI toolkit for building beautiful, natively compiled applications for mobile, web, and desktop from a single codebase. Flutter works with existing code, is used by developers and organizations around the world, and is free and open source. Simple and attractive design specifications are very important for a project because it presents the project to the users in an appealing manner. We tried to make it simple and organized. It is also lite so that all users can use it easily.

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-end Design

To implement a given UI in front-end web, you compose HTML elements and style them with CSS. To implement UIs in Flutter, you compose widgets and style them with properties. Like CSS, the Color class in Dart works with “rgba” and “hex”. Also like CSS, Flutter uses pixels for space and size units. In Flutter, we have Dart classes for almost all CSS properties and their values.

4.1.1 Starting Page

At first, when a user open our app “GHOR CHAI”, it will show like this. Our motto is “SAFE HOME, SAFE RENT”. There are one option which will go the next page.



Figure 4.1.1: Starting Page

4.1.2 Login Page

Now if the user is already registered into our app, then they can log in by putting email and password. If the user forget their pass then they can reset their password by putting the email on the email address box.

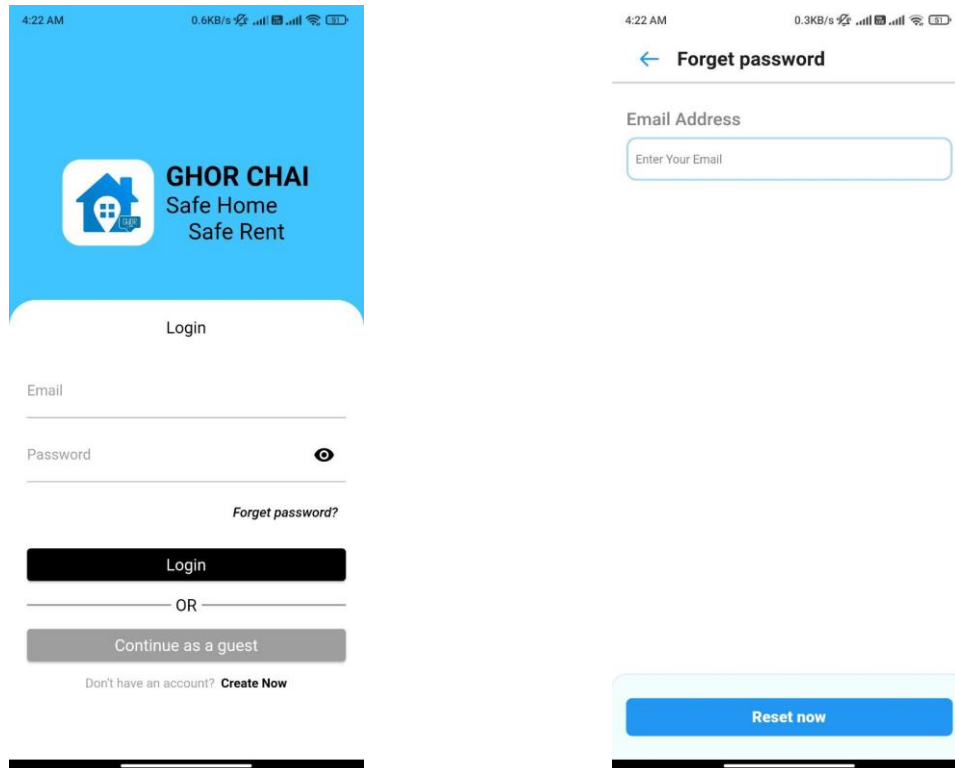
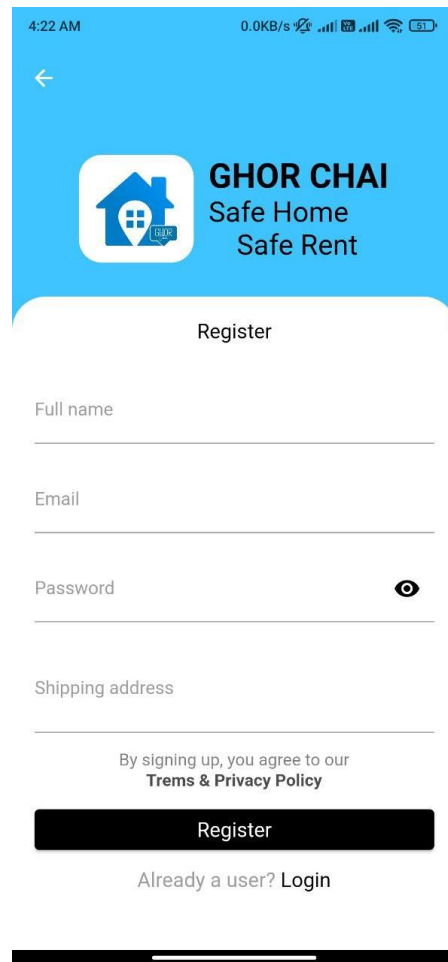


Figure 4.1.2: Login Page


4.1.3 Register Page

When a user want to post house or want to buy house then user need to login to this app, if the user don't have an account then they have to register.



4:22 AM 0.0KB/s


←

 **GHOR CHAI**
Safe Home
Safe Rent

Register

Full name

Email

Password 

Shipping address

By signing up, you agree to our
Terms & Privacy Policy

Register

Already a user? [Login](#)

Figure 4.1.3: Register

4.1.4 Home Page

This is the home page when user log in to the system they will see this homepage. This home page mainly designed to attract users.

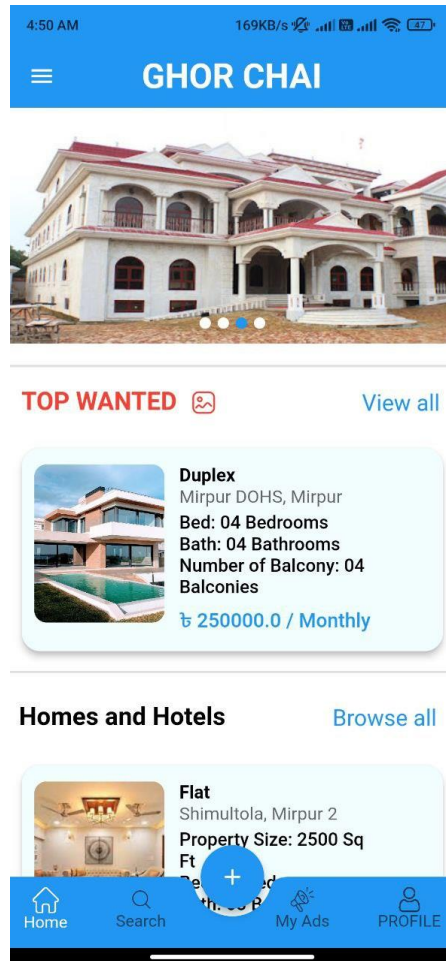


Figure 4.1.4: Home Page

4.1.5 Dashboard

In here when we click the dashboard icon we see this function, whenever user don't understand the app, or any emergency they can call us or mail us.

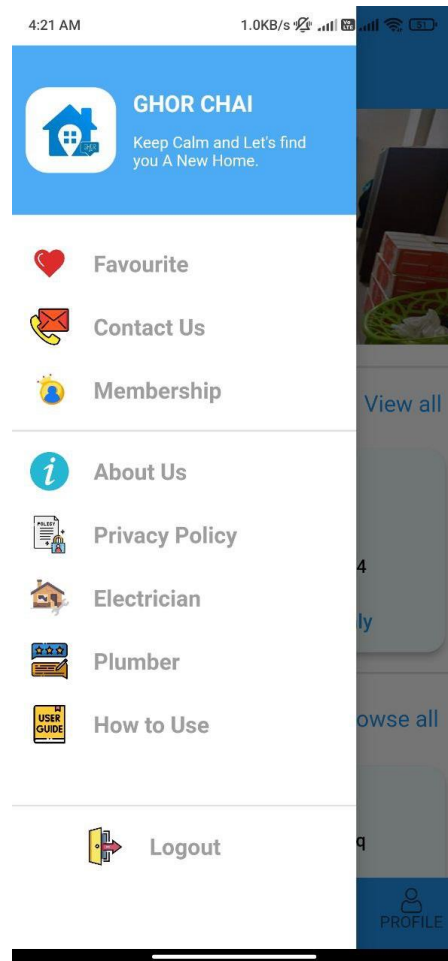


Figure 4.1.5: Dashboard

4.1.6 Dashboard Categories

In here when we click the dashboard icon we see this function, whenever user don't understand the app, or any emergency they can call us or mail us.

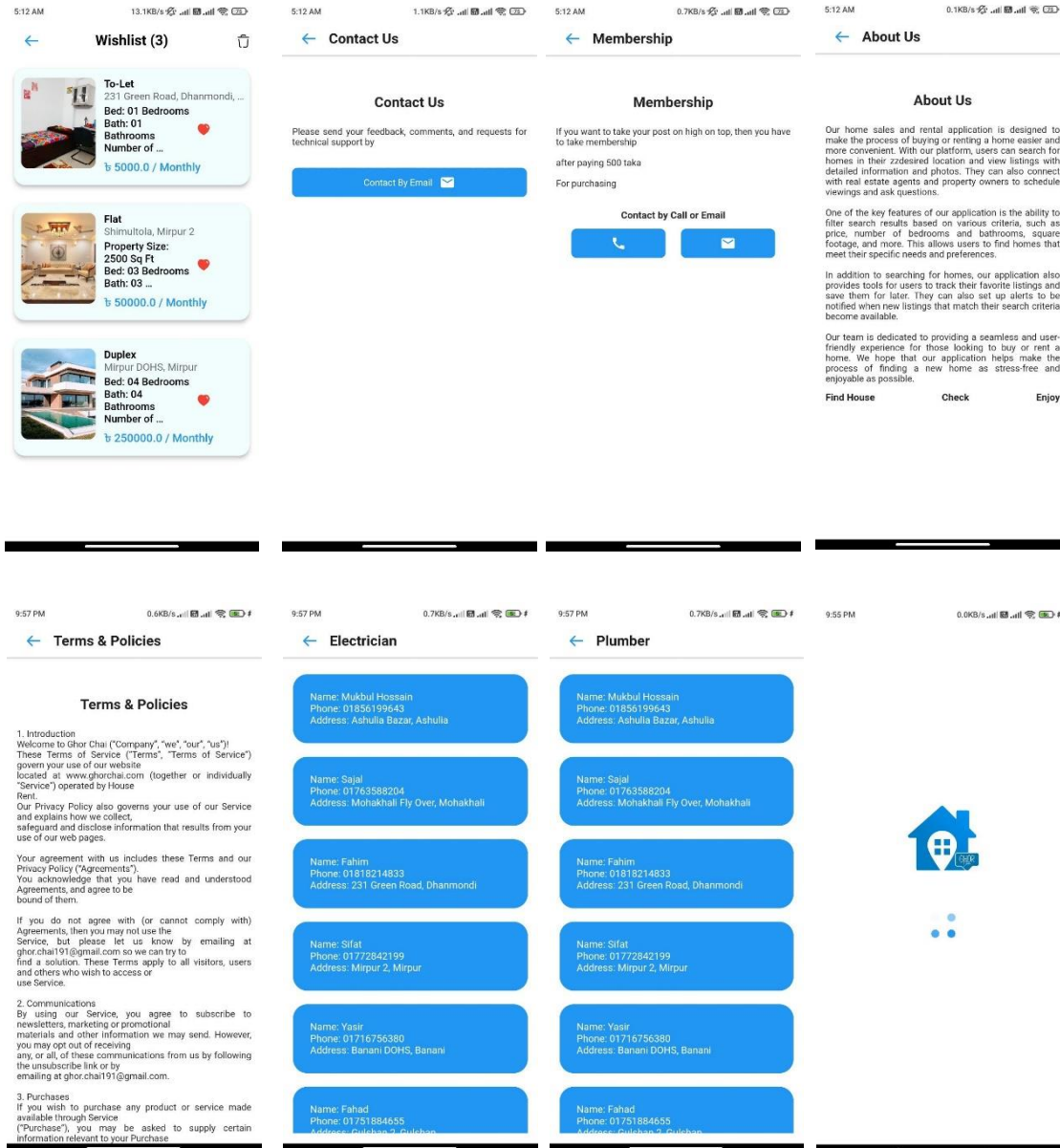


Figure 4.1.6: Dashboard Categories

4.1.7. Top Wanted

Whenever user want to make his post on top then he have to be a premium member for this he have to pay us little amount then his post will be on top for one month.

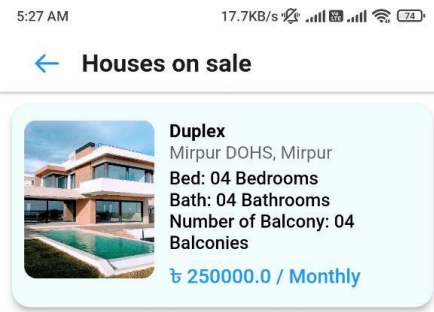


Figure 4.1.7: Top Wanted (Pin Post)

4.1.8 View All Houses

In this feature user can see all the house that been posted.

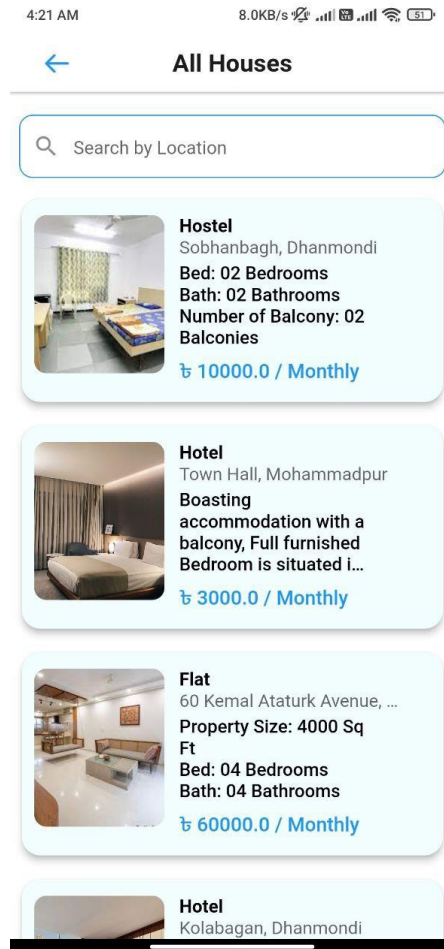


Figure 4.1.8: View All House


4.1.9 House Details

Now whenever user or customer want to get rent or wanted to buy they can check the details in this feature.

4:21 AM 0.1KB/s

← Duplex Details

Duplex
Mirpur DOHS, Mirpur



House Description
Bed: 04 Bedrooms
Bath: 04 Bathrooms
Number of Balcony: 04 Balconies
Parking: 02 Car Parking
Lift: 02
Floor: 12th-13th (Duplex)
Unit: B12-B13
Unit Per Floor: 12th-13th (Duplex)
Service Charge: BDT 12,000/-
Year Built: 2018
Garage Size: 240 Sq Ft
Property Type: Residential
Interior: Semi-Furnished
Building Registration Type: Residential
House Rules: Basic Rules
Front Road Size: 16 Ft
Total Units: 26 Units
Common Area: 350 Sq Ft
Nearby Landmark: Suhrawardy Avenue
Preferred Tenant: Foreigner
Gas: L.P.G
Servant Room: 01
Servant Washroom: 01

📞
📍

TK250000.00/1Months **GET RENT**

Figure 4.1.9: House Details

4.1.10 Call Facility

User can call the owner if he click the call icon.

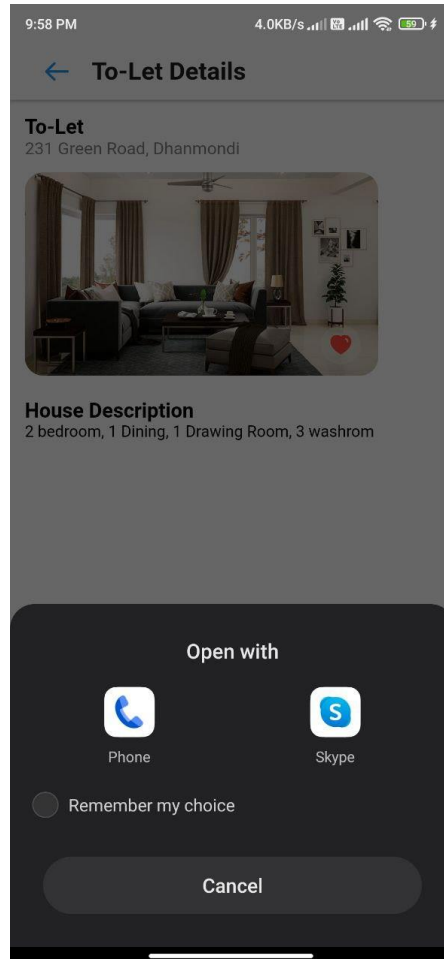


Figure 4.1.10: Call Facility

4.1.11 Google Map

In this feature user can check the house location. It will guide you to the exact location.

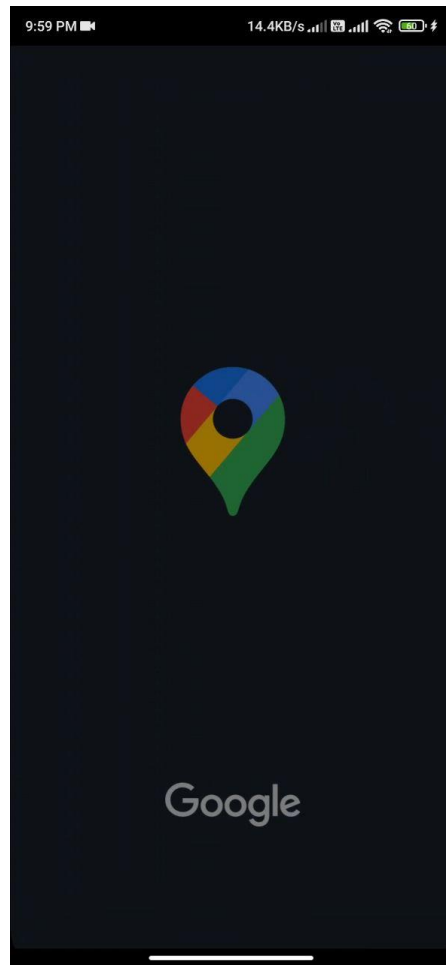


Figure 4.1.11: Google Map

4.1.12 Purchase

After checking the price then if you click the get rent icon then it will go the payment method system.



Figure 4.1.12: Purchase

4.1.13 Payment Method

After the confirmation of payment method then the OTP will go to the mail or your phone number. When the OTP is correct then it will come to the home page and will show payment success.

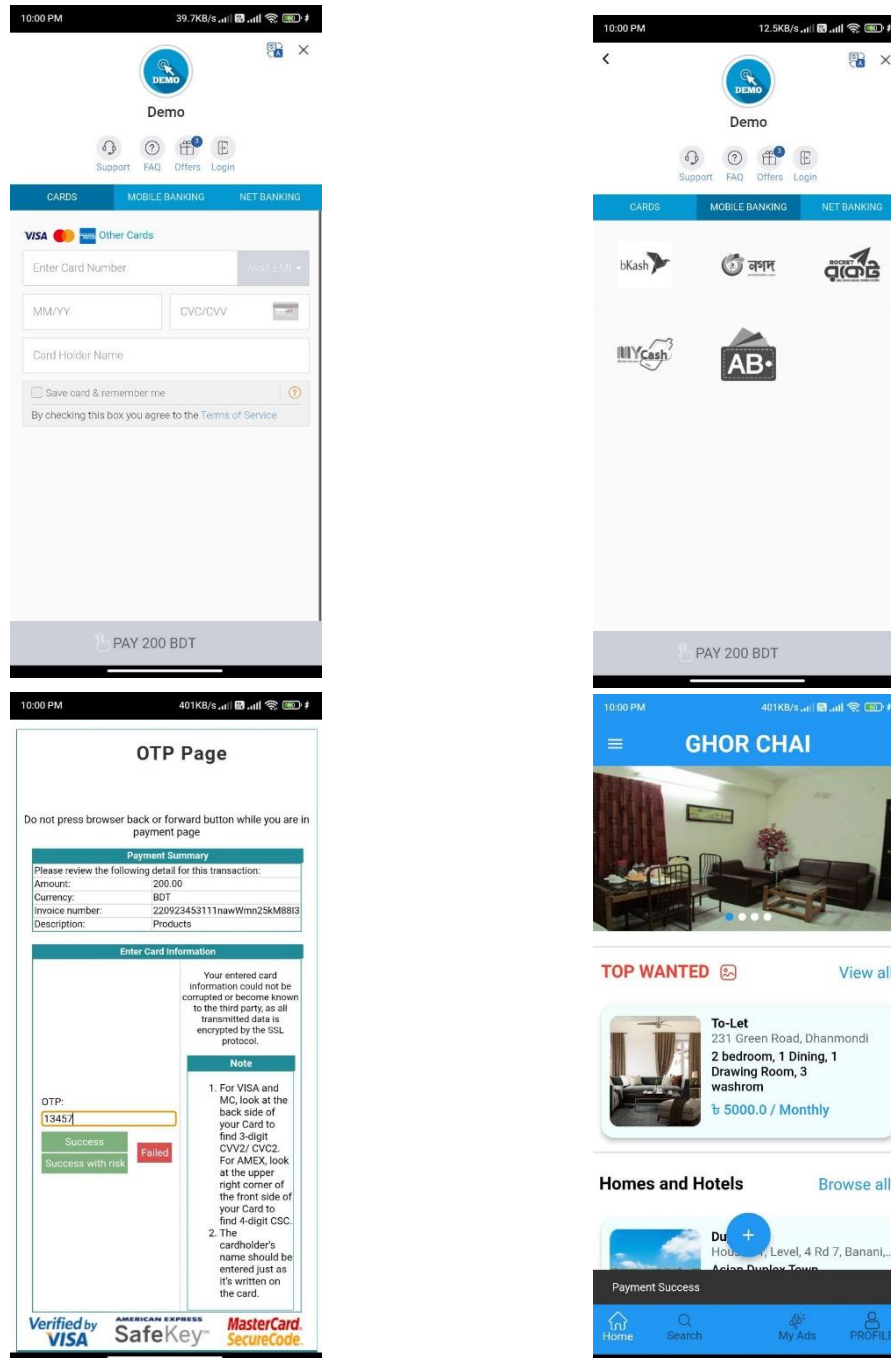


Figure 4.1.13: Payment Method

4.1.14 Search Categories

In this feature user can easily search house, hotel, flat anything but searching the area.

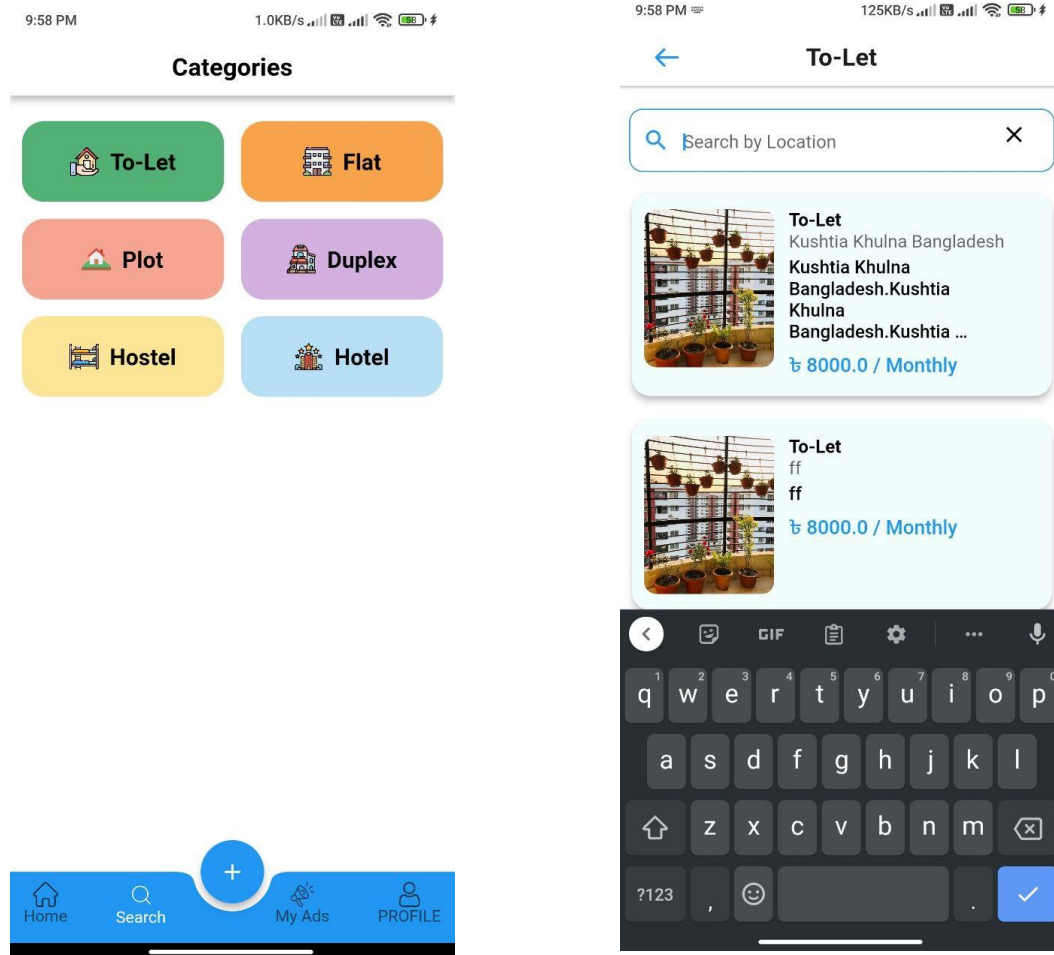
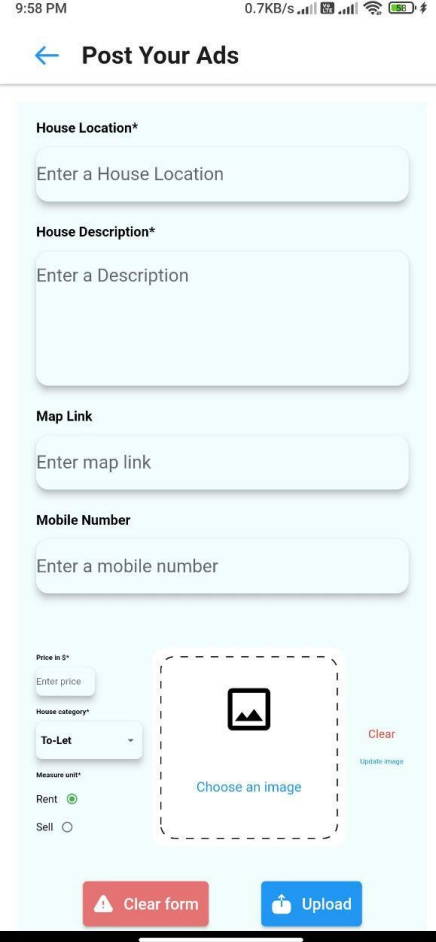


Figure 4.1.14: Search Categories

4.1.15 Post Ad

In this feature user can upload a house details whichever he wants to. But if the user is a wrong guy then the post will be deleted.



9:58 PM 0.7KB/s

← Post Your Ads

House Location*
Enter a House Location

House Description*
Enter a Description

Map Link
Enter map link

Mobile Number
Enter a mobile number

Price in \$*
Enter price

House category*
To-Let

Measure unit*
Rent
Sell

Choose an image
Clear
Update image

Clear form Upload

Figure 4.1.15: Post Ad

4.1.16 My Ads

Whenever user post the house details this feature will show which one you posted or not.

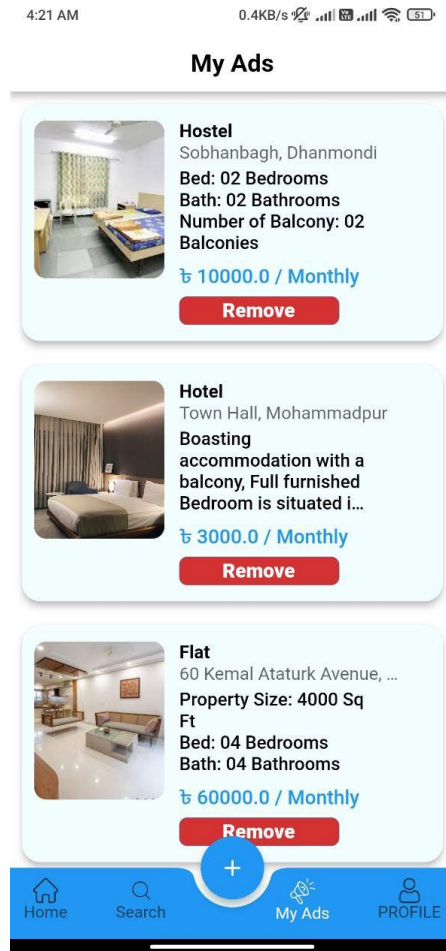


Figure 4.1.16: My Ads

4.1.17 Profile

The more your looks the more viewer will come.

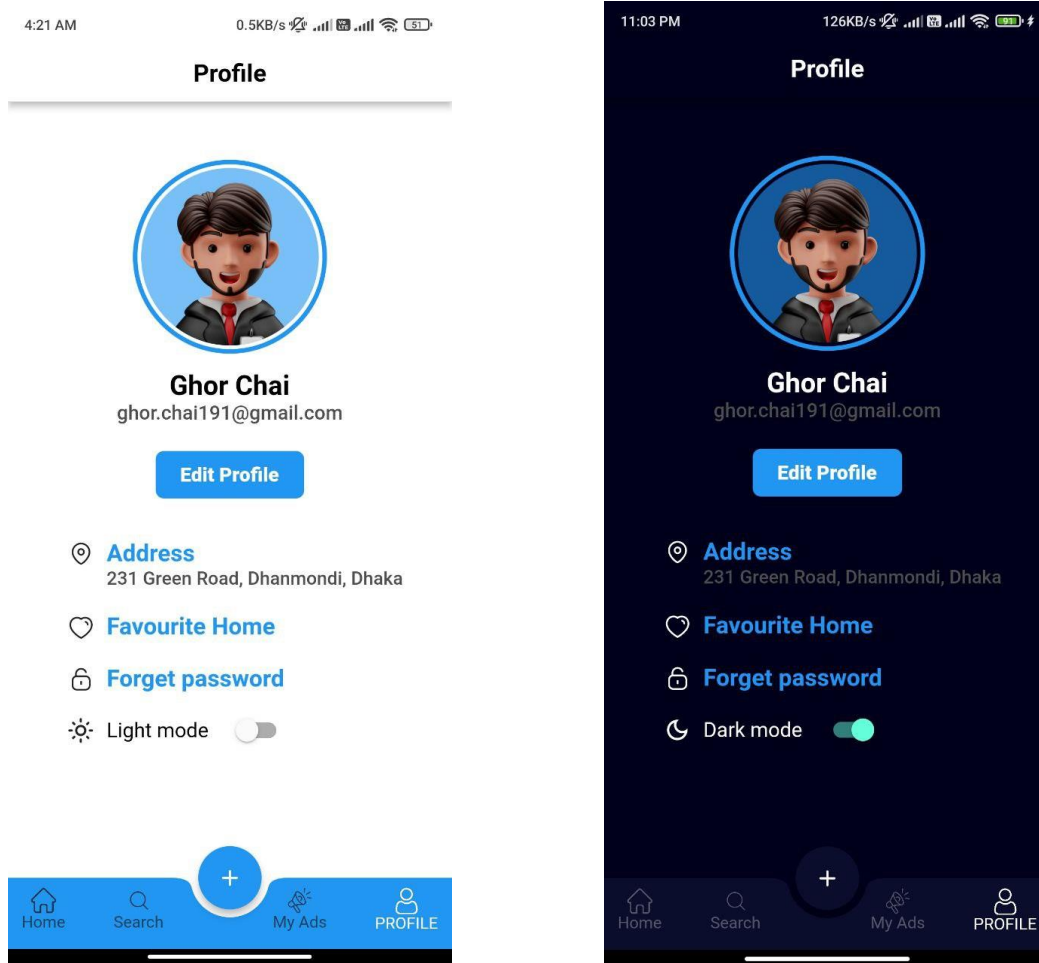


Figure 4.1.17: Profile

4.1.18 Guest Mode

In this mode user don't need to login the system, they will be the tour guy on our app.

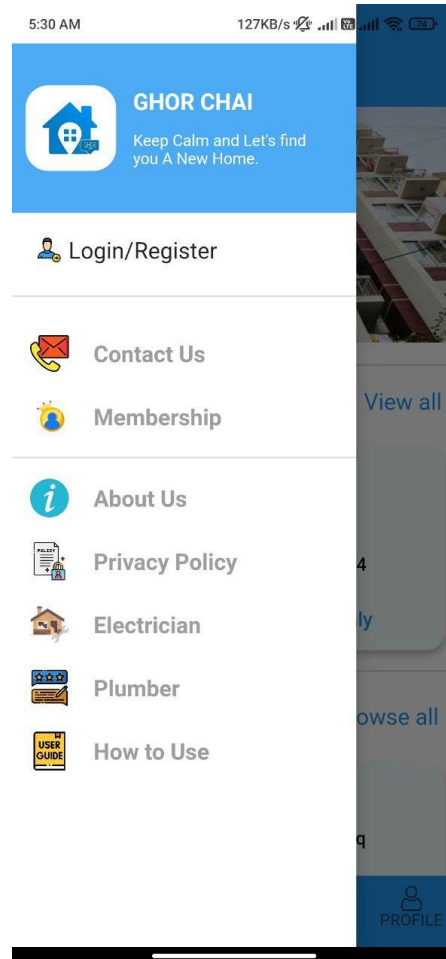


Figure 4.1.18: Guest Mode

4.1.19 Admin Home Page

This is the starting page of this ADMIN GHOR CHAI application.

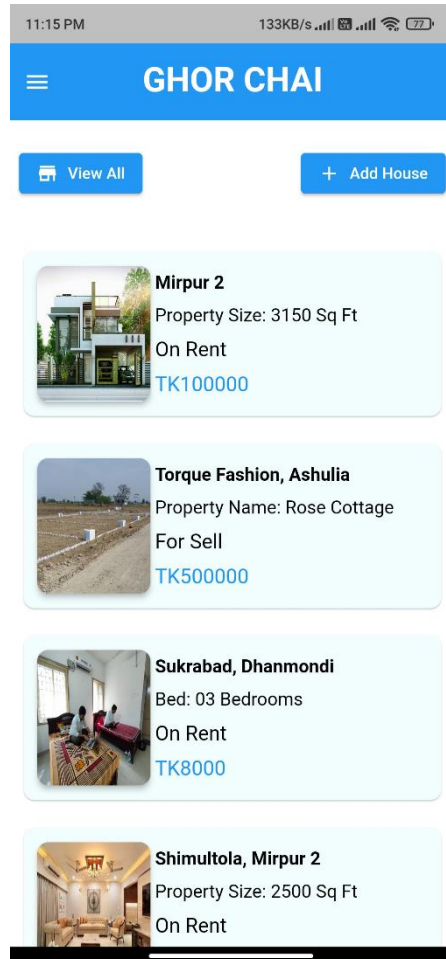


Figure 4.1.19: Admin Home Page

4.1.20 Dashboard

In the option Admin can choose the categories. Admin can check all houses, Can check all the rent orders and also can change the Dark Mode.

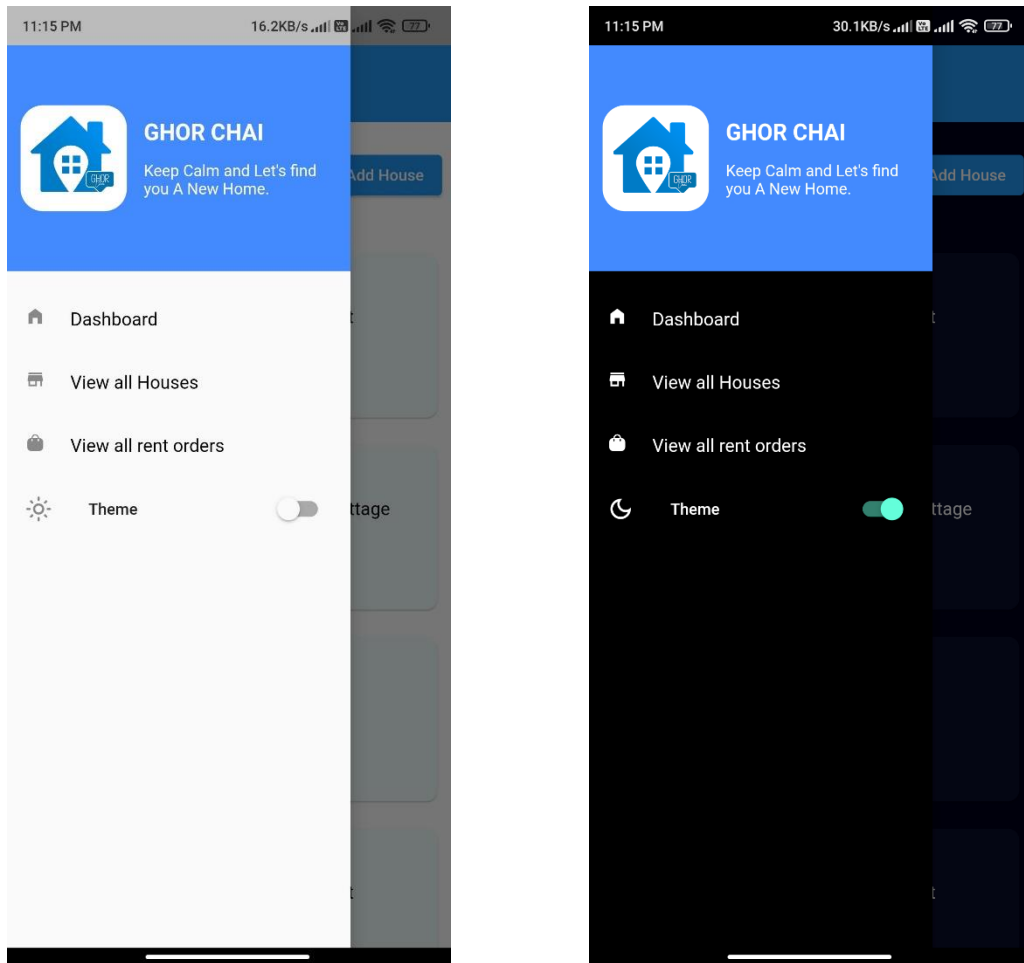


Figure 4.1.20: Dashboard

4.1.21 House Details

Admin can all the house details which are posted in the user application. And also admin can change the post and delete the post

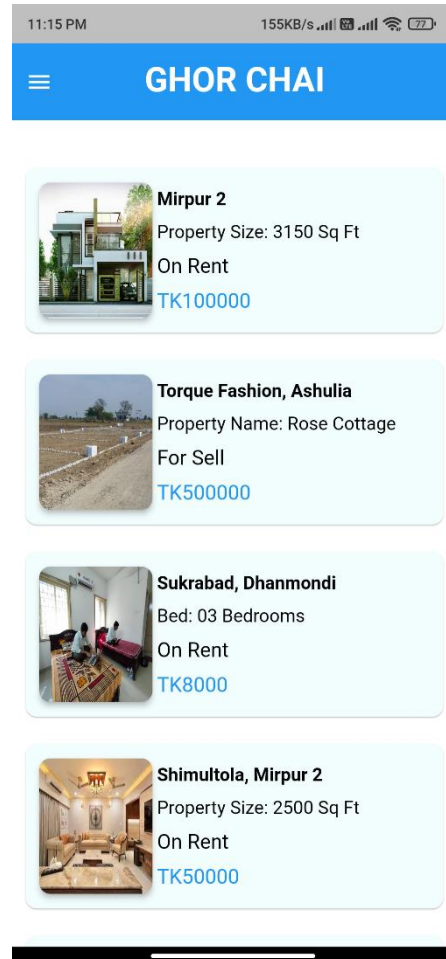


Figure 4.1.21: House Details

4.1.22 Rent Orders

Admin can check which houses is sold.

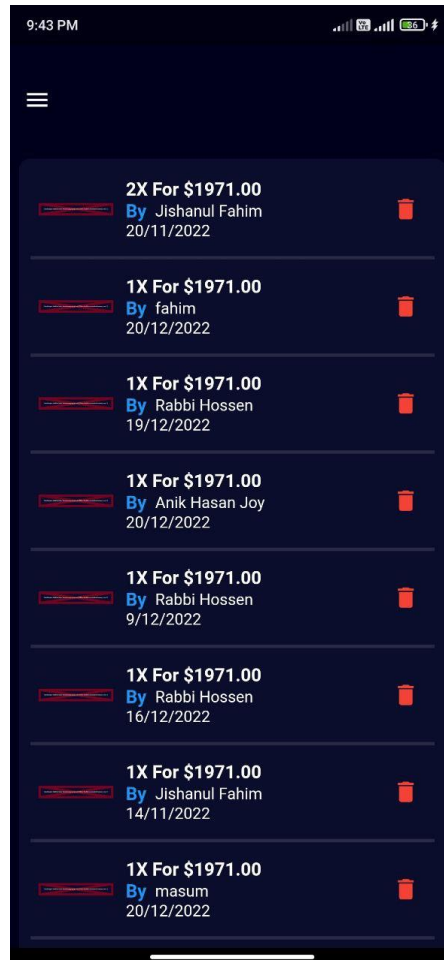


Figure 4.1.22: Rent Orders

4.1.23 Post Ad

Admin Can Post houses for sale or rent

9:43 PM

House Location*

House Description*

Map Link

Mobile Number

Price in \$*

House category*

To-Let

Measure unit*

Rent Sell

Choose an image

Clear

Update image

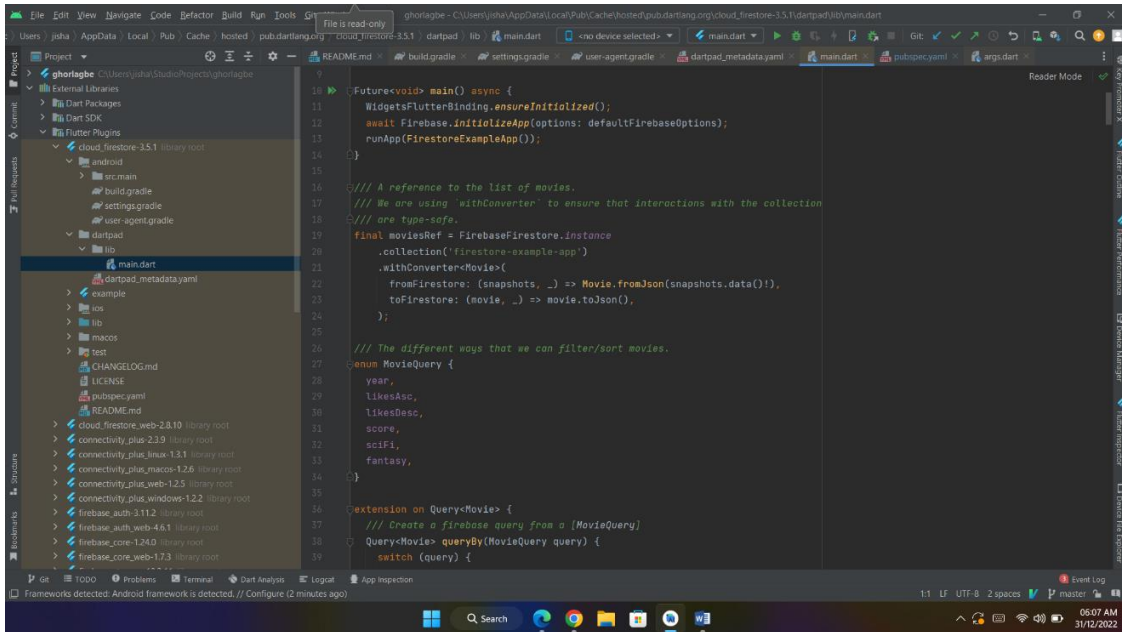
Clear form

Upload

Figure 4.1.23: Post ad

4.2 Back-end Design

Back-end design is that part of the website which is hidden from users. Users only interact with the front end they cannot view or modify the back end.



```
Future<void> main() async {
  WidgetsFlutterBinding.ensureInitialized();
  await Firebase.initializeApp();
  runApp(FirestoreExampleApp());
}

/// A reference to the list of movies.
/// We are using 'withConverter' to ensure that interactions with the collection
/// are type-safe.
final moviesRef = FirebaseFirestore.instance
  .collection('firestore-example-app')
  .withConverter<Movie>({
    fromFirestore: (snapshots, _) => Movie.fromJson(snapshots.data()),
    toFirestore: (movie, _) => movie.toJson(),
  });

/// The different ways that we can filter/sort movies.
enum MovieQuery {
  year,
  likesAsc,
  likesDesc,
  score,
  sciFi,
  fantasy,
}

extension on Query<Movie> {
  /// Create a firebase query from a {MovieQuery}
  Query<Movie> queryBy(MovieQuery query) {
    switch (query) {
```

Figure 4.2: Back End Code

4.2.1 Code Editor

Android Studio is our primary code editor. In studio we used flutter. We also used sublime text for coding. Flutter is the main framework, and dart is programming language. The whole program is running by firebase database.

```

1 // ignore_for_file: prefer_const_constructors, in_immutables, unnecessary_const, library_private_types_in_public_api
2 // Copyright 2021, the Chromium project authors. Please see the AUTHORS file
3 // for details. All rights reserved. Use of this source code is governed by a
4 // BSD-style license that can be found in the LICENSE file.
5
6 import 'package:cloud_firestore/cloud_firestore.dart';
7
8
9
10 Future<void> main() async {
11   WidgetsFlutterBinding.ensureInitialized();
12   await Firebase.initializeApp(options: defaultFirebaseOptions);
13   runApp(FirestoreExampleApp());
14 }
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Figure 4.2.1: Connection Code

4.2.2 Connecting with Database

We connect our admin and user site with the database so that we can manage data according to the need of our app. Here are some code images.

```

1 <component name="LibraryTable">
2   <library name="Flutter_Plugins" type="FlutterPluginsLibraryType">
3     <CLASSES>
4       <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/url_launcher-6.1.6" />
5       <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/path_provider_windows-2.1.3" />
6       <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/path_provider_linux-2.1.7" />
7       <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/cloud_firestore_web-2.8.10" />
8       <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/webview_flutter_kitkatview-2.9.5" />
9       <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/google_sign_in_ios-5.9.0" />
10      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/shared_preferences_ios-2.1.1" />
11      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/firebase_core_web-1.7.3" />
12      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/url_launcher_windows-3.0.1" />
13      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/google_sign_in_android-6.1.1" />
14      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/firebase_storage-10.3.11" />
15      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/url_launcher_web-2.0.13" />
16      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/firebase_core-1.24.0" />
17      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/url_launcher_macos-3.0.1" />
18      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/webview_flutter-3.0.4" />
19      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/firebase_auth_web-4.4.1" />
20      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/image_picker_android-0.8.5+3" />
21      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/url_launcher_ios-6.0.27" />
22      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/shared_preferences_linux-2.1.1" />
23      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/image_picker_for_web-2.1.10" />
24      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/connectivity_plus_linux-1.3.1" />
25      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/shared_preferences_windows-2.1.1" />
26      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/image_picker-8.8.6" />
27      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/webview_flutter_android-2.10.4" />
28      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/shared_preferences_android-2.0.14" />
29      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/shared_preferences_web-2.0.4" />
30      <root url="file:///USER_HOMES/AppData/Local/Pub/Cache/hosted/pub.dartlang.org/path_provider_macos-2.0.4" />
31     </CLASSES>
32   </library>
33 </component>

```

Figure 4.2.2: Connecting with Database

4.3 Interaction Design and User Experience (UX)

For a better user experience, we design our app simpler. Users can easily navigate from the home page to every section or page. All links and buttons are fully functional. Our entire home page screenshot is given below.

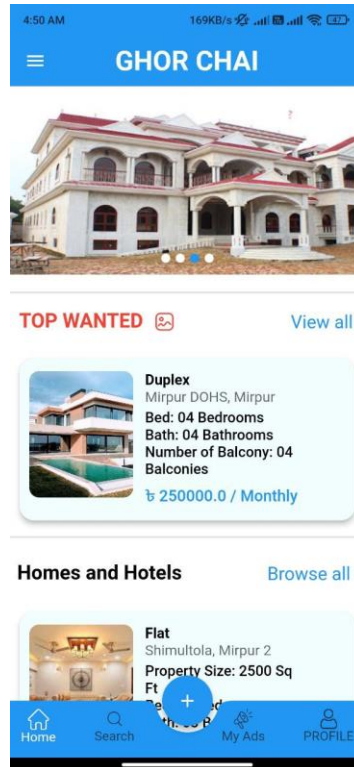


Figure 4.3: Home Page

4.4 Implementation Requirements

To implement the project some most popular and widely used technologies are used. For this application we used flutter for real time database. There are various technologies to develop app for and Android Operating System, but we have used the most raw and rooted code in our flutter app. The Technologies we used, that's are:

Database: Firebase

Language: Dart

Framework: Flutter

Software: Android Studio, Git Bash

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

In this project, we use the firebase database for storage, search, and personal profile. Here data is stored in the demo firebase account and any data change is reflected immediately through synchronization between devices and platforms. Our database has two structures, that's are:

- A Database
- A Real-time database

5.2 Implementation of Front-end Design

The front-end design is the process of creating a user interface using flutter and a database. So that users can view and interact with them.

We used various software like Figma, Adobe XD, and Flutter and modules in our project to make our front end are to make more user-friendly. They Are:

- Database
- Flutter

5.3 Testing Implementation

This is the process that can consider where an application tester or it can be the builder of that application will be able to check many cases for the application and specification. But maybe there has a limitation in this application at the initial stage.

5.4 Test Results and Reports

Table 5.4: Summary of the Testing

Test Case	Details	Expected Outcome	Actual Result	Status	Testing Date
Install App	Installed by Valid Phone	Successfully Installed	Successfully Installed	Pass	05-09-2022
Log in as a Guest	Can show all the information	Log in	Logged in Successfully	Pass	05-09-2022
Log in as a User	Log in as a User	Log in	Logged in Successfully	Pass	05-09-2022
Register	Register as a User	Successfully Registered	Registered Successfully	Pass	05-09-2022
Add House	Add new house information	Added House	Successfully Added	Pass	05-09-2022
Delete House	Delete house which one you added	Deleted	Updated Successfully	Pass	05-09-2022
Search House	Search house by area	Successfully showed	Successfully showed	Pass	05-09-2022
House Location	Locate house from app	Successfully showed	Successfully showed	Pass	05-09-2022
Calling Feature	Call from app	Successfully make a call	Successfully make a call	Pass	05-09-2022
Purchase	Purchase the house	Purchase is success	Purchase is success	Pass	05-09-2022
Log Out	Any user can generally can Log out	Successfully Log out	Successfully Log out	Pass	05-09-2022

CHAPTER 6

IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY

6.1 Impact on Society

Compared to the current rate at which people are moving to cities, there are no new houses in big cities including Dhaka. So our app will work to find the best home in less time and hassle-free. Apart from that, it will reduce the difficulty for homeowners to rent new houses or low-cost houses.

There are many types of people in society who want to find their affordable home but many times they don't find their affordable home at the right time, they can also book their desired home with the help of our app. Besides, the daily problem of students living on rent is that no one wants to rent their house, the solution is only one app. By using our app we can solve all problems related to house rent in the society.

6.2 Impact on Environment

Currently, house owners put to-let paper or board on walls, pillars, or trees to rent houses. Half of them use low-quality paper or harmful PVC banners. As a result, the environment is seriously damaged. Due to the use of low-quality dyes, it mixes with rainwater and enters the human body. The easiest solution to getting rid of this is the "GHOR CHAI" app. Through the GHOR CHAI app, house owners can put rent houses very easily without any banners, or festoon. As a result, the damage that was being done will be reduced and the environment will be protected. In addition, those who rent a house will also find a house in a short time by using our location feature without unnecessary wandering. As a result, the use of additional vehicles will be reduced, thereby reducing environmental damage.

6.3 Ethical Aspects

Every work has a good and bad side, a good work we call morally good work, and bad work a morally bad work. This application is ethically a good thing for us. Because with the help of our platform, many people will benefit, save valuable time, protect the

environment from damage, and play a role in the development of the country. So it helps us to work efficiently. So it is a morally good thing to do.

6.4 Sustainability Plan

Our application is a user-friendly and efficient housing search application. As it is a mobile application and people can use the application as long as they search for accommodation. Since mobile applications are used by people all the time and people's housing changes will never end, there is no possibility of our application becoming extinct in the future. So this application can be sustained for more users.

CHAPTER 7

CONCLUSION AND FUTURE SCOPE

This is the most important and final chapter of our project. Here we will discuss what we have managed, and how we can make our application more useful and essential for the masses.

7.1 Discussion and Conclusion

Finally, we got to create our mobile application, which is incredible. If this application can help people save some time, reduce hassles and find the home of their choice, it will bring a new path in their life. Our first goal was to create an app that can save time and help people find affordable and budget-friendly homes anywhere, as well as make it easy for landlords to rent out homes. To help people, we will update this app in the future with new versions and new features. Nothing was possible without the mercy of Almighty Allah. We are very happy that we have reached where we wanted to be. For that we are satisfied.

7.2 Scope for Further Developments

Since our application is a mobile application, its future scope is huge. There are many opportunities to work with our application.

1. We will bring the iOS and web versions of the Arrow app in the future.
2. We will add new features.
3. We will add track or van support for home transitions as soon as we find a home
4. We will do proper maintenance and bug fixing of the application.
5. We will create a more user-friendly and attractive UI in the future.
6. We will upgrade this application from time to time.

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PLAGIARISM REPORT

GHOR CHAI: A SMART SOLUTION FOR RENTING AND BUYING HOUSE
By ID: 191-15-12596, 191-15-12540, and 191-15-12549

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