Kingdom of Saudi Arabia
Majmaah University
Ministry of Higher Education
College of Science in Zolfi
Dept. of Computer Science

المملكة العربية السعودية
جامعة المجمعة
وزارة التعليم العالي
كلية العلوم في الزلفي
قسم علوم الحاسب

MAJMAAH UNIVERSITY
COLLEGE OF SCIENCE & COMPUTER SCIENCE

Home Stay

BY

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Supervised by

DR.Mahdi Jemmali

A REPORT SUBMITTED TO

UNIVERSITY OF MAJAMAAH

In partial fulfillment of the requirements

For the degree of

BACHELOR OF COMPUTER AND INFORMATION SCIENCE

1441-1442 AH

Abstract

In light of the great scientific progress the world is witnessing

In light of the statistics that there are more than 80% of the world's population traveling once a year, there was a need to create a new type of application that thinks outside the usual fund to provide housing such as resort to offices or hotels due to the high cost of overnight stay in a hotel or the difficulty in Having affordable housing and also in a suitable place

Also, the ability to exchange housing or share it safely and routinely has focused in this research on presenting the idea of renting housing through a social application that invites the owner and tenants to speak together and come up with a fair agreement between them and also mutual trust arises between users through the application platform and also visitor comments [6]

Acknowledgement

Thanks for all, thanks for all staff in college, special thanks for our supervisor. When we need help always we find the person standing by our side, and give us all information and guidance to achieve this project, this person is our supervisor.

MAJAMAAH UNIVERSITY

COLLEGE OF SCIENCE AL ZULFI

DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION

(CERTIFICATE BY STUDENT)

This is to certify that the project titled "Title of the project" submitted by me (Name of the student, Student ID) under the supervision of Dr. Name for award of Bachelor degree of the Majmaah University carried out during the Semester 1, 2020-21 embodies my original work.

Signature in full: ------------------------------

Name in block letters:

Student ID:

Date:

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DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION

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Signature in full: ------------------------------

Name in block letters:

Student ID:

Date:

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CHAPTER 1: INTRODUCTION

1.1 Problem Definition

- The absence of a database of empty rooms and apartments
- Inability of homeowners to market and rent their properties
- Focusing rents on hotels and whoever has a license to do so
- The difficulty of traveling and trips in the event that it is not possible to provide suitable housing in terms of price or location
- The lack of new work mechanisms in the real estate market, away from traditional and regular methods.
- The interest of most travelers and focus on airline reservations, lack of interest in booking a place to travel and relying on hotels, which increases the cost of travel.

1.2 Scope

- The user accesses the application by e-mail or phone
- The user views his posts and those of others who view their housing
- The user can negotiate the price or he can rent his house in exchange for renting the house of others in another country.
- The user can report or comment on a specific publication, or publish his personal experience of the residence he has gone to.
- The application manager blocks or deletes a user account or sends alerts to users

1.3 Objectives

- Helping travellers around the world find accommodation in the cheapest way.
- Helping real estate owners to market their properties and also obtain a large income.
- Connecting the tenant to the owner of the house through a social network dedicated to housing and real estate.
- Ensure the seriousness of the reservation and not to tamper with all parties.
- Encouraging tourism all over the world, as finding housing has not become so difficult, and housing exchange can also take place around the world.

1.4 Expected benefits

- The system provides a better, faster and effective way for the citizens to communicate between each others .
- The application helps people to find apartments .
- . The application is efficient and reliable Finding suitable housing in terms of price and location.
- Finding the nearest residence for your place or the country you are traveling to. For example, if you want to live near the airport, the application searches for the nearest place to the airport in the country you are traveling to.

1.5 Collection Data

In this project, we use questionnaire way to collect data from users and other persons, and we get these results:

- There are exist much application but not cover the needs of the user.
- Travelers need this application strongly.
- The travelers prefer to make an booking and ask owner online

❖ **Statistics**

Analysis of the questionnaire

- Do you force any difficulty to find cheap home during your travel?

  We can see the result (55.3 % no,44.7 % yes)

- If so, is their memory worse than a few years ago?

  We can see the result (54.7 % no,54.3 % yes)

- Does the travelers need to booking home from agent ?

  We can see the result (40.5 % no,59.5 % yes)

- If you hade event or suddenly you decide to travel , you find home easy ?

  We can see the result (43.7 % no,56.3 % yes)

- Does the traveler travel more than once a month?

  We can see the result (36.9 % no,63.1 % yes)

- Does the agent give very high price to home especially when they know that you are from another country?

  We can see the result (31.74 % no,68.6 % yes)

- Do you need a mobile application to help you in your journey?

2

We can see the result （88.3 % no,11.7 % yes）

- Are there existing applications that depend on them?

  - We can see the result （35.1 % no,64.9 % yes）

1.6Literature Review

❖ **The main Principle Application**
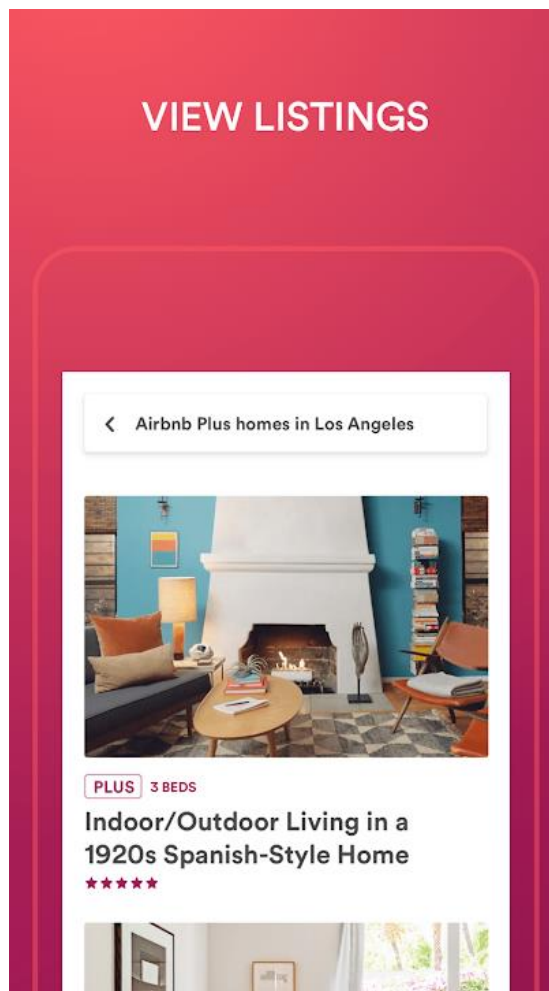
1.6.1 Airbnb

Figure 1-1 Airbnb Application

There are many types of apartments : homes , rooms , hostels , share house that can be treated by many methods. In This application, we will find all thing about booking properties , INSTALL THE APP to discover it. [15]

❖ **Advantages**

- Booking Property
- Post and comment on property

- Make the cheap property

❖ **Disadvantages**

- This application does not have control on the users.

- This application does not Consultation between renter and owner.

1.6.2 Booking .com

This app work focus on booking hotels and accommodation. [12]
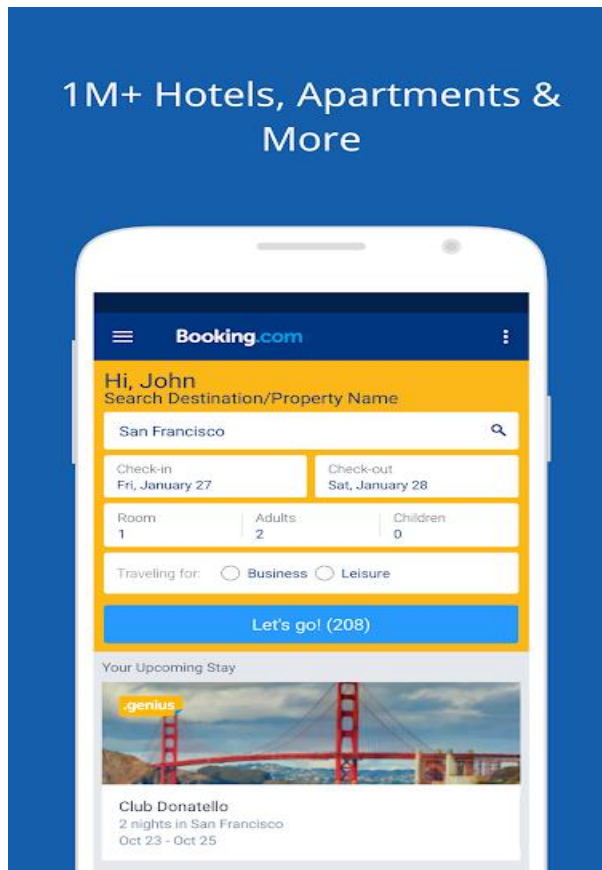

Figure 1-2 Booking.com

❖ **Advantages**

- Booking hotels and accommodation.

- Strong System search about the apartments.

- Has many providers for the hotels and accommodations.

❖ **Disadvantages**

- **Not social.**

- **Focus on hotels .**

4

- **Don't permit to individuals .**
- **Take commission on every sell action.**

1.7 Comparative between our system and the related works

After presenting the related works with their advantages and disadvantages, we can doing the following comparative through the table:

Table 1-1 Comparative table

Service	Our project	Airbnb Application	Booking.com
Mobile Application	Yes	Yes	Yes
Social	Yes	Yes	No
Easy to use by all	Yes	No	No
Offering list of apartments	Yes	yes	No
Individual use	Yes	yes	No
Offering conversation with owner	Yes	yes	No
Saving orders	Yes	No	No
Its free Application	Yes	Yes	Yes

1.8 Functional and Non-Functional

1.8.1 Functional Requirements

Users can search based on hotel, apartment, inns (ex. Radisson)

• When a User search for hotels, apartment, and the search result must contain hotel or

apartment information (Address, Ratings, and Price) and also its availability within

choosing check in and check out date.

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- users able to cancel their booking from their account.

- Users can book online and pay with credit or debit card.

- The system must send booking confirmation email after successful payment.

- User can write reviews about hotels and apartment and also rate them.

- Users able to check their booking status from their individual account.

- Users can send feedback or call the Owner for booking purposes.

- Users can chat or speak with the owner throw the android app.

1.8.2 Non- Functional Requirements

The non-functional requirement specify the performance characteristic of the system, which are in our system:

- **Reliability**:

  Our application is reliable and it protects all data in the mobile device from an attacker or unauthorized user.

- **Security:**

  The security of our application is to prevent unintended access and resist deliberate attacks intended to gain unauthorized access to information.

- **Usability:**

  Our application is easy to use that it has simple pages and links, which enable any user from using it.

- **Maintainability:**

  The application is monitoring to correct any error occurred and making a backup for the database each time.

1.9 Design Model

One of the basic notions of the software development process is SDLC models, which stands for Software Development Life Cycle models. The most used, popular and important SDLC models are given below: [5] [9]

1- Waterfall model
   The linear nature of this method makes it easy to understand and manage. Projects with clear objectives and stable requirements can best use the waterfall method.
2- Iterative model
   It attempt to minimize risk when adding new functionality by developing the software in iterations that are mini-increments of the new functionality
3- Spiral model
   The Spiral methodology extends the Waterfall model by adding rapid prototyping in an effort to combine advantages of top-down and bottom-up concepts
4- Agile model
   Focused on improving time, lowering the failure rate of new releases, shortening the lead-time between fixed reliability.

1.10 Comparative between methodologies

Table 1-2 Comparative between methodologies

	Waterfall	Iterative	Spiral	Agile
Time Consuming	Little	Many	Many	Many
widely understood	Yes	No	Yes	No
complexity	No	Yes	Yes	Yes
Project size	Small, medium	medium	medium, Large	medium

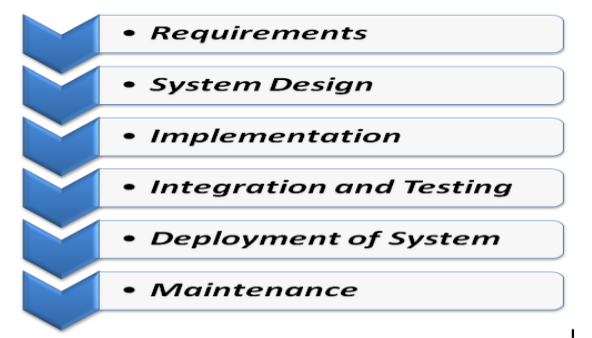**The methodology used is Waterfall model**

Figure 1-3 Waterfall model

We will use this model because:

- In the waterfall model, all phases are completed separately not overlapped because these phases are executed one by one.

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- Waterfall model is successful mainly for the small-scale projects, where all the requirements are very clear to the team.
- This is very simple and easy to control because of the inflexibility of this model.

❖ **Summary**

In this chapter, we illustrated the problem definition, the goals, objectives, and collect the data, also we view the relation works and determine the advantages and disadvantages of them.

CHAPTER 2: SYSTEM ANALYSIS AND SPECIFICATION

2.1 Introduction

To analyze the system we draw many diagrams to explain the system, description of data flow diagram, the context diagram, overview diagram (level 0), detailed DFDs, entity relationship diagram, and class diagram. It is the most crucial phase in the development of a system. In systems design, the design functions and operations are described in detail.

2.2 Description of Data Flow Diagram (DFD)

2.2.1 Overview Diagram

Interaction Overview Diagram is one of the fourteen types of diagrams of the Unified Modeling Language (UML), which can picture a control flow with nodes that can contain interaction diagrams. The overview diagram for our system is clear in the following shape: [6]
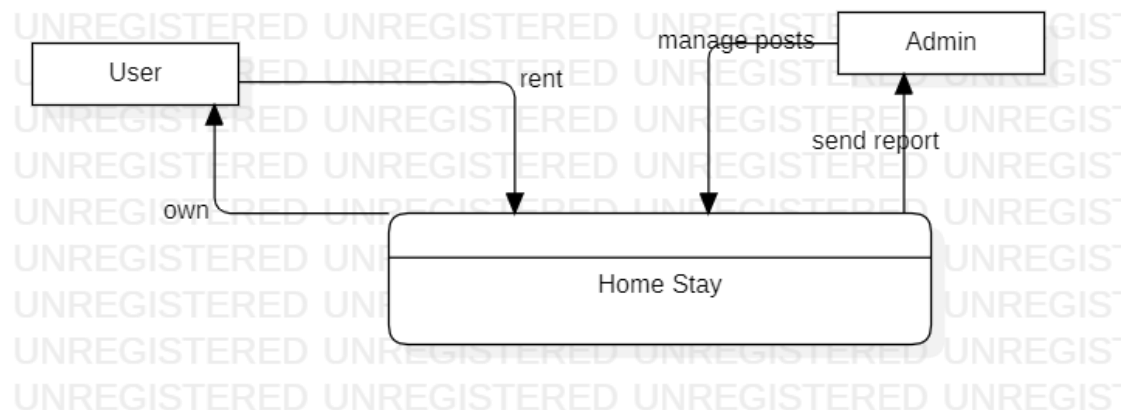
Figure 2-1 DFD diagram

2.2.2 Use case diagram

Definition

Use case diagram is very important diagram in our system, which explains all users and their special processes, as it is clear in the following diagram:[7]
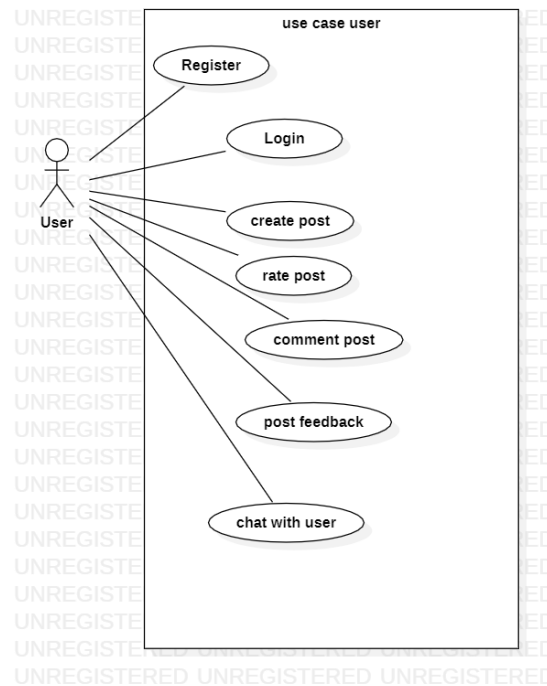
2.2.3 Use Case Diagram

Figure 2-2 Use case diagram

2.3 ERD diagram

Definition

ERD diagram show us all entities with their attributes in our system in addition to the relations between them as follow: [10]

2.4 Description of Entities

- Admin

  Represents the manager of application.

- User

  Represents the table where we will create the apartment.

2.4.1 Description of Relations

- Select

  Relation between renter and owner (one to many)

- Answer

  Relation between renter and owner (one to many)

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- Ask

  Relation between renter and owner (one to many)

- post

  Relation between renter and owner (one to many)

- Manage

  Relation between user and Admin (one to many)

- Reserve

  Relation between renter and owner (one to many)

- Accept

  Relation between renter and owner (one to many)

2.4.2 Drawing ERD.
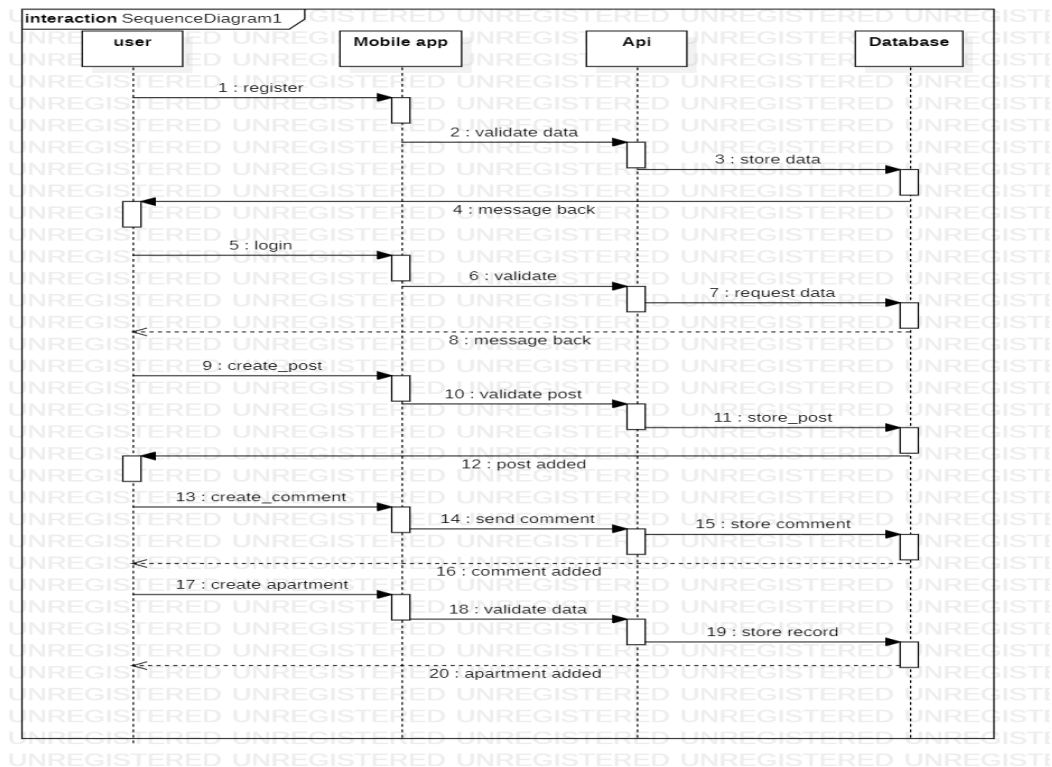
Figure 2-3 ERD diagram

2.5 Class Diagram

Definition

Class diagram is similar to ERD in general but it is clearer because it specify the methods and the keys in the entities. A class diagram is an illustration of the relationships and source code dependencies among classes in the Unified Modeling

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Language (UML). A class defines the methods and variables in an object, which is a specific entity in a program or the unit of code representing that entity. Our class diagram in this system is: [8]
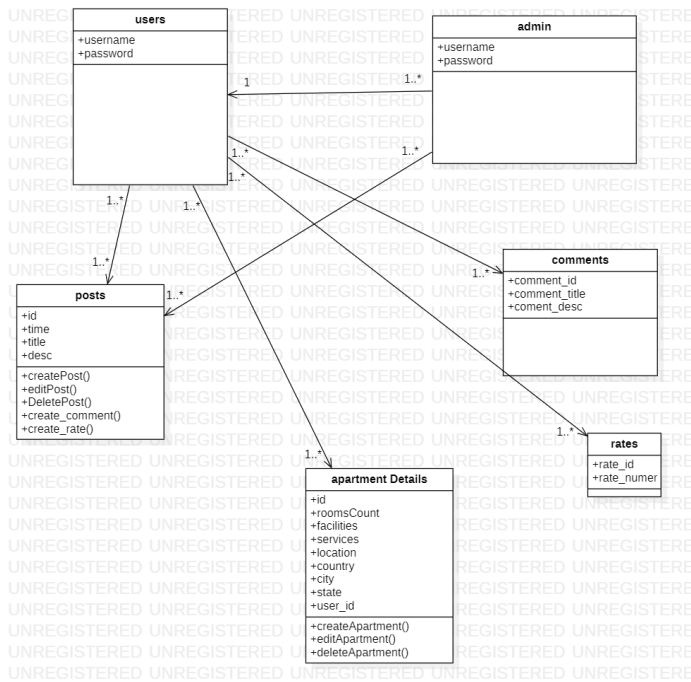
2.5.1 Drawing Class Diagram

Figure 2-4 Class diagram

2.6 Sequence Diagram

Definition

Sequence diagrams are sometimes called event diagrams or event scenarios. A sequence diagram shows, as parallel vertical lines.[13]
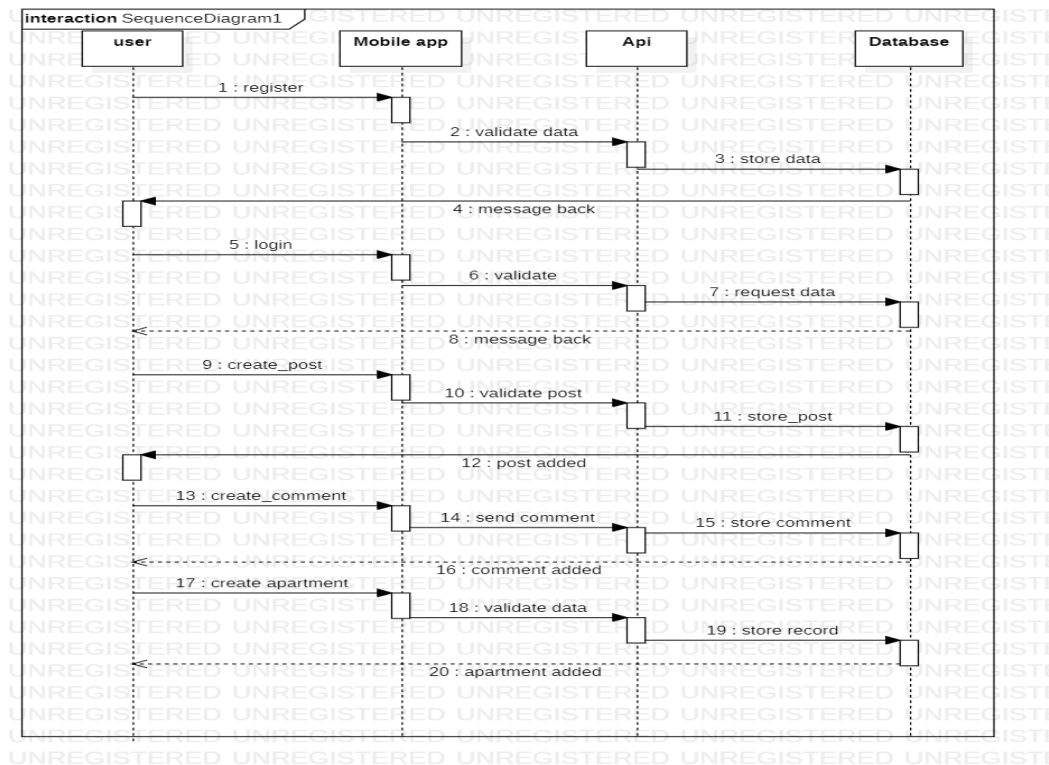
2.6.1 Sample of Sequence Diagram

Figure 2-5 Sequence diagram
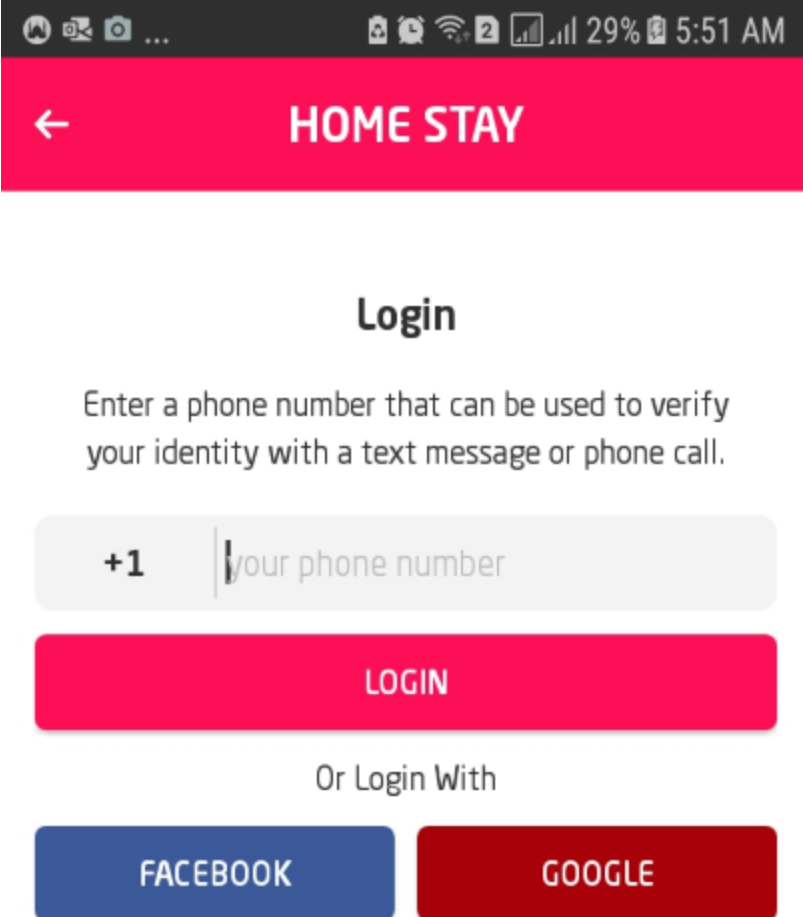
❖ **Summary**

In this chapter, we illustrated many diagrams to explain the system, we draw the use case, class and sequences.

CHAPTER 3: SYSTEM DESIGN

3.1 Expected Interfaces

3.1.1 Login interface

Figure 3-1 Login

3.1.2 Add interface

Figure 3-2 Add

3.1.3 Display apartments
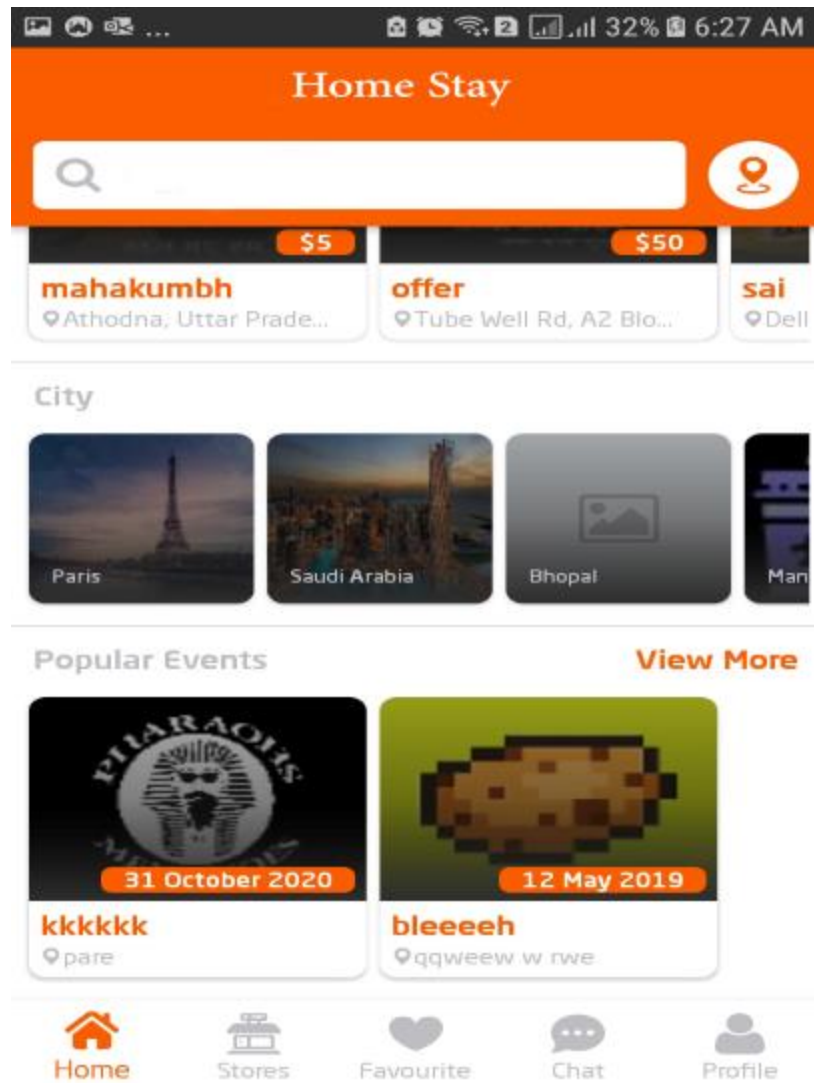
Figure 3-3 display apartments

Home Stay

About

Home Stay

Filter   Sort

Home   **Property**   Favourite   Chat   Profile

Home Stay

not Found

Home   Property   **Favourite**   Chat   Profile
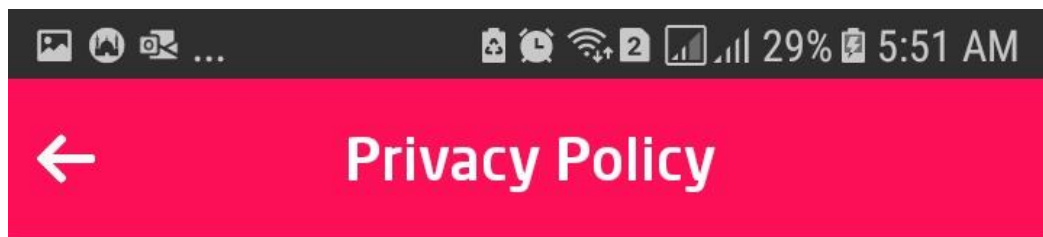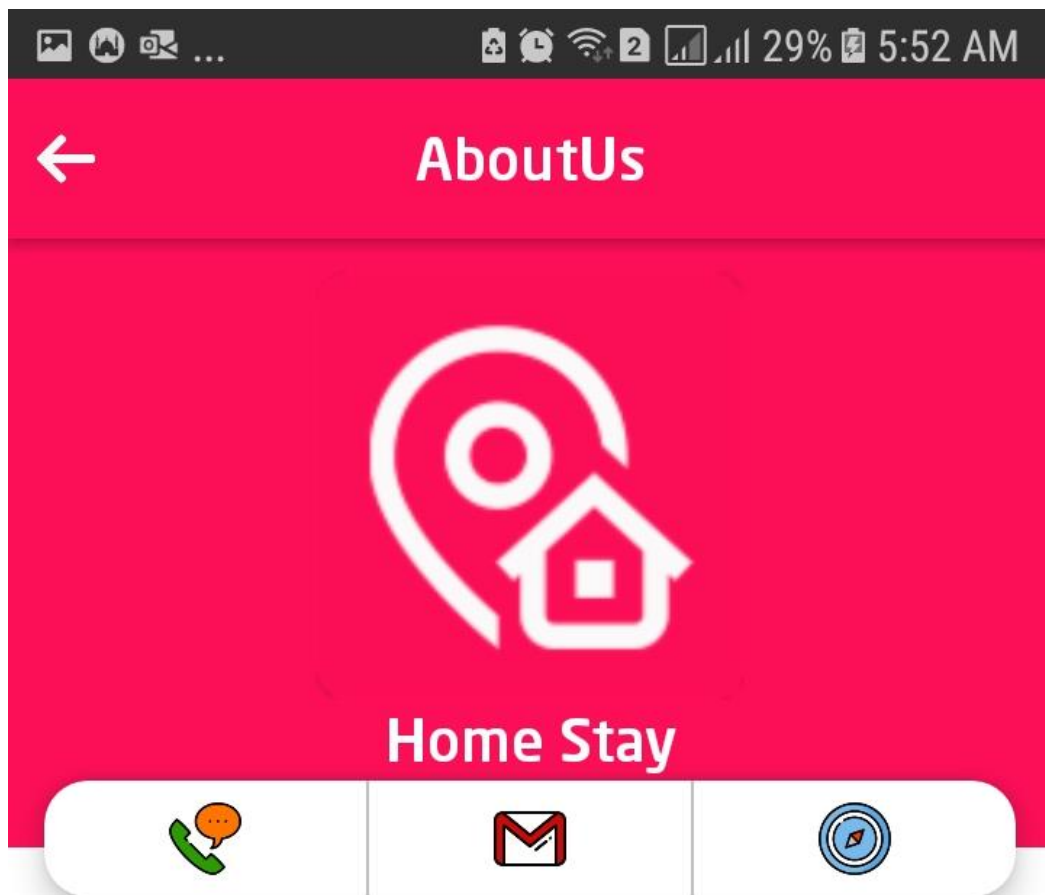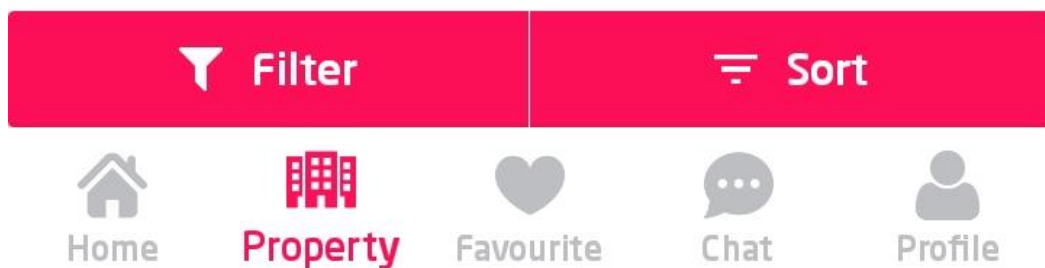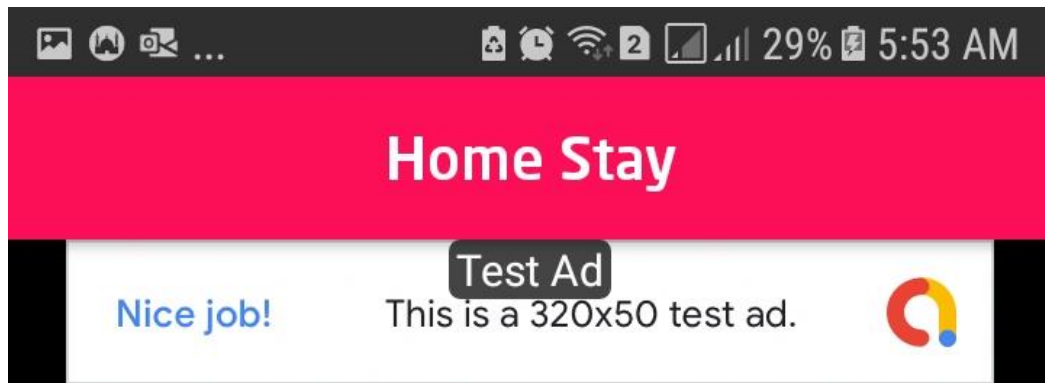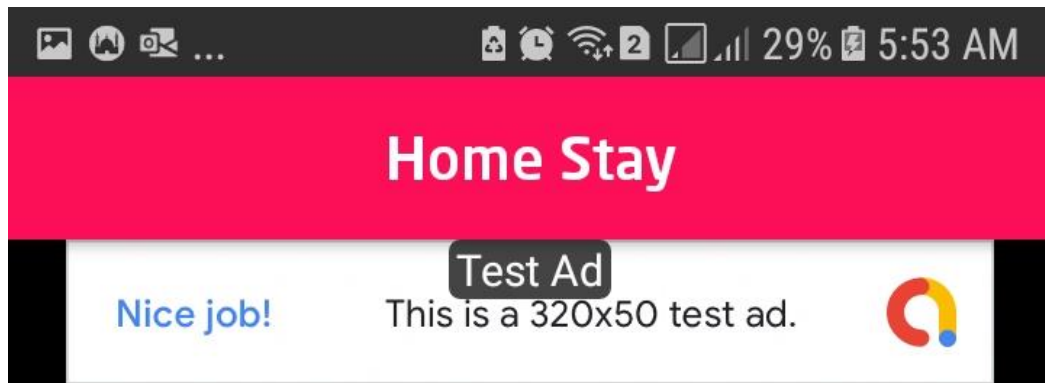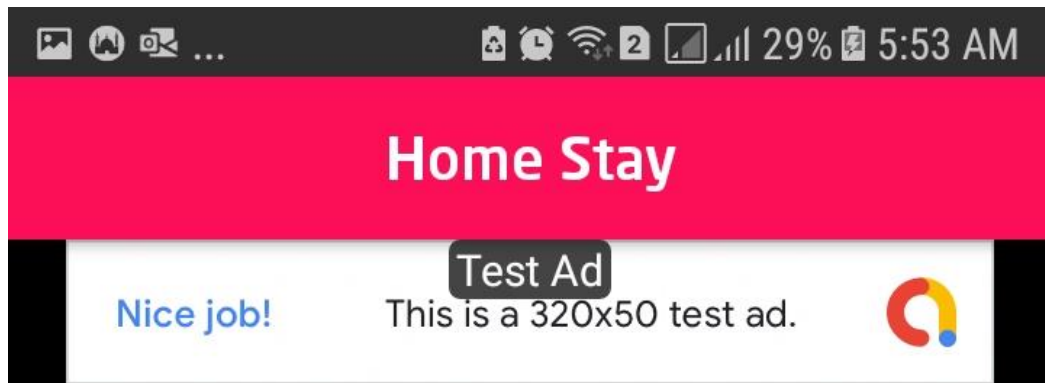
Home Stay

No other Message Found yet.

Home   Property   Favourite   **Chat**   Profile

Home Stay

Home Stay

LOGIN

🔒 Privacy policy

🔒 About Us

🔗 Share App

⭐ Rate App

🏠 Home　　🏢 Property　　❤ Favourite　　💬 Chat　　👤 **Profile**

Filter ✕

🏢 Type

SALE	RENT

💲 Price

🔴━━━━━━━━━━━━━━━🔴

$0 $10000000

▼ Bed

ALL	1	2	3	4	5

▼ Bath

ALL	1	2	3	4	5

🏢 Category

📍 City

←

Q Search...

Kyrgyzstan

Cambodia

Kiribati

Comoros

Saint Kitts and Nevis

North Korea

South Korea

Kuwait

Cayman Islands

Kazakhstan
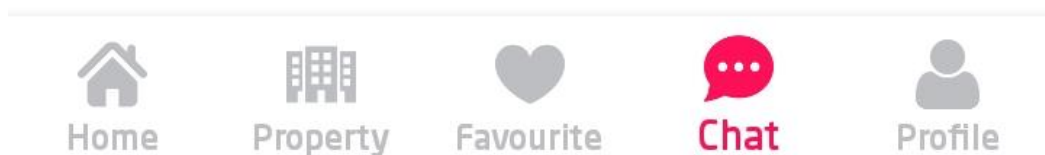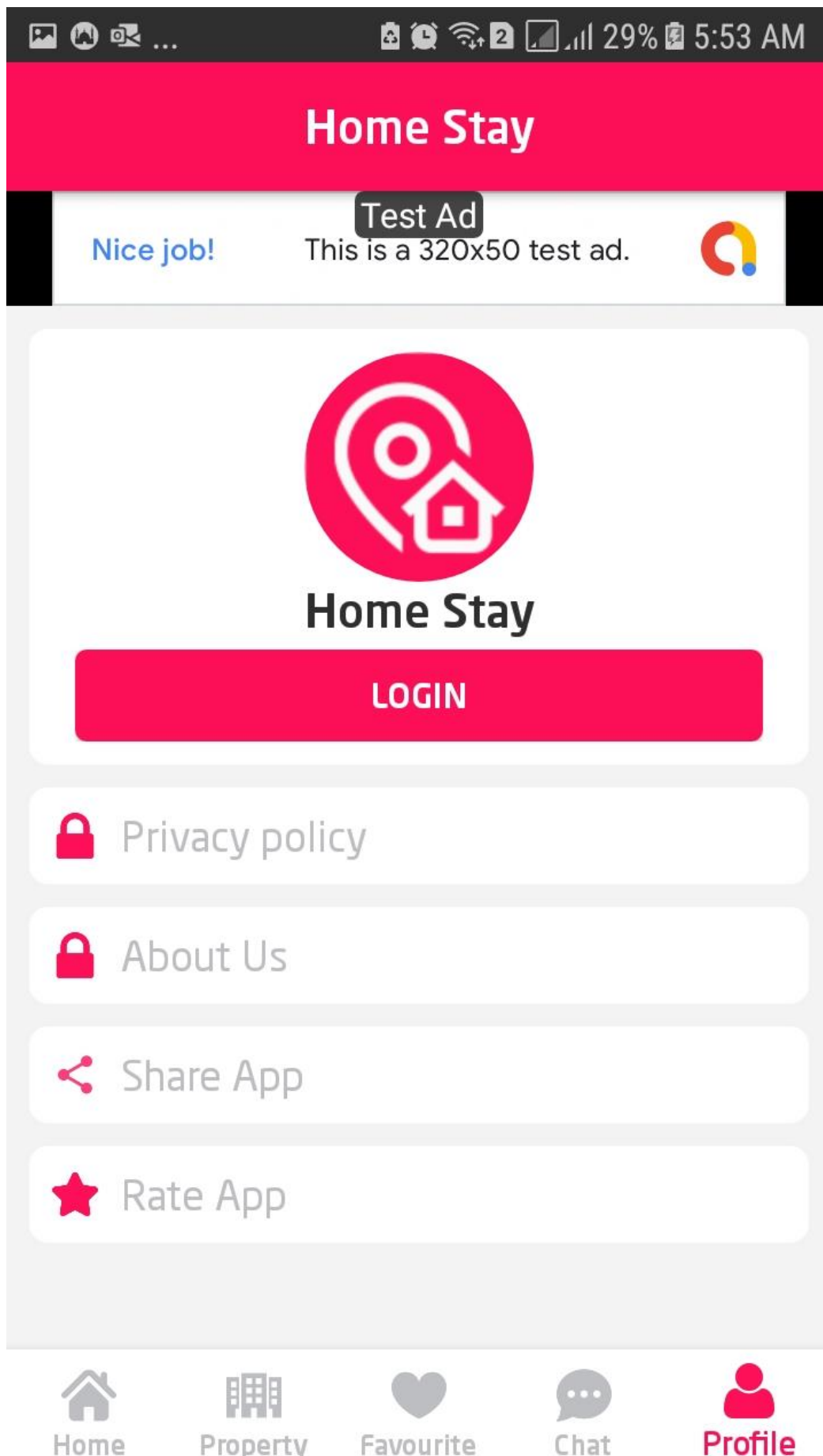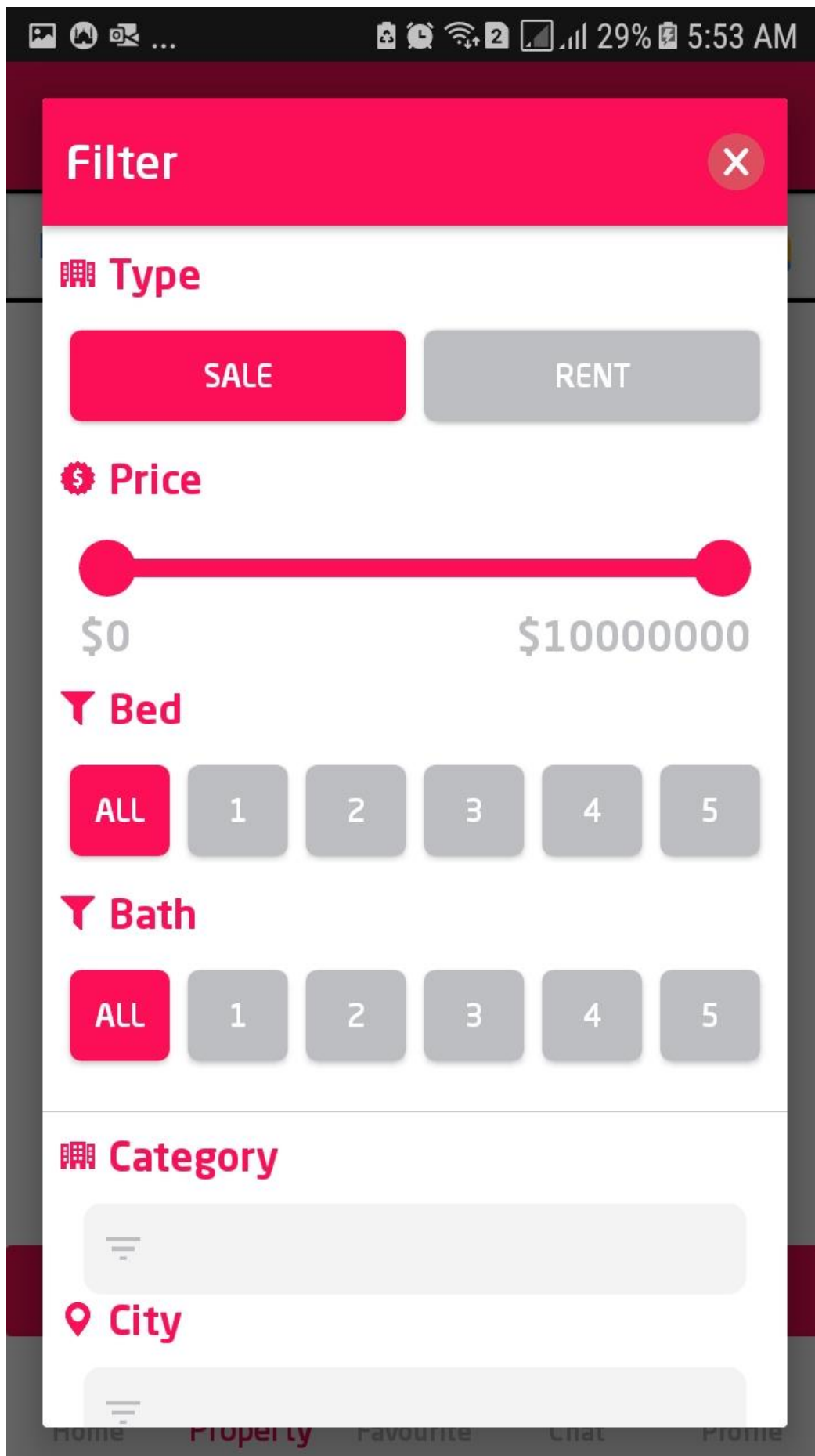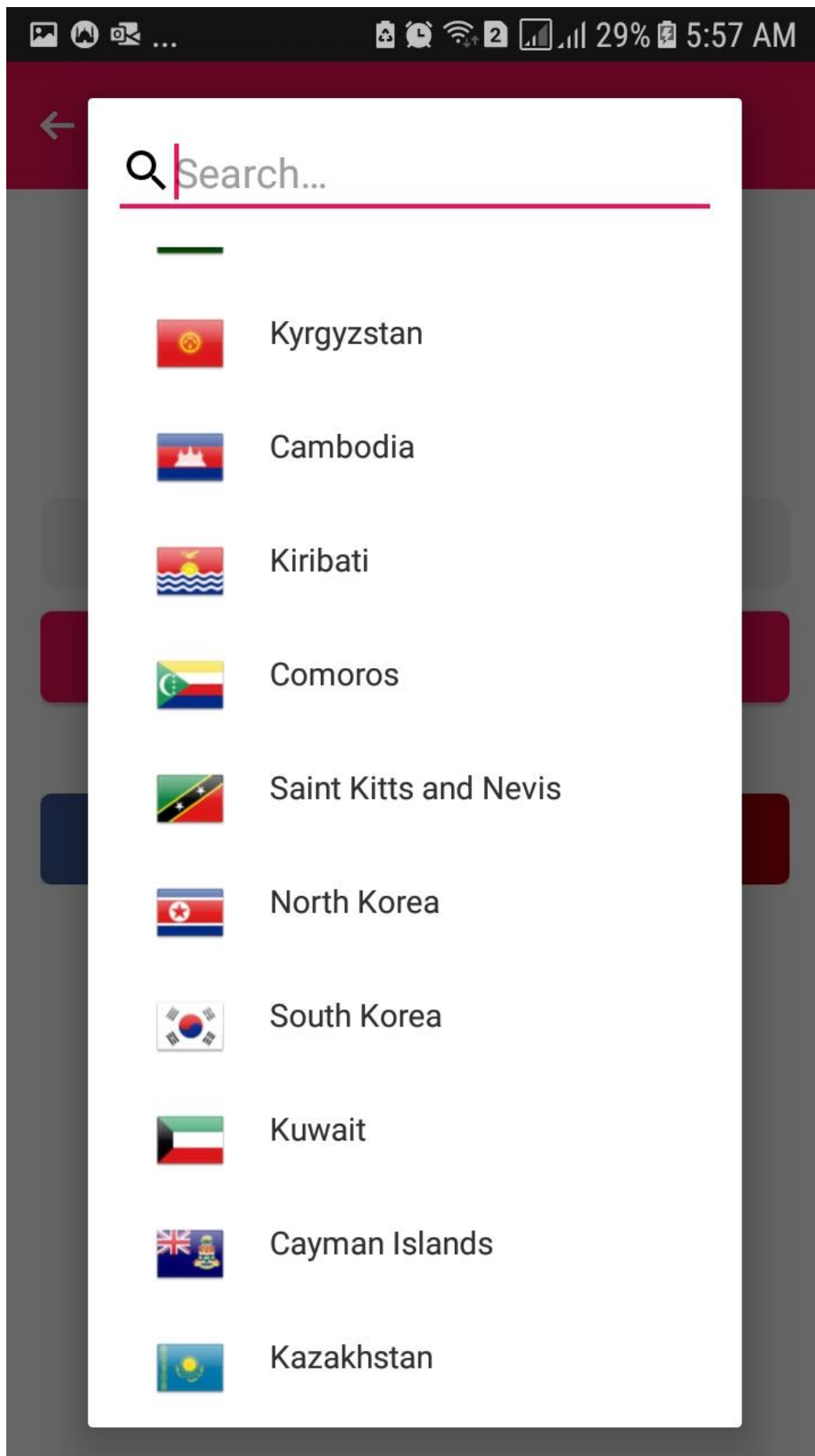
← Add Home

➕

🏪 Store Name

📞 Phone

📍 Address

📍 Paris

☰ seluler

🕐 Open   🕐 Closed

🏪 Tags

Description

No result

← **Edit Profile**

شغلعقلك 👤

SUBMIT

← **Nearby Maps**

Home Stay

🔍 _____ 📍

$5 $50

mahakumbh   **offer**   **sai**
📍 Athodna, Uttar Prade...   📍 Tube Well Rd, A2 Blo...   📍 Dell

City

Paris   Saudi Arabia   Bhopal   Man

Popular Events   **View More**

31 October 2020   12 May 2019

kkkkkk   **bleeeeh**
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🏠 Home   🏪 Stores   ❤ Favourite   💬 Chat   👤 Profile
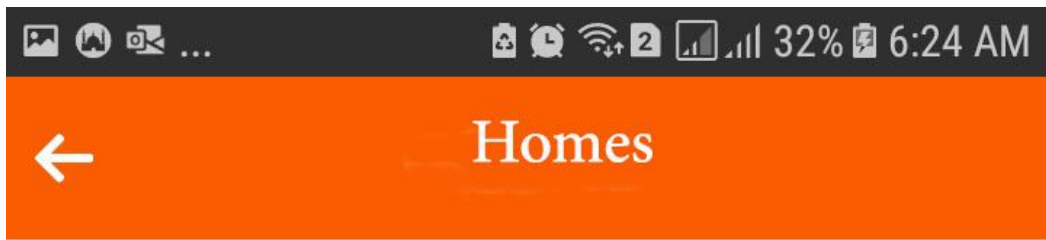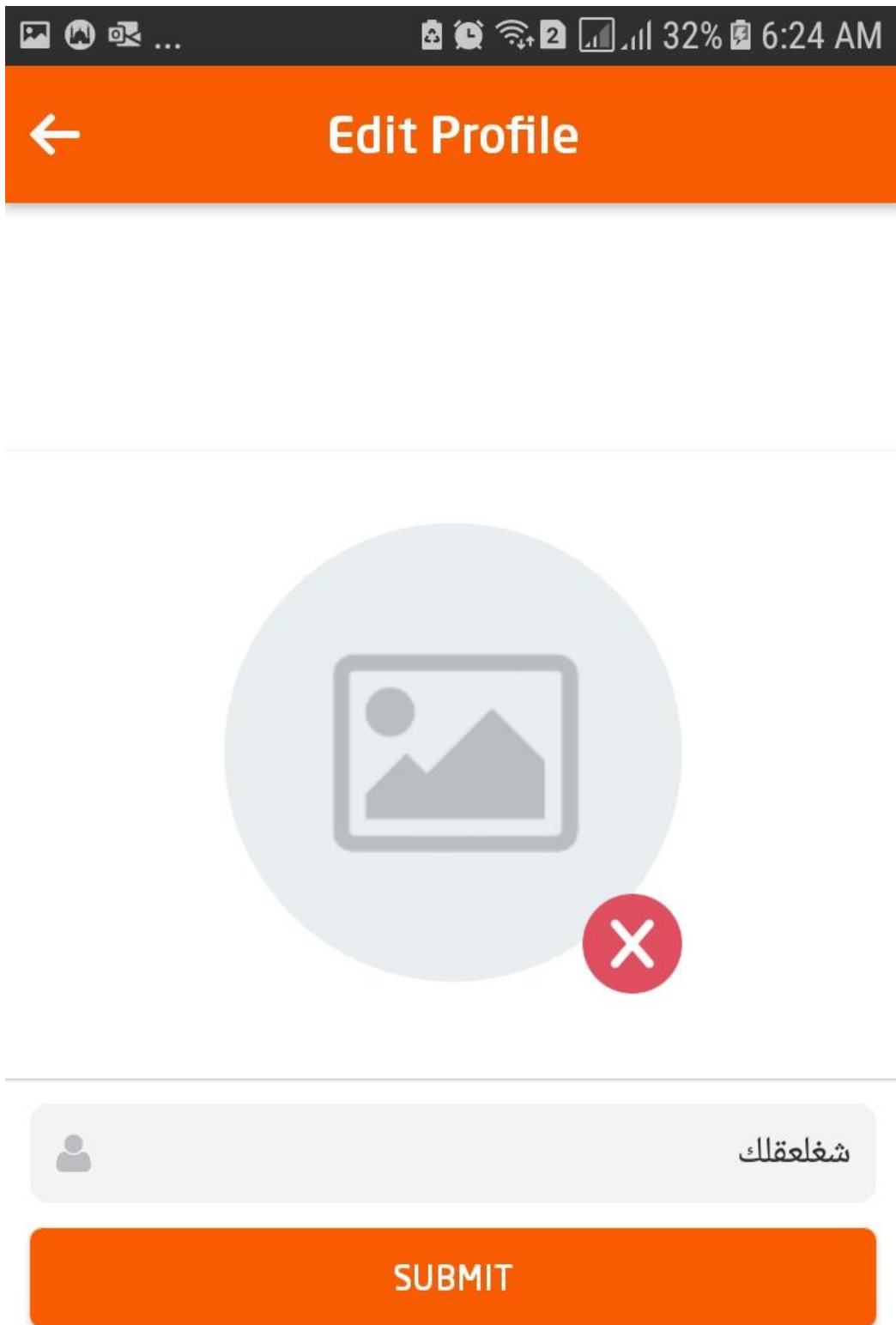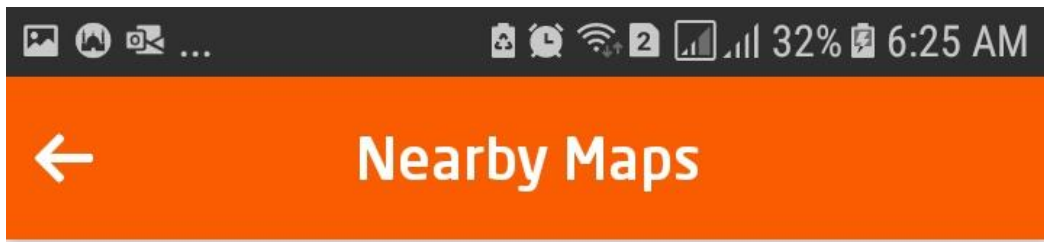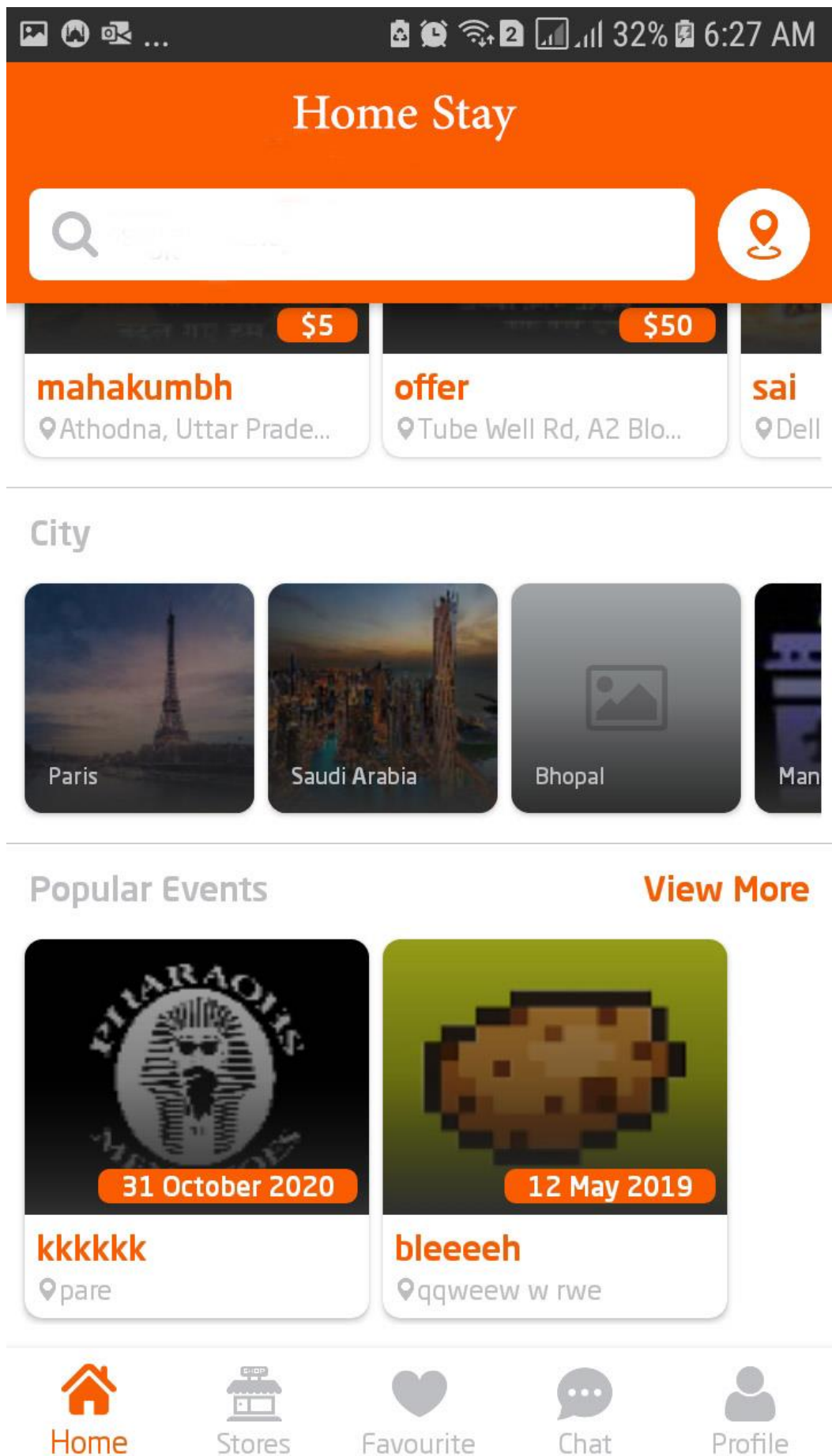
3.2 Relation Database Schema

3.2.1 Tables

- ❖ Admin Table
- ❖ category Table
- ❖ city Table
- ❖ gallery Table
- ❖ property Table
- ❖ rating Table
- ❖ settings Table
- ❖ users Table

3.2.2 Attributes

o Admin Table

Table 3-1 admin table

Attribute	Type	constraint
ID	int	Primary key
UserName	Varchar	
password	Varchar	
Email		
Image		

o category Table

Table 3-2 category table

Attribute	Type	constraint
cid	int	Primary key
cname	Varchar	
cimage	Varchar	

o   city Table

Table 3-3 city table

Attribute	Type	constraint
cityid	int	Primary key
cityimage	Varchar	
citname	Varchar	Primary key

o   gallery Table

Table 3-4 gallery table

Attribute	Type	constraint
id	int	Primary key
propid	Varchar	Foreign key
imagename	Varchar	

o   property Table

Table 3-5 property table

Attribute	Type	constraint
propid	int	Primary key
cid	Varchar	Foreign key
cityid	Date	Foreign key
userid	Time	Foreign key
purpose	int	
name	Varchar	
description	Varchar	
amenities	Varchar	
phone	Varchar	
address	Varchar	
latitude	Varchar	

longitude	Varchar	
image	Varchar	
status	Varchar	
featured	Varchar	
rate	Varchar	

o

o settings Table

Table 3-6 settings table

Attribute	Type	constraint
id	int	Primary key
onesignal_app_id	Varchar	
onesignal_rest_key	Varchar	
app_author	Varchar	
app_email	Varchar	
app_contact	Varchar	
app_website	Varchar	
app_descriptio	Varchar	
app_privacy_policy	Varchar	
app_version	Varchar	

o

o User Table

- Table 3-9 User Table

Column	Type	Attributes	Null	Default	Extra	Links to
user_id	int(11)		No		auto_increment	
user_email	varchar(300)		No			
user_fullname	varchar(300)		No			
user_password	longtext		No			
user_type_id	int(11)		No			
user_bdate	date		No			
user_phone	varchar(30)		No			

33

is_email_varifie d	int(11)		No			
varified_token	varchar(300)		No			
user_gcm_code	longtext		No			
user_ios_token	longtext		No			
user_status	int(11)		No			
user_image	varchar(300)		No			
user_city	int(11)		No			
user_country	int(11)		No			
user_state	int(11)		No			
created_at	timestamp		No	CURRENT_TI MESTAMP		

Conclusion

In this reports we discuss the idea of Application for Patients of Alzheimer, we explain the problems of the project and determine the solution, and then we draw diagrams to illustrate the stages of work. Our feature work is implementation our application using suitable tools

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[15]https://play.google.com/store/apps/details?id=com.andromo.dev594673.app620431
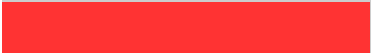
Appendixes

1. هل التطبيق من وجهة نظرك مفيد

			Response Percent	Response Total
1	اوافق		84.69%	83
2	محايد		2.04%	2
3	لا اوافق		13.27%	13

Analysis	Mean:	1.29	Std. Deviation:	0.69	Satisfaction Rate:	14.29	answered	98
	Variance:	0.47	Std. Error:	0.07			skipped	2

2. هل يتوافق التطبيق مع احتياجات المسافرين عبر العالم

			Response Percent	Response Total
1	اوافق		34.48%	10
2	محايد		13.79%	4
3	لا اوافق		51.72%	15

Analysis	Mean:	2.17	Std. Deviation:	0.91	Satisfaction Rate:	58.62	answered	29
	Variance:	0.83	Std. Error:	0.17			skipped	71

3. هل سوف تستخدم التطبيق وجميع المميزات التى بداخله

		Response Percent	Response Total

36

3. هل سوف تستخدم التطبيق وجميع المميزات التى بداخله				
			Response Percent	**Response Total**
1	اوافق		86.67%	65
2	محايد		4.00%	3
3	لا اوافق		9.33%	7

Analysis	Mean:	1.23	Std. Deviation:	0.6	Satisfaction Rate:	11.33	answered	75
	Variance:	0.36	Std. Error:	0.07			skipped	25

4. هل يتوافق التطبيق مع الفئة المستهدفة				
			Response Percent	**Response Total**
1	اوافق		83.33%	5
2	محايد		16.67%	1
3	لا اوافق		0.00%	0

Analysis	Mean:	1.17	Std. Deviation:	0.37	Satisfaction Rate:	8.33	answered	6
	Variance:	0.14	Std. Error:	0.15			skipped	94

5. هل توجد افكار سابقة مشابهة لهذا التطبيق		
	Response Percent	**Response Total**

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هل توجد افكار سابقة مشابهة لهذا التطبيق 5.						

			Response Percent	Response Total
1	اوافق		14.29%	1
2	محايد		57.14%	4
3	لا اوافق		28.57%	2

Analysis	Mean:	2.14	Std. Deviation:	0.64	Satisfaction Rate:	57.14	answered	7
	Variance:	0.41	Std. Error:	0.24			skipped	93

هل كنت تعاني عن البحث عن مكان لقصاء اجازتك بسعر معقول وغير خاضع للطريق الاعتيادية؟ 6.						

			Response Percent	Response Total
1	اوافق		100.00%	7
2	محايد		0.00%	0
3	لا اوافق		0.00%	0

Analysis	Mean:	1	Std. Deviation:	0	Satisfaction Rate:	0	answered	7
	Variance:	0	Std. Error:	0			skipped	93

هل سوف توصى اصدقانك بهذا التطبيق 7.		

			Response Percent	Response Total

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			Response Percent	Response Total

7. هل سوف توصى اصدقائك بهذا التطبيق

			Response Percent	Response Total
1	اوافق		100.00%	7
2	محايد		0.00%	0
3	لا اوافق		0.00%	0
Analysis	Mean: 1	Std. Deviation: 0	Satisfaction Rate: 0	answered	7
	Variance: 0	Std. Error: 0		skipped	93

8. هل يدعم المسافر اجتماعيا من خلال التعرف على أصدقاء جدد من التطبيق؟

			Response Percent	Response Total
1	اوافق		100.00%	7
2	محايد		0.00%	0
3	لا اوافق		0.00%	0
Analysis	Mean: 1	Std. Deviation: 0	Satisfaction Rate: 0	answered	7
	Variance: 0	Std. Error: 0		skipped	93