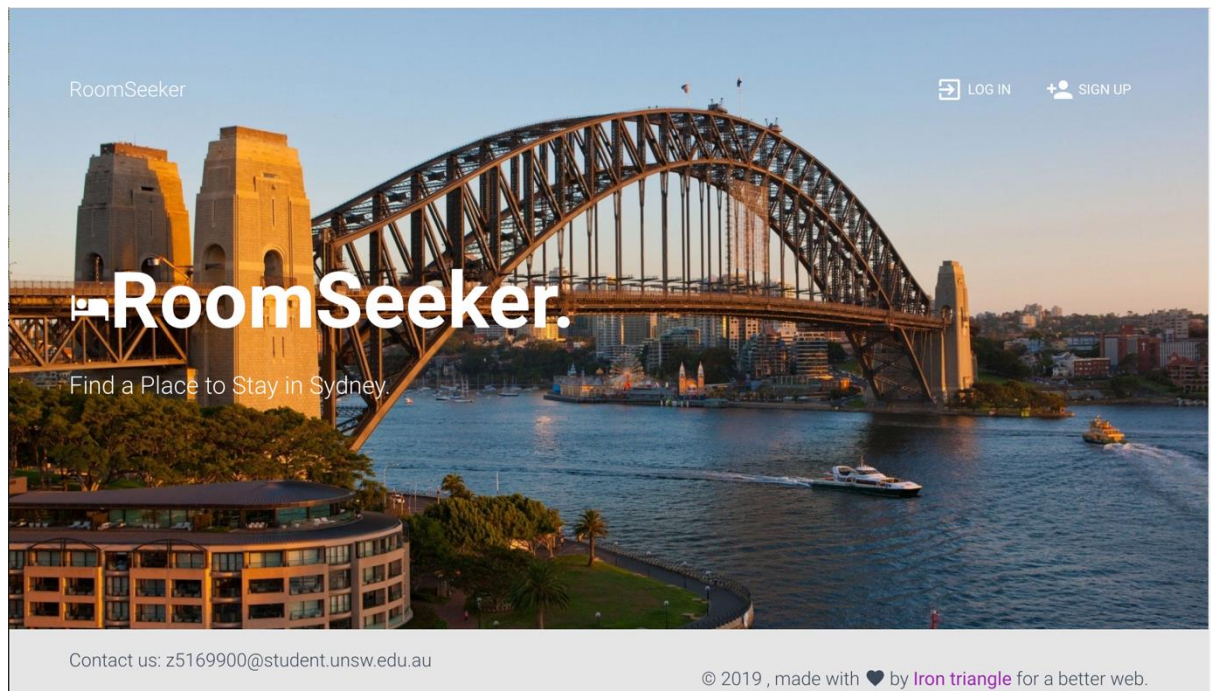


# Functionality Details

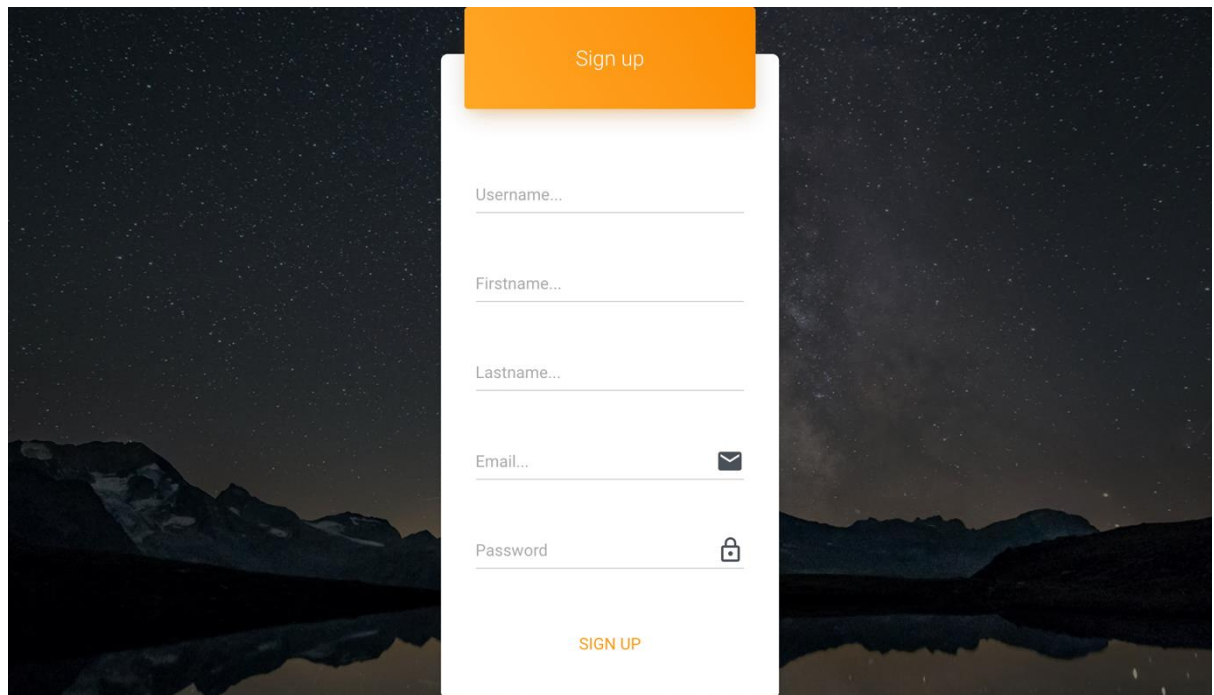
## 1) Welcome Home page

For all users (guest or host) to enter the website, they first enter the welcome interface. If it is an old user, you can click login. If it is a new user, you need to click the registration in the upper right corner to become an official user. Visit this page.



## 2) User Register Module

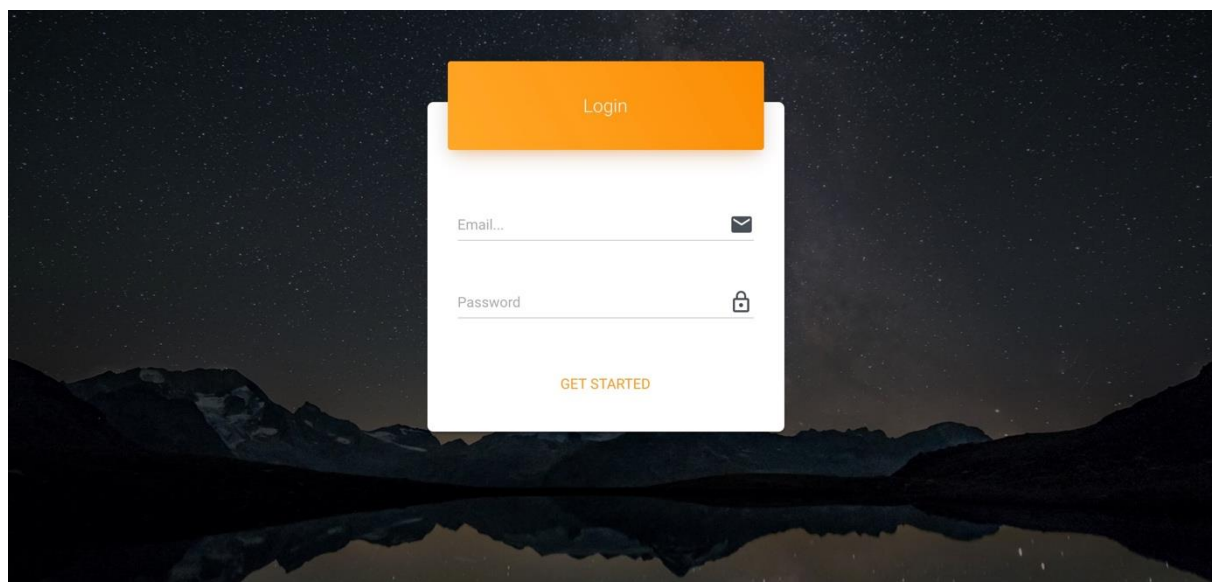
For the first time a user visits the web page, he/she can easily access the first page of the website. If they want to do more operations such as booking or become a host, then the user will need to register the account. Therefore, a “sign up” button will be set at the top of the home page to facilitate user registration. On the registration page, the user needs to enter a name, email address, and password. The email address here is unique and we use it as a login account.



A sign up form is centered on a dark background featuring a night sky with stars and a mountain range reflected in water. The form is white with an orange header bar containing the text "Sign up". Below the header, there are five input fields: "Username...", "Firstname...", "Lastname...", "Email..." (with an envelope icon), and "Password" (with a lock icon). At the bottom of the form is an orange button labeled "SIGN UP".

### 3) User Login Module

When the user completes the first registration, there will be a “login” key on the welcome page. For each time after opening the webpage, the users only need to enter the account password to log in to their previously registered account. After logging in, we can do more operations.



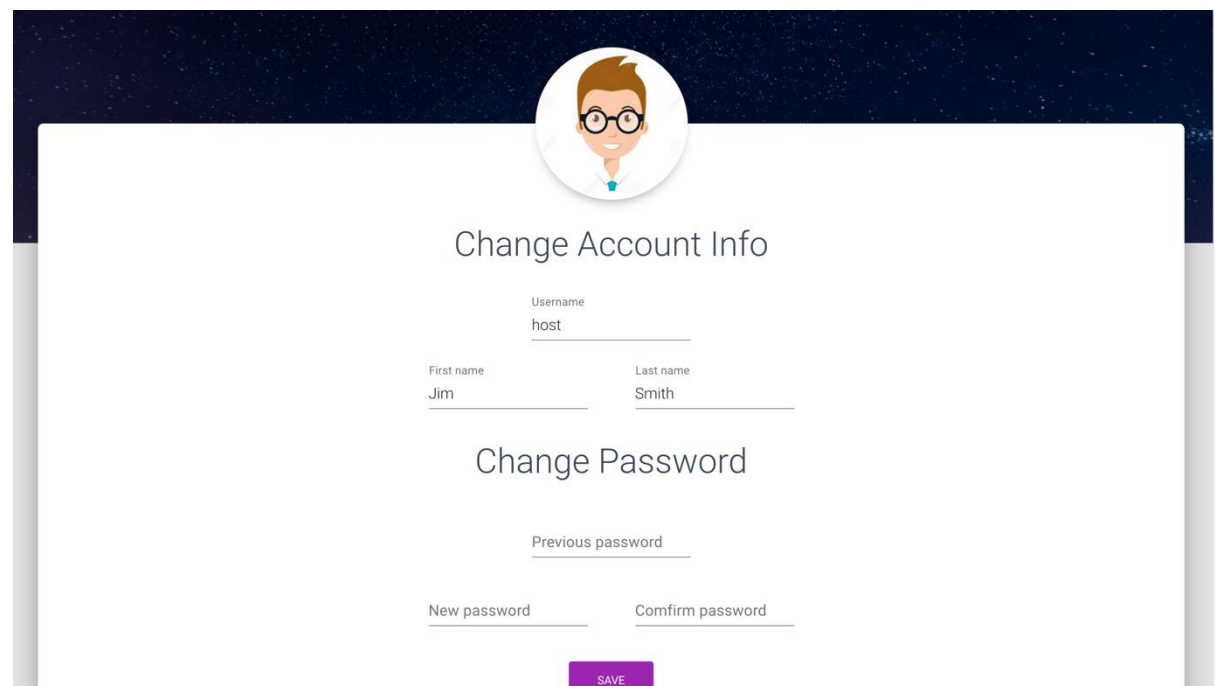
A login form is centered on the same dark background as the sign up form. The form is white with an orange header bar containing the text "Login". Below the header, there are two input fields: "Email..." (with an envelope icon) and "Password" (with a lock icon). At the bottom of the form is an orange button labeled "GET STARTED".

#### 4) User Profile Module

After logging in to the account, we can find an account information button. After clicking it, the users are able to see the corresponding personal information, and they can modify it at any time according to the needs.

--Feature:

1. Account information includes contact information, address and so on.
2. Users can update their login password here as well.



The screenshot shows a user profile management interface. At the top, there is a circular profile picture of a man with glasses. Below it, the title 'Change Account Info' is centered. The form contains three input fields: 'Username' with the value 'host', 'First name' with the value 'Jim', and 'Last name' with the value 'Smith'. Below these fields is the title 'Change Password'. This section has three input fields: 'Previous password', 'New password', and 'Comfirm password' (note the typo). At the bottom of the form is a purple 'SAVE' button.

#### 5) Room Searching Module

As a guest, searching(filtering) is an important method for users to choose their wished accommodation. The searching module is to limit some characteristics of the house to meet the needs of users. One or more features can be selected.

Features include area, available time and the number of bedrooms, number of guests. After matching the search results, the users also need to choose the price and infrastructure to determine the house selection. The guest can use the keyword function to find a proper room.

## Search a Property

City

check-in date  
11/15/2019

check-out date  
11/15/2019

Key word

**Guest :**

☐ 1 guest

☐ 2 guests

☐ 3 guests

☐ 3 more guests

**Price :**

☐ \$0 - \$100

☐ \$100 - \$200

☐ \$200 - \$300

☐ more than \$300

**Infrastructure:**

☐ Parking

☐ Air conditioner

☐ Wi-Fi

☐ Kitchen

**Sort By :**

☐ rating

☐ price

☐ popularity

localhost:3000/landing

## 6) Room Booking Module

When the user searches for the house information and wants to try the reservation, he/she can choose to book the room. After entering the reservation interface, we can select the number of users and the length of stay, the information will be sent to the host, and the reservation will be completed after the consent.

## Property Detail

<b>Title</b>	Courtyard Resort	<b>City</b>	Sydney	<b>Capacity</b>	6
<b>Price</b>	\$	<b>Available to</b>			2021-05-01
<b>Amenities</b>	E, Zetland				

**Description**      Location

Chat with friends on an expansive period architecture, and polished High Victorian ceilings, modern furnishings.

## 7) Become a Host Module

Each user can be a host, they just need to click list a new property or become a host. Then users can post their properties on the website. They need to provide information like location, facilities and they need to provide their available time. At the same time, it is also necessary to upload a detailed photo of the house.

House Description :

Description

---

period of validity :

available from 11/01/2019 To 08/18/2022

Set your house price :

Amount \$

---

How many people can fit in your house :

Guest Number

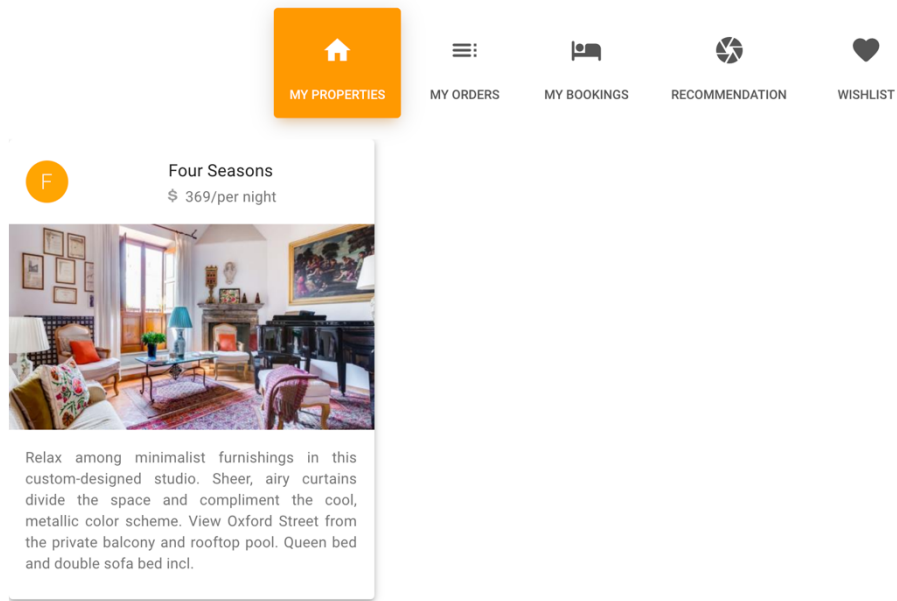
Infrastructure : ☐ Parking ☐ Air conditioner ☐ Wi-Fi ☐ Kitchen

You can upload up to 5 photos :

Five dashed boxes for photo uploads.

## 8) My property Module

As a host, he can choose to view his own properties on the main page.




## 9) Property Detail Module

When the user is interested in a certain house, you can directly click on the house picture to enter the Property Detail Module.

Here, we can see the house description, the specific location and the comment of the house, and the comments and ratings of the users who stayed in the comment.



## Property Detail

<b>Title</b>	Courtyard Resort	<b>City</b>	Sydney	<b>Capacity</b>	6
<b>Price</b>	\$329	<b>Available from</b>	2018-09-12	<b>Available to</b>	2021-05-01
<b>Amenities</b>		<b>Address</b>	1 Amelia AVE,Zetland		



Description

Location


Comment






Chat with friends on an expansive timbered deck as the city skyline stretches out beyond the trees. High Victorian ceilings, period architecture, and polished floors are the light-filled backdrop for this renovated home's fresh, modern furnishings.


 RESERVE

## 10) Host Order Module

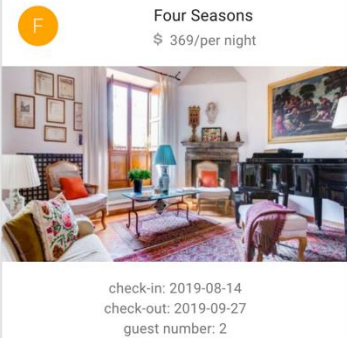
As a host, he can manage all of his properties, including the application status of the house, he can choose to agree or refuse, and he can also choose to delete his house.



 MY PROPERTIES
  MY ORDERS
  MY BOOKINGS
  RECOMMENDATION
  WISHLIST




check-in: 2018-12-01  
check-out: 2019-01-02  
guest number: 2



check-in: 2019-08-14  
check-out: 2019-09-27  
guest number: 2

status: finished



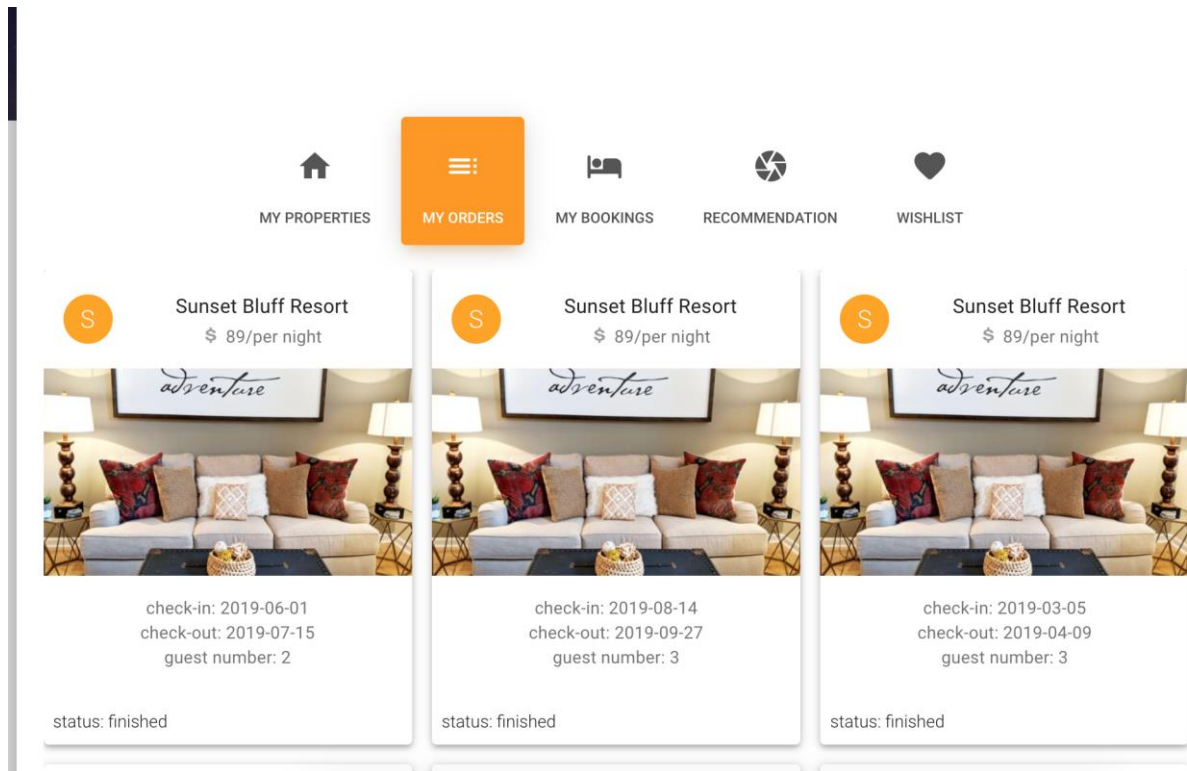
check-in: 2019-09-27  
check-out: 2019-10-08  
guest number: 3

status: finished

1.0.1:3000/property/101 | d

## 11) Guest Order Module

As a guest, he can see the room he had booked or is booking. Here, you can also comment and rate the rooms you have stayed in.



## 12) Making Comment Module

When the user completes the reservation and ends the stay, he/she can choose to comment and rate his or her reservation, which can effectively help future users' choices. It can also promote the host's improvement in the accommodation environment. Of course, comments are limited to users who have completed their stay.



Review this Property

your marks(out of 5)

comments

SUBMIT REVIEW

CLOSE

### 13) Notification Module

As a host, if there is a new order, the notification in the upper right corner will give a corresponding reminder, and as a guest, if the reservation is approved, it will also receive a corresponding prompt.

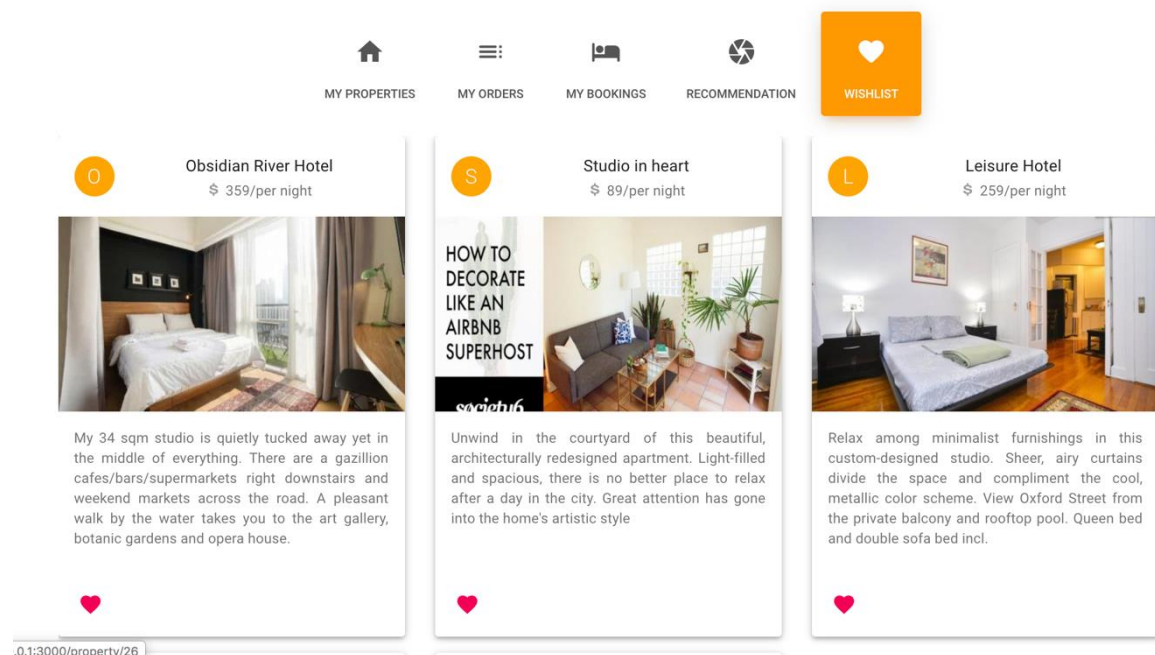
New Notifications

You have a new order. Please go to "I'm a Host" -> "My Order" to confirm.

OK

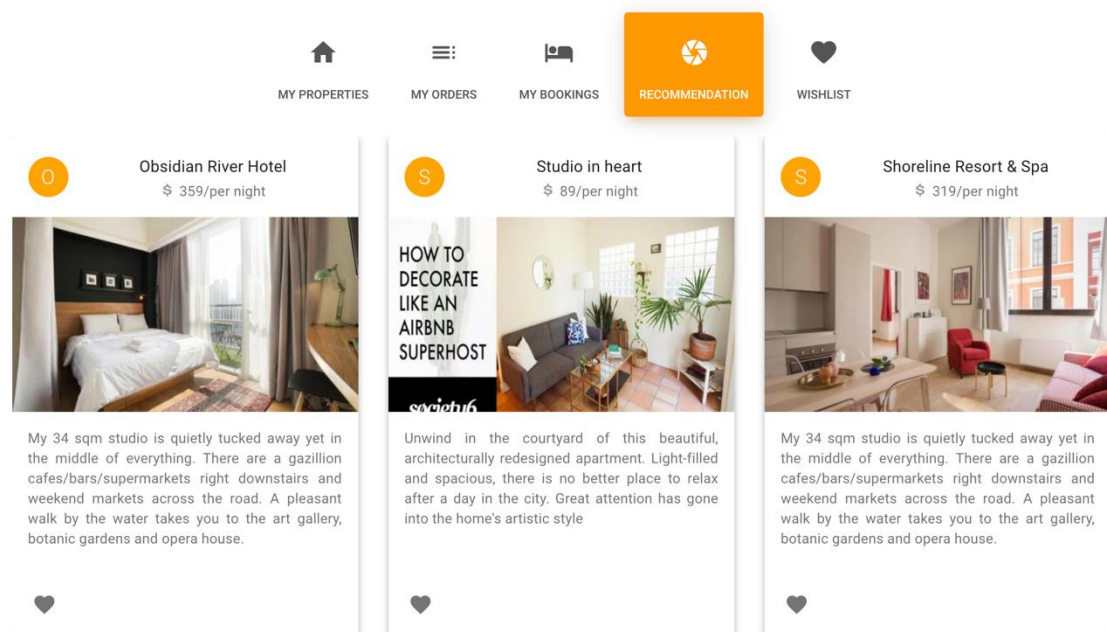
### 14) Wishlist Module

If the users are interested in one or more properties, he/she can click the “heart” button of under the property block. When it turns into red, the property will be put into the users’ wishlist.



## 15) Recommendation Module

To improve customers' satisfaction, our website will base on their order history to provide properties. For new users, we will provide the most ten popular properties to them. Here we apply KNN, K-means and KD-tree machine learning algorithm and AI to suggest some property to the customer based on his/her order history.



## 16) Chatbot Module

We use a chatbot button in case some user needs some help. Users can use the chatbot to find their room availability information, price information, recommendation, etc.

We have applied NLP API to analyze the input by the user and give back a proper response.

