# **Team Charter**

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Project Report On

Apartment Finding

Mobile Application



**Project Coordinator** 

Pargol Poshtareh

**Project Guide** 

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### 1.Introduction

The Apartment Finding mobile application is wishing to have a user interface that will allow their customers to view the properties, descriptions, and cost of different properties available. The user had the ability to register and login to the Android App and book their desired property. The Android App will be responsive, allowing for the customer to view it on any device, from tablets to mobile phones. The landlord will also be able to login through the same Platform but has the ability to add/remove new properties, change cost of property etc., admin to verify properties and guest user to view properties for any future purpose.

## 2.Aim

To produce an Android-based system that allows tenant users to register and book/rent properties online, the landlord users to effectively manage their properties, the admin to verify properties and guest users to check upon properties. The main aim of this App is to be a powerful means of engaging an audience and delivering a better experience.

# 3. Project Description

The idea is to develop an app to ease the process of finding an apartment for people living anywhere in Québec. The app allows the user to efficiently visualize apartments for rent on a map. The user can then click any apartment to display additional information such as price, address, description, contact information and more. The user can also add a filter so that only apartments in each price range are displayed. The user can also add apartments to a list to review them later. On the other hand, a renter must create an account if they wish to put an apartment for rent. When logged in, the user has access to an extra feature which allows them to add an apartment on the map with the information mentioned above. Logged in users can also update their profiles for contact information.

# **4.FUNCTIONAL REQUIREMENTS**

Requirement ID	Requirement Statement	High/Medium/Low	Comments
FR001	Splash Screen	medium	All the end users of the application should be able to view the Splash Screen
FR002	Tenant/Landlord Signup	High	Tenant/Landlord Signup support login Email
FR003	Login	High	It is mandatory to register for Tenant/Landlord
FR004	Reset Password/Forget Password	High	Tenants/Landlord/Guest/Admi n Can reset the password
FR005	Profile	Medium	Tenants/Landlord can be able to update/edit modify user details like name email, phone, address details in the profile
FR006	View Apartments	Medium	Tenants/Landlords/Admin can view the Apartments listed
FR007	Add Apartments	High	Landlord can add new apartment profiles
FR008	Edit Apartment	Low	Landlord can update/modify the details of the apartment
FR009	Delete Apartment	Low	Landlord can delete the profile of the apartment
FR010	Inbox	Low	landlords/Tenants can see the requests made by the Landlords/Tenants and can contact them
FR011	Tenant/Admin/Landlord s Dashboard	High	Tenants/Landlords/Admin should have a navigation bar to access different activities according to the features added for the respective Activities
FR012	Apartment Profile	High	Tenants/Landlords can check the profile of the desired apartment

FR013	Search without filter.	Medium	Tenant can search the flats using their desired locations in Canadian cities
FR014	Search with filter	High	Tenants can search the apartments using the price, Apartment type, number of beds and price range filter
FR015	AdminView Apartment	Medium	Admin can view the details of the Apartment posted by the Renters
FR016	Admi Verify Apartment Details	High	Admin will verify the details of the apartment that it is real of fake and can deny/accept the posts added by the landlord
FR017	Admi Delete Apartment	Medium	Admin can delete the post made by the Renters if the details of the apartments are fake/wrong
FR018	Guest User	Low	Guest user can access application without login
FR019	Manage wish list	medium	Tenants can add their desired Apartments to add to the list for future purpose.
FR020	Logout	High	Tenants/Landlords/Admin can be able to logout from the application

# **5.NON\_FUNCTIONAL REQUIREMENTS:**

Requirement Id	Requirement Statement	High/Medium/Low	Comments
NRF 1	Performance	High	when the user logs in how the application executes various tasks and how instantaneously the next page opens.
NRF 2	Capacity	Low	Capacity is delivering enough functionality required by the end users.

NRF 3	Portability	High	This application runs on Android Devices.
NRF 4	Security	High	Only allows the authorized users to get access to the app either admin or user.
NRF 5	Usability	High	This app design is simple to understand and easy to use even for the person who does not have good knowledge of phones.
NRF 6	Efficiency	High	All the activities work smoothly one after another.
NRF 7	Consistency	High	Like-items should always be displayed and act the same way across the entire application (and even between applications).
NRF 8	Scalability	Medium	It is a non-functional property of a system that describes the ability to appropriately handle increasing (and decreasing) workloads.

# **6.SPRINT TIME-TABLE:**

ITERATION SL. NO:	DELIVERABLES	DEADLINE
1	<ul> <li>Functional Requirements</li> <li>Non-Functional Requirements</li> <li>User Screen flow</li> <li>Use Case Diagram</li> <li>Use Case Description</li> <li>Class Diagram</li> </ul>	27-09-2020
2	Sequence Diagram     Database Schema Diagram	24-10-2020
3	<ul> <li>Sequence Diagram</li> <li>Activity diagram</li> <li>Database Schema Diagram</li> <li>Class Diagram</li> </ul>	08-11-2020

## **7.FULLY\_DRESSED\_USE-CASES:**

UC1

Use Case ID

Triggering event

Preconditions

Flow of events

Use Case Name	Splash Screen		
Actor	Tenant/Landlord/Admin/Guest		
Description	This use case describes the splash screen of the application		
Triggering event	Tenant/landlord/guest/admin need t	o open/run the application	
Preconditions	Users must have a good internet cor	nnection.	
Flow of events	Actor	Flow of events	
	Tenant/Landlord/Guest/Admin	<ul><li>1.1. System checks the internet connection.</li><li>1.2. System will display the splash screen for a few seconds.</li></ul>	
Post conditions	The Actor sees the login page after the splash screen.		
Exception - Conditions	Database connection Issues		
Use Case ID	UC2		
Use Case Name	Registration page		
Actor	Tenant/Landlord		
Description	This use case describes how the Tenant/User enters all the information for the first-time registration to the app.		

Tenant/Landlord selects the **register** link

Actor

Tenant/Landlord must be a new user before registration.

Flow of events

	Tenant/Landlord enters the first name  2. Tenant/Landlord enters the last	information enters by the Tenant will meet the
	name	2.1. System will send all the information to the database
	3. Tenant/Landlord enters the phone number	3.1. system saves all the information in the database
	4. Tenant/Landlord enters the email ID.	
	5. Tenant/Landlord enters the Username	
	6. Tenant/Landlord enters the password.	
	7.profile pic upload  8. Clicks Submit	
Post conditions	The Actor sees the menu page after successful login.	
Exception - Conditions	Database connection Issues	

Use Case ID	UC3		
Use Case Name	Tenant/Guest/Landlord/Admin Login		
Actor	Tenant/landlord/Guest/Admin		
Description	This use case describes how the Tenant/Guest/Landlord/Admin logs in to the app with his mail id and password.		
Triggering event	Actor selects the <b>Login</b> link		
Preconditions	The Actor must have registered mail id before login to the app and for the guest user to login it is not necessary.		
Flow of events	Actor	System	

	<ol> <li>Tenant/Landlord/Admin enters his registered mail id or username.</li> <li>Tenant/Landlord/Admin enters his password.</li> <li>Click Login</li> </ol>	<ol> <li>All the information (mail id and password) sends to the database.</li> <li>Database authenticates the information and acknowledges the system as a valid user.</li> <li>System displays the menu page to the user.</li> </ol>
Post conditions	The Actor sees the menu page after	successful login.
Exception - Conditions	Database connection Issues	

Use Case ID	UC4		
Use Case Name	Tenant/Landlord Reset password		
Actor	Tenant/Landlord		
Description	This use case describes how the Tenant/Landlord reset his password using his mail id		
Triggering event	Tenant/Landlord selects the Forgot P	Tenant/Landlord selects the <b>Forgot Password</b> link	
Preconditions	The Tenant/Landlord must have registered mail id before login to the app.		
Flow of events	Actor	System	
	1. Tenant/Landlord enters his registered mail id or username.	1 All the information (mail id and password) sends to the database.	
	2. Click submit	2 Database authenticates the information and acknowledges the system as a valid user.	
		3 if the user exists them system sends him a mail regarding password resetting	
Post conditions	The Actor sees the menu page after successful login.		

Exception - Conditions	Database connection Issues
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		1	
Use Case ID	UC5		
Use Case Name	Tenant/Landlord/Admin navigation		
Actor	Tenant/Landlord/Admin		
Description	Tenant/Landlord/Admin should have	e a navigation bar	
Triggering event	Tenant/Landlords/Admin clicks on t	Tenant/Landlords/Admin clicks on the navigation bar in the screen	
Preconditions	Tenants/Landlords must enter their profile details		
Flow of events	Actor	Flow of events	
	Tenants/Landlords click the navigation bar	1.1. Display the list of the navigation on clicking the nav bar	
		2.1. Based on the selection from the navigation list, the next activity will be displayed.	
Post conditions	Tenants/Landlords/Guests will logout from application after checking his/her profile.		
Exception - Conditions	Database connection issues		

Use Case ID	UC6	
Use Case Name	Manage Profile page	
Actor	Tenants/Landlord	
Description	Tenant able to see all the details of his/her profile in application.	
Triggering event	Tenant clicks on the edit profile button in profile screen	
Preconditions	Tenant must enter their profile details	
Flow of events	Actor	Flow of events

	<ol> <li>Tenant clicks profile button.</li> <li>Tenant change username and click save button.</li> <li>Tenants change passwords and click the save button.</li> <li>Tenants change passwords and click the save button.</li> <li>Tenants change passwords and click the save button.</li> <li>Tenants change the Phone number and click the save button.</li> </ol>	<ul><li>1.1. Display the profile of the user</li><li>2.1. Update the database with the changes if any and save the information in the database</li></ul>
Post conditions	Tenants will logout from application after checking his/her profile.	
Exception - Conditions	While updating the profile, the details should be correct.	

Use Case ID	UC7	
Use Case Name	Manage Profile page	
Actor	Tenant	
Description	Tenant able to see all the details of h	nis/her profile in application.
Triggering event	Tenant clicks on the edit profile button in profile screen	
Preconditions	Tenant must enter their profile details	
Flow of events	Actor	Flow of events
	<ol> <li>Tenant clicks profile button.</li> <li>Tenant change username and click save button.</li> <li>Tenants change passwords and click the save button.</li> <li>Tenants change passwords and click the save button.</li> <li>Tenants change passwords and click the save button.</li> <li>Tenants change the Phone number and click the save button.</li> </ol>	1.1. Display the profile of the user  2.1. Update the database with the changes if any and save the information in the database
Post conditions	Tenants will logout from application after checking his/her profile.	
Exception - Conditions	While updating the profile, the details should be correct.	

Use Case ID	UC8	
Use Case Name	Add Apartment	
Actor	Landlord	
Description	Landlords are able to add the details of the apartment of his/her profile in application.	
Triggering event	Landlord clicks on the <b>Add Apartment</b> button in home screen	
Preconditions	Landlord must be logged in	
Flow of events	Actor	Flow of events

	<ol> <li>Landlord adds the photo.</li> <li>Landlord lists the price of the apartment</li> <li>Landlord adds the address</li> <li>Landlord will give the description of the flat</li> <li>Landlord click on the save button and add the apartment in his/her profile</li> </ol>	
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Post conditions	Tenants will logout from application after checking his/her profile.
Exception - Conditions	While updating the profile, the details should be correct.

Use Case ID	UC9		
Use Case Name	Edit Apartment Profile		
Actor	Landlord		
Description	Landlords can update the details of the apartment in his/her profile on application.		
Triggering event	Landlord clicks on the Edit Apartm	Landlord clicks on the <b>Edit Apartment</b> button in home screen	
Preconditions	Landlord must be logged in		
Flow of events	Actor	Flow of events	
	<ol> <li>Landlord Edit the photo.</li> <li>Landlord edits the price of the apartment</li> <li>Landlord edits the address</li> <li>Landlord edits the description of the flat</li> <li>Landlord click on the save button and update the apartment in his/her profile</li> </ol>		
Post conditions	Tenants will logout from application after checking his/her profile.		
Exception - Conditions	While updating the profile, the details should be correct.		

Use Case ID	UC10	
Use Case Name	Delete Apartment Profile	
Actor	Landlord	
Description	Landlords are able to delete the details of the apartment of his/her profile in application.	
Triggering event	Landlord clicks on the <b>Delete Apar</b>	tment button in home screen
Preconditions	Landlord must be logged in	
Flow of events	Actor	Flow of events
	1 Landlord click on the delete button and update the apartment in his/her profile	1.1. System will delete the entire record of its existence from the stored information in
		the database
Post conditions	Tenants will logout from application after checking his/her profile.	
Exception - Conditions	While updating the profile, the details should be correct.	
Use Case ID	UC11	
Use Case Name	Inbox	
Actor	Landlord	
Description	Landlord able to read the notification received form the Tenant	
Triggering event	Landlord clicks on the <b>Inbox</b> button in home screen	
Preconditions	Landlord must be logged in	
Flow of events	Actor	Flow of events

	1. Landlord check the requests made by the users and will responds to that accordingly	2
Post conditions	Tenants will logout from application after checking his/her profile.	
Exception - Conditions	While updating the profile, the details should be correct.	

Use Case ID	UC12
Use Case Name	Tenant Dashboard
Actor	Tenant
Description	Tenants are able to see the posts made by the Renter
Triggering event	After logging in the user redirected to the Home page
Preconditions	Tenant must be logged in

Flow of events	Actor	Flow of events
	made by the Landlord and	1.1. system will send all the posts made by the Landlords for all Tenant so that they can check every apartment profile
Post conditions	Tenants will logout from application after checking his/her profile.	
Exception - Conditions	While updating the profile, the details should be correct.	

Use Case ID	UC13	
Use Case Name	Apartment Profile	
Actor	Tenant	
Description	Tenants are able to see the profile of the particular apartment	
Triggering event	Tenant clicks on the <b>Details</b> button on the home Screen	
Preconditions	Tenant must be logged in	
Flow of events	Actor Flow of events	
	1. Tenant checks the profile of the apartment which consists of details like price location and description	1.1. System will fetch the information of the apartments by using their unique id
Post conditions	Tenants will logout from application after checking his/her profile.	
Exception - Conditions	While updating the profile, the details should be correct.	

Use Case ID	UC14
Use Case Name	Search Apartment
Actor	Tenant
Description	Tenants can search the profile of the particular apartment
Triggering event	Tenant clicks on the <b>Search</b> button on the home Screen

Preconditions	Tenant must be logged in	
Flow of events	Actor	Flow of events
	Tenant can search the apartment that interests him using search intent	<u> </u>
Post conditions	Tenants will logout from application after checking his/her profile.	

Exception - Conditions	While updating the profile, the details should be correct.
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Use Case ID	UC15	
Use Case Name	Search Apartment using Location	
Actor	Tenant	
Description	Tenants can search the profile of the particular apartment using location	
Triggering event	Tenant clicks on the <b>Search</b> button on the home Screen	
Preconditions	Tenant must be logged in	
Flow of events	Actor Flow of events	
	Tenant can search the apartment in a particular location based on his interest	1.1. System will fetch the information of the apartments using the location filter that he is looking for
Post conditions	Tenants will logout from application after checking his/her profile.	
Exception - Conditions	While updating the profile, the details should be correct.	

Use Case ID	UC16
Use Case Name	Search Apartment using Price
Actor	Tenant

Description	Tenants are able to search the profile of the particular apartment using price	
Triggering event	Tenant clicks on the <b>Search</b> button on the home Screen	
Preconditions	Tenant must be logged in	
Flow of events	Actor	Flow of events
	apartment that he can afford	1.1. System will fetch the information of the apartments in a particular price range that Tenant is looking for
Post conditions	Tenants will logout from application after checking his/her profile.	
Exception - Conditions	While updating the profile, the details should be correct.	

Use Case ID	UC17
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Use Case Name	Search Apartment using Apartment type	
Actor	Tenant	
Description	Tenants can search the profile of the particular apartment using apartment type	
Triggering event	Tenant clicks on the <b>Search</b> button on the home Screen	
Preconditions	Tenant must be logged in	
Flow of events	Actor Flow of events	
	apartment based on the	1.1. System will fetch the information of the apartments that fulfils the search criteria
Post conditions	Tenants will logout from application after checking his/her profile.	
Exception - Conditions	While updating the profile, the details should be correct.	

USE CASE ID:	UC18		
Use Case Name	Search Apartment using Number of beds		
Actor	Tenant	Tenant	
Description	Tenants are able to search the profile of the particular apartment using the number of beds available in the apartment.		
Triggering event	Tenant clicks on the <b>Search</b> button on the home Screen		
Preconditions	Tenant must be logged in		
Flow of events	Actor Flow of events		
	apartment based on the	1.1. System will fetch the information of the apartments that fulfils the search criteria	
Post conditions	Tenants will logout from application after checking his/her profile.		
Exception - Conditions	While updating the profile, the details should be correct.		

USE CASE ID:	UC19	
Use Case Name	inbox	
Actor	Tenants/Landlords	
Description	Tenants/Landlords should be able to communicate.	
Triggering event	Tenant/Landlords clicks on the <b>Chat button to communicate</b>	
Preconditions	Tenants/Landlords must be logged in	
Flow of events	Actor	Flow of events
	apartment based on the	1.1. System will fetch the information of the apartments that fulfils the search criteria
Post conditions	Tenants will logout from application after checking his/her profile.	

Exception - Conditions	Database connection issues
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Use Case ID	UC20	
Use Case Name	Admin Login	
Actor	Admin,	
Description	This use case describes how the Admin logs in to the app with his mail id and password.	
Triggering event	Actor selects the <b>Admin</b> link	
Preconditions	The admin must have registered mail id before login to the app.	
Flow of events	Actor	System
	<ol> <li>Admin enters his registered mail id or username.</li> <li>Admin enters his password.</li> </ol>	1 All the information (mail id and password) sends to the database.
	3. Click Login	2 Database authenticates the information and acknowledges the system as a valid user.
		3 System displays the menu page to the user.
Post conditions	The Actor sees the menu page after successful login.	
Exception - Conditions	Database connection Issues	

Use Case ID	UC21	
Use Case Name	Admin view apartment	
Actor	admin	
Description	Admin can be able to view the details of the apartment	
Triggering event	After logging in admin redirects to his homepage	
Preconditions	Admin must be logged in	
Flow of events	Actor Flow of events	
	Admin can see the details of the apartment uploaded by the Renters	1.1. System will fetch the information of the apartments profile from the database
Post conditions	User will log out from the application after checking his/her profile.	
Exception - Conditions	While updating the profile, the details should be correct.	

Use Case ID	UC22	
Use Case Name	Admin Verify Apartment	
Actor	Admin	
Description	Admin will verify the details of the apartment	
Triggering event	After logging in admin redirects to his homepage	
Preconditions	Admin must be logged in	
Flow of events	Actor Flow of events	
	Admin will verify the details of the apartment whether it is fake or real	1.1. System will fetch the information of the apartments profile from the database
Post conditions	User will log out from the application after checking his/her profile.	
Exception - Conditions	While updating the profile, the details should be correct.	

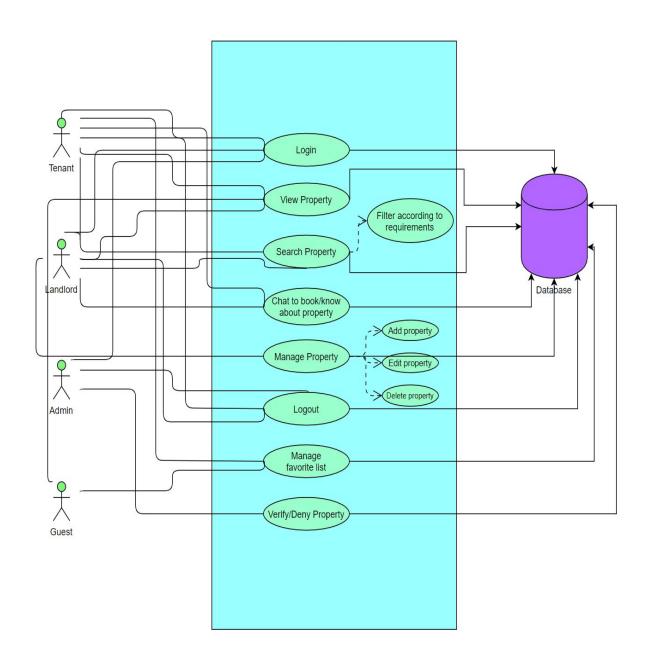
Use Case ID	UC23		
Use Case Name	Admin Delete Apartment		
Actor	admin		
Description	admin will Delete the profile of the apartment		
Triggering event	After logging in admin redirects to his homepage		
Preconditions	Admin must be logged in		
Flow of events	Actor	Flow of events	
	1. Admin will verify the details of the apartment whether it is fake or real. And delete the profile of the apartment if it is fake	information of the apartments profile from the database and	
Post conditions	User will log out from the application after checking his/her profile.		
Exception - Conditions	While updating the profile, the details should be correct.		

Use Case ID	UC24	
Use Case Name	Guest login	
Actor	Guest	
Description	guests can login without registration.	
Triggering event	After logging in Guest redirects to his homepage	
Preconditions	Guest must be logged in	
Flow of events	Actor	Flow of events
	1.guest will be able to login without registration	1.1. System will fetch the information of the apartments profile from the database
Post conditions	User will log out from the application after checking his/her profile.	

Exception	n - Conditions	While updating the profile, the details should be correct.	
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Use Case ID	UC25	
Use Case Name	Guest View Property	
Actor	Guest	
Description	Guest will view the details of the apartment	
Triggering event	After logging in guest redirects to his homepage	
Preconditions	Guest must be logged in	
Flow of events	Actor Flow of events	
	Guest will view home page	1.1. System will fetch the information of the apartments profile from the database with description
Post conditions	User will log out from the application after checking his/her profile.	
Exception - Conditions	While updating the profile, the details should be correct.	

## **8.USE CASE DIAGRAM:**



# 9. ACTIVITIES SCREEN FLOW:

#### a. Splash screen

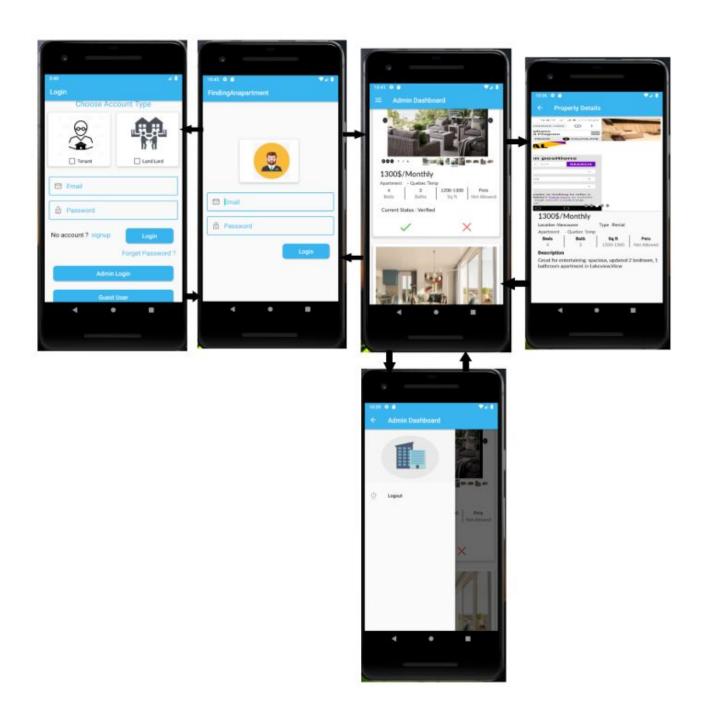


This is the first activity in the application.

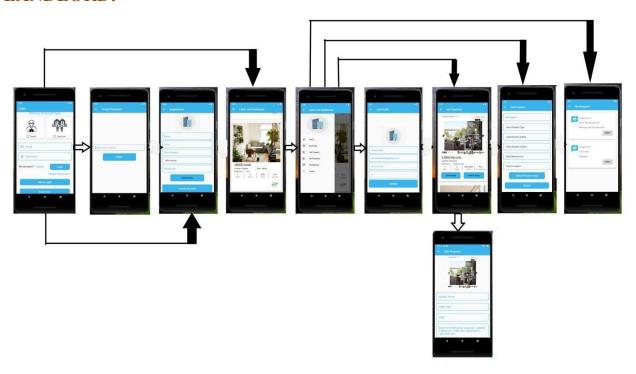
## b. TENANT:



### c. ADMIN



## d. LANDLORD:

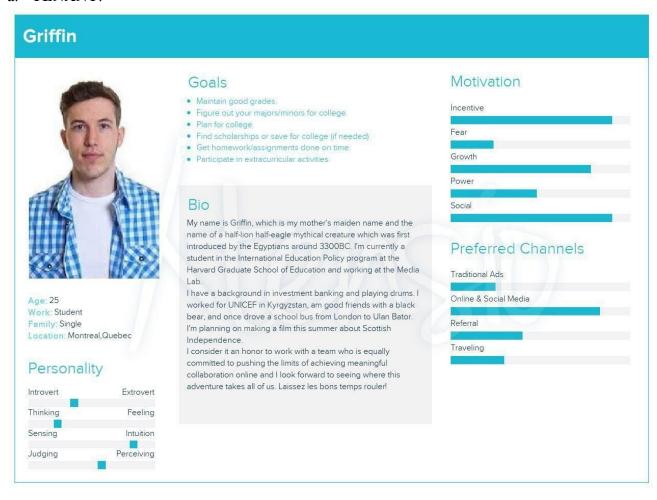


## e. GUEST SCREEN FLOW:

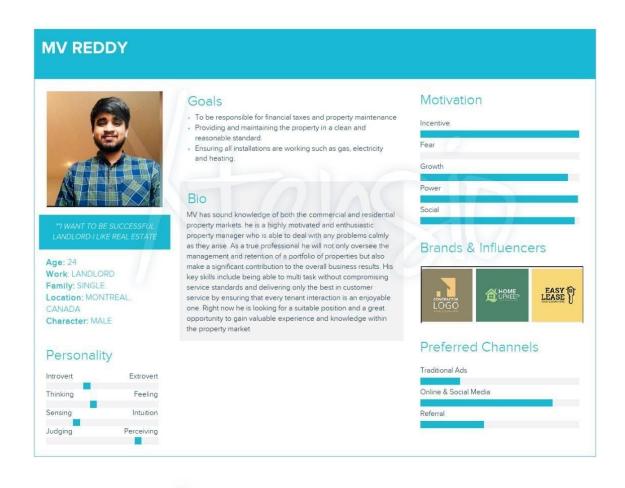


## 10. PERSONAS:

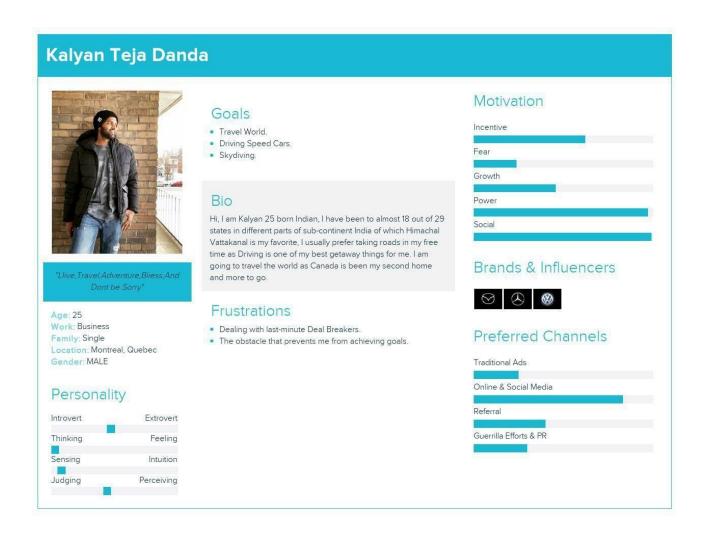
#### a. TENANT:



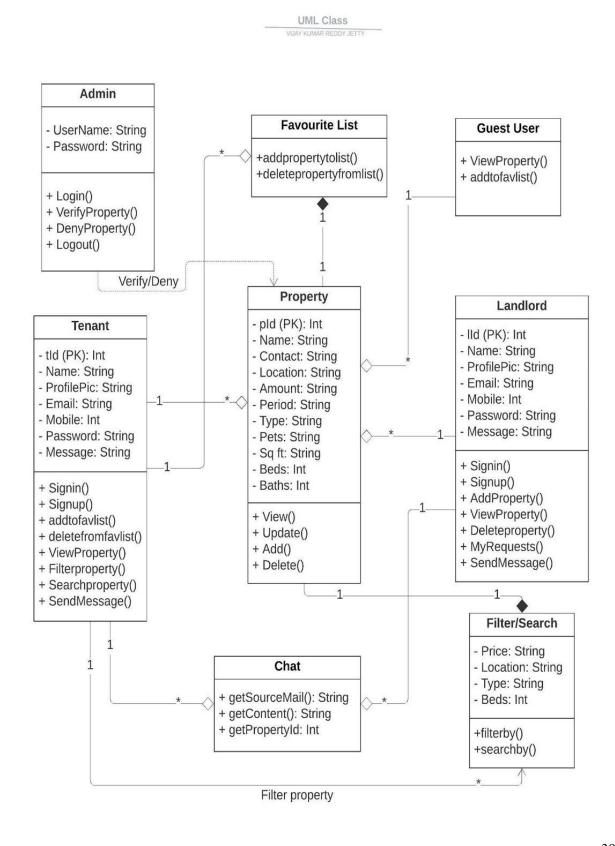
#### b. Landlord:



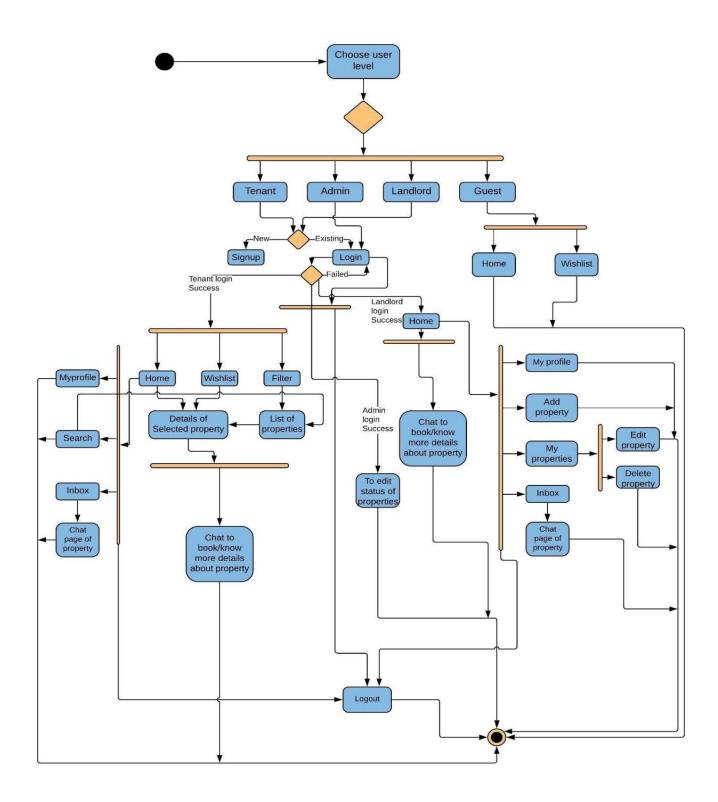
#### C. ADMIN



#### 11.UML CLASS DIAGRAM:

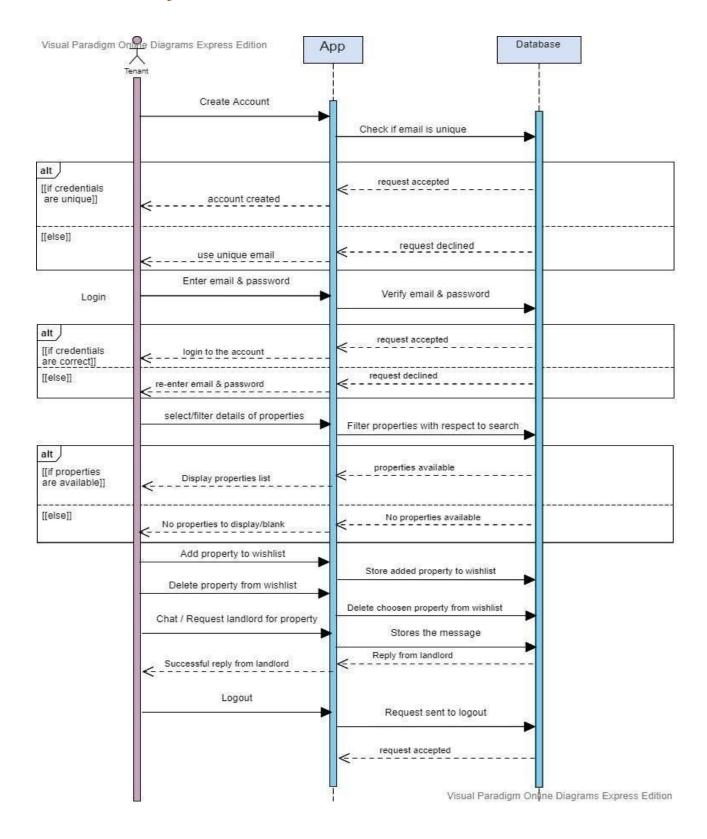


## **12.ACTIVITY DIAGRAM:**



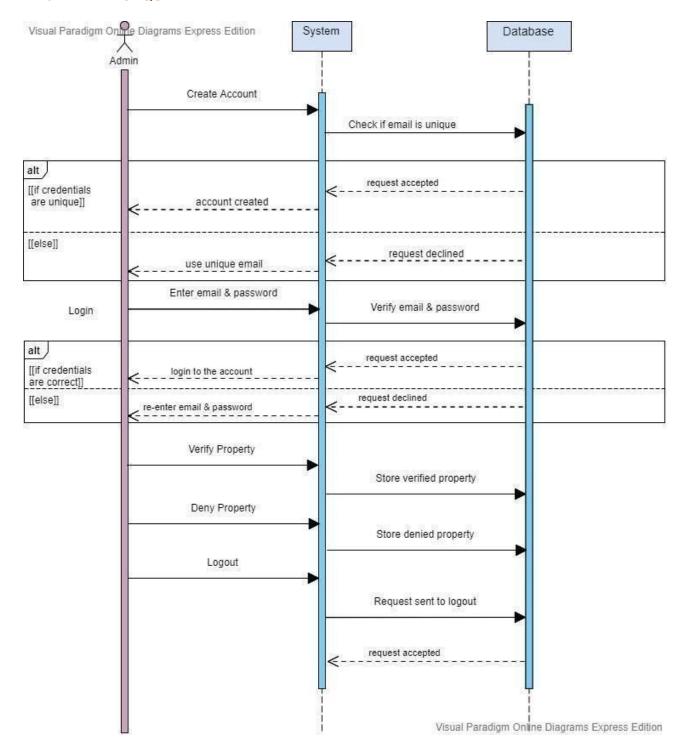
## 13.SEQUENCE-DIAGRAM: -

#### a. TENANT-SEQUENCE

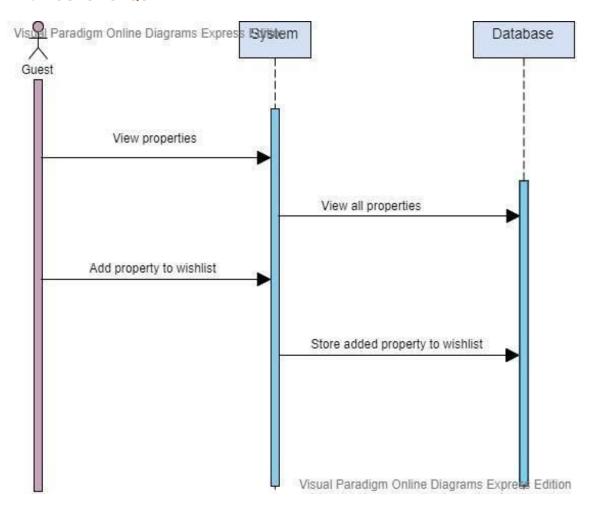


#### b. LANDLORD-SEQUENCE Visual Paradigm On Pe Diagrams Express Edition Database App Landlord Create Account Check if email is unique alt request accepted [[if credentials are unique]] account created [[else]] request declined use unique email Enter email & password Verify email & password Login alt , request accepted [[if credentials login to the account are correct]] [[else]] re-enter email & password Add Property Store added property Edit Property Store edited property details Delete Property Delete choosen property Reply to tenant message Stores the message Select/filter details of properties Filter properties with respect to search alt properties available [[if properties are available]] [[else]] No apartments available No properties to display/blank Chat to book property of another landlord Stores the message Reply from another landlord Successful reply from another landlord Logout Request sent to logout request accepted Visual Paradigm Online Diagrams Express Edition

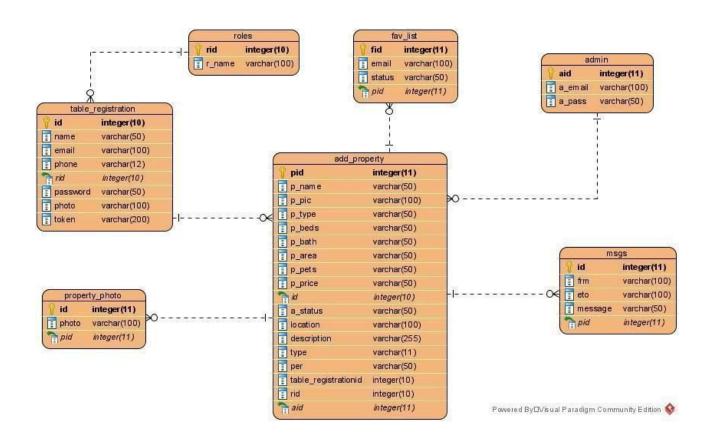
#### c. ADMIN SEQUENCE:



#### d. GUEST SEQUENCE:



#### 14.DATABASE SCHEMA DIAGRAM:



#### 15. Conclusion:

Overall, the project has achieved its objectives. The project has provided an application for apartment finding and was successfully built. It provides a more convenient and accurate way for tenants to book properties immediately and landlords to display their properties in advance. To avoid any legal consequences admin will thoroughly check property and provide verified status to property also it will be beneficial to guest users for future purposes. It can be extended using gps technology. Thus, make the application more simplistic and robust. In view of time saving, less time consuming by waiting/visiting property. Cost effective for landlords. In other words, this can minimize the time and cost compared to usual practice.