Software Engineering Project File

Property Management System

Prepared by :

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Submitted to:Dr. Manisha Kaushal

(Assistant Professor (CSED))

Feb 21,2022

Contents

1. Project Selection Phase

1.1 Software Bid

Group:2CS10

UCS 503- Software Engineering Lab

Dated:2-2-2022

Team Name: Titans

Team ID (will be assigned by Instructor):

Please enter the names of your Preferred Team Members.

- You are required to form **three to four person** teams
- Choose your team members wisely. You will not be allowed to change teams.

Name	Roll No	Project Experience	Programming Language used
Abhinav Kataria	102016043	----------	
Dhriti Taneja	102016062	----------	
Kartikay Mehrotra	102016053	----------	
Shaurya Singh	102016046	----------	

Programming Language / Environment Experience:

List the languages you are most comfortable developing in, **as a team**, in your order of preference. Many of the projects involve Java or C/C++ programming.

1. C/C++

2. Python

3. JavaScript

Choices of Projects:

Please select **4 projects** your team would like to work on, by order of preference: *[Write at-least one paragraph for each choice (motivation, reason for choice, feasibility analysis, etc.)]*

First Choice	**Property Management Website:** This Property Management System helps to streamline the process of property hunting for customers by showing them all the options for renting as well as buying in one place. Along with helping customers, this system is extremely helpful for Real Estate Agents and Brokers as well. Using this system, Real Estate Agents can attract more customers by displaying the properties available to them. Brokers can also schedule and manage their appointments with potential clients.

Second Choice	**Pathfinding Visualizer**: We built this application as we were fascinated by pathfinding algorithms, and we wanted to visualize them in action as during DSA preparations this tool will help students to better visualize these algorithms. We will be implementing the following algorithms; **Dijkstra's Algorithm** (weighted): the father of pathfinding algorithms; guarantees the shortest path **Breath-first Search** (unweighted): a great algorithm; guarantees the shortest path **Depth-first Search** (unweighted): a very bad algorithm for pathfinding; does not guarantee the shortest path **A* Search** (weighted): arguably the best pathfinding algorithm; uses heuristics to guarantee the shortest path much faster than Dijkstra's Algorithm **And many more algorithms…** On top of the pathfinding algorithms listed above, we will also implement the **Recursive Division Maze Generation algorithm**.
Third Choice	**Student Reddit:** This website will help the students in various fields such as: 1) To discuss queries, discuss with college peers, seniors.

	2) Updates about various college society affairs such as events, recruitments, etc. 3) Study material such as ebooks, slides, handwritten notes
Fourth Choice	**Rental Car:** This website will help you rent a car for self-drive by hourly, daily, weekly, or monthly options according to your travel plans by booking a vehicle of your choice from a wide range of cars.

Additional Remarks/ Inputs

Please tell us about any other factors that we should take into consideration (e.g., if you really would like to work on a project for some particularly convincing reason).

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1.2 Purpose of this Document

The animus of this SRS archive is to administer detailed scrutiny of our software upshot, its attributes, actions, framework, and standards. This document specifies the implicated congregation and its user interface, hardware, and software requirements. It details how our clients, team, and admirers see this product.

1.3 Scope of the Development Project

This website is an Online Real Estate Trade website through which a shopper can access its clue and manage all the adding, alteration, deleting the assets and some of its doing. The base user can change the amendment regarding property selling, buying, and eliminations. The system is advantageous for companies that evolve apartments, hotels, villas, residential, and commercial properties. Companies or individual cadre can also advertise their property.

The internet has spread across millions of homes, and it has become the best platform for real estate trade today. Nowadays, when each aspect is on the browse, it is possible that real estate lag behind the web. There are a lot of real estate associations that promote their holdings online. Hence, the idea behind developing this application is that their property can also be show-cased, sold, or rented. Online real estate management through which individual broker or interested buyer can maintain their interests in keeping and managing property registration and access its information and organize all the adding, updating, deleting the faces of its coin.

The Admin user can inform their cadre regarding property and amend the given information regarding property and dissolution of property or the alter of choice made earlier.

1.4 OVERVIEW

The remaining sections of this document provide a general description, including the characteristics of the users of this project, the product's hardware, and the functional and data requirements of the product. A general description of the project is discussed in section 2 of this document. Section 3 gives the functional requirements, data requirements, constraints, and assumptions made while designing the E-Store. It also provides the user with the viewpoint of the product. Section 3 also gives the specific requirements of the product. Section 3 also discusses the external interface requirements and gives a detailed description of functional requirements. Section 4 is for supporting information.

2. Overall Description

2.1 Functions

Functional prerequisites are the dominant requirement that is to be fulfilled by the application. Their attainments permit the user to access the application. The planned system caters to features for a diverse type of user.

The following subsections clarify the functional requirements to be fulfilled by the planned system.

1. Register

After stuffing the required data, the audience can register himself/herself in our proposed system.

2. Login

Admin/user will be capable of Login into the system with the exclusive username and password.

3. Add Property

Estate can only be bone added by the authenticated users.

4. Ask Questions

Interested buyers can ask questions and get answers on the dropout.

5. Manage Profile

Users can view, amend or deactivate his/her profile.

6. Manage Property

Users will have the facility to view, edit and delete the properties listed by them

7. Search Property

Users will have the facility to search for the best available property within the budget on the basis of:

- The total area of the listing,
- City
- Location
- Price range
- Property type
- Property subtype
- Purpose

- Create Alert

8. Promote

Creating a promote token gives user a head to promote his/her holding on the website

9. Tools for Development

The Real Estate Management System would be developed using the following tools :

- Microsoft Windows 7 and above
- Xampp server
- HTML5
- CSS 3
- Bootstrap 4
- Node js
- MySQL

2.2 Non-Functionalities

1. No Property Dealer Required

No property dealer is required because everything will be managed on SQL database.

2. Data Consistency

The primary benefit of the project is Data consistency. If we change data in one portion of the system, it can automatically change data in every related part.

3. Data Security

In our proposed system, the user has security because only an authorized person can enter this system.

4. Data Accuracy

Our proposed system is accurate because what you will post will be checked by the admin, and it can also be editable.

5. Efficient System

In our proposed system, the user can effortlessly search, view, add and maintain their property efficiently.

6. Removing Data Redundancy

In our proposed system, we remove the data redundancy. Now, we get the information in a single place.

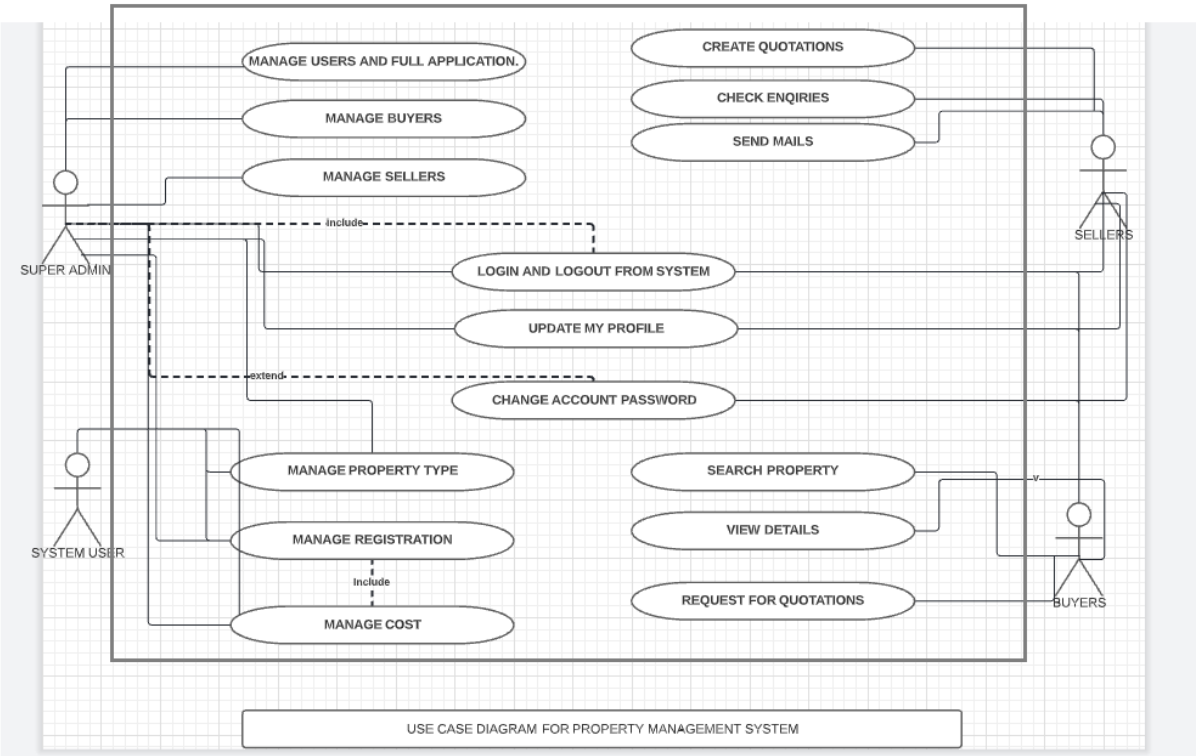
2.3 Hardware Requirements

Computers with 1GB RAM, and 350MB hard disk space are required to install the software. A computer with an internet connection and an internet browser is only required for the client to run the application.

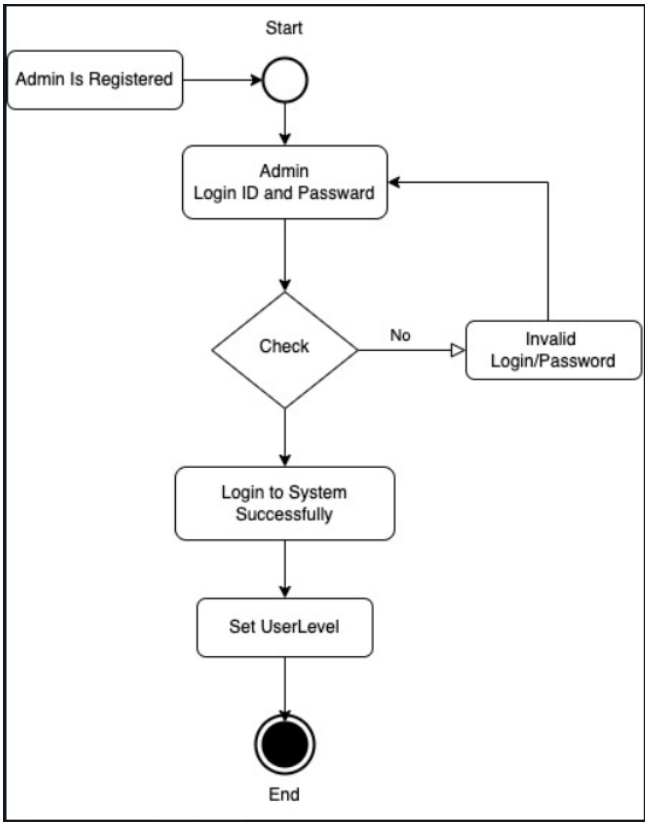
3. Analysis Phase

3.1 Use Case Diagram

The following figure is a Use Case Diagram, used to represent the dynamic behavior of a system. It encapsulates the system's functionality by incorporating use cases, actors, and their relationships



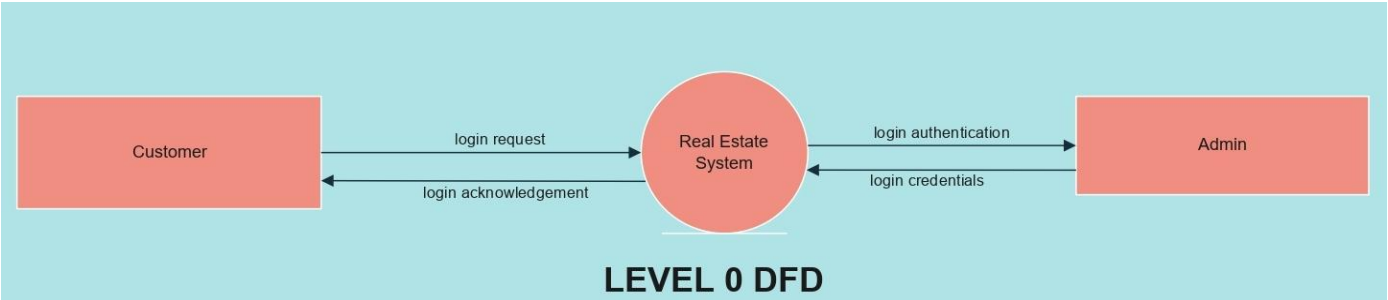
3.2 Activity Digram



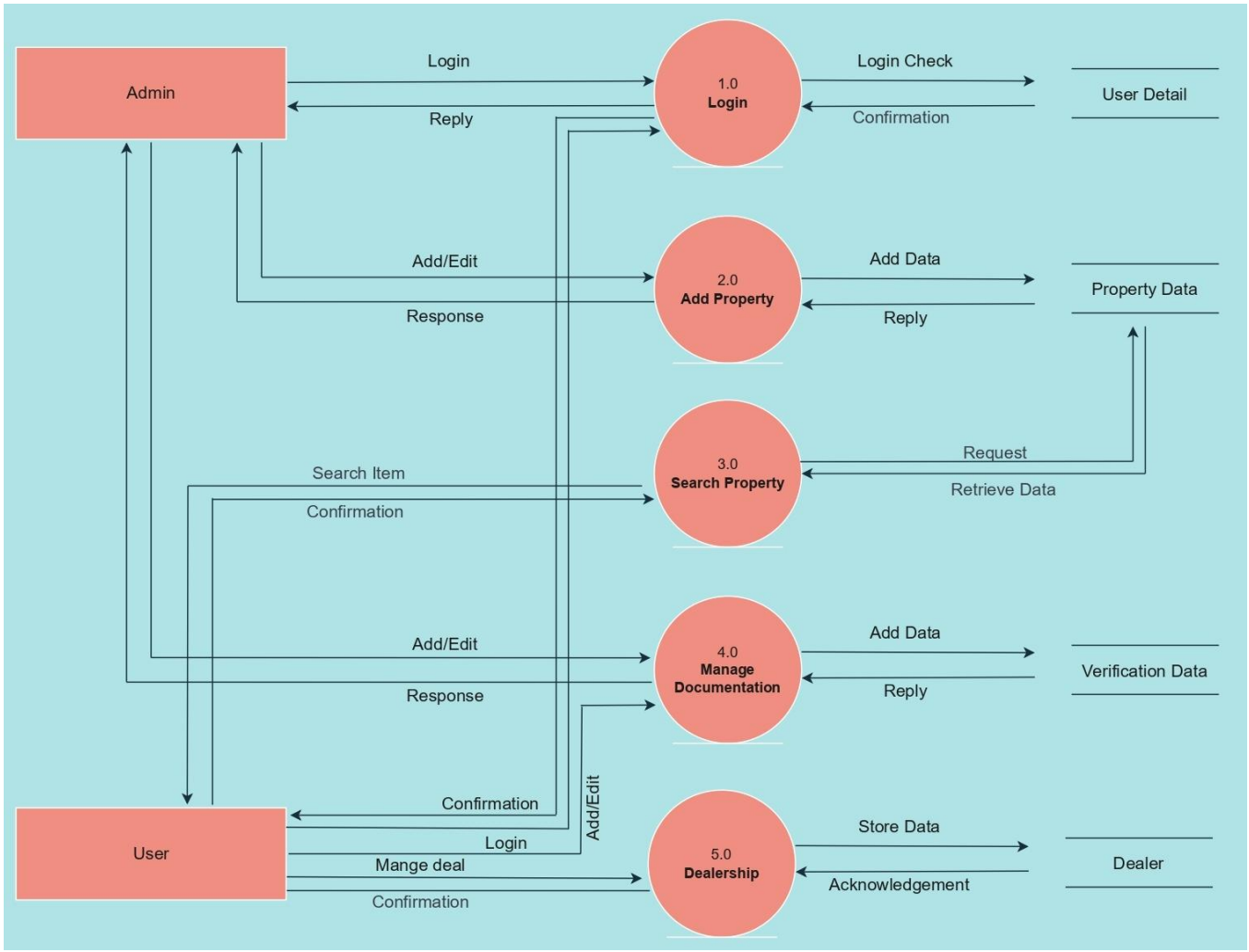
3.3 Data Flow Diagrams

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system.

3.3.1 Data Flow Diagrams Level 0

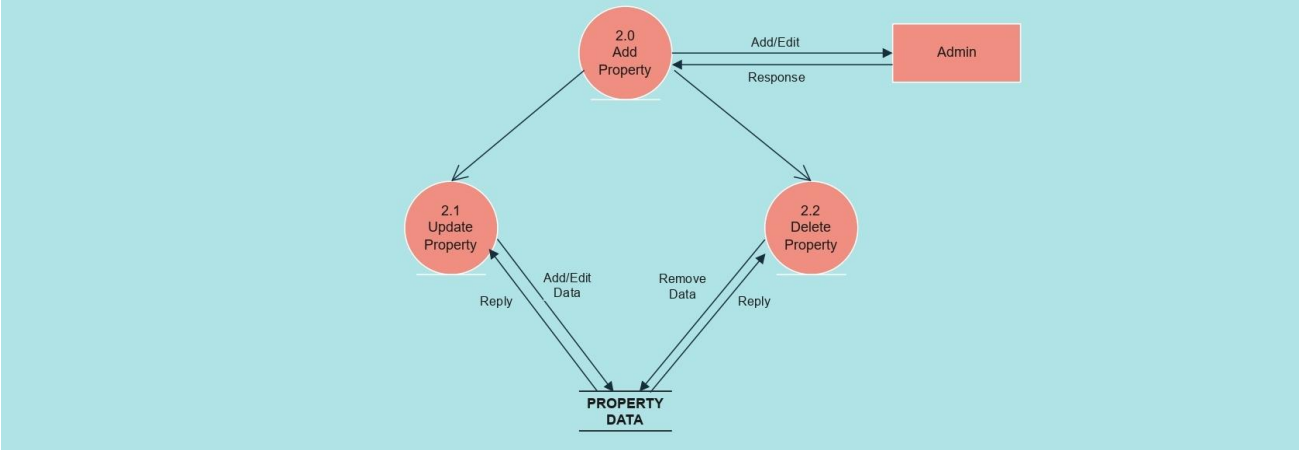


3.3.2 Data Flow Diagrams Level 1

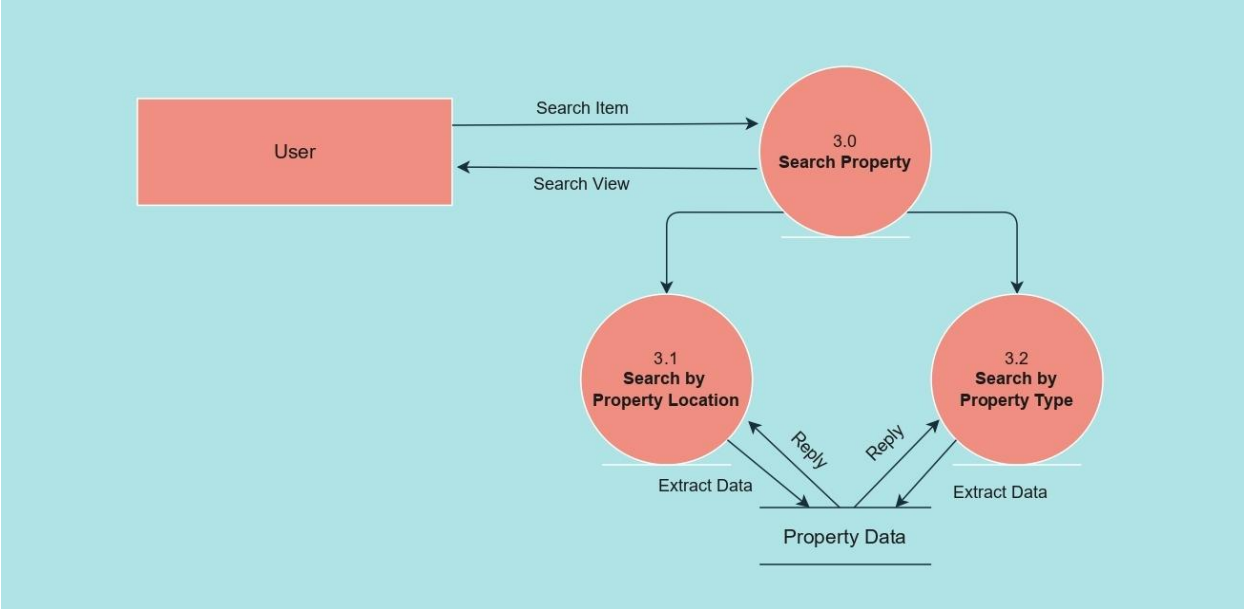


3.3.3 Data Flow Diagrams Level 2

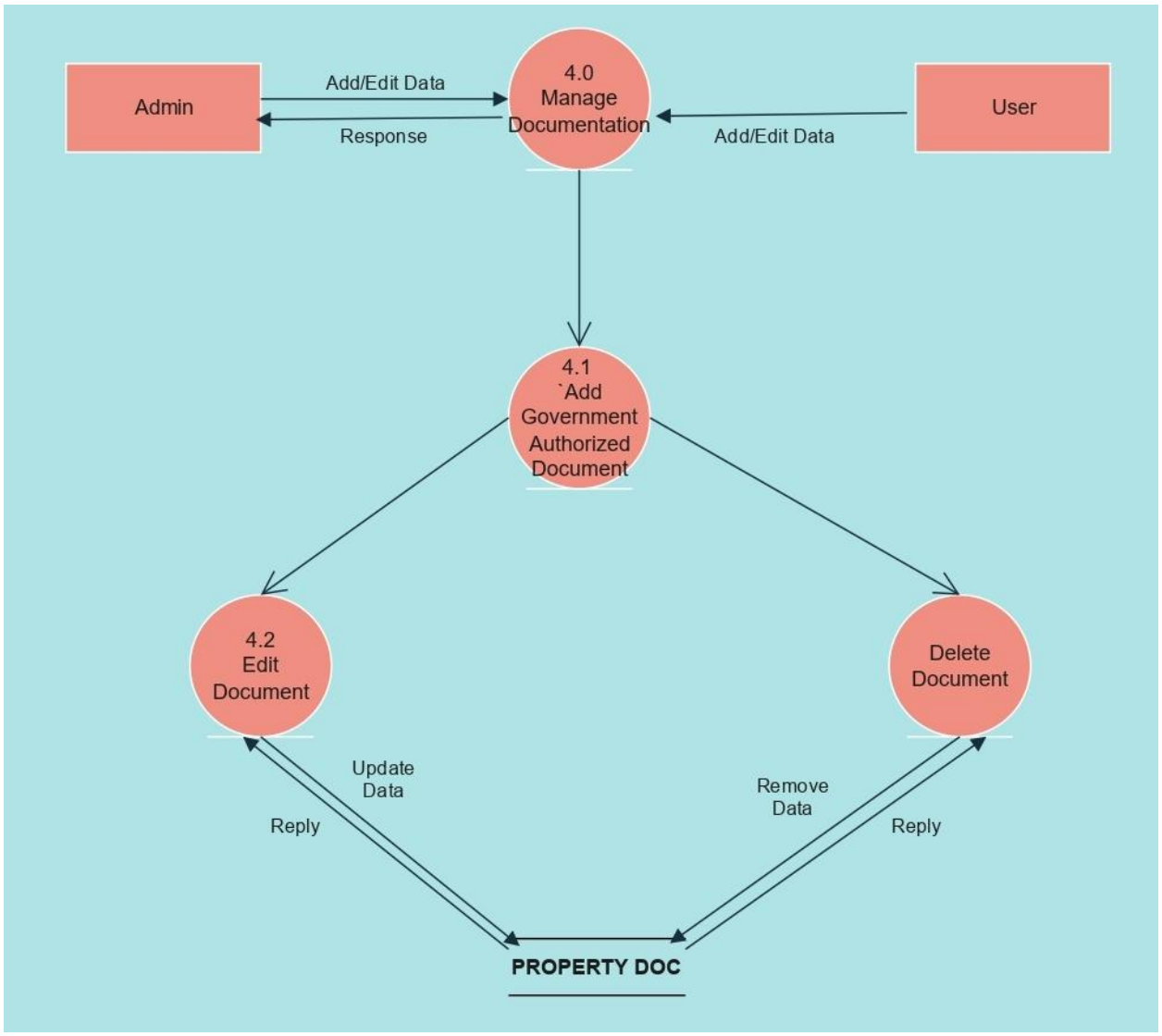
3.3.3.1 Add Property



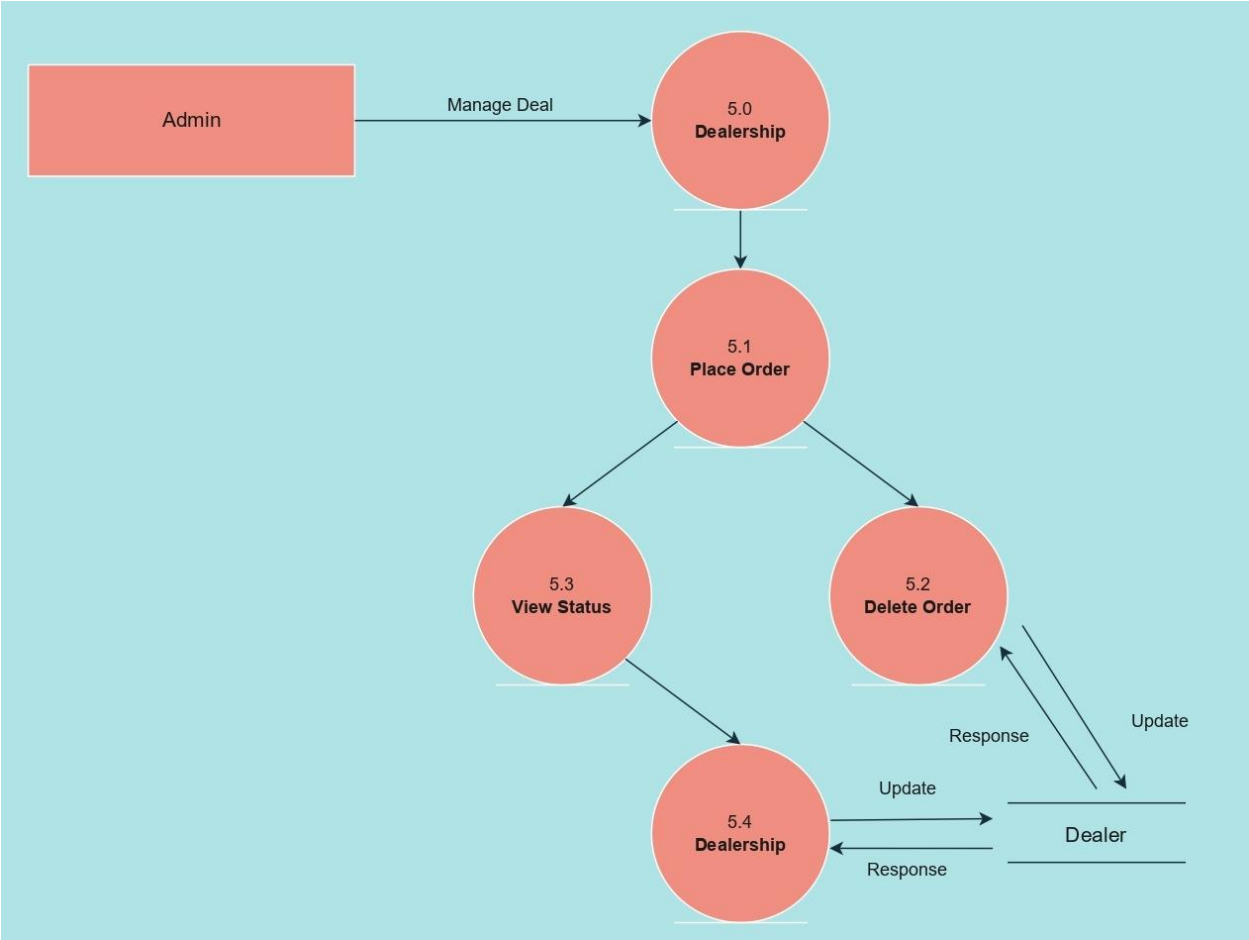
3.3.3.2 Search Property



3.3.3.3 Search Property



3.3.3.4 Dealership Property

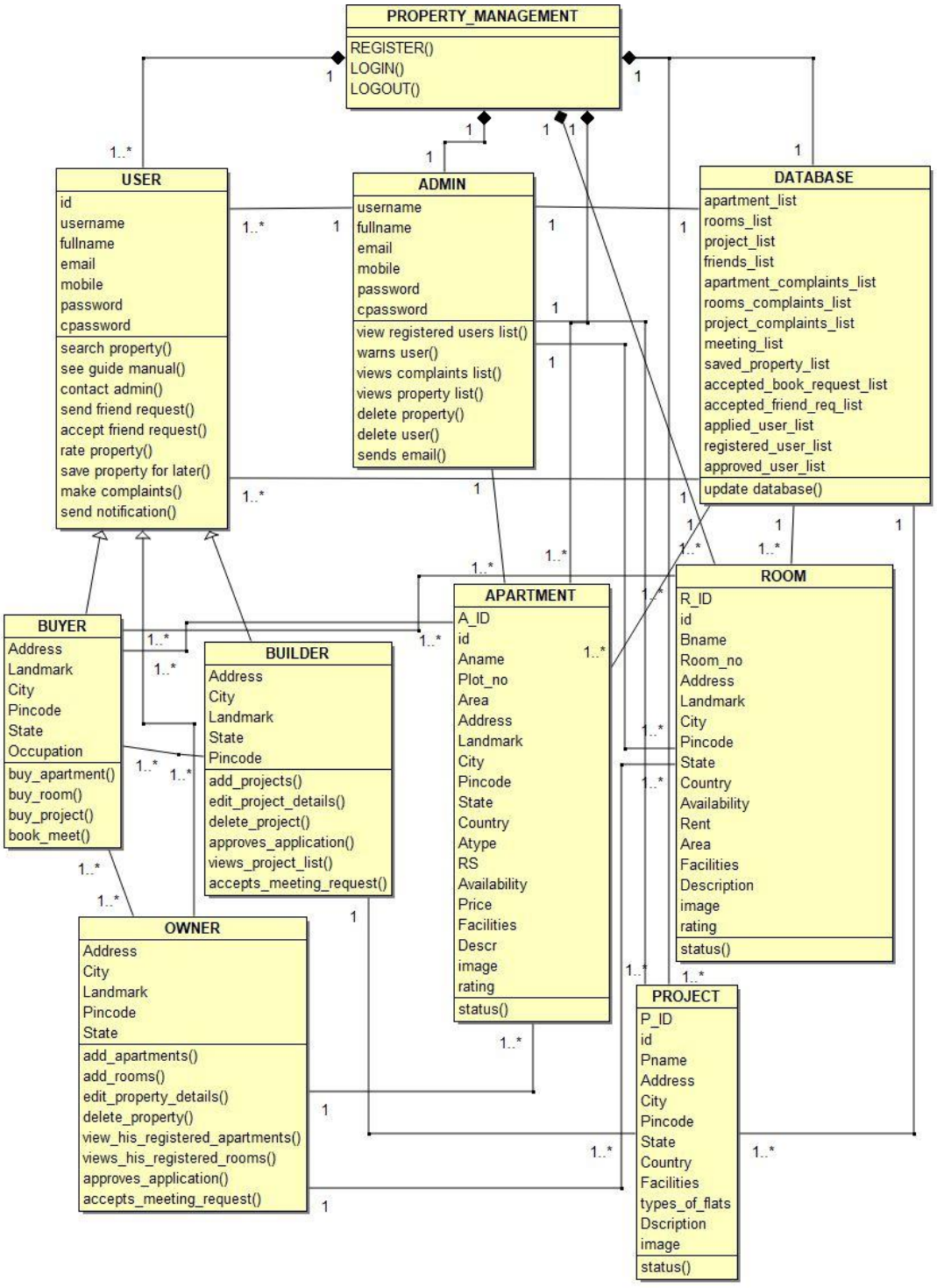


4. Design Phase

4.1 Class Diagram

The class diagram is not only used for visualizing, describing, and documenting different aspects of a system but also for constructing executable code of the

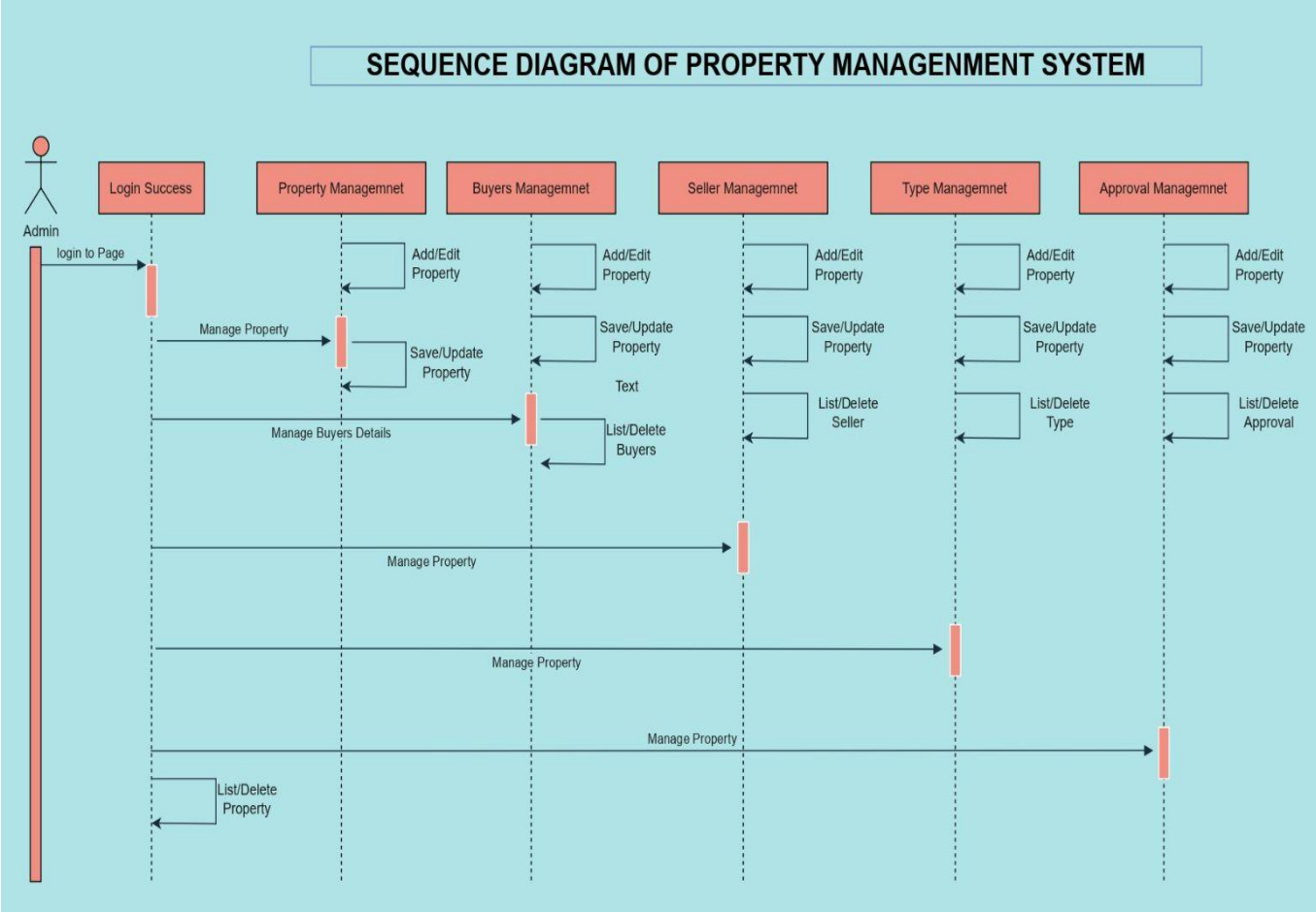
software application.



4.2. Sequence Diagram

Sequence diagrams describe how and in what order the objects in a system function. These diagrams are widely used by businessmen and software developers to document and understand requirements for new and existing systems.

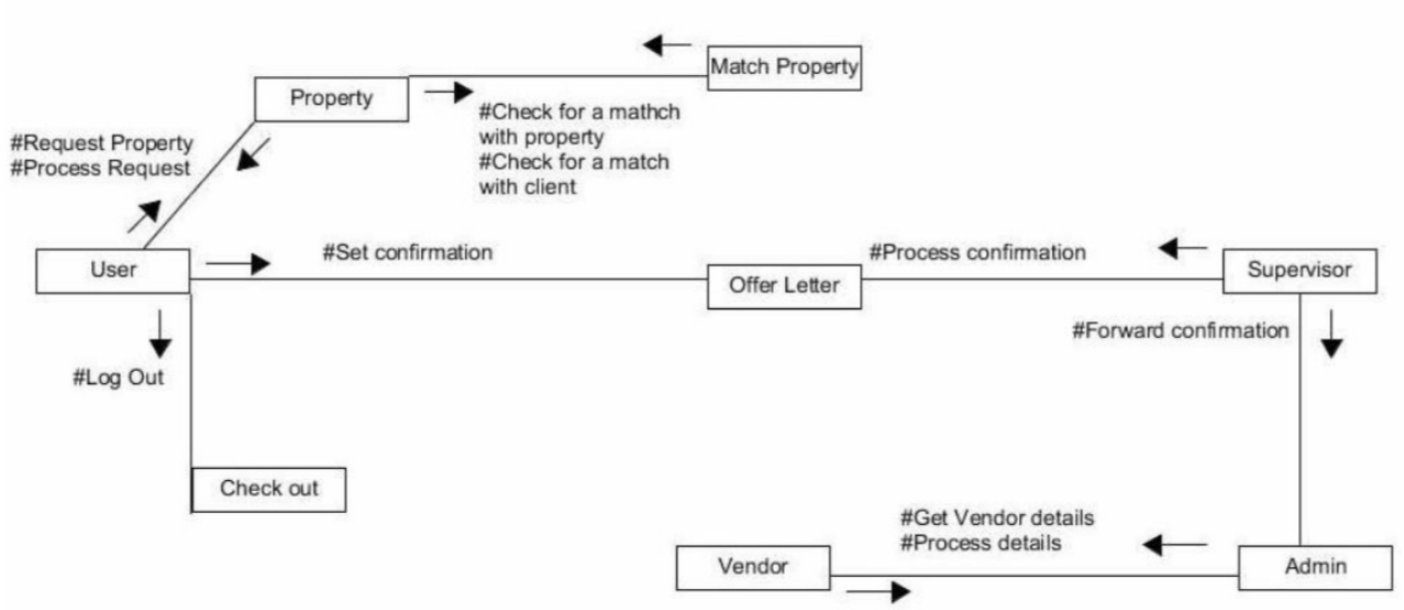
The following figures are the sequence of events that occur during a session of the website.



4.3. Collaboration Diagram

The collaboration diagram is used to show the relationship between the objects in a system. Both the sequence and the collaboration diagrams represent the same information but differently. Instead of showing the flow of messages, it depicts the architecture of the object residing in the system as it is based on object-oriented

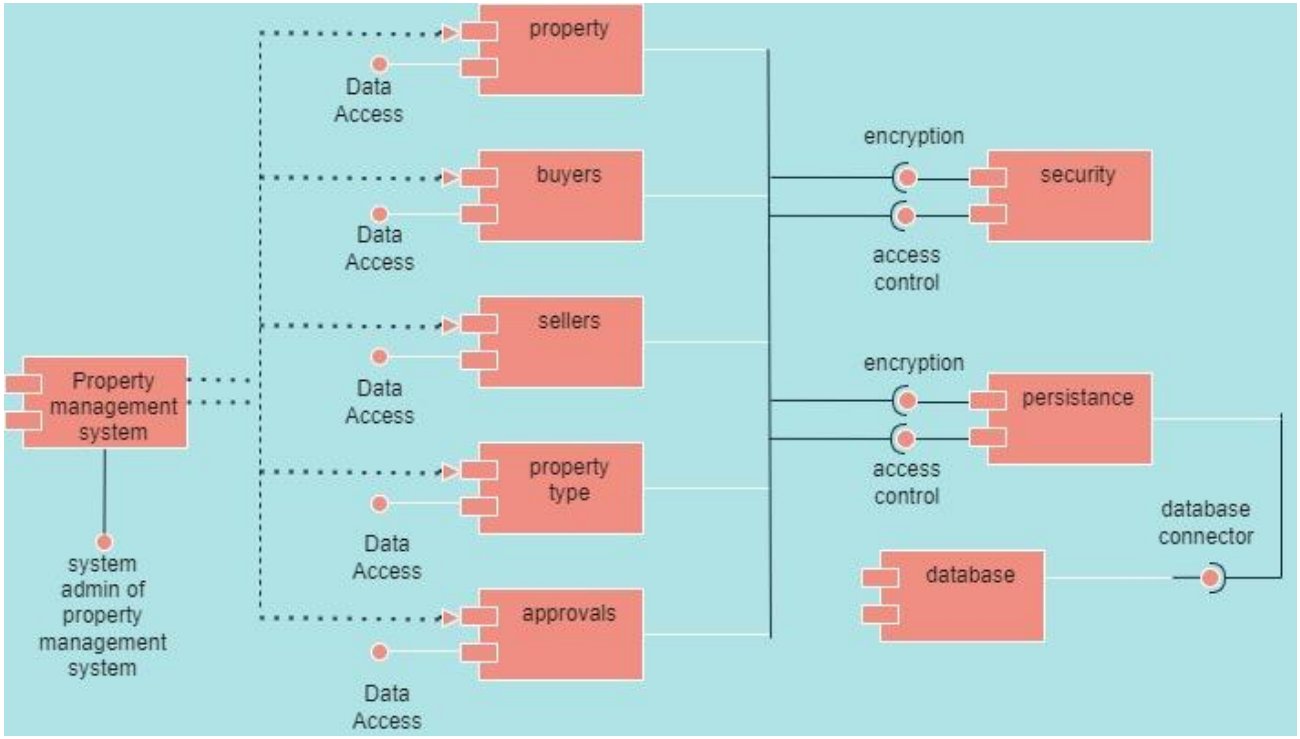
programming. An object consists of several features.



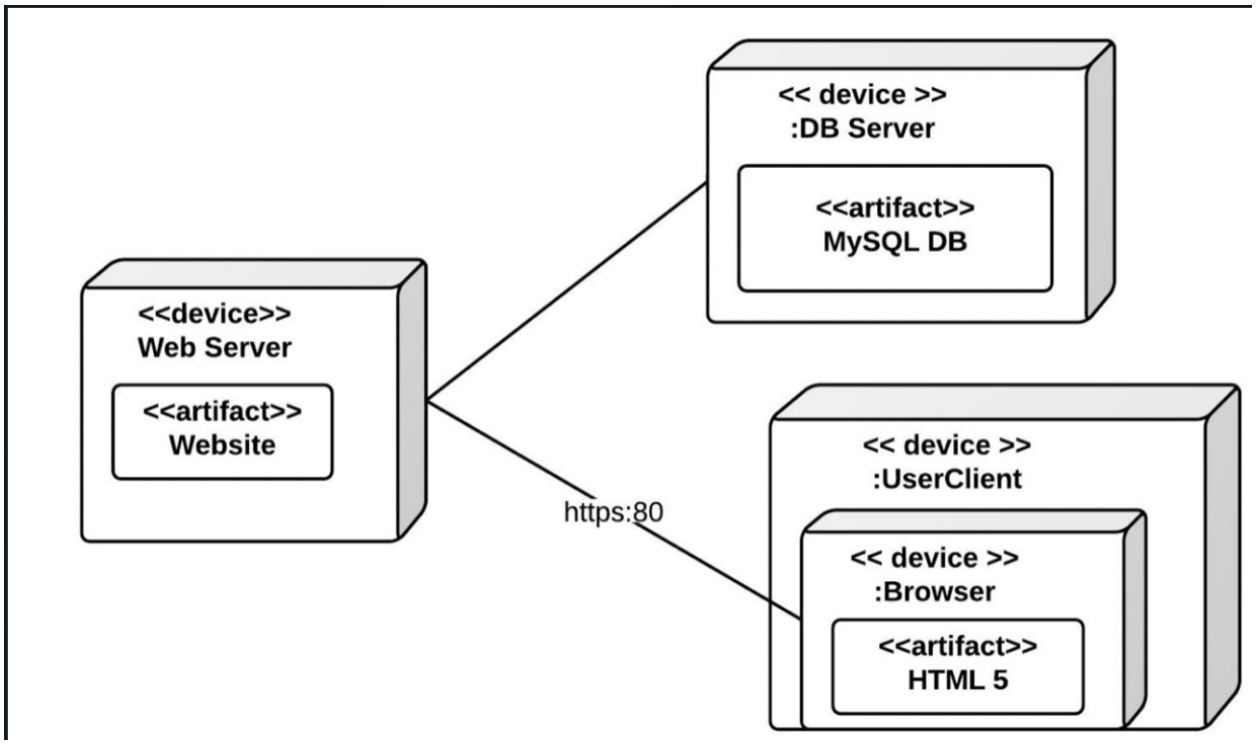
5.Implementation

5.1. Component Diagram

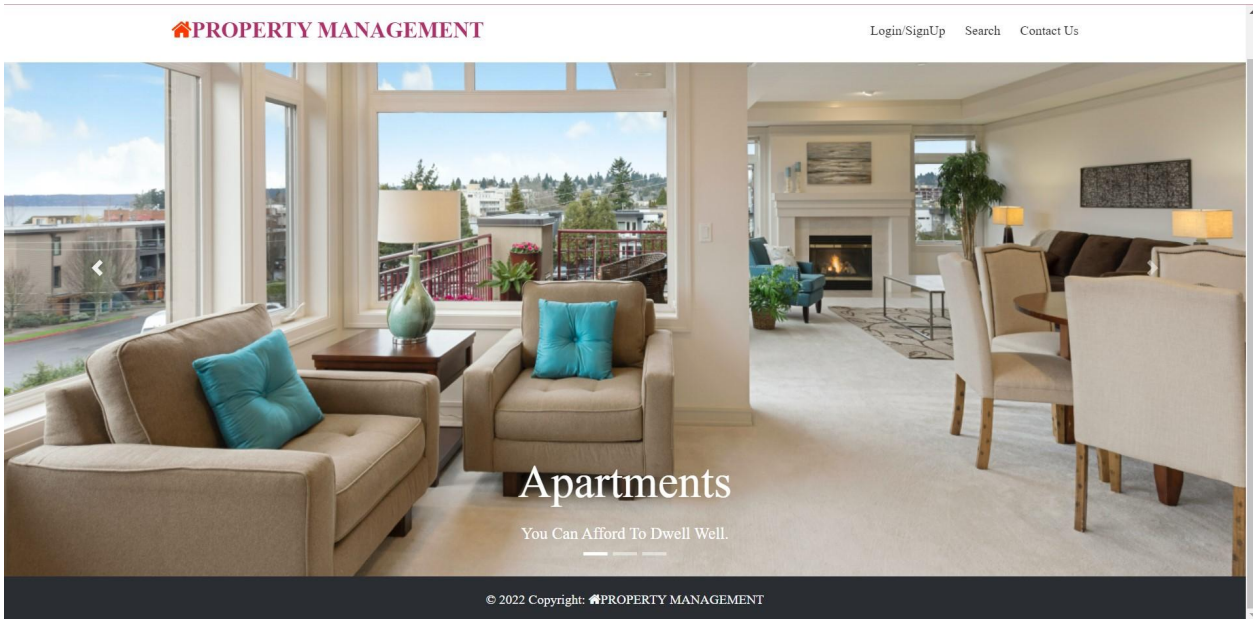
Component diagrams are used to visualize the organization and relationships among components in a system. These diagrams are also used to make executable systems.

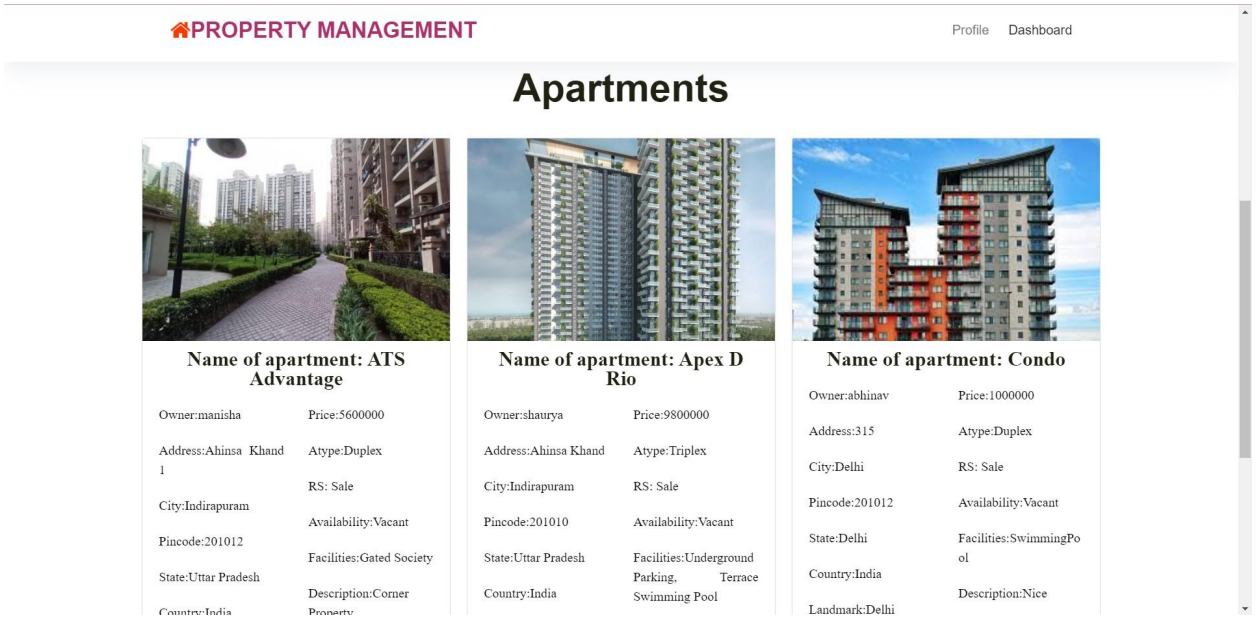


5.2 Deployment Diagram



5.3 Screenshots





PROPERTY MANAGEMENT

Profile Search Dashboard

Applied Apartments

Name of apartment: Orange County

Owner: Abhinav Kataria

Address: Shakti Khand, Indirapuram

Price: 60000

Apartment-Type: Alcovestudio

Rent/Sale: Sale

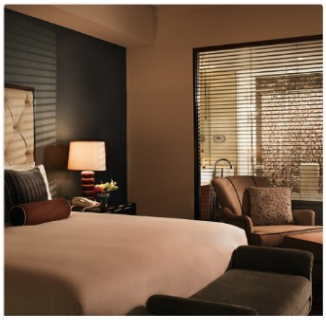
Applied Apartments

127.0.0.1:5000/applied_room/

PROPERTY MANAGEMENT

Profile Search Dashboard

Applied Rooms



Name of building: CV Raman

Owner: anu

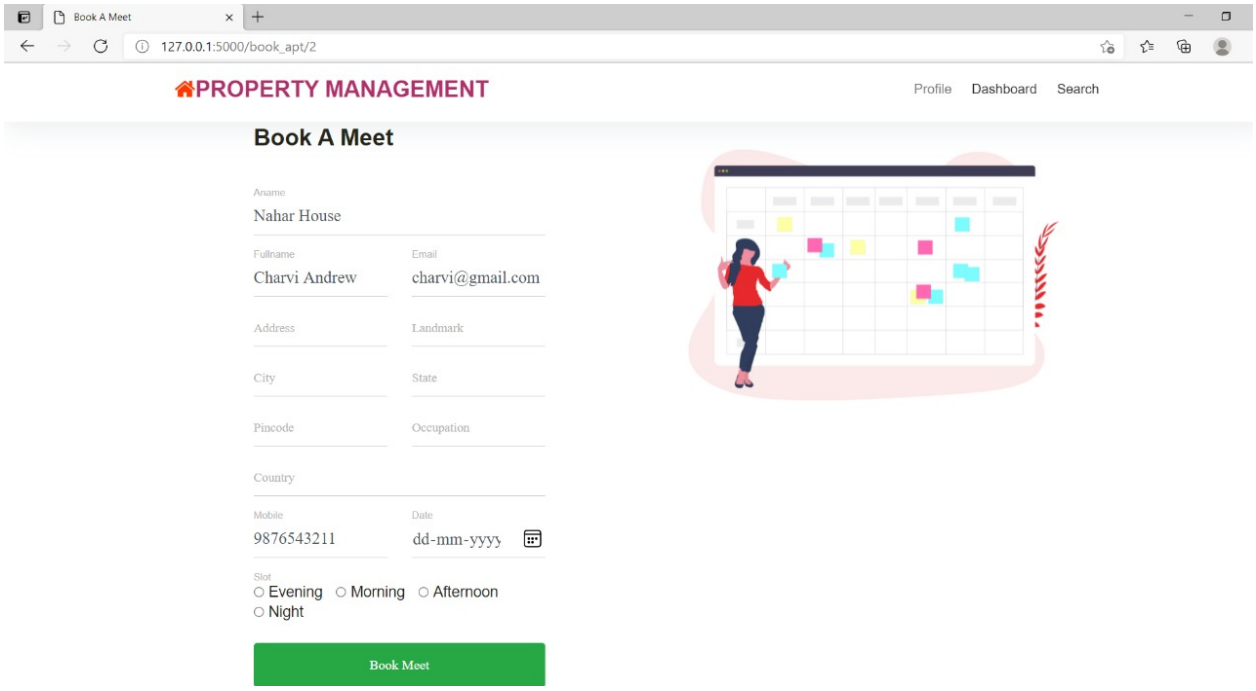
City: Mumbai

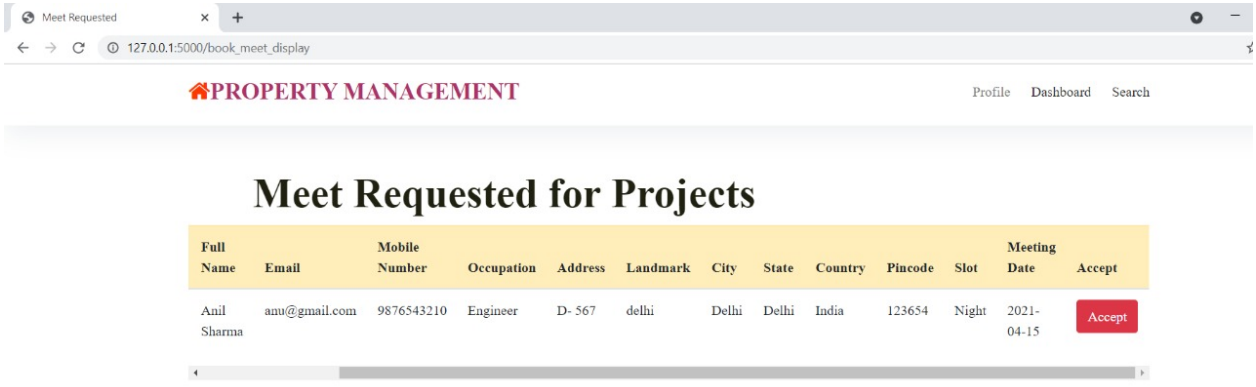
State: Maharashtra

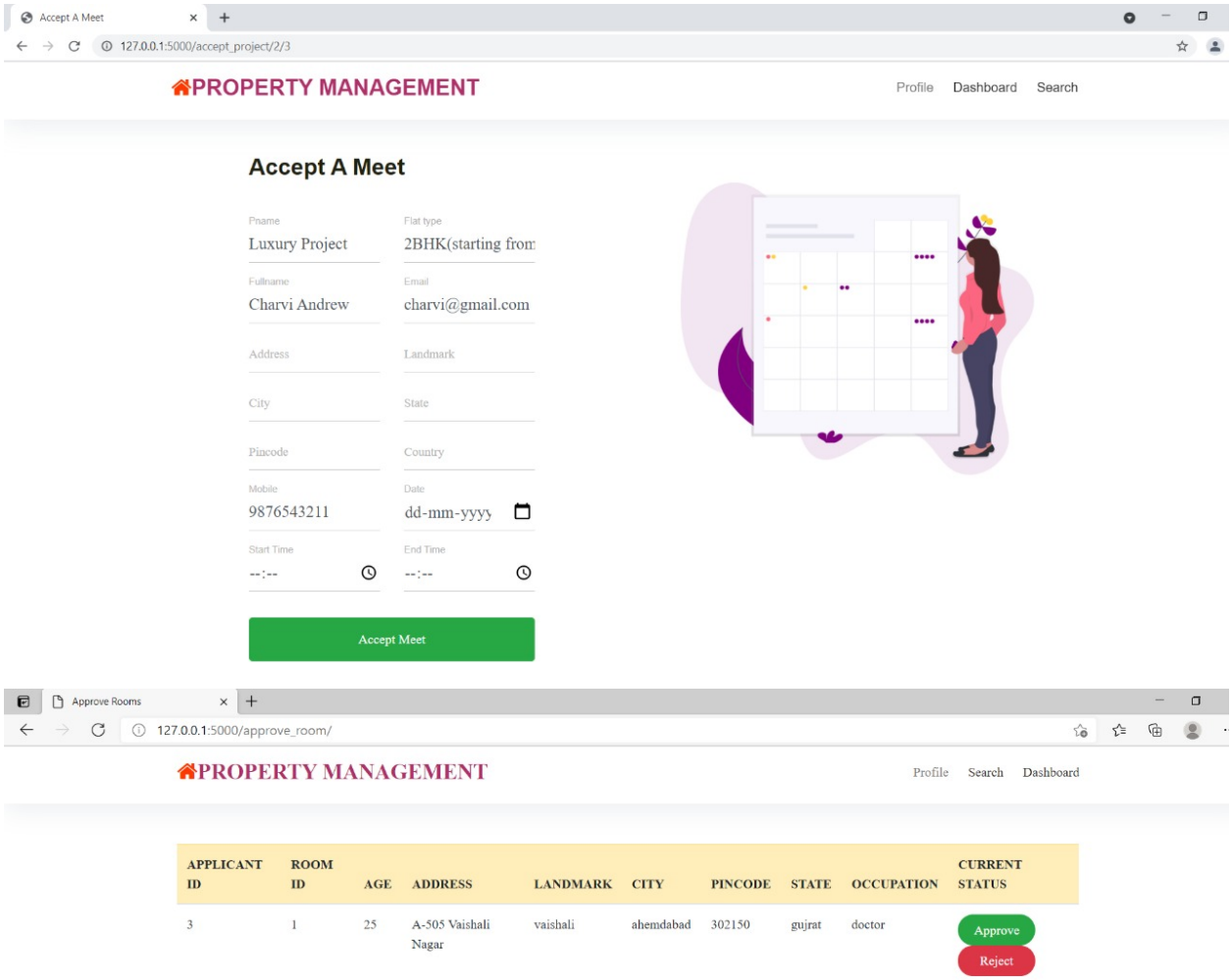
Rent Price: 20000

Area: 789

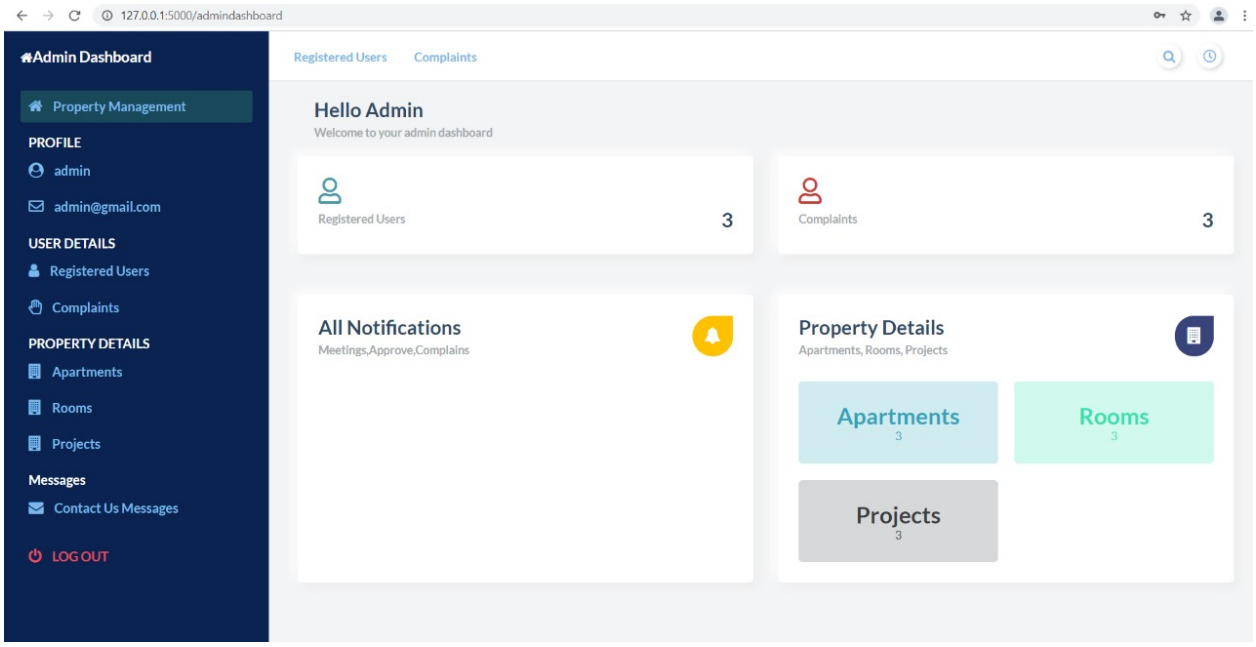
Room no.: 12

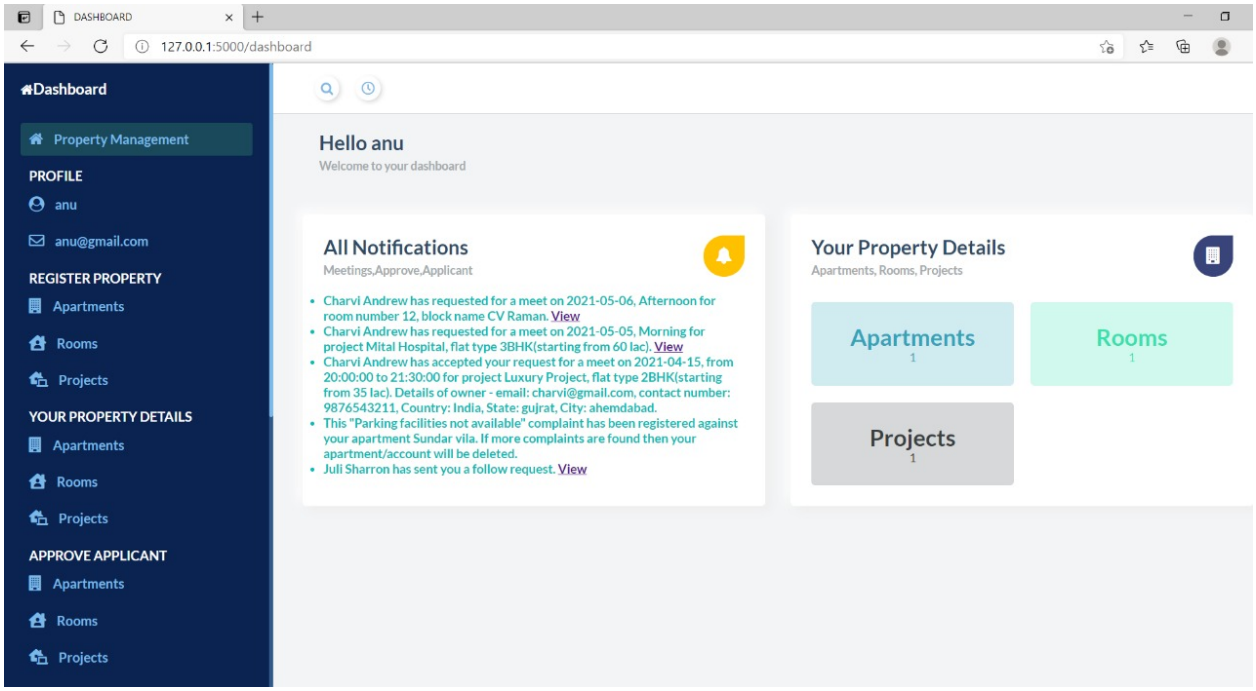

Book A Meet
127.0.0.1:5000/book_apt/2
PROPERTY MANAGEMENT
Profile
Dashboard
Search
Book A Meet
Aname
Nahar House
Fullname
Charvi Andrew
Email
charvi@gmail.com
Address
Landmark
City
State
Pincode
Occupation
Country
Mobile
9876543211
Date
dd-mm-yyyy
Slot
Evening
Morning
Afternoon
Night
Book Meet

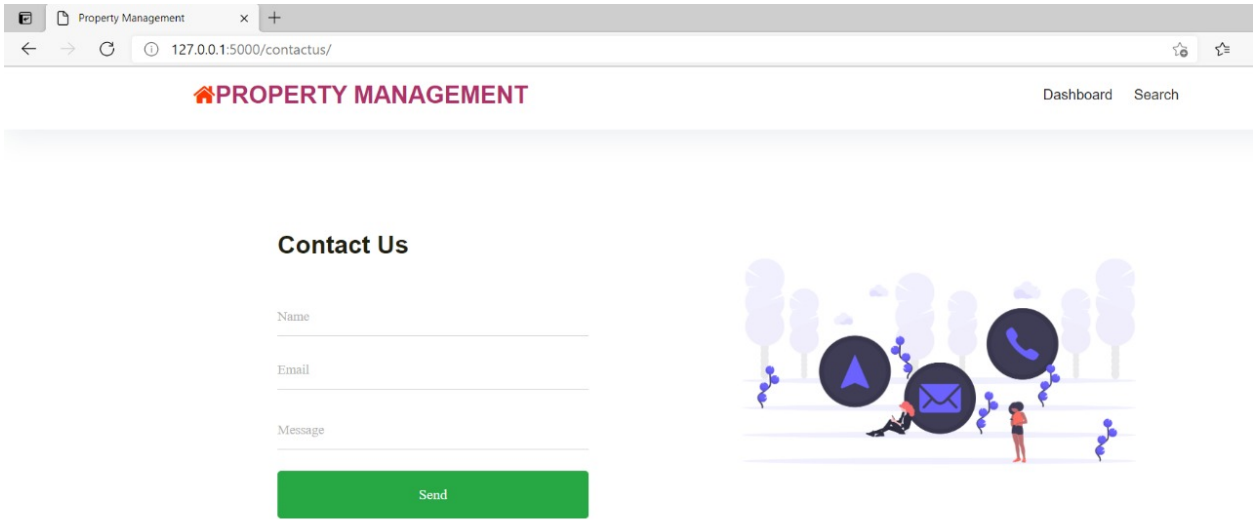

Meet Requested
127.0.0.1:5000/book_meet_display
PROPERTY MANAGEMENT
Profile
Dashboard
Search
Meet Requested for Projects
Full Name
Email
Mobile Number
Occupation
Address
Landmark
City
State
Country
Pincode
Slot
Meeting Date
Accept
Anil Sharma
anu@gmail.com
9876543210
Engineer
D- 567
delhi
Delhi
Delhi
India
123654
Night
2021-04-15
Accept



APPLICANT ID	ROOM ID	AGE	ADDRESS	LANDMARK	CITY	PINCODE	STATE	OCCUPATION	CURRENT STATUS
3	1	25	A-505 Vaishali Nagar	vaishali	ahemdabad	302150	gujrat	doctor	Approve Reject


127.0.0.1:5000/admindashboard
Admin Dashboard
Registered Users
Complaints
Property Management
PROFILE
admin
admin@gmail.com
USER DETAILS
Registered Users
Complaints
PROPERTY DETAILS
Apartments
Rooms
Projects
Messages
Contact Us Messages
LOG OUT
Hello Admin
Welcome to your admin dashboard
Registered Users
3
Complaints
3
All Notifications
Meetings,Approve,Complains
Property Details
Apartments, Rooms, Projects
Apartments
3
Rooms
3
Projects
3


DASHBOARD
127.0.0.1:5000/dashboard
Dashboard
Property Management
PROFILE
anu
anu@gmail.com
REGISTER PROPERTY
Apartments
Rooms
Projects
YOUR PROPERTY DETAILS
Apartments
Rooms
Projects
APPROVE APPLICANT
Apartments
Rooms
Projects
Hello anu
Welcome to your dashboard
All Notifications
Meetings,Approve,Applicant
Charvi Andrew has requested for a meet on 2021-05-06, Afternoon for room number 12, block name CV Raman. View
Charvi Andrew has requested for a meet on 2021-05-05, Morning for project Mital Hospital, flat type 3BHK(starting from 60 lac). View
Charvi Andrew has accepted your request for a meet on 2021-04-15, from 20:00:00 to 21:30:00 for project Luxury Project, flat type 2BHK(starting from 35 lac). Details of owner - email: charvi@gmail.com, contact number: 9876543211, Country: India, State: gujrat, City: ahemdabad.
This "Parking facilities not available" complaint has been registered against your apartment Sundar vila. If more complaints are found then your apartment/account will be deleted.
Juli Sharron has sent you a follow request. View
Your Property Details
Apartments, Rooms, Projects
Apartments
1
Rooms
1
Projects
1


Property Management
127.0.0.1:5000/contactus/
PROPERTY MANAGEMENT
Dashboard
Search
Contact Us
Name
Email
Message
Send

6.Testing

TEST CASE EXAMPLE-1

Test Case#:1.1	**Test Case Name: Login**
System: Property Management	**Subsystem: Login.html**
Designed by: Titans	
Executed by: Kartikay	**Design Date:25-Mar-2022**
Execution Date:29-Apr-2022	
Short description: Test the Validating Page	

Pre-conditions:
User has a username.
User should have remembered correct Login credentials
System displays welcome greets!

Steps	Action	Expected System Response	Pass/Fail	Comment
1.	Click on Username division.	The system displays a message asking for users Username.	Pass	Working absolutely fine.
2.	Click on the Password division.	The system displays a message to enter the password.	Pass	Working.
3.	Click enter.	The system validates the Entered Password with the database.	Pass	Working.

Result: User get access to its dashboard.

Test Case Example-2

Test Case#:1.2

Test Case Name:

Register

System: Property Management

Subsystem:

Register.html

Designed by: Titans

Executed by: Abhinav

Design Date:02-Mar-2022

Execution Date:29-Apr-2022

Short description: Test the Registration Page

Pre-conditions:
User should have a valid Username and Password.
System displays welcome greets!

Steps	Action	Expected System Response	Pass/Fail	Comment
1.	Click on Username division.	The system displays a message asking for users Username.	Pass	Working absolutely fine.
2.	Click on the Full Name division.	The system displays a message to enter the Full Name.	Pass	Working.
3.	Click on the Mobile Number division.	The system displays a message to enter Valid Mobile Number.	Pass	Working.
4.	Click on the Email division.	The system displays a message to enter valid Email Address.	Pass	Working
5.	Click on Password division.	The system ask for valid Password with constraints.	Pass	Working
6.	Click on Confirm Password.	The system ask user to re-enter the Password.	Pass	Working
7.	Click on Register	The system create a new account and insert the details to database.	Pass	Working

Result: User gets directed to login page.

Test Case Example-3

Test Case#: 1.3	**Test Case Name:** Register
System: Property Management	**Subsystem:** Login.html
Designed by: Titans	**Design Date:** 04-Mar-2022
Executed by: ~~Dhriti~~ Taneja	**Execution Date:** 29-Apr-2022
Short description: Test the Apartment Registration Page	

Pre-conditions:
User should have a valid Username and Password.
System displays welcome greets!

Steps	Action	Expected System Response	Pass/Fail	Comment
1.	Click on Apartments division.	The system displays a message asking for Apartment Name.	Pass	Working absolutely fine.
2.	Click on the Address division.	The system displays a message to enter the Address.	Pass	Working.
3.	Click on the Landmark division.	The system displays a message to enter Landmark.	Pass	Working.
4.	Click on the Plot Number division.	The system displays a message to enter valid Plot Number.	Pass	Working
5.	Click on City division.	The system ask for City.	Pass	Working
6.	Click on Pincode.	The system ask user to Pincode.	Pass	Working
7.	Click on State.	The system ask user to State.	Pass	Working
8.	Click on Country.	The system ask for country.	Pass	Working
9.	Click on one of the choice	Rent/Sale.	Pass	Working
10.	Click on area.	System ask for Area of listing.	Pass	Working

11.	**Click on Facilities division.**	**Enter the desired input.**	**Pass**	**Working**
12.	**Click on description.**	**Enter the description of the listing.**	**Pass**	**Working**
13.	**Click on Register Apartment**	**The system saves the entries on the database and greets!**	**Pass**	**Working**

Result: User Apartment gets listed.