Title of the Project: Get Your Own Roof

Submitted to:
Computer Engineering Department

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Abstract:
The Automated Rental Property System's purpose is to provide an ease for the admin and customer. We are stuck with technology when what we really want is just stuff that works. With the current paradigm shift in technological field, there is an urgent need to embrace and appreciate the power of technology. Housing sector remains vigilant to face the challenges of change by employing a new strategy that facilitates easy management of rental houses. Hence there is need to develop a rental house management system that can simplify work for the rental managers so that all their work can be efficient and effective. This system is intended to allow the customers monitor about their rental properties and to monitor the leaseholders and house. Aside from the property information, it includes the leaseholder's information. The researchers also developed the system to be secure in order to prevent unauthorized access. The leaseholder can send message request through email or via SMS which is directed to the Administration of the facility.

Introduction:

Day by day our urban life is getting busier and it is quite a hassle to look for To-Lets wandering around the city. For people of this category online house rental system is a relief. Here people can easily find the information about rooms, hostels, bungalows, flats or houses just by sitting in front of their laptop or smart phone. **GET YOU OWN ROOF** can make a huge impact specially in comfortability of monitoring ones finding home. The system we are going to develop has various features to make life easier for the urban people. Here tenants can choose from a large variety of houses which meets their requirements. Also, landlords can rent or sell their house or flats via this online system just by a click of a button. So, it will helpful for not only tenants but also for the house owners. Here we have restricted the use of broker to avoid brokerage issue and hence is transparent platform. The application will be developed keeping all the key features in mind for both the renters and owners.

Software Requirement Specification:

- PROBLEM STATEMENT

Over the years landlords/property managers have had a problem in maintaining and managing their customers and their own records. Management has become difficult because of issues that include:

i) Data growth: Data increase day to day. Storing and maintaining all data manually is very difficult

ii) Lack of computerized system: Currently most landlords/property managers use the manual system in recording and maintaining their property and customers data

iii) Data security is not assured: In a manual way, data is recorded on books/papers which may easily get damaged leading to loss of data.

iv) There is no database to store information: Potential of data loss or damage is very high because data is stored on tangible files.

Lack of these crucial requirements makes management of the tenants and houses very difficult as some tenants may end up not paying rent.

Also, as a student ourselves, we have to stay far away from our home for study purpose and we need houses on rent for accommodation. We had the first-hand experience of how difficult it is to find a proper place for accommodation. Therefore, we came up with an idea of developing an online house rental management system which can make things easier.

- **SCOPE:**

Our research aims to help real estate business or any rental establishments by introducing an efficient way of monitoring and keeping track with their properties. The participants of this study are the administration for them to be able to keep track on their properties and the leaseholders that are leasing the property.

This application is not widely popular but in future, it has large scope of growth. This website is an online real house management through which individual owner can maintain their property document keeping and managing property registration and also access its information and manage all the adding, updating, deleting records. The admin user can upload information regarding property and cancellation of property or changing renter's choice. The system is very useful for both the owner and renters. The system is also useful which also keeps track of account details of owners and renters.

We used an online survey form from SWS to determine necessary things when finding a property to be rented/ to be bought.

We used Java, SQL, SDLC. The system can run on standalone mode in the Microsoft Windows Operating System.

Future scope:

1. To add asset rating system for buyers.
2. Provide online payment methods in the application itself.
3. Also provide options for users for leasing or buying ceremony halls.

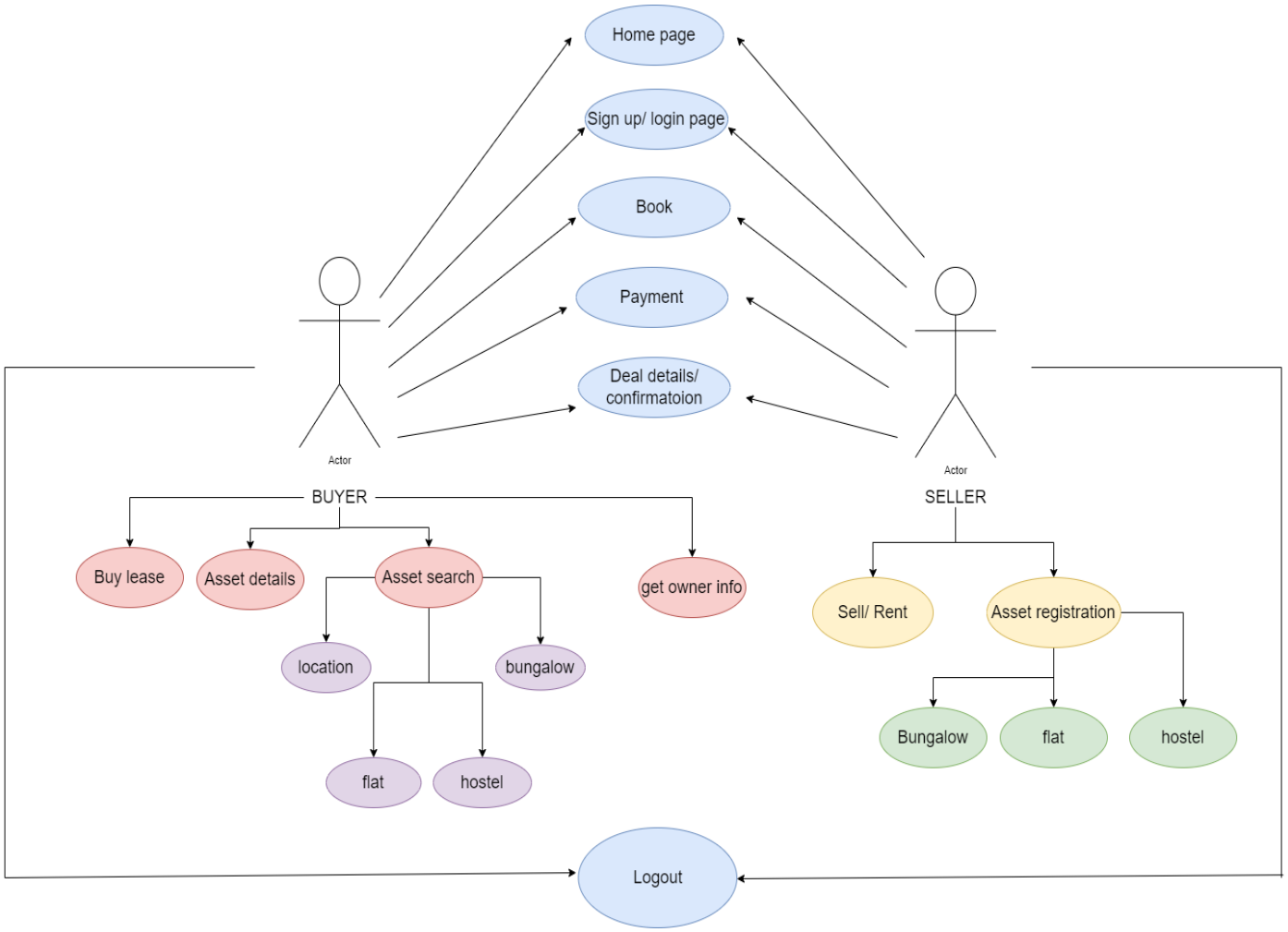
- **Definitions, acronyms, abbreviations**

Definition: There are two main stakeholders, Buyer and seller. Buyer includes buyer id, password, name, contact details and mail id. Whereas, Seller includes seller id, name, password, contact and mail id. The buyer buys/ leases an asset and seller own an asset. Another relationship between buyer and seller is "DEAL". These two stakeholders deal with each other. An asset is then classified into three categories: flats, bungalow and hostel. Here we have mentioned location as well pin number, in case any user specifically have need in that particular locality.

- **References**

www.google.com
www.youtube.com
https://sites.google.com/view/rahulapatil

- **Product perspective**



- **User characteristics:**

1. We have implemented sign up and login portal where user can register themselves.
2. The buyer can directly contact the seller without any broker.
3. Once you enter the information, data will be stored and fetched whenever needed.
4. It allows the user to view customer's data as well as house records.
5. It is a system where users are allowed to add, edit, search and delete data from database.

USERS OF THE SYSTEM:

1. Buyer
2. Seller

- **General Constraints**

1. regulatory policies
2. hardware limitations
3. parallel operation
4. audit functions
5. control functions
6. criticality of the application
7. safety and security considerations
8. standards laws

Assumptions about input, or environmental behaviour

Ex: hardware never fails
Ex: Payment casing is impenetrable
Ex: limited number of transactions per day (sufficient paper for receipts)
Ex: limited amount of money withdrawn per day (sufficient money)

What conditions could cause the system to fail?

1. Dummy database
2. System interruptions

- **Specific Requirements**

HARDWARE REQUIREMENT:
Processor: Intel(R) Core or higher
Installed Memory: 1.00GB or higher
Speed: 1.40GHz or faster
Operating System: 32/64-Bit operating system, x86/x64-based processor

SOFTWARE REQUIREMENT:
Operating System: Windows 7/8/8.1/10
Data Base: SQL Server Version 21C
Web Technologies: JAVA, SQL, SDLC
IDE & Tools: Eclipse

- **USER REQUIREMENTS:**

1. A system that improves on the efficiency of information storage and retrieval.
2. A system that is easy to learn and use.
3. A system that is fast in processing transactions.
4. A system that is flexible, safe and convenient.

- **FUNCTIONAL REQUIREMENTS:**

This is a necessary task, action or activity that was accomplished. The proposed system is able to:

i) Allow administrator to add a house, tenant and defaulters' details
ii) Allow the administrator to delete houses, tenants and defaulters' details
iii) Allow the administrator to search data in the database

Allow the administrator to edit data in the database

- **Stake Holders:**

The platform will help users those who want to buy or lease any asset for living and those who want to sell their asset or want to give it on rental basis.

- **NON-FUNCTIONAL REQUIREMENTS:**

Non-Functional Requirements are the constraints or the requirements imposed on the system. They specify the quality attribute of the software.

Some of the most typical non-functional requirements include performance, capacity, scalability, availability, reliability, maintainability, recoverability, serviceability, security, data integrity, manageability, and usability.

1]Usability:

Prioritize the important functions of the system based on usage patterns.

Frequently used functions should be tested for usability, as should complex and critical functions. Be sure to create a requirement for this.

2] Reliability:

- Reliability defines the trust in the system that is developed after using it for a period of time. It defines the likeability of the software to work without failure for a given time period.

-The number of bugs in the code, hardware failures, and problems can reduce the reliability of the software.

3] Scalability:

It defines a system/ model which describes the capability to cope and perform well under an increased workload.

4] Software quality attributes:

Our project is open source. The quality of the database is maintained in such a way that it can be very user friendly to all users of the database.

5] Safety requirements:

The database may get crashed at any certain time due to virus or operating system failure. Therefore, it is required to take the database so that the database is not lost.

6] Security requirements:

Our system will use secured database. Normal users can just read information but they canto edit or modify anything except their personal and some other information. Every user of the system has access constraints

7] Performance requirements:

The performance of our system is fast and accurate. This system can handle expected and non-expected errors is ways that prevent loss. Our system is able to handle large amount of data. Thus, it can accommodate high number of data and users without any fault.

- **OBJECTIVES:**

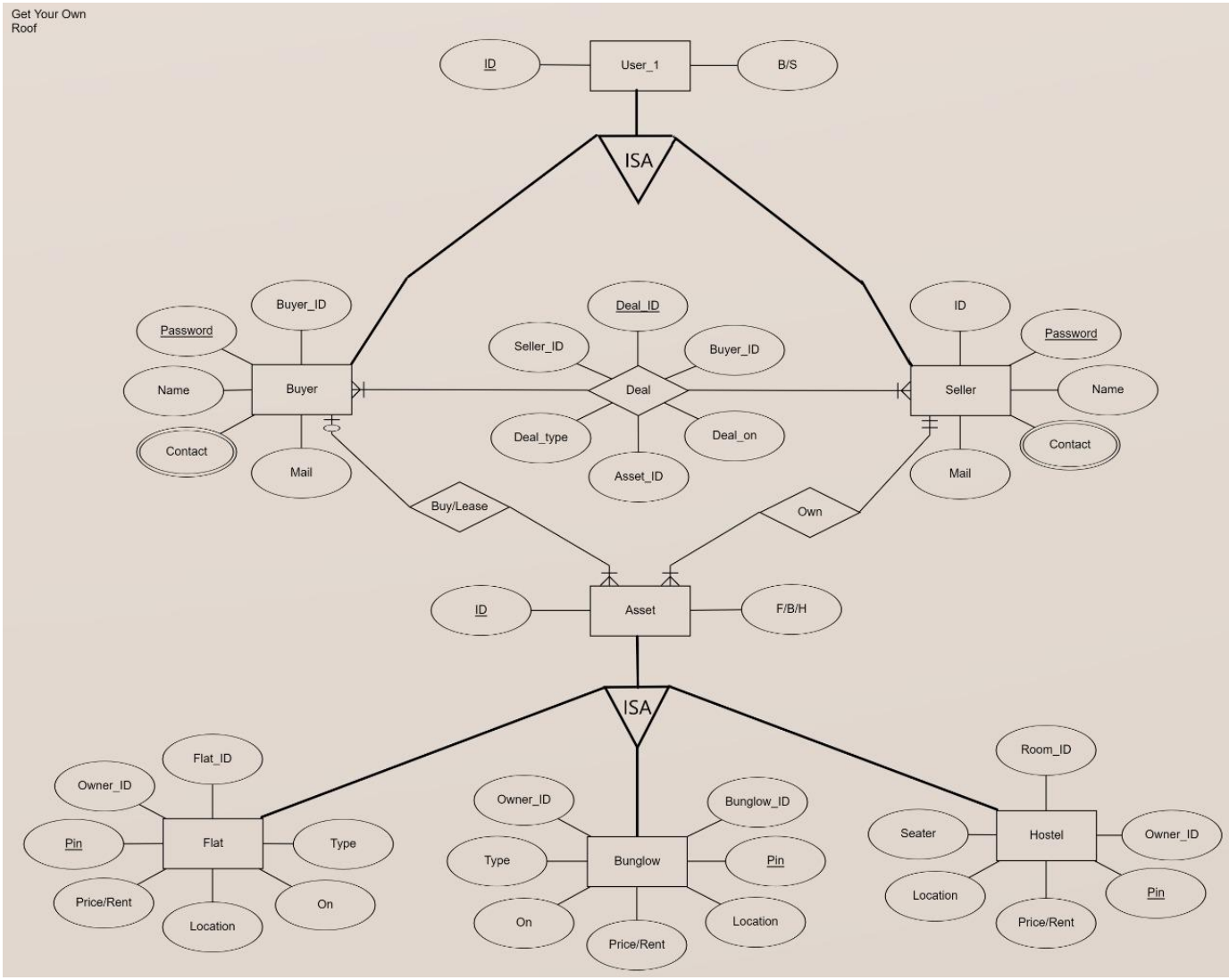
1. To study currently available online house rental system in the market in our city.
2. Analyse the market and modify our system according to the environment.
3. Finally developing the website/ application according to the requirements of both tenants and house owners.

- **External Interfaces**

Detailed descriptions of all inputs and outputs

1. Name of input (or output)
2. Description of purpose
3. Source of input or destination of output
4. Valid range, accuracy, and/or tolerance
5. Units of measure
6. Timing
7. Relationships to other inputs/outputs
8. Screen formats/organization
9. Window formats/organization
10. Data formats
11. Command formats

Conceptual Design using ER features

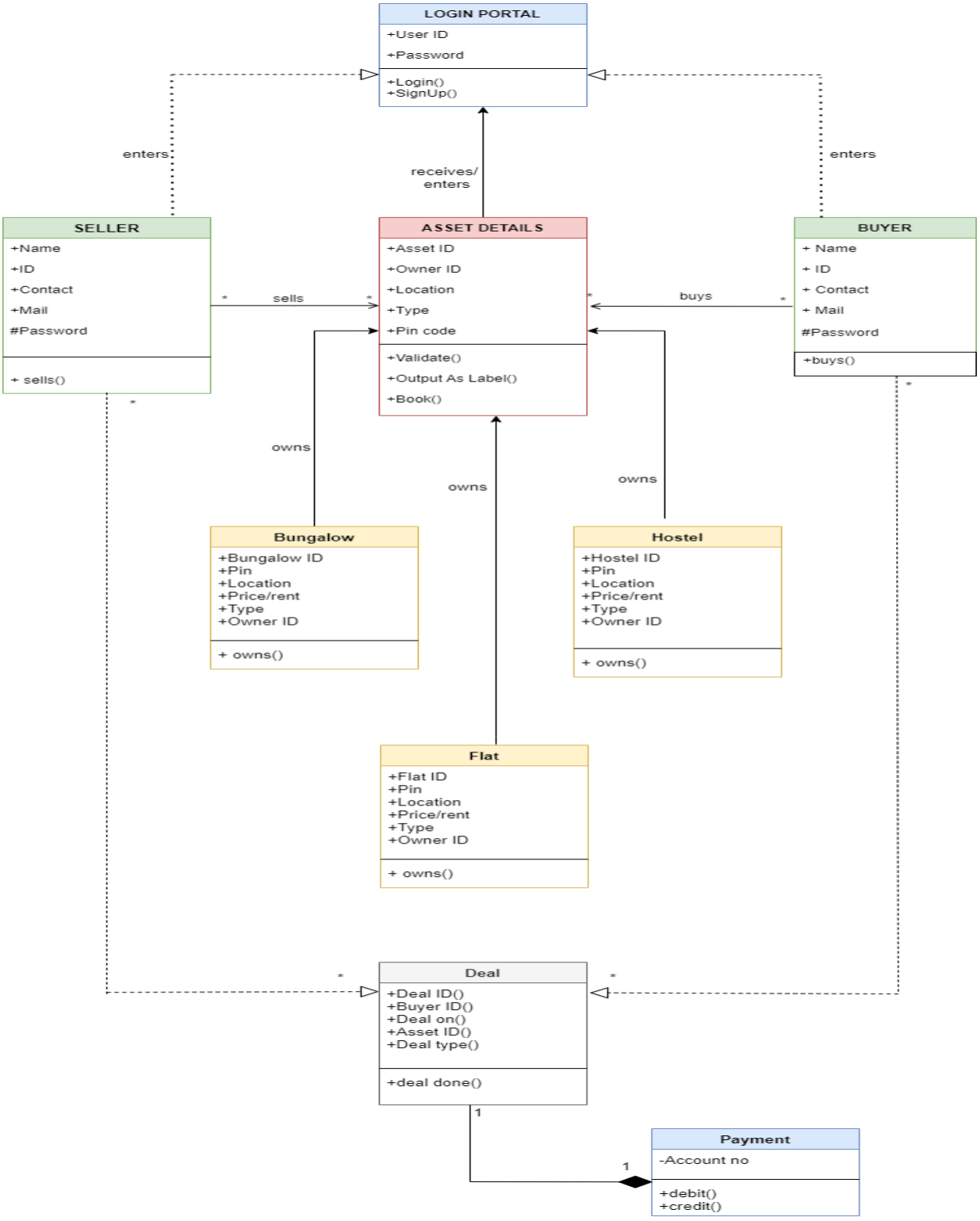


Relational Model in appropriate Normalize Form.

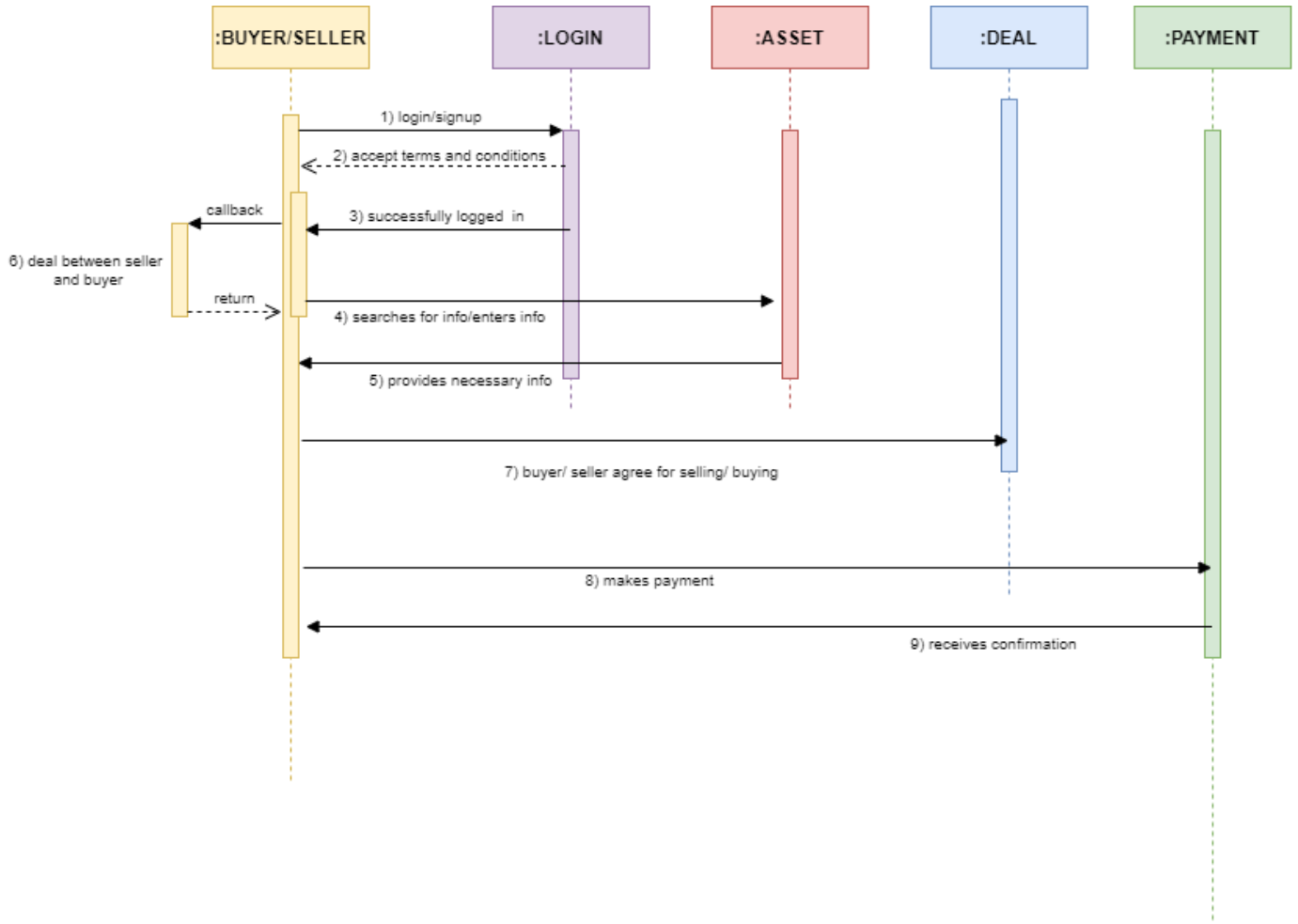
- **User_1(**ID, Buyer/Seller**)**
- **Buyer(**Buyer_ID, Password, Name, Contact, Mail**)**
- **Seller(**Seller_ID, Password, Name, Contact, Mail**)**
- **Deal(**Deal_ID, Seller_ID, Buyer_ID, Asset_ID, Deal_on, Deal_type**)**
- **Asset_1(**ID, F/B/H**)**
- **Flat(**Flat_ID, Owner_ID**,** Pin, Location, On, Type, Price/Rent**)**
- **Bunglow(**Bunglow_ID, Owner_ID, Pin, Location, On, Type, Price/Rent**)**
- **Hostel(**Room_ID, Owner_ID, Pin, Location, Type, Rent**)**

UML Design:

1. Class diagram



2. Sequence diagram:

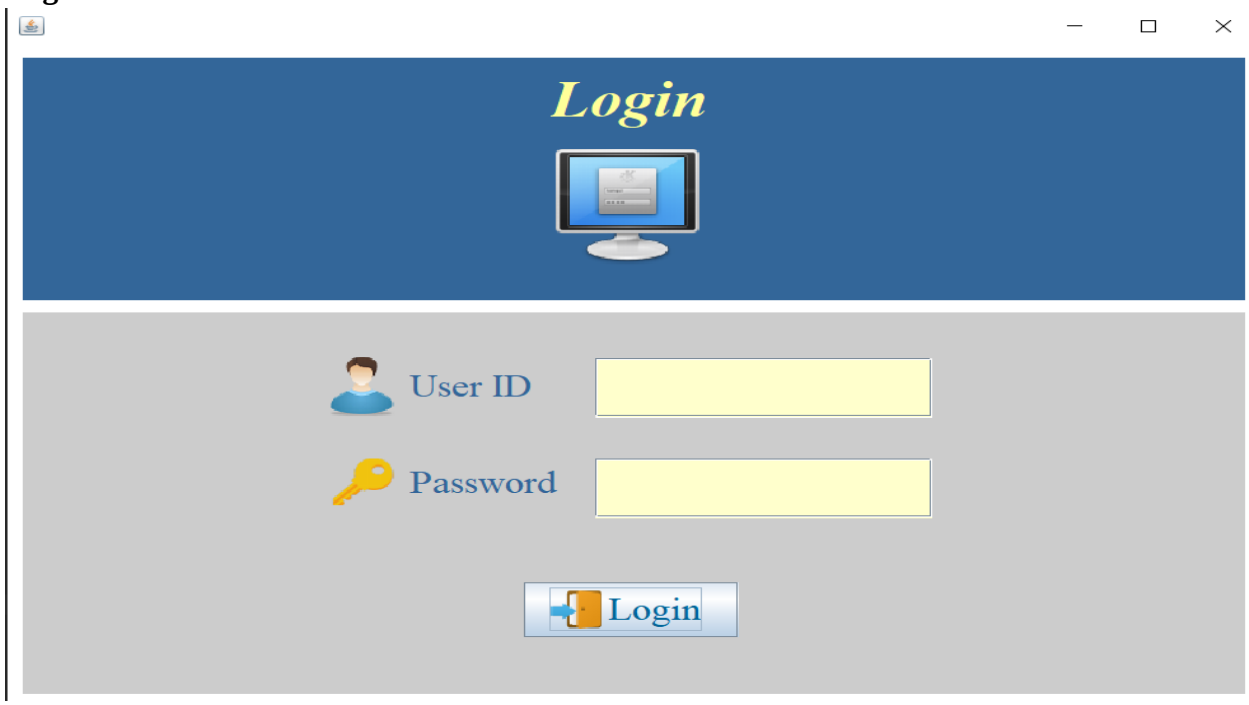


Graphical User Interface:

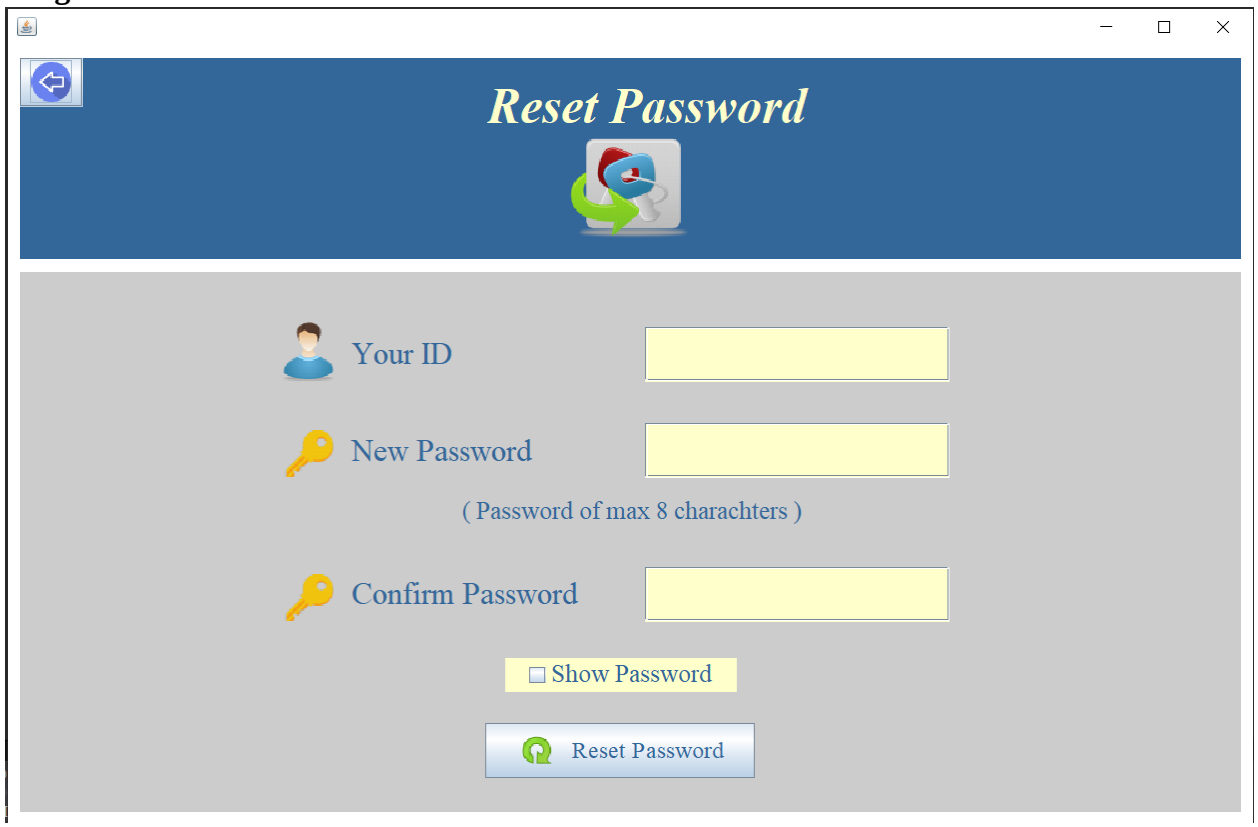
Homepage

Login/Signup

Login

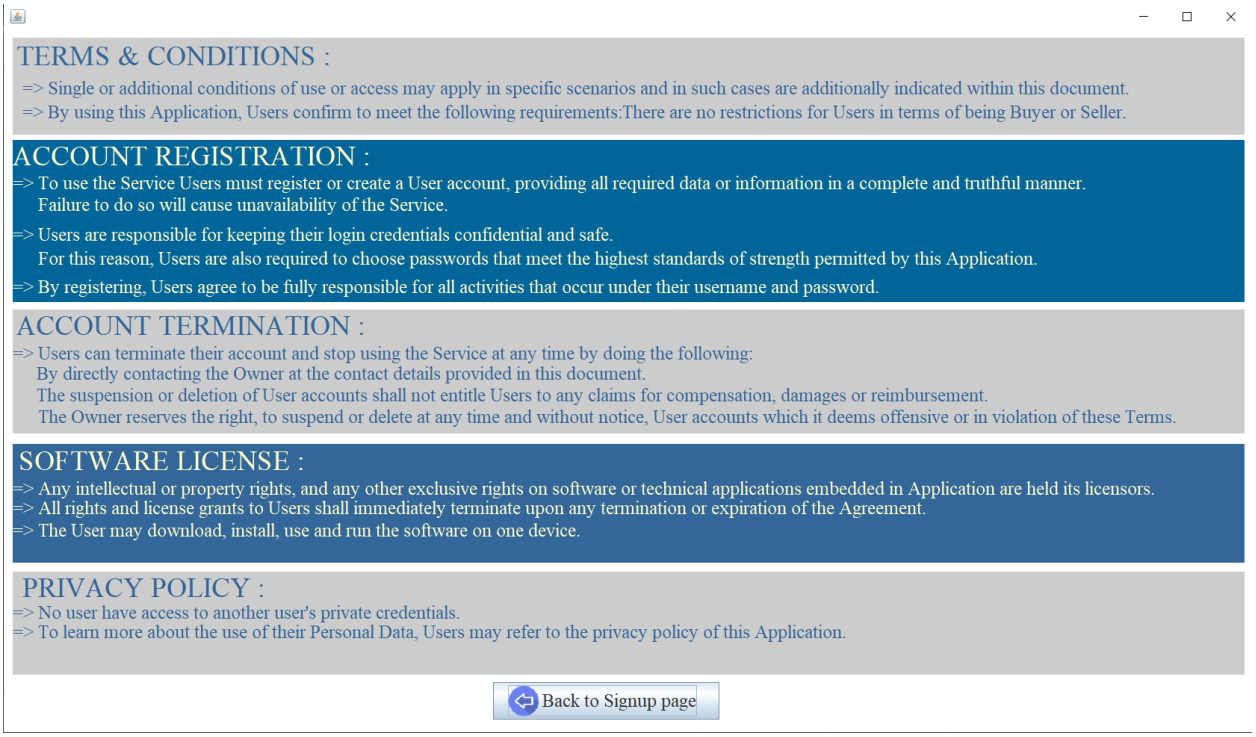


Forgot Password



Signup

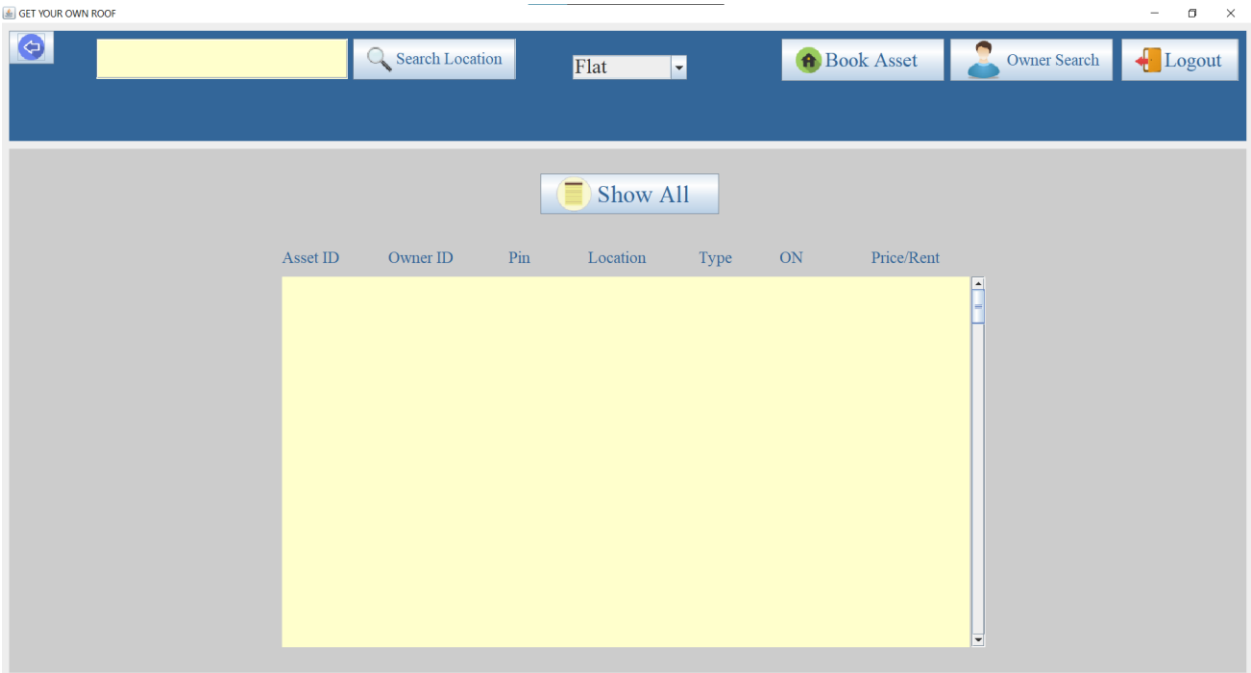
Terms and Conditions



Buy/Lease or Sell/Rent?

Asset Registration

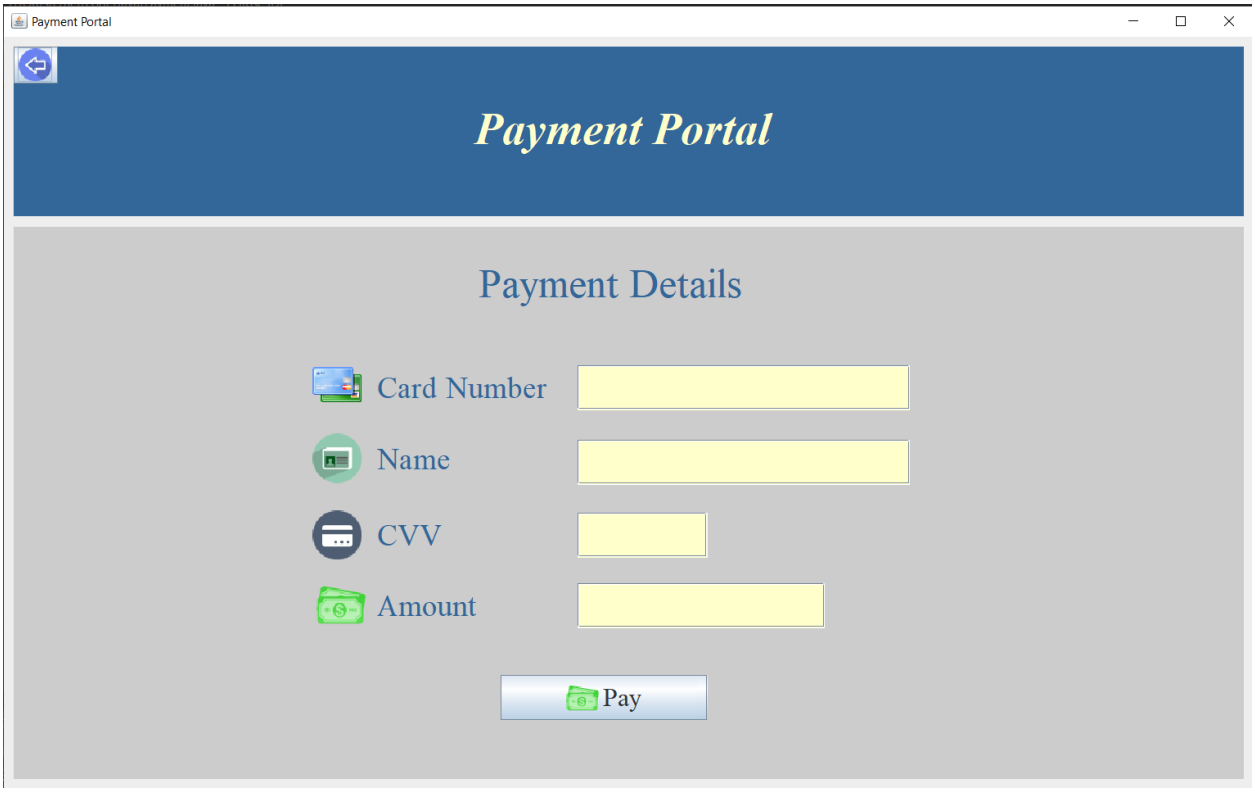
Dashboard



Owner Information

Asset Details

Payment Portal



Source Code
Test Cases

Conclusion

Online house rental business has emerged with a new possibilities compared to the past experience where every activity concerning house rental business was limited to a physical location only. Even though the physical search for houses has not been totally eradicated; the nature of functions and how these functions are achieved has been reshaped by the power of internet. Nowadays, renters can reserve houses online once the customer is a registered member of the website. The web based house rental system has offered an advantage to both landlords as well as the tenants efficiently and effectively just with the click of a button. We produced an automated way of searching properties, provided with their location, availability and contact person. We also include reports and sales for admin features for faster monitoring of the transaction.