A Mini Project Synopsis on

HOUSING MANAGEMENT SYSTEM

RENTERA

S.E. – Computer Science and Engineering-Data Science

Submitted By

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CERTIFICATE

This to certify that the Mini Project report on **Housing management system** has been submitted by **Rohan Waghode** (21107008) ,**Sumit Samanta** (21107003),**Harsh Shelke** (21107022) and **Sonal Sonarghare (**21107033) who are a Bonafede students of A. P. Shah Institute of Technology, Thane, Mumbai, as a partial fulfilment of the requirement for the degree in **Computer Science and Engineering(Data Science)**, during the academic year **2022-2023** in the satisfactory manner as per the curriculum laid down by University of Mumbai.

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CHAPTER 1

INTRODUCTION

Housing management system has become important factor in modern society. Real estate Industry has always been a profitable industry not only for agents, brokers, but also for the sellers, buyers. The online housing management system is the need of hour because of the recent changes in the industry and the increasing use of the internet. A Real-time housing management system for the customer is our proposed system.

This system helps the restaurants to do all functionalities more accurately and in faster ways also is supported to eliminate and, in some cases, reduce the hardships faced by the existing systems. Also helps to maintain the stock and cash flow and many more functionalities, like: To store records, payments and services and No paperwork thus provides digital management.

1.1 PURPOSE

RENTERA proposes a solution for Buying, Renting and Selling the property at any time in our portal provided they are registered with our site. To develop computerized system currently most landlords/property manager's use the manual system in recording and maintaining their property and customers data. To target customers who are in need to sell, rent, or buy property with efficient and effective results with less time consuming.

1.2 OBJECTIVES

The main objective is to develop a house management system that allows the user to view customers data as well as houses record like location, property type, bhk type and images. This system helps to provide interface which is easy, efficient, cost effective and less time consuming. Provides reliability, security, accuracy, planned approach towards working for users.

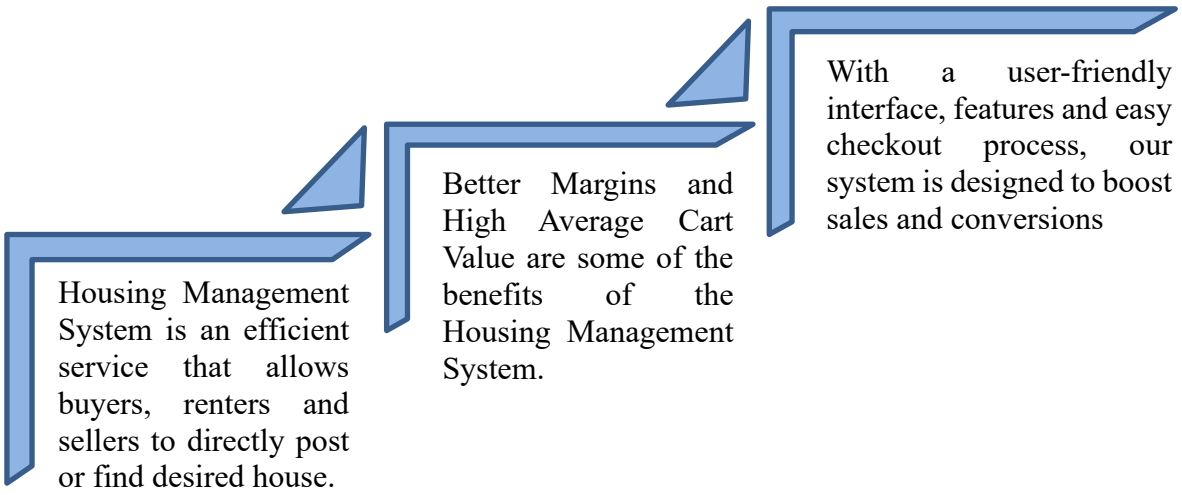

Figure 1.1: Objectives of Housing Management System

1.3 SCOPE

The real of World Wide Web have spread across millions of households, so naturally, Internet has become the best platform for real estate marketing today. If you want to sell, buy or rent property we will just log on in to this portal and provide the sufficient details and description about our assets. You just log on with your username and password. You can alter your option as many times as you wish with free of cost. This portal which has created provides a registration page for customers, so that the customers can register the profile of their desired fixed assets according to the places and location they prefer in order to sell, buy or rent. If their posted criteria match with the existing one, they will be provided with an excellent solution. They will also be provided the phone number and contact address of the property owners / buyers accordingly. This portal not only automates business activities but also helps in business development of both conventional and modern methods.

CHAPTER 2

PROBLEM DEFINITION

2.1 EXISTING SYSTEM

In the Existing system in order to Sell, buy or rent of land, apartments or buildings the property holders have to advertise through newspapers or through brokers which would be costlier and not be effective. They advertise their properties which would not even reach many people. Since it is advertised through newspapers and the readers who require renting or buying should have to go through each and every small column which would be a time consuming and a tough job and result in loss of patience to find out the details that should match their requirements.

Renters or buyers would likely have to run from one property to another until they find the right one or would have to notify their friends and acquaintances that they'll be shifting and requiring a new place so they can be on the lookout for attainable leases which is again time consuming and not effective.

2.2 DISADVANTAGES:

- Data growth Data increase day to day. Storing and maintaining all data manually is very difficult
- Lack of computerized system currently most landlords/property manager’s use the manual system in recording and maintaining their property and customers data
- 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.
- 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.

CHAPTER 3

PROPOSED SYSTEM

In the proposed system we design a portal for posting their properties in free of cost and they can also get the exact information in a fraction of second by simply providing the information in our site. They will also be provided the contact details of the property holders whom they need to deal in future in free of cost and without any involvement of third parties like brokers, agents and customers who might not even be genuine. Thus, the proposed system is serves to be an effective one.

ADVANTAGES:

- To develop a house management system that allows the user to view customers data as well as houses record like location, property type and images.
- To develop a system that allows the users to add, update, edit, search, and delete data from the database
- To study and analyze the requirement specifications of the house management system
- To produce the Software Requirement Specification of the system
- To produce the Software Design Document of the system

3.1 FEATURES AND FUNCTIONALITY

All users of the system are required to first login to the accounts with their credentials and if a user is a new customer, he is required to create a new account. This section lists the activity diagram and describes the flow of the activities in the system. A detailed description is given for each activity which provides an overview of the activity of the Housing Management system.

Customers of the Housing Management system will interact with the application through an easy-to-use top navigation menu.

User:

- Register: Allows users to create a new account if he/she is a first-time user by entering the basic and personal details.
- Login: Allows users to login with a unique username and password when account is created.
- Home: Allows users to see available houses or post by clicking on buy, sell or rent.
- Buy: Allows users to see all the available vacant houses and select the desired location, property type, bhk type and search accordingly,
- Sell: Allows users to post a house for sell by entering the details of the house and images.
- Rent: Allows users to rent a house by selecting necessary details.

- The system will automatically fetch new post of selling a house from the database at regular intervals and display the same in renting and buying.

- The navigation bar also has a left side dashboard which provides the users with the following options-

    1. Houses searched: This shows details of houses searched with date and time.
    2. Contact us: It provides the customer with the contact details like toll-free no. email address, etc.
    3. Terms and Conditions: For Housing Management System this section is necessary, which helps the user to go through all the terms and conditions and provides the overall system analysis.

CHAPTER 4

OUTCOMES

This Housing Management System will make it easier to find appropriate Apartments, Land, Villa etc. with best surrounding facilities for the renters and buyers and upload the location and other information by house owner. It will save resources for searching the Property. It will also save the physical hard work and invaluable time to find your desired home. Our system will be a service which will connect renters/buyers to owner and vice-versa. Some of the outcomes and benefits of system:

CHAPTER 5

SOFTWARE REQUIREMENTS

The Software Requirements Specification is produced at the culmination of the analysis task. The function and performance allocated to software as part or system engineering is refined by establishing a complete information description, a detailed functional and behavioural description, an indication of performance requirements and design constraints, appropriate validation criteria, and other data pertinent to requirements.

- The proposed system has the following requirements:

1. System needs store information about new post of house by sellers.
2. System needs to maintain quantity record.
3. System needs to keep the record of Customer.
4. System needs to update and delete the record.
5. System also needs a search area.
6. It also needs a security system to prevent data loss.

SOFTWARE REQUIREMENTS

Operating system: Windows7/8/10/11

Coding Language: Java

Data Base : MYSQL Server

Tools : NetBeans, JFrame, Swing,Mysql database

Software Development Kit: Java JDK 18.0

CHAPTER 6

PROJECT DESIGN

In this phase, a logical system is built which fulfils the given requirements. Design phase of software development deals with transforming the user's requirements into a logically working system. Normally, design is performed in the following in the following two steps:

- Primary Design Phase: In this phase, the system is designed at block level. The blocks are created based on analysis done in the problem identification phase. Different blocks are created for different functions emphasis is put on minimizing the information flow between blocks. Thus, all activities which require more interaction are kept in one block.

- Secondary Design Phase: In the secondary phase the detailed design of every block is performed. The general tasks involved in the design process are the following:

    1. Design various blocks for overall system processes
    2. Design smaller, compact, and workable modules in each block
    3. Design various database structures.
    4. Specify details of programs to achieve desired functionality
    5. Design the form of inputs, and outputs of the system.
    6. Perform documentation of the design.
    7. System reviews.

SYSTEM DESIGN AND IMPLEMENTATION

6.1 DESIGN STANDARD

The system is designed with several interaction cues on each page that makes up the Housing Management System. These cues are well-defined such as to make several functionalities that the system exposes to collect, process and output data. Access to these functionalities is made possible by the well-designed user interface which embodies several technologies to process data. The system is built in a modular form where these functionalities are built into modules. Some of the modules are as follows:

1. Buy/Sell/Rent
2. Check login
3. Feedback/Suggestions

6.2 OUTPUT SPECIFICATION

The system is designed in such a way that it efficiently provides output to the user promptly and in a well-organized manner. The format for the several outputs are made available on the output pages. Output can be relayed using the following page modules:

1. House list: This display output information for the list of houses which are currently available
2. Contact us: It provides the customer with the contact details like toll-free no. email address, etc.
3. Terms and Conditions: For Housing Management this section is necessary, which helps the user to go through all the terms and conditions regarding and provides the overall system analysis.

6.3 INPUT SPECIFICATION

The system is designed to accept several input details efficiently through input forms and user clicks. The data captured through the user keystrokes and clicks are received by specific modules on the system and relayed to the back end of the system for processing. Input is collected using the following page modules:

1. User Profile: This is used to view the account details like - name, mobile no., address, email id(optional). Also, user is provided with the options of edit profile and delete account.

GRAPHICAL USER INTERFACE (GUI):

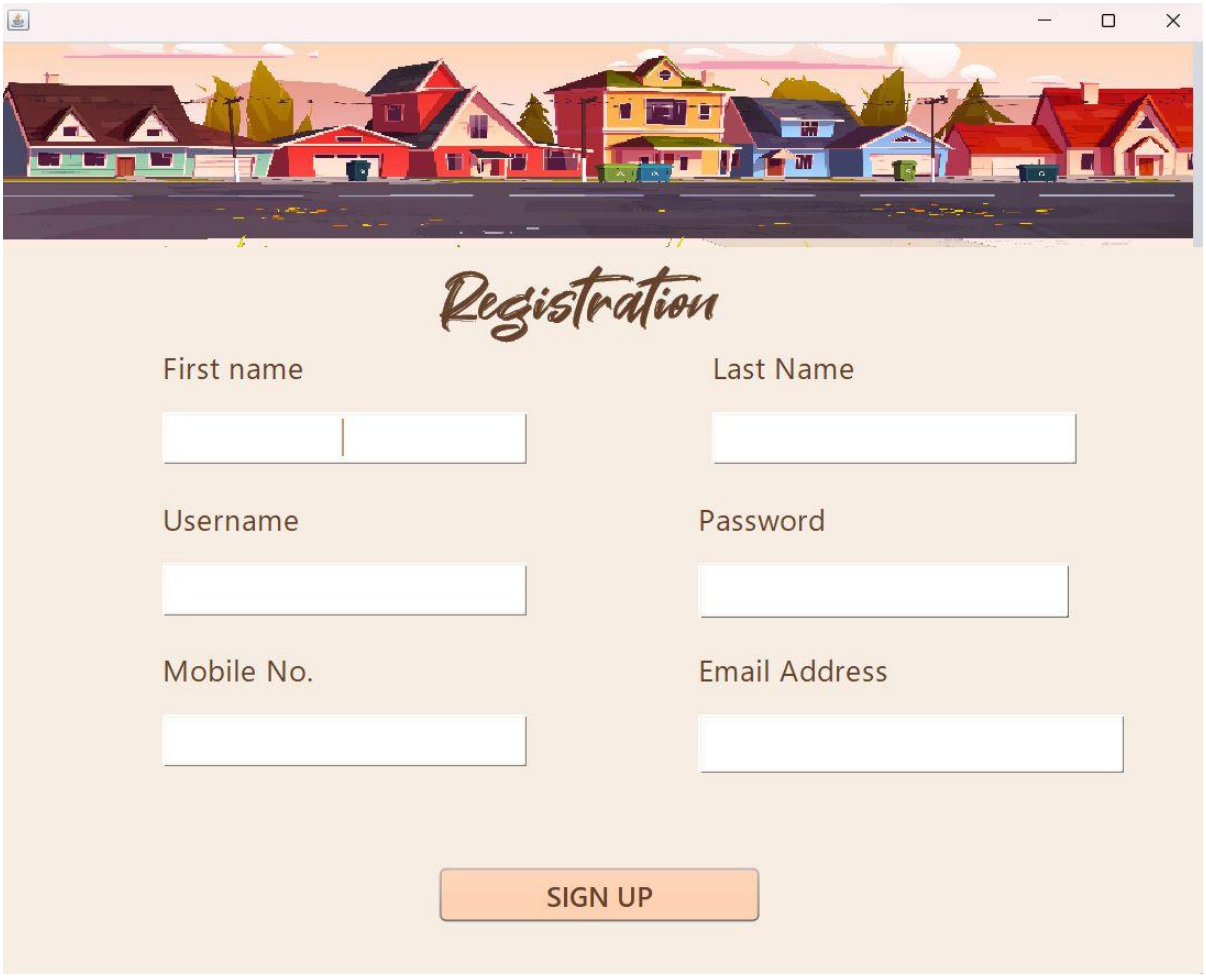

Figure 6.1: REGISTRATION PAGE

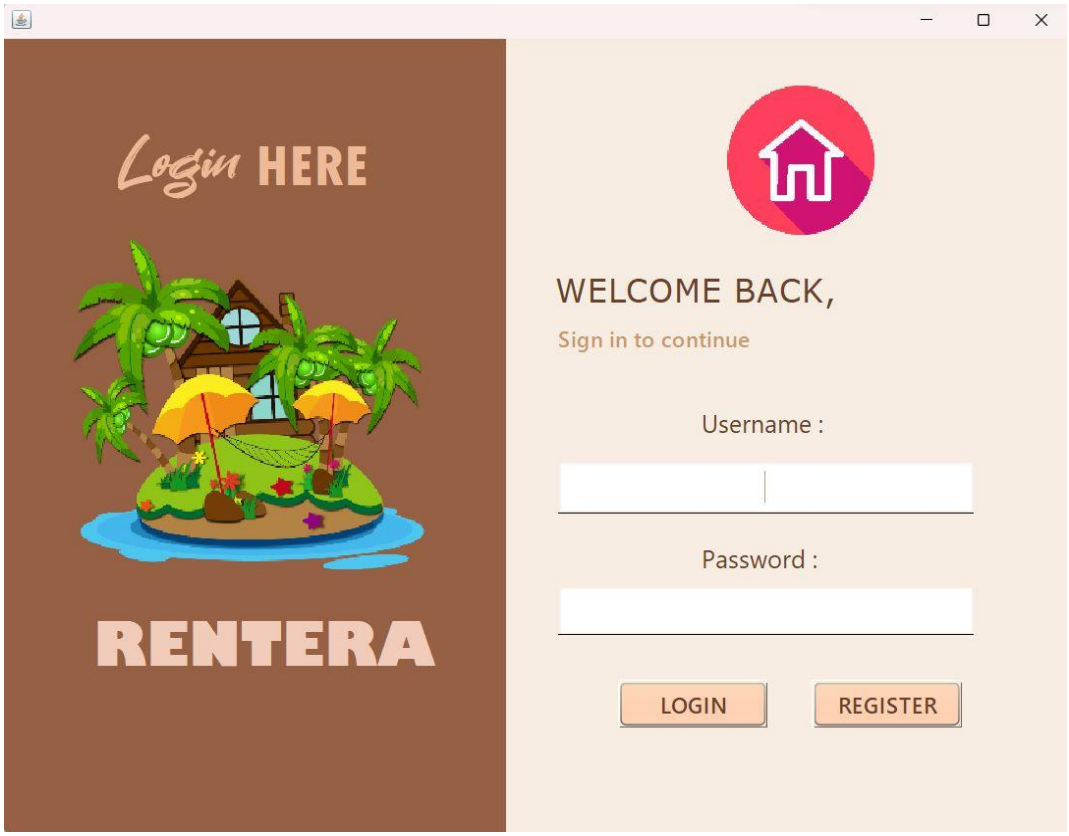

Figure 6.2: LOGIN PAGE

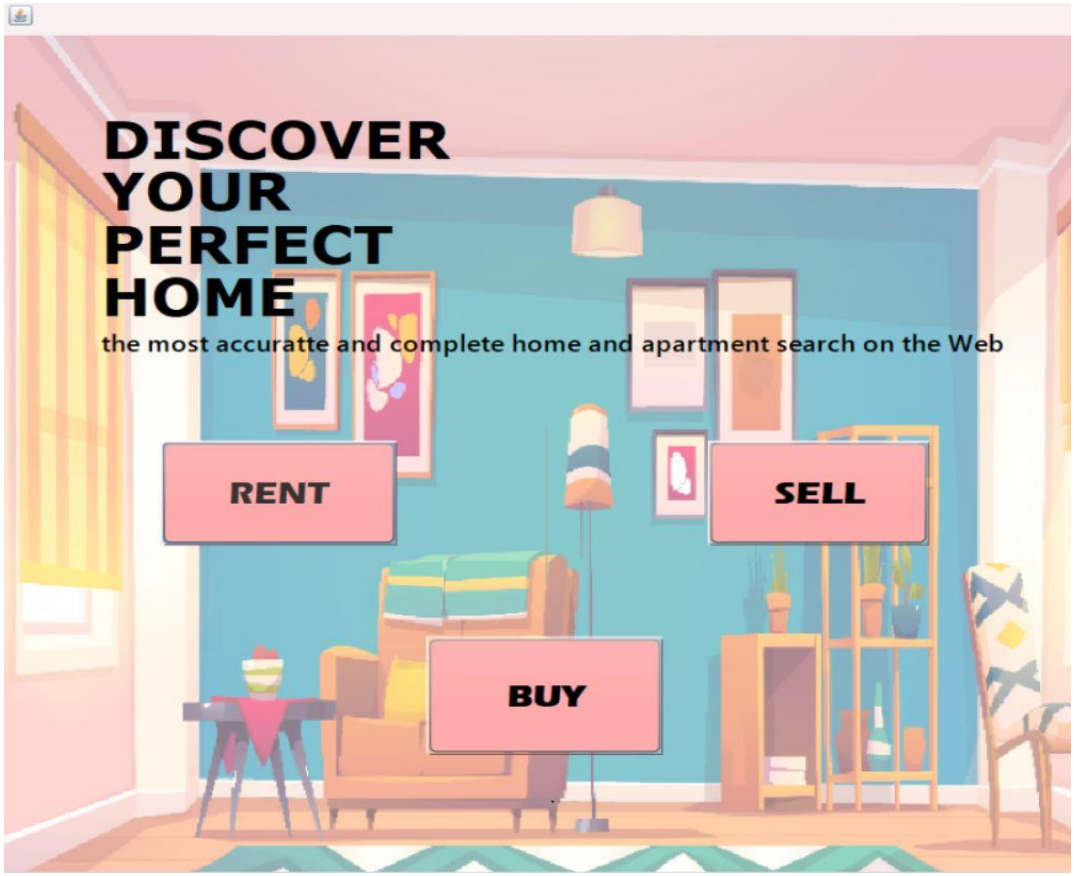

Figure 6.3: HOME PAGE

Figure 6.4: SELL PAGE

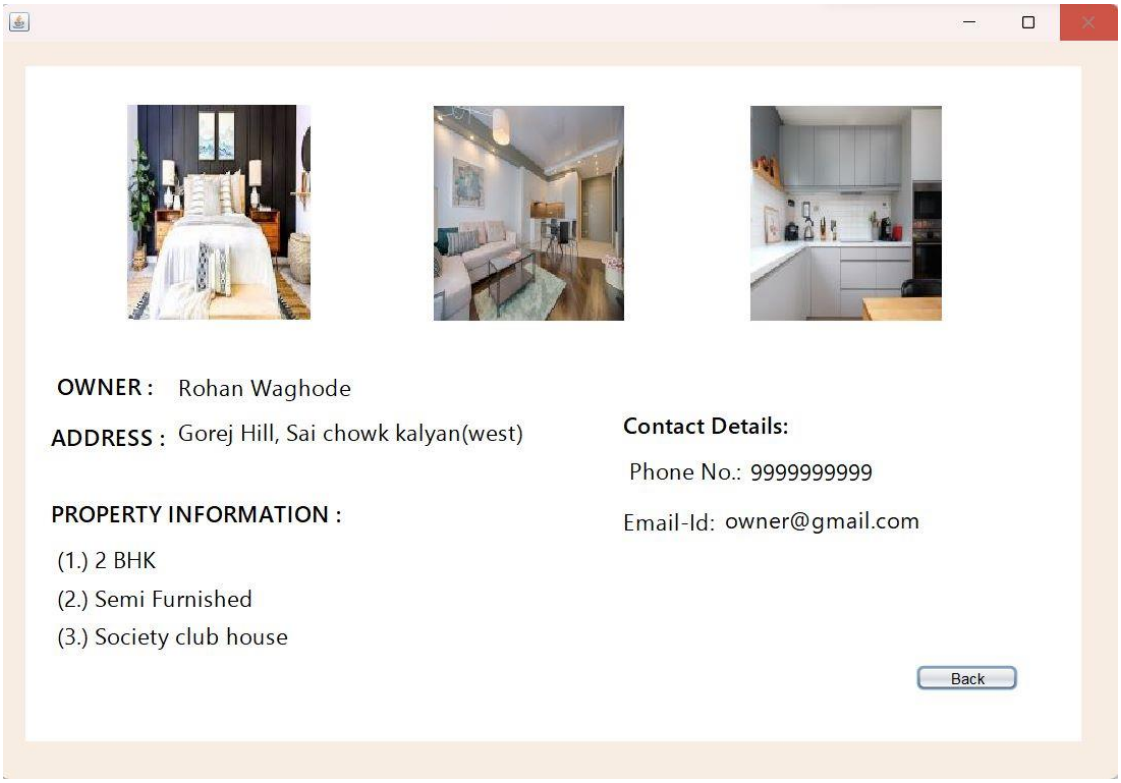

Figure 6.5: DETAILS OF HOUSE

Figure 6.6: BUY PAGE

Figure 6.7: RENT PAGE

6.4 DATABASE SPECIFICATION

The database system used to implement the back end of the Housing Management System is MySQL. Access to the system was made possible by a graphical interface (Net beans) with Java JDK Packages. The database name is SQL Schemas and the structure of the data tables in the database are as follows:

1. Login

2. Register

3.Buy

4. Sell

5.Rent

SELL

Allows to add State, City, Address, Property Type, Bhk Type, Price and Image.

Table 6.1: Database Table of Sell Page

FIELD	TYPE	LENGTH
Id	Int	11
State	varchar	16
Bhk Type	varchar	16
Address	varchar	200
Price	varchar	16
Image	Longblob	

REGISTER

Table 6.2: Database Table of Register Page

FIELD	TYPE	LENGTH
Id	Int	11
FirstName	varchar	45
LastName	varchar	45
Username	varchar	200
Password	varchar	45
MobileNo.	BigINT	50

6.5 Main Design:

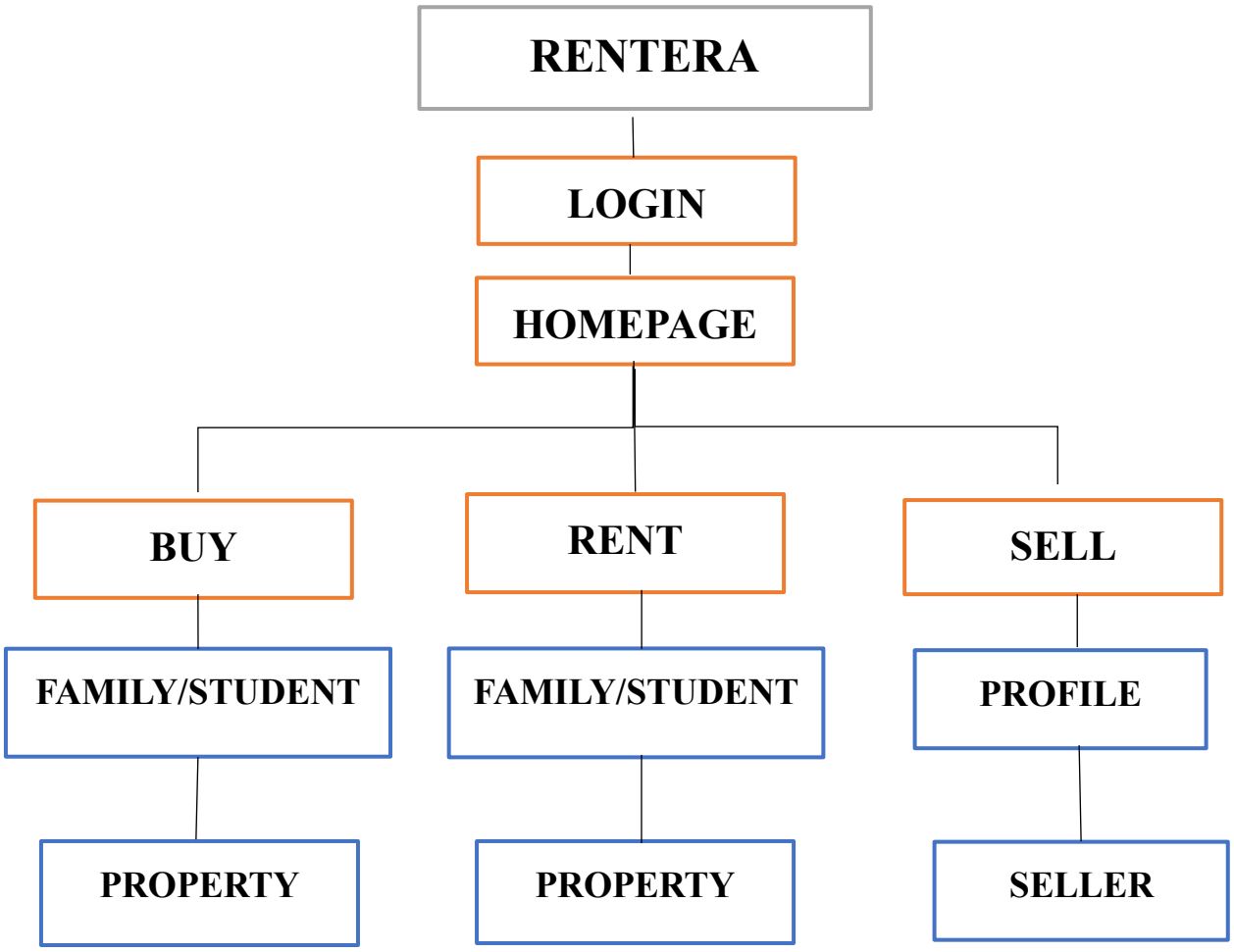

Figure 6.8: Flowchart of Implementation of Housing Management System

6.6 PROGRAMMING LANGUAGE

So many programming languages were put into consideration in the cause of designing this software. A lot of factors were also considered which includes the online database access, data transmission via networks, online database retrieval, online data capture, multiuser network access database security, etc. The database system used to implement the back end of this system is MySQL. MySQL database is a robust database that can guarantee database integrity, database protection and accommodate large database. The database system used to implement the back end of the Housing Management System is MySQL. Access to the system was made possible by a graphical interface (NetBeans) with Java JDK Packages. The database name is SQL Schemas. NetBeans is very user friendly and can be modified programmatically.

CHAPTER 7

PROJECT SCHEDULING

Scheduling in this project management is the listing of activities, deliverables, and milestones within a project. A schedule also usually includes a planned start and finish date, duration, and resources assigned to each activity. Effective project scheduling is a critical component of successful time management, especially for professional service businesses.

The process for building a schedule is referred to the first six processes of time management:

1. Plan schedule management
2. Define project activities
3. Sequence activities
4. Estimate resources
5. Estimate durations
6. Develop the project schedule

7.1 GANTT CHART

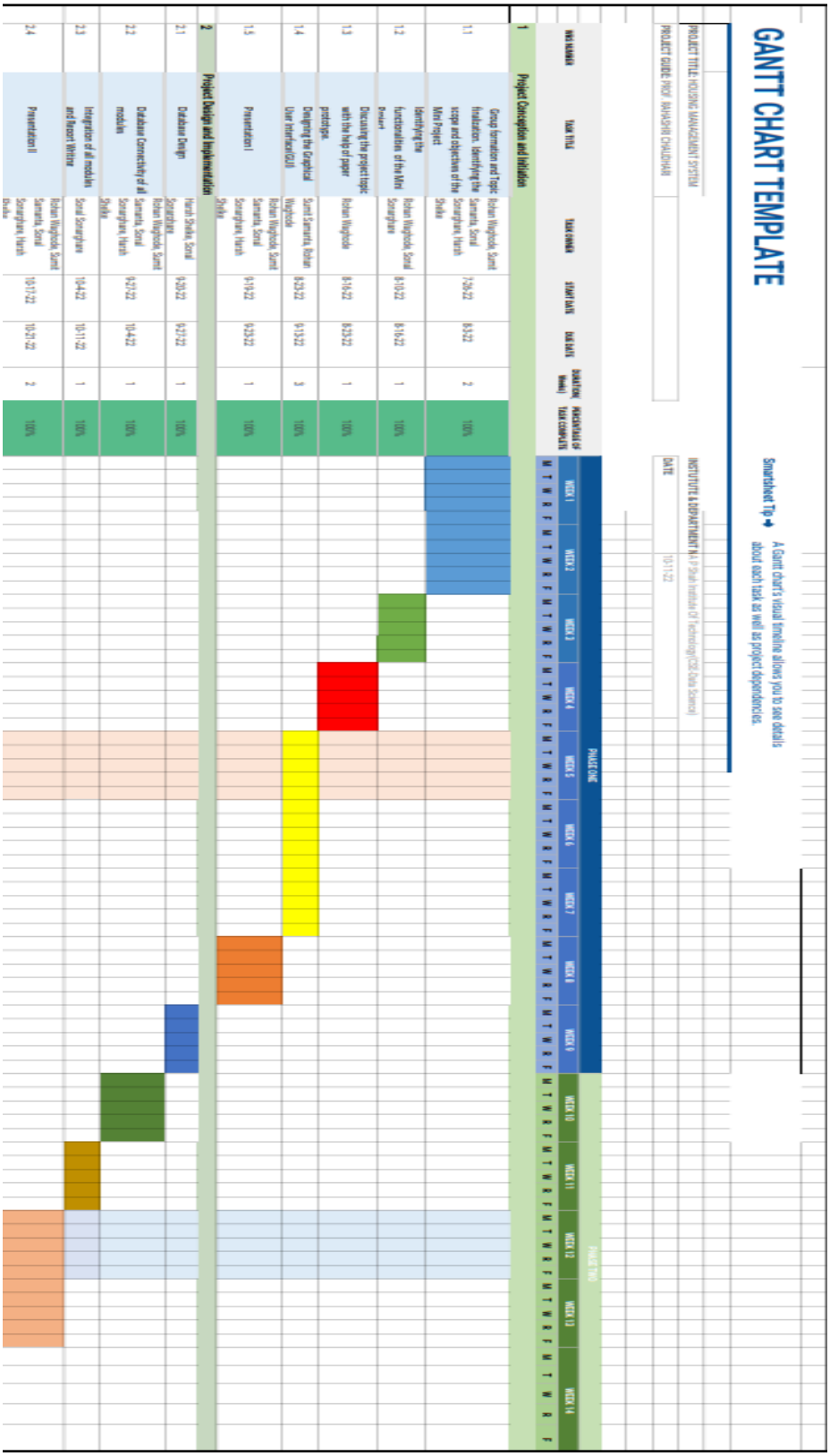

Figure 7.1: GANTT CHART

CHAPTER 8

CONCLUSION

Online housing business has emerged with a new possibility compared to the past experience where every activity concerning house 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 and buyers can reserve houses online once the customer is a registered member of the website. House owners can sell their property easily by posting it into our website without any tedious work. 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.

The development of Housing Management system involved many phases. The approach used is a top-down one concentrating on what first, then how and moving to successive levels of details.

The first phase started with a detailed study of the problems and prospects of Housing Management System. During this study. many problems were discovered to have hindered the effectiveness of the existing manual system. These problems, information needs, and activities were documented and later used as the basis for system design, which immediately followed the first phase.

The design phase was concerned primarily with the specification of the system elements in manner that best met the organization's business needs. During this phase, strict adherence was made on proven software engineering principles and practices. To implement this design, a computer program was then written and tested in NetBeans environment. It is hoped that effective implementation of this software product would eliminate many problems discovered during systems investigation.

At the end it is concluded that we have made effort on following points:

1. A description of the background and context of the project and its relation to work already done in the area.

2. Made statement of the aims and objectives of the project.

3. The description of Purpose, Scope, and applicability.

4. We define the problem on which we are working in the project

5. We describe the requirement Specifications of the system and the actions that can be done on these things.

6. We understand the problem domain and produce a model of the system, which describes operations that can be performed on the system.

7. We included features and operations in detail, including screen layouts.

8. We designed user interface and security issues related to system.

9. Finally, the system is implemented and tested according to test cases.

References:

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  https://www.youtube.com/watch?v=e9HyfpQ6QU4&t=19s

- Inserting data into database:
  https://www.youtube.com/watch?v=lvCYGxyV3a4

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- Update data:
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- GUI Application development video:
  http://moodle.apsit.org.in/moodle/mod/url/view.php?id=121700

- Form Validation:
  http://moodle.apsit.org.in/moodle/mod/url/view.php?id=121701

- Combo box dependent to another combo box:
  https://www.youtube.com/watch?v=sEWcNtbqC0Y&t=634s

- Insert image into database:
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- JFileChooser in java NetBeans:
  https://www.youtube.com/watch?v=nVWXJ3qqi0o&t=1s

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