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CHAPTER # 1

Introduction to the System:

In this project “Home Maze” is a house rental and property listing project. This Web application helps users to register individual homes or apartments to assist you in finding the perfect rental home or property. Also you can find your next rental from a search view in your targeted area. In this project two major modules that have been provided are administrator module and user module.

The “Online House Rental System” has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. Online house rental systems can lead to error free, secure, and reliable and fast management systems. It can assist the user to concentrate on their other activities rather than concentrating on the record keeping. Thus it will help organizations in better utilization of resources.

Problem Definition:

The old manual system was suffering from a series of drawbacks. Since the whole of the system was to maintain with hands the process of keeping, maintaining and retrieving the information was very tedious and lengthy. The records were never used to be in a systematic order. There used to be lots of difficulties in associating any particular transaction with a particular context. If any information was to be found it was required to go through the different registers, documents there would never exist

anything like report generation. Managing house rental and property listing system may seem tricky, but this is part of user service system (application support direct contact with user)

Objective:

The objective of this project entitled “Home maze” is to provide a user-friendly and easily understandable GUI to manage the details of House, Rent, Customer, Payment, House status. It manages all the information about House, Rent, and Booking and house status. This project also helps users to search for a home on rent in a particular city.

Goal:

- Providing the home searching facilities based on various factors.
- Shows the information and description of house, owner and customer.
- Tracks all the information of rent, booking and payment etc..
- Manage the information of the house.
- Manage the information of the owner.
- Manage the information of customers.

Need of the System:

There is always a need for a system that will provide the online searching of home on rent and also provides facility to home owners to post information of home on rent.

The system will override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system.

CHAPTER # 2

Hardware and Software Requirements

Software Requirements:

- Technology: Python Django
- IDE : Pycharm/Atom
- Client Side Technologies: HTML, CSS, JavaScript , Bootstrap
- Server Side Technologies: Python
- Data Base Server: Sqlite

Operating System: Microsoft Windows/Linux

Hardware Requirements:

- Processor: Pentium-III (or) Higher
- Ram: 64MB (or) Higher
- Hard disk: 80GB (or) Higher

CHAPTER # 3

System Analysis

Purpose:

- Users can search home on rent by selecting city.
- Users can view the home details and owner details.
- Admin can manage the customer and owner.
- House Owner can upload the house details and pics of house and rent information.

Project Scope:

The project has a wide scope, as it is not intended to a particular organization. This project is going to develop generic software, which can be applied by any businesses organization. More over it provides facility to its users. Also the software is going to provide a huge amount of summary data.

Proposed System:

The online house rental system site is available in the market that can serve users to search home and also facilitates owner user to upload

house details for rent our house.

System Overview:

Admin Modules

- Manage(View/Delete) Users
- Manage(View/Delete) House Ads
- Accept or Reject House Ad Request
- Change Password

User Modules

- Upload House Details
- Search House Via City
- View House Information
- View Owner Profile
- Edit Profile
- Change Password

CHAPTER # 4

Technologies

Python

Python is a widely used general-purpose, high level programming language. It was initially designed by Guido van Rossum in 1991 and developed by Python Software Foundation. It was mainly developed for emphasis on code readability, and its syntax allows programmers to express concepts in fewer lines of code.

Python is a programming language that lets you work quickly and integrate systems more efficiently.

Python is dynamically typed and garbage-collected. It supports multiple programming paradigms, including procedural, object-oriented, and functional programming. Python is often described as a "batteries included" language due to its comprehensive standard library.

HTML

HTML (Hypertext Markup Language) is the set of markup symbols or codes inserted in a file intended for display on a World Wide Web browser page. The markup tells the Web browser how to display a Web page's words and images for the user. Each individual markup code is referred to as an element (but many people also refer to it as a tag). Some elements come in pairs that indicate when some display effect is to begin and when it is to end.

CASCADING STYLE SHEET (CSS)

Cascading Style Sheets (CSS) are a collection of rules we use to define and modify web pages. CSS are similar to styles in Word. CSS allows Web designers to have much more control over their pages' look and layout. For instance, you could create a style that defines the body text to be Verdana, 10 points. Later on, you may easily change the body text to Times New Roman, 12 points by just changing the rule in the CSS. Instead of having to change the font on each page of your website, all you need to do is redefine the style on the style sheet, and it will instantly change on all of the pages that the style sheet has been applied to. With HTML styles, the font change would be applied to each instance of that font and have to be changed in each spot.

CSS can control the placement of text and objects on your pages as well as the look of those objects.

HTML information creates the objects (or gives objects meaning), but styles describe how the objects should appear. The HTML gives your page structure, while the CSS creates the "presentation". An external CSS is really just a text file with a .css extension. These files can be created with Dreamweaver, a CSS editor, or even Notepad.

The best practice is to design your web page on paper first so you know where you will want to use styles on your page. Then you can create the styles and apply them to your page.

Javascript

JavaScript is a programming language commonly used in web development. It was originally developed by Netscape as a means to add dynamic and interactive elements to websites. While JavaScript is influenced by Java, the syntax is more similar to C and is based on ECMAScript, a scripting language developed by Sun Microsystems.

JavaScript is a client-side scripting language, which means the source code is processed by the client's web browser rather than on the web server. This means JavaScript functions can run after a web page has loaded without COMMUNICATING with the server. For example, a JavaScript function may check a web form before it is submitted to make sure all the required fields have been filled out. The JavaScript code can produce an error message before any information is actually transmitted to the server. Like server-side scripting languages, such as PHP and ASP, JavaScript code can be inserted anywhere within the HTML of a webpage. However, only the output of server-side code is displayed in the HTML, while JavaScript code remains fully visible in the source of the webpage. It can also be referenced in a separate .JS file, which may also be viewed in a browser.

Django

Django is a web application framework written in Python programming language. It is based on the MVT (Model View Template) design pattern.

Django is very demanding due to its rapid development feature. It takes less time to build an application after collecting client requirements.

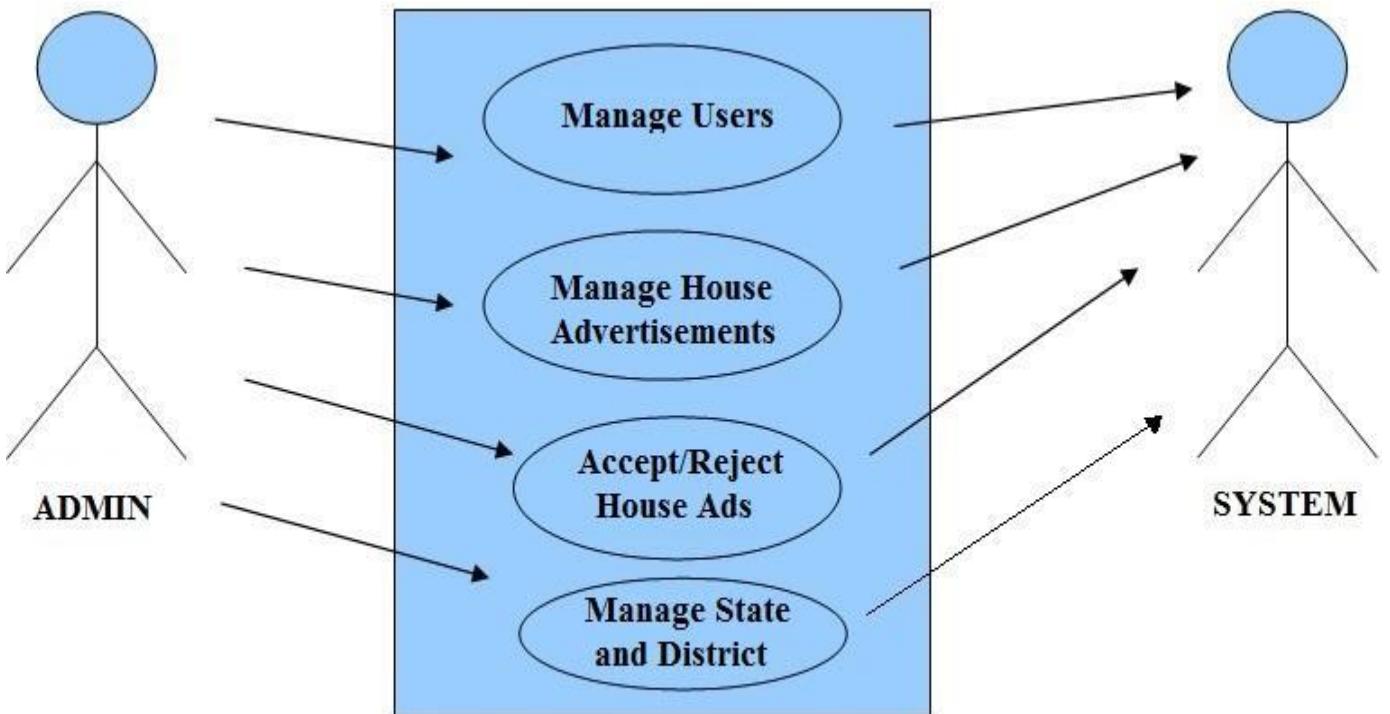
This framework uses a famous tagline: **The web framework for perfectionists with deadlines.**

CHAPTER # 5

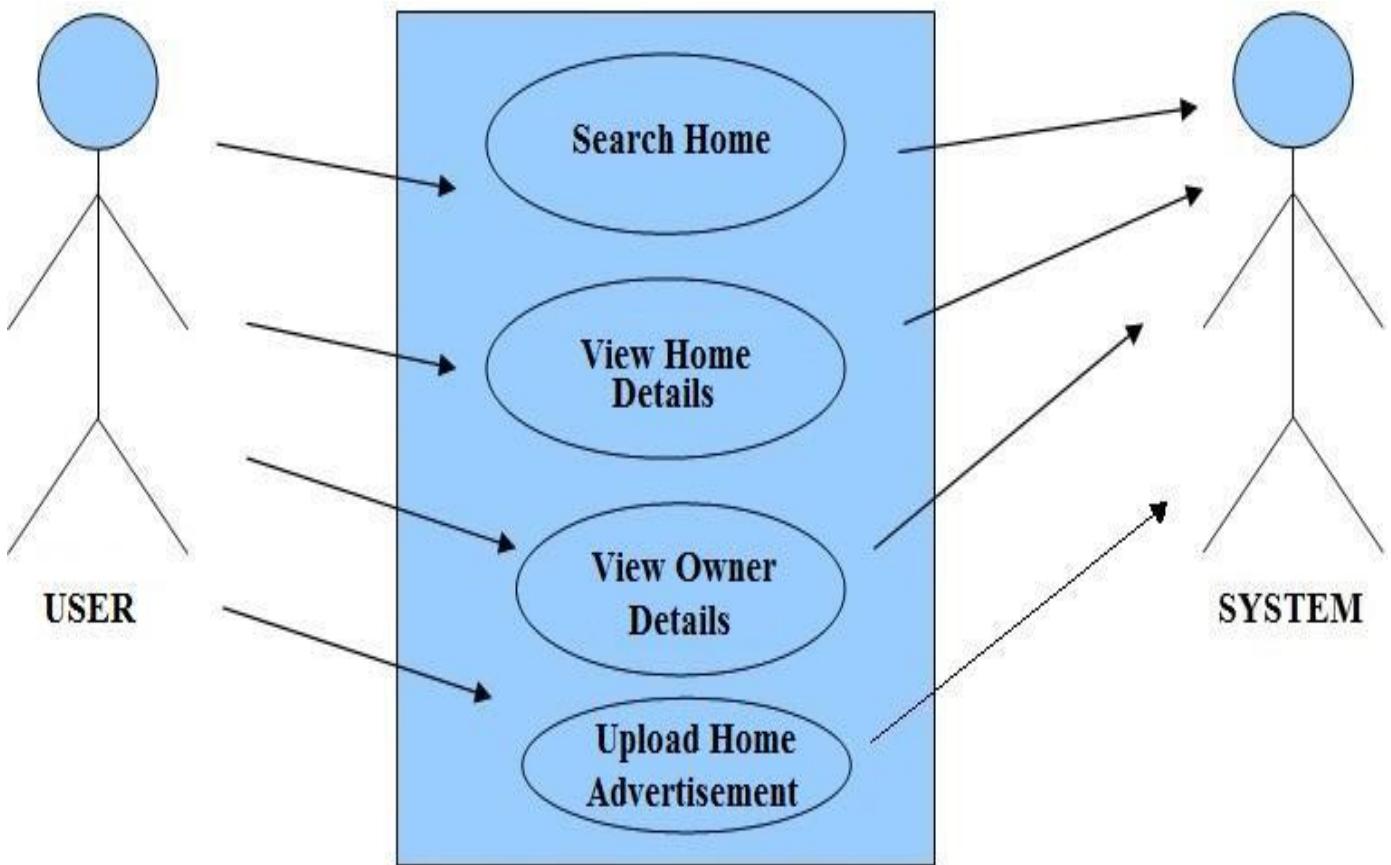
System Design

Use Case Diagram:

- Use case diagram consists of use cases and actors and shows the interaction between them. The key points are:
- The main purpose is to show the interaction between the use cases and the actor.
- To represent the system requirement from the user's perspective.
- The use cases are the functions that are to be performed in the module.

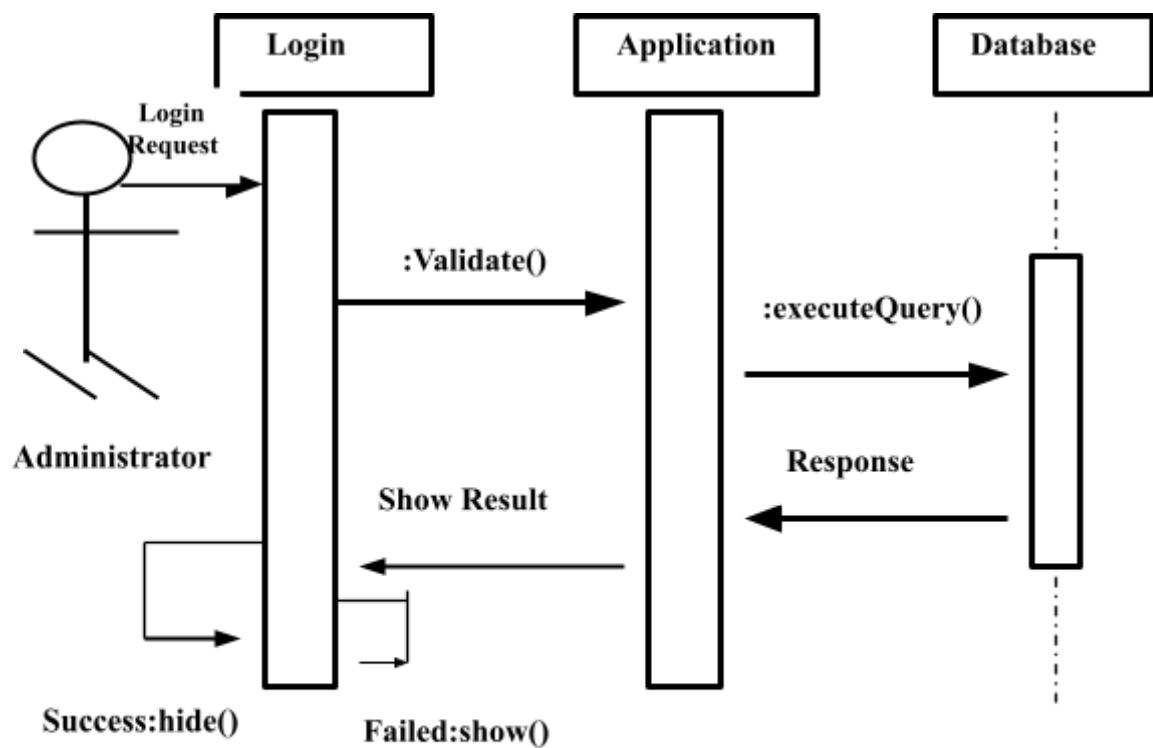


Use Case Diagram between Admin and System

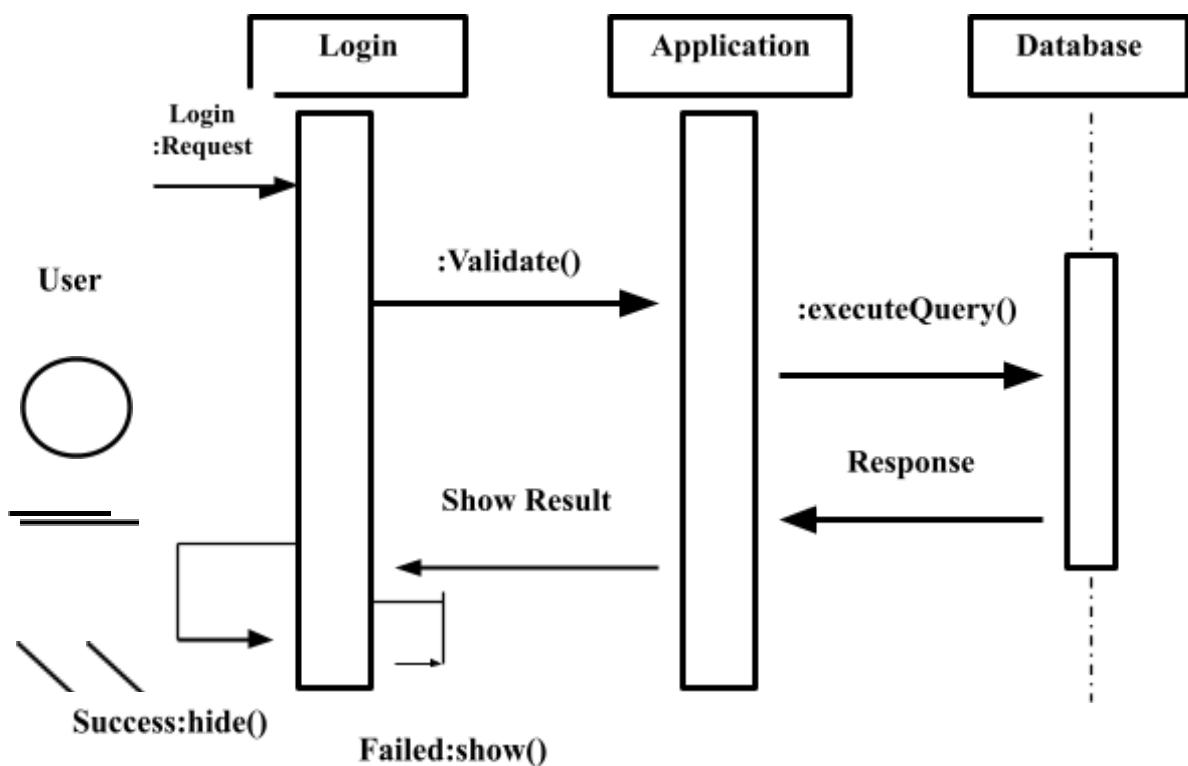


Use Case Diagram between user and system

Sequence Diagram For Administrator:-



Sequence Diagram For User:-



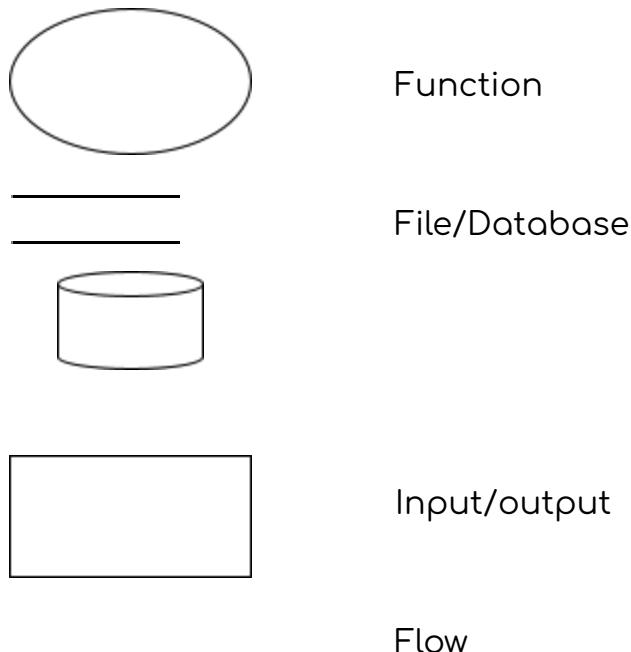
Data Flow Diagram

A Data Flow Diagram (DFD) is a graphical representation of the "flow" of data through an Information System. A data flow diagram can also be used for the visualization of Data Processing. It is common practice for a designer to draw a context-level DFD first which shows the interaction between the system and outside entities. This context-level DFD is then "exploded" to show more detail of the system being modeled.

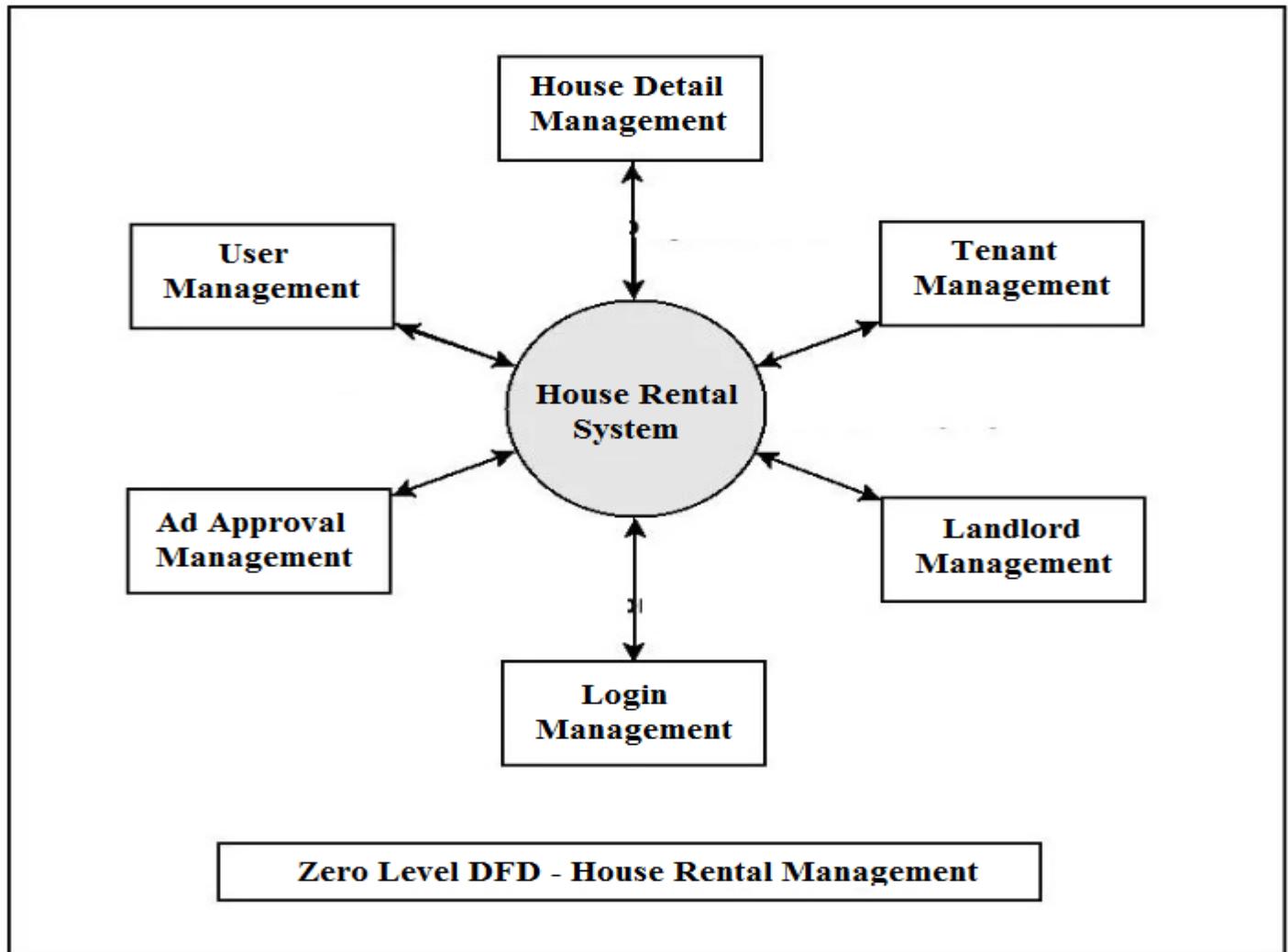
A DFD represents flow of data through a system. Data flow diagrams are commonly used during problem analysis. It views a system as a function that transforms the input into desired output. A DFD shows movement of data through the different transformations or processes in the system.

Data Flow diagrams can be used to provide the end user with a physical idea of where the data they input ultimately has an effect upon the structure of the whole system from order to dispatch to restock how any system is developed can be determined through a data flow diagram. The appropriate register is saved in the database and maintained by appropriate authorities.

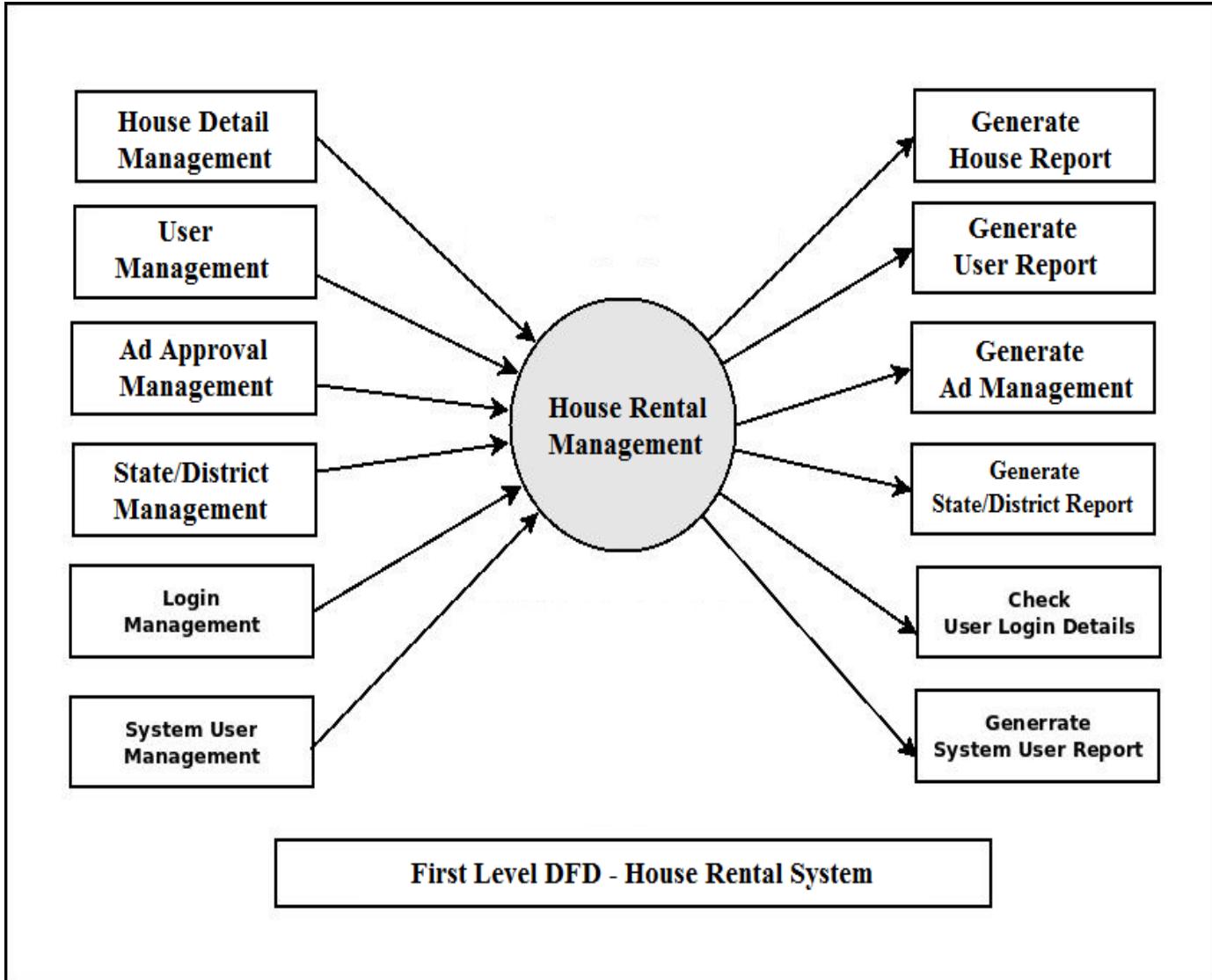
Data Flow Diagram Notation



DFD (Data Flow Diagram) Level 0



DFD – Level 1



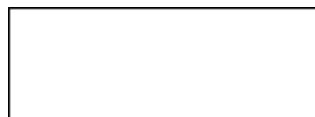
Entity Relationship Diagrams (ER-Diagrams):

An entity-relationship (ER) diagram is a specialized graphic that illustrates the interrelationships between entities in a database. ER diagrams often use symbols to represent three different types of information. Boxes are commonly used to represent entities. Diamonds are normally used to represent relationships and ovals are used to represent attributes.

An entity-relationship model (ERM) in software engineering is an abstract and conceptual representation of data. Entity-relationship modeling is a relational schema database modeling method, used to produce a type of conceptual schema or semantic data model of a system, often a relational database, and its requirements in a top-down fashion.

Symbols used in this E-R Diagram:

Entity: Entity is a “thing” in the real world with an independent existence. An entity may be an object with a physical existence such as person, car or employee. Entity symbol is as follows

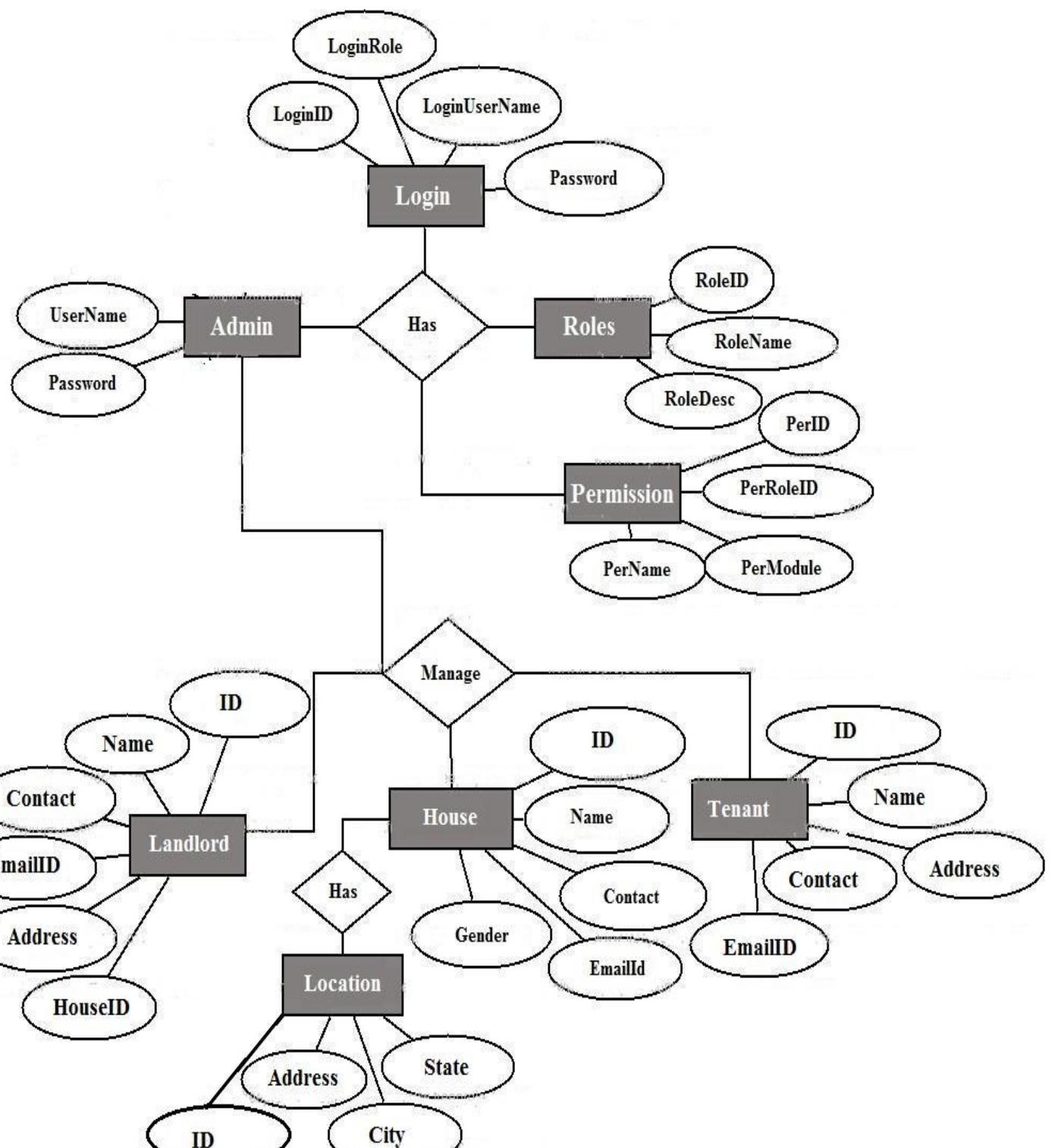


Attribute: Attribute is a particular property that describes the entity. Attribute symbol is



Relationship: Relationship will be several implicit relationships among various entity types whenever an attribute of one entity refers to another entity type some relationship exists. Relationship symbol is:

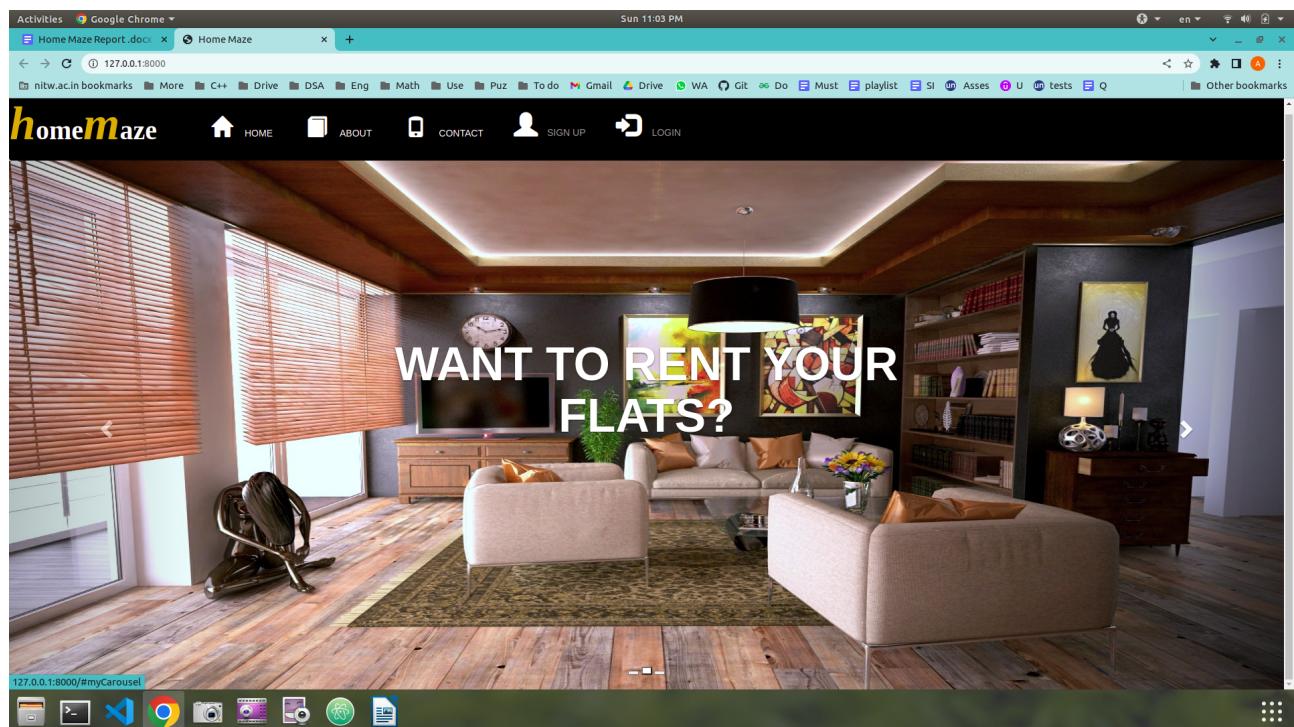
Key attributes: An entity type usually has an attribute whose values are distinct for each individual entity in the collection. Such an attribute is called a key attribute.

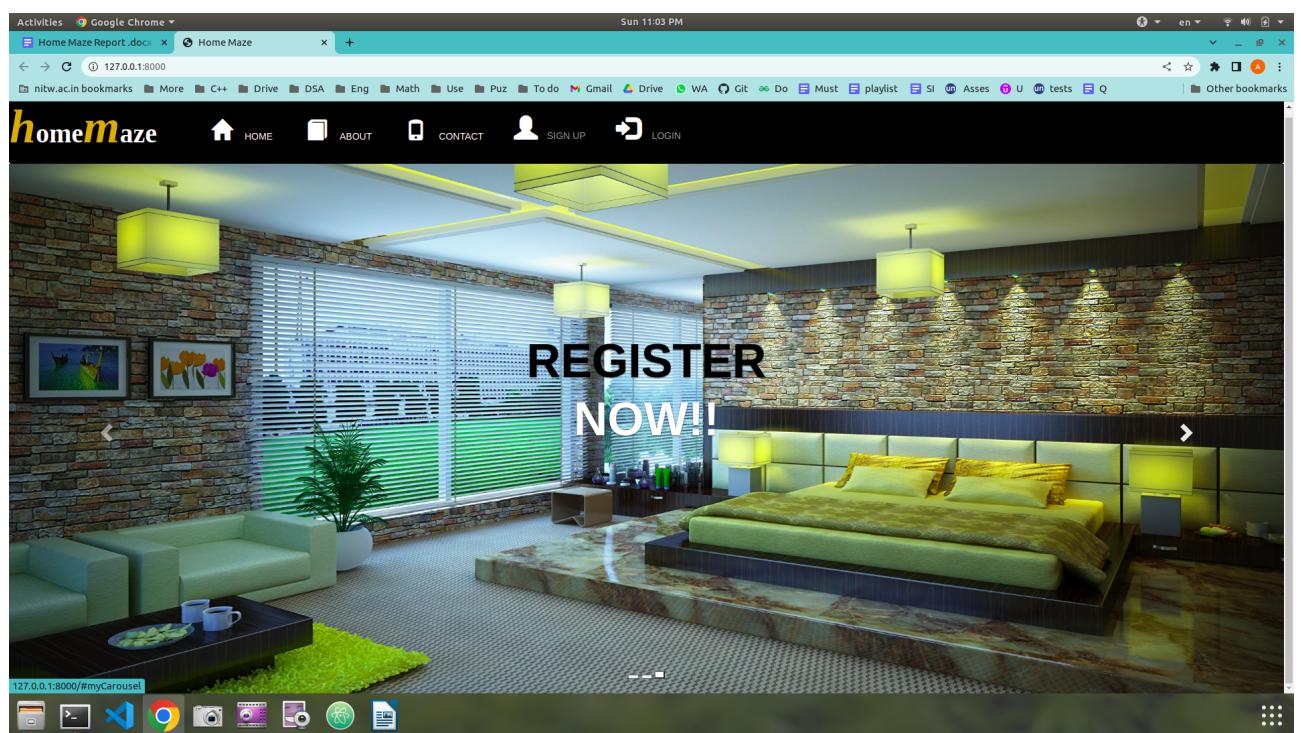
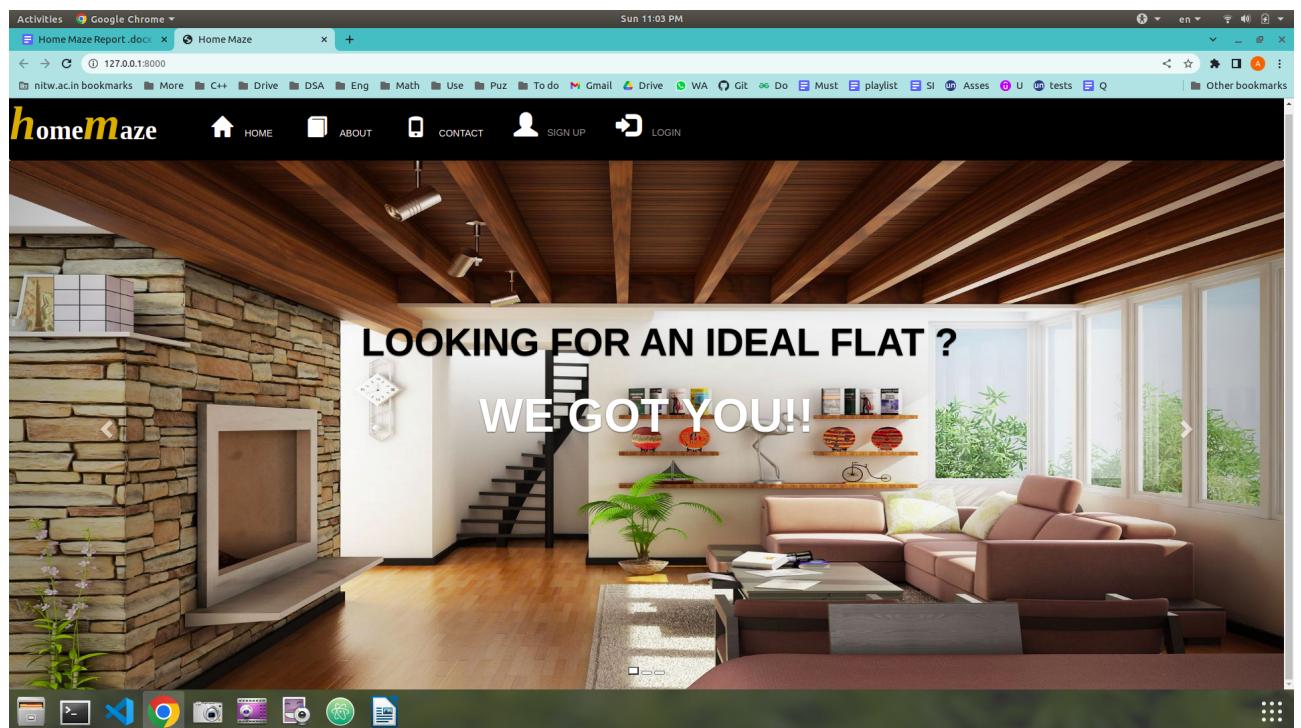


CHAPTER # 6

Output screens

HOME PAGE





SIGNUP PAGE

Activities Google Chrome ▾ Sun 11:03 PM

Home Maze Report.docx Home Maze +

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REGISTER USER ACCOUNT

First Name:

Last Name:

User Name:

Password:

Gender:
Male Female

Email:

Mobile:

Date of Birth:

Full Address:

Profile Image:
 No file chosen

LOGIN PAGE

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homemaze

HOME ABOUT CONTACT SIGN UP LOGIN

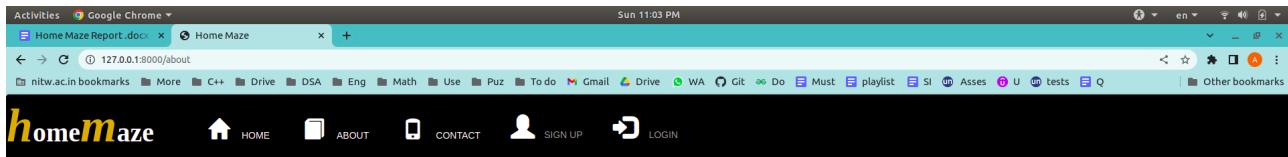
LOGIN

USER NAME:

PASSWORD:



ABOUT US PAGE



ABOUT HOME MAZE

Home Maze is an online platform where real estate trade is taking place in a much faster and newer manner. We not just help you with finding the ideal real estate, but also ensure that your buying journey is as smooth as it can be. We understand that while buying or renting a property, there are a lot of factors to be taken into consideration, like the locality, preferred area, budget, amenities, and a lot more. This is the perfect destination where you will end up finding the best suitable property available across India. Whether you are looking for a rented property or planning to build your dream abode, you can find anything and everything in real estate at our portal. We offer residential and commercial property listings for both sale and rent across the country.



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313 Sweet Homes, ABC Lane, City XYZ

[Office Hours](#)
9:00 AM to 7:00 PM



ROOM DETAILS

The screenshot shows a web browser window for 'Home Maze' with the URL [127.0.0.1:8000/detail1/\(%3FP14%5B0-9%5D+\)](http://127.0.0.1:8000/detail1/(%3FP14%5B0-9%5D+)). The page title is 'RENTED HOME'. It displays four room images: Bedroom, Kitchen, Childrens, and Hall. Each image has a 'Change Image' link below it. Below the images, a black bar contains the text: 'All facilities are provided', 'Rent : 10000 / month', and 'Contact : 08688949574'. The browser's toolbar and address bar are visible at the top.

OWNER DETAIL PAGE

The screenshot shows a web browser window for 'Home Maze' with the URL [127.0.0.1:8000/owner/\(%3FP15%5B0-9%5D+\)](http://127.0.0.1:8000/owner/(%3FP15%5B0-9%5D+)). The page title is 'OWNER DETAILS'. It features a circular profile picture of a woman with the name 'A Priyasha' below it. To the left of the profile picture, there is contact information: 'Home Owner', 'Plot no 81 ,Andhra Kesari nagar road no 3', 'apriyasha@gmail.com', and '08688949574'. The browser's toolbar and address bar are visible at the top.

ADD HOME TO RENT PAGE

Add Home to rent

State: Andhra Pradesh

District:

Local Address: Your Local Address

Title: Enter Title

Description: Write your description

Rent: Rent Per Month

Image: No file chosen

CHANGE ROOM'S DETAILS

Change Room's Image

Room Name: Kitchen

Room Image: No file chosen

VIEW YOUR POSTS

Sun 11:18 PM

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Home Maze Report.docx Home Maze

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homeMaze HOME ABOUT CONTACT SEARCH ADD POST MY POSTS Hi priyasha LOGOUT

YOUR POSTS

4BHK (Status : pending)

All facilities are provided
Andhra Pradesh
Rent : 10000 / month
Contact : 08688949574
Local Address : Plot no-81, Machavaram

Owner Detail

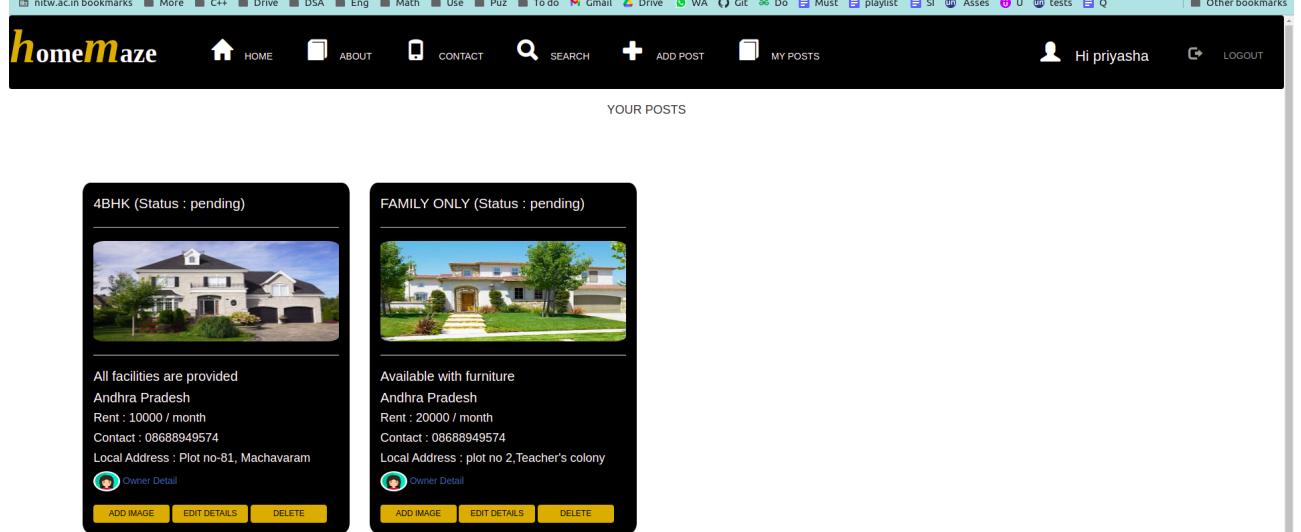
ADD IMAGE EDIT DETAILS DELETE

FAMILY ONLY (Status : pending)

Available with furniture
Andhra Pradesh
Rent : 20000 / month
Contact : 08688949574
Local Address : plot no 2,Teacher's colony

Owner Detail

ADD IMAGE EDIT DETAILS DELETE



ADMIN HOME PAGE

Sun 11:04 PM

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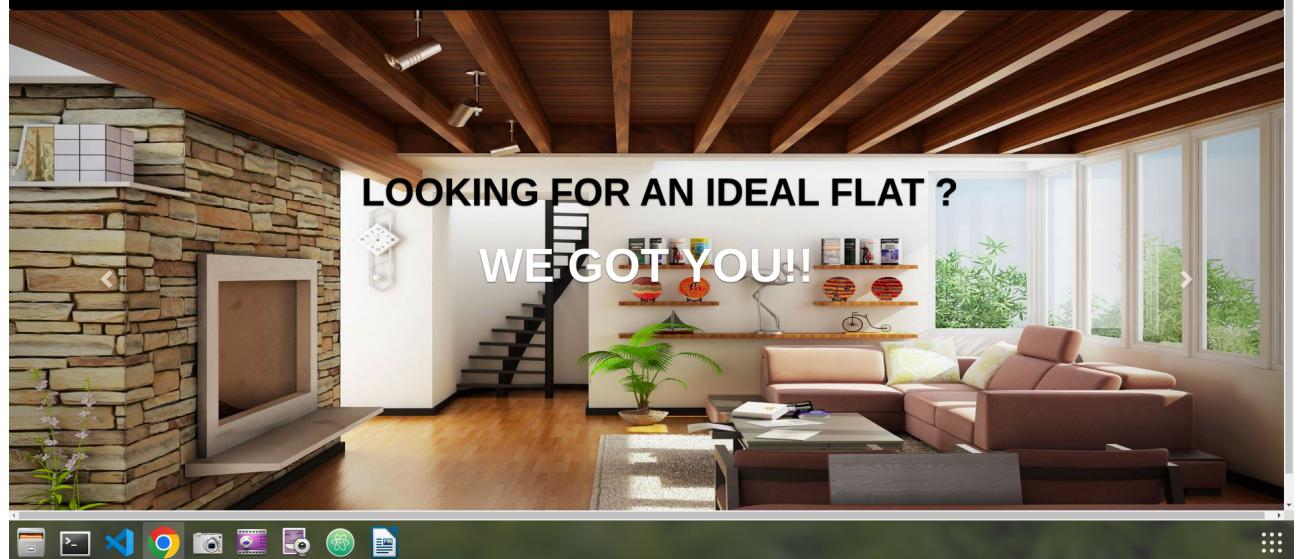
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LOOKING FOR AN IDEAL FLAT ?
WE GOT YOU!!



ALL ADVERTISEMENT REQUESTS

Sun 11:19 PM

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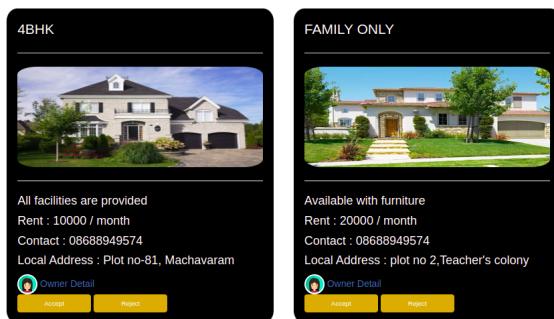
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New Advertisement Requests



ALL ADVERTISEMENTS ADMIN PAGE

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Activities Google Chrome ▾

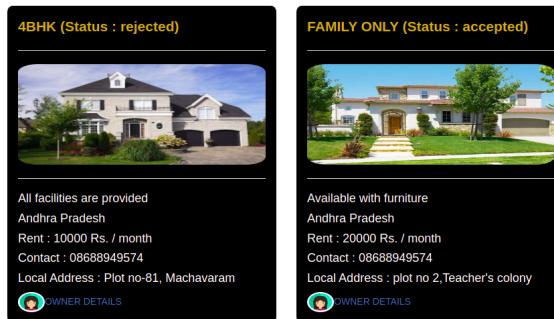
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All Advertisements



VIEW ALL USERS PAGE

VIEW USER						
Username	Full Name	Email Id	Gender	Address	Contact	Action
Priyasha	A Priyasha	apriyasha@gmail.com	Female	Plot no 81 ,Andhra Kesari nagar road no 3	08688949574	<button>Edit</button> <button>Delete</button>
appari	Lakshmi Appari	appari07@gmail.com	Female	Plot no 81 ,Andhra Kesari nagar road no 3	08688949574	<button>Edit</button> <button>Delete</button>
Appari	Srinivasu appari	appari07@gmail.com	Male	Plot no 81 ,Andhra Kesari nagar road no 3	08688949574	<button>Edit</button> <button>Delete</button>



ADD LOCATIONS

ADD DISTRICT						
STATE						
<input type="text" value="Andhra Pradesh"/>						
DISTRICT						
<input type="text" value="Enter District name"/>						
<input type="button" value="submit"/>						



CHAPTER # 8

Advantages & Limitations

Advantages of “House Rental System”

“Online House Rental” provides various features, which complement the information system and increase the productivity of the system. These features make the system easily usable and convenient. Some of the important features included are listed as follows:

1. Intelligent User Forms Design
2. Data access and manipulation through same forms
3. Access to most required information
4. Data Security
5. Restrictive data access, as per login assigned only.
6. Organized and structured storage of facts.
7. Strategic Planning made easy.
8. No decay of old Records.
9. Exact financial position of the Business.

Limitations of “Online House Rental System”:

Besides the above achievements and the successful completion of the project, we still feel the project has some limitations, listed as

below:

1. It is not a large-scale system.
2. Only limited information provided by this system.
3. Since it is an online project, customers need internet connection.
4. People who are not familiar with computers can't use this software.

Future Scope

FUTURE SCOPE

This web application involves almost all the basic features of the online home searching and post advertisement. The future implementation will be online help for the users and chatting with website administrators.

CONCLUSION

This project has several advantages. Managing the levels of the project is pretty easy and so is storing the details of houses and users. It is easy to maintain up to date information and is cheaper to maintain. Also, manual tracking is not required.

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- <https://www.python.org/>
- <https://www.tutorialspoint/>