

PROJECT REPORT

Project Title:

HOUSE HUNT

Team ID: LTVIP2025TMID58587

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HOUSEHUNT PROJECT DOCUMENTATION

1. INTRODUCTION

1.1 Project Overview

HouseHunt is a web application designed to simplify the process of finding rental properties. The platform connects property owners with potential renters through a centralized, easy-to-use interface. It supports property listing, booking requests, admin approvals, and user management.

Purpose

The main purpose of this project is to streamline the rental process, reduce manual communication, and provide transparency between renters, owners, and the admin.

2. IDEATION PHASE

2.1 Problem Statement

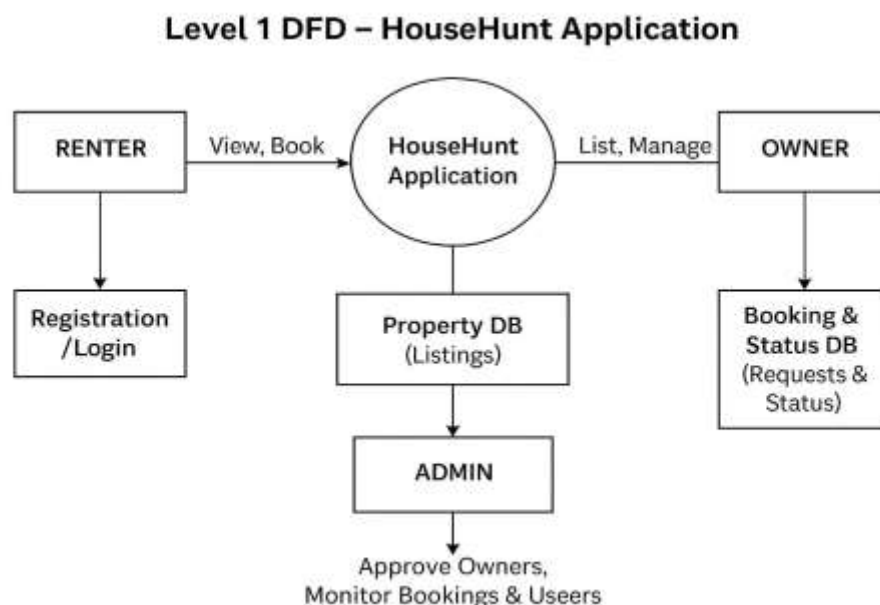
Finding rental properties is time-consuming and often lacks transparency. Renters face difficulty in accessing verified listings, while owners struggle with managing multiple inquiries.

2.2 REQUIREMENT ANALYSIS

Solution Requirements

- Secure user authentication (Owner, Renter, Admin)
- Property listing and booking functionality
- Admin approval and user monitoring
- Status updates and booking history

2.3 Data Flow Diagram (DFD)



- User → Register/Login → Dashboard
- Owner → List Property → Manage Bookings
- Renter → View Properties → Book
- Admin → Approve Owners → Monitor Activity

3. TECHNOLOGY STACK

- **Frontend:** React.js, Bootstrap, MDB UI Kit, Material UI, Axios
- **Backend:** Node.js, Express.js
- **Database:** MongoDB (Mongoose ODM)
- **Authentication:** JWT (JSON Web Tokens)
- **Others:** Multer (file upload), Moment.js, CORS

4. PROJECT DESIGN

4.1 Problem-Solution Fit

The platform bridges the gap between renters and owners by offering a centralized, admin-monitored interface, reducing fraud and miscommunication.

4.2 Proposed Solution

A full-stack application with role-based access: renters can browse and book, owners can list and manage, and admins can validate and monitor.

4.3 Solution Architecture

- **Frontend:** SPA (Single Page Application) with React Router
- **Backend:** RESTful APIs with JWT middleware
- **Database:** MongoDB models for Users, Properties, and Bookings

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

- **Week 1:** Requirement gathering and UI wireframes
- **Week 2:** Frontend and backend setup
- **Week 3:** Feature development and integration
- **Week 4:** Testing, bug fixes, deployment

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Functional Testing

- User authentication
- Property CRUD
- Booking flow and status change
- Admin approval flow

6.2 Performance Testing

- Load testing for APIs
- UI responsiveness across devices

7. RESULTS

7.1 Output Screenshots

The screenshot displays the search interface of the House Hunt application. At the top, there are four filter categories: Location, Property Type, Price Range, and Bedrooms. The Location filter has a text input field labeled "City, street or address". The Property Type filter is a dropdown menu currently set to "Any Type". The Price Range filter has input fields for "Min", "to", and "Max". The Bedrooms filter is a dropdown menu currently set to "Any". A blue "Search Properties" button is centered below the filters. Below the search bar, two property listings are shown as cards. The first card is for a "Modern Apartment" priced at "\$1500/mo". It includes the title "Modern Downtown Apartment", the address "123 Main St, Cityville", and the details "apartment · 850 sq ft". A blue "View Details" button is at the bottom. The second card is for a "Cozy House" priced at "\$2000/mo". It includes the title "Cozy Suburban House", the address "456 Oak Ave, Suburbia", and the details "house · 1200 sq ft". A blue "View Details" button is at the bottom.

The screenshot shows the "Post a Property" modal form overlaid on the House Hunt website. The modal has a title bar with "Post a Property" and a close button. It contains four input fields: "Property Name", "Description", "Address", and "Property Type". The "Property Type" field is a dropdown menu currently set to "Apartment". The background shows the House Hunt website with a dark blue header and a light blue body. The header includes the "HouseHunt" logo and a user greeting "Welcome, YARRAPPAGARI SNEHALATHA REDDY". The body contains text about the project and its features, including a list of technologies used: PHP, MySQL, HTML/CSS, and Bootstrap.

HouseHunt

Register

Full Name

Email

Password

I want to

Find a rental

Cancel Register

Location

City, street or address

Any Type

Min

to

Max

Any

Bedrooms

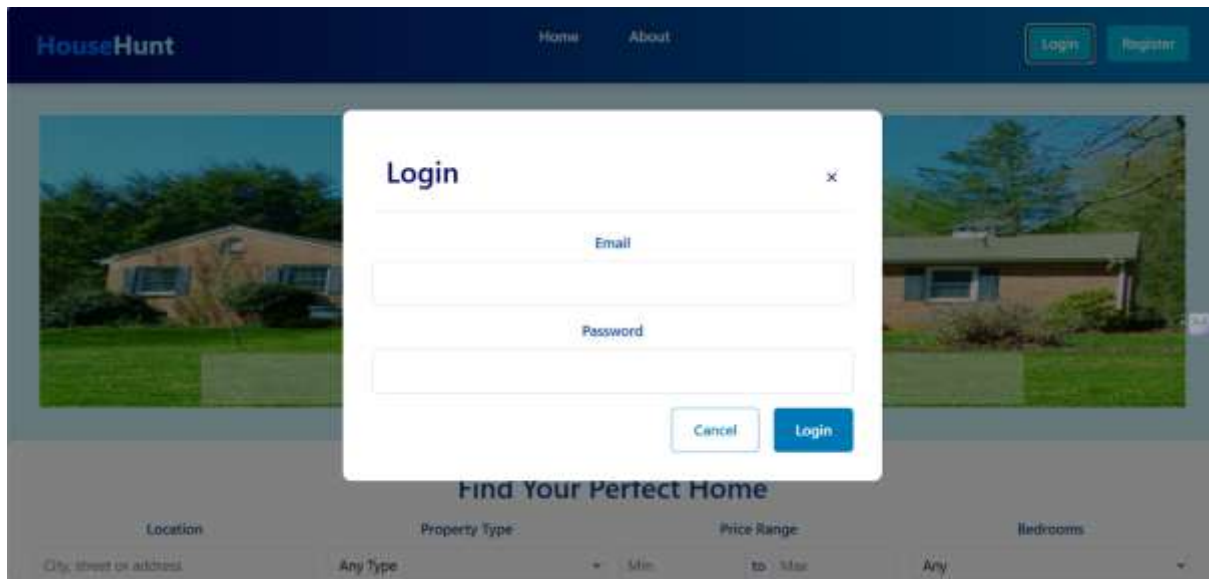
HouseHunt Home About Login Register

About HouseHunt

The House Hunt project is a web application designed to streamline the process of searching for houses and managing property listings. It serves as a platform where potential renters or buyers (native users) can easily find available properties, while house owners can list their properties and manage inquiries. Additionally, the application includes an admin panel for overseeing the entire system, ensuring smooth operations and user management.

Native Users: Users can create accounts to access additional features, such as saving favorite listings and making inquiries. The registration process typically involves providing basic information like name, email, and password. Secure Login: Registered users can log in securely to their accounts, ensuring that their information and preferences are protected.

- **For House Owners:** Property owners can list their houses for rent or sale. They can provide detailed information about each property, including: Title, Location, Price, Description, Images - This feature allows house owners to showcase their properties effectively to attract potential tenants or buyers.
- Users can search for houses based on various criteria, such as: - Location (city, neighborhood) - Price range - Number of bedrooms and bathrooms - This functionality enhances user experience by allowing them to find properties that meet their specific needs quickly.
- Admins have access to a dedicated panel where they can manage the entire application. This includes: - Overseeing user accounts (both native users and house owners) - Managing house listings - Handling bookings and inquiries - The admin panel ensures that the application runs smoothly and that any issues can be addressed promptly.
- **PHP:** The backend programming language that handles server-side logic, database interactions, and user authentication.
- **MySQL:** A relational database management system used to store user information, property listings, and booking details.
- **HTML/CSS:** The markup and styling languages used to create the structure and design of the web application.
- **Bootstrap:** A front-end framework that provides responsive design components, ensuring the application looks good on various devices.
- **JavaScript:** Used to enhance interactivity and client-side functionalities, such as form validation and dynamic content updates.



8. CONCLUSION

HouseHunt successfully provides a scalable solution to bridge the gap between property owners and renters. It ensures a secure, easy-to-navigate experience and smooth role-based operations.

9. APPENDIX

9.1 Source Code Repository

GitHub: [snehalatha-reddy/House-hunt](https://github.com/snehalatha-reddy/House-hunt)

9.2 Project Demo Video

YouTube: https://youtu.be/luOj8_4j8Jo?si=u1pExDDntDsAWvQp

9.3 Tools and Technologies

Visual Studio Code, Node.js, MongoDB Compass, Postman, GitHub, Netlify/Vercel