

# Final Report

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**Project Title: HouseHunt: Finding Your Perfect Rental Home**

**Team ID:** LTVIP2026TMID53603

**Team Members:**

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## 1. INTRODUCTION

HouseHunt is a MERN stack-based full-stack web application that serves as a rental platform connecting renters, property owners, and administrators. The platform simplifies property discovery, inquiry, and booking processes while allowing property owners to list and manage properties.

This solution bridges the gap in the real estate rental market by providing a streamlined interface, verified listings, secure login, and seamless communication among all parties involved.

## 2. IDEATION PHASE

**Problem:**

Difficulty for renters to find reliable, available rental listings and challenges for property owners to showcase their properties.

**Empathy Map & Brainstorm:**

We assessed user needs and frustrations, such as outdated listings, non-transparent booking processes, and lack of owner verification. We brainstormed key features to

solve these issues, including property filters, real-time updates, and admin moderation.

### **3. REQUIREMENT ANALYSIS**

#### **User Journey:**

- ✓ Renter signs up, browses listings, filters results, submits inquiry, and confirms booking.
- ✓ Owner lists properties and updates availability.
- ✓ Admin approves new owners and listings to ensure platform reliability.

#### **Requirements:**

- ✓ Functional: Login/Register, List Property, View Listings, Booking System, Role-Based Access
- ✓ Non-Functional: Responsiveness, Performance, Security, Usability

#### **Technology Stack:**

- ✓ Frontend: React.js, Tailwind CSS, Bootstrap
- ✓ Backend: Node.js, Express.js
- ✓ Database: MongoDB

### **4. PROJECT DESIGN**

#### **Problem-Solution Fit:**

HouseHunt solves core problems by digitizing the traditional rental workflow and ensuring transparency and trust.

#### **Proposed Architecture:**

- Presentation Layer: React + Tailwind UI
- Business Logic: Express.js APIs with JWT-based Auth
- Storage: MongoDB with Mongoose schemas

Data Flow Diagram and ER Diagram illustrate the relationship between users, properties, and bookings.

## 5. PROJECT PLANNING & SCHEDULING

We followed an Agile sprint-based approach:

- ❖ Sprint 1: UI Design + Routing
- ❖ Sprint 2: Backend Setup + Database Models
- ❖ Sprint 3: Auth + Role Management
- ❖ Sprint 4: Listings, Booking Logic
- ❖ Sprint 5: Admin Panel, Testing & Hosting

## 6. FUNCTIONAL AND PERFORMANCE TESTING

Functional testing was performed on user registration, property listings, filters, and booking confirmation.

Performance testing included stress testing booking load and verifying database response under concurrent users. Tested on live Netlify deployment.

## 7. RESULTS

**The website is live at:**

<https://lustrous-rugelach-aa4d9b.netlify.app/>

**Screens include:**

- Renter Registration/Login
- Filter Listings ○ Property  
Detail Page ○ Booking Form
- Owner Dashboard ○  
Admin Approval Panel

## 8. ADVANTAGES & DISADVANTAGES

**Advantages:**

- Easy-to-use search and filters
- Real-time availability and booking updates
- Admin approval adds platform integrity

**Disadvantages:**

- No integrated payment gateway
- No built-in calendar for booking conflict checks

## 9. CONCLUSION

HouseHunt offers an efficient way to connect renters with verified property owners. The platform demonstrates scalable design and effective use of the MERN stack.

## 10. FUTURE SCOPE

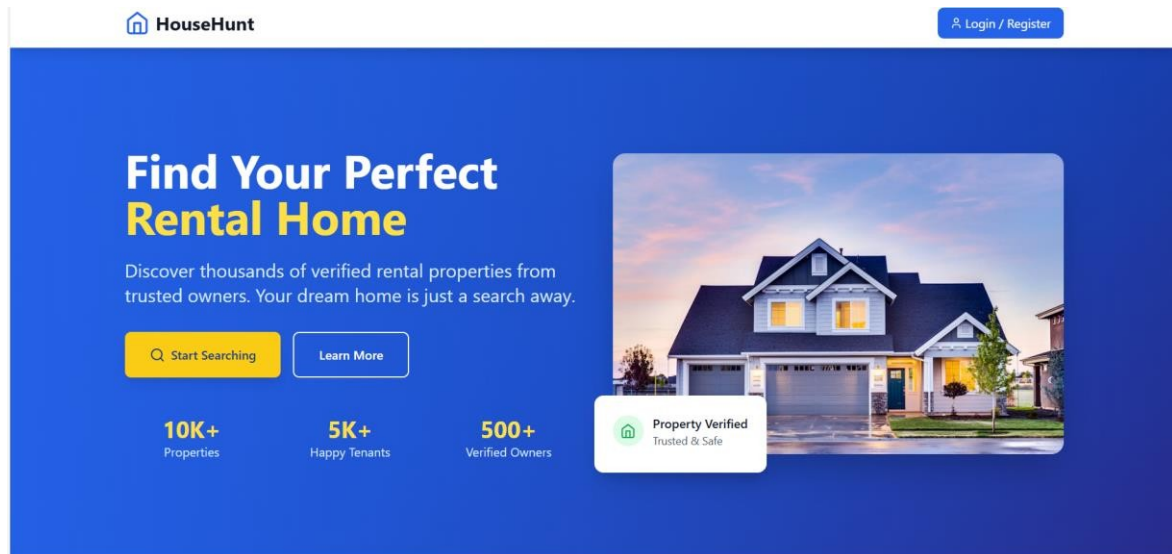
- Payment Gateway Integration (e.g., Stripe/PayPal)
- Chat System for Renter-Owner Communication
- Calendar Integration for Booking Conflict Resolution - Mobile App Deployment

## 11. APPENDIX

**Live Demo:**

<https://lustrous-rugelach-aa4d9b.netlify.app>

**SCREENSHOTS:**



## Search Properties

Location

City, State

Min Price

\$0

Max Price

10000

Bedrooms

Any

Type

All Types

☐ Furnished

☐ Pet Friendly

☐ Parking

Search Properties

HouseHunt

Login / Register

## Featured Properties (6 properties)

Available



**Modern Downtown Apartment**

New York, NY

Beautiful 2-bedroom apartment in the heart of downtown with stunning city views, modern...

2 bed 2 bath 1200 sqft

Parking Furnished

View Details

\$2,500/mo

Available



**Cozy Family House**

Los Angeles, CA

Spacious 3-bedroom house perfect for families, featuring a large backyard, modern kitchen, and qui...


3 bed 2 bath 1800 sqft

Parking Pet Friendly

View Details

\$3,200/mo

Available



**Studio Loft in Arts District**

Chicago, IL

Trendy studio loft in the vibrant arts district with exposed brick walls, high ceilings, and creative...

1 bed 1 bath 800 sqft

Furnished

View Details

\$1,800/mo

HouseHunt

Login / Register

**Cozy Family House**

Available

**\$3,200/month**

456 Oak Avenue, Los Angeles, CA 90210

3 Bedrooms 2 Bathrooms 1800 sqft

**Description**

Spacious 3-bedroom house perfect for families, featuring a large backyard, modern kitchen, and quiet neighborhood setting.

**Amenities**

- Backyard
- Fireplace
- Hardwood Floors
- Garage
- Modern Kitchen

Parking Pet Friendly

**Contact Owner**

**Bob Smith**  
bob@example.com

Please log in as a renter to contact the owner

Email: bob@example.com

Luxury Penthouse

\$950/mo

