

# HouseHunt: Finding Your Perfect Rental Home

## Project Planning Document

### 1. Project Overview

Project Name: HouseHunt

Type: Full Stack Web App (MERN Stack)

Objective: To build a web-based platform that connects renters and property owners, simplifying the process of listing, finding, and renting homes or apartments.

### 2. Target Users

- Renters: Browse listings, inquire, and book rental properties.
- Property Owners: Add and manage rental listings.
- Admin: Oversee user activity, approve owners, and ensure platform safety.

### 3. Core Features

Renter Features:

- User Registration/Login (JWT-based)
- Browse rental property listings
- Advanced Search & Filter
- View detailed property info
- Inquiry form to contact owners
- Booking request system
- Notifications & booking status updates
- In-app messaging

Owner Features:

- Registration/Login (admin approval)

- Add/edit/delete properties
- Manage renter inquiries
- Update property status

#### Admin Features:

- Approve owner accounts
- Manage users/properties
- Monitor activity and enforce guidelines

## 4. Technical Architecture

#### Frontend:

- React.js, Bootstrap, Material UI
- Axios for HTTP Requests, Moment.js for date handling

#### Backend:

- Node.js, Express.js, JWT auth, validation with Joi/Validator
- Multer/Cloudinary for image handling

#### Database:

- MongoDB, Mongoose ODM

## 5. Database Schema (Overview)

Users: id, name, email, passwordHash, role, approved, createdAt

Properties: id, ownerId, title, desc, rent, location, bedrooms, images, available, createdAt

Bookings: id, renterId, propertyId, status, message, createdAt

Messages: id, senderId, receiverId, content, timestamp

## 6. Use Case Scenario

Alice (Renter) signs up -> Filters -> Sends Inquiry -> Owner reviews -> Booking Confirmed -> Lease Finalized -> Moves in.

## 8. Deployment Plan

Frontend: Vercel / Netlify

Backend: Render / Railway

Database: MongoDB Atlas

## 9. Tools & Libraries

Frontend: React, Bootstrap, MUI

Backend: Node.js, Express.js

DB: MongoDB, Mongoose

Other: Axios, JWT, bcrypt, Moment.js

## 10. Documentation & Submission

- GitHub code
- README & setup guide
- Architecture diagram
- Demo video
- Final project report (PDF)