

Fina Phase Of Documentation

DATE	22JUN 2025
TEAM ID	LTVIP2025TMID57110
PROJECT NAME	HOUSEHUNT-FINDING YOUR PERFECT RENTAL HOME

1. Project Purpose

HouseHunt is a web application designed to simplify the process of renting properties. It serves as a platform where renters can easily find and book rental properties, while property owners can manage their listings effectively. The application aims to enhance the user experience by providing a seamless interface and robust functionalities for all user roles, including renters, owners, and administrators.

2. Key Features

2.1 User Roles

- Renter: Can browse properties, create bookings, and manage their profiles.
- Owner: Can list properties, manage bookings, and view their property performance.
- Admin: Can oversee the entire platform, manage users, properties, and bookings.

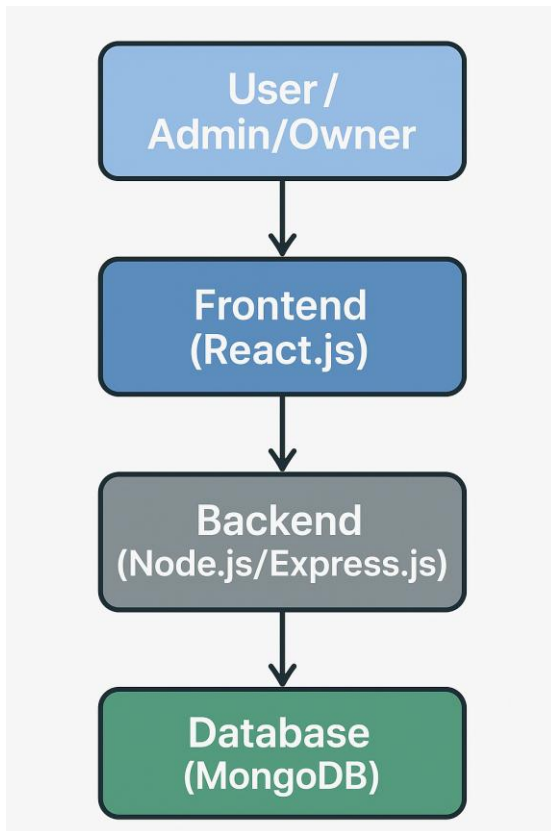
2.2 Functionalities

- User Registration and Authentication
- Property Listings
- Search and Filter Options
- Booking Management
- Admin Dashboard

3. Solution Architecture

The HouseHunt application is built using a three-tier architecture, which separates the user interface, business logic, and data storage. This architecture promotes scalability, maintainability, and flexibility.

3.1 Architecture Diagram



3.2 Components Overview

3.2.1 Frontend

Technologies: React.js, HTML, CSS, JavaScript

Key Components:

- User interface components for property listings, user profiles, and dashboards.
- Routing for navigation between different pages.

3.2.2 Backend

Technologies: Node.js, Express.js

Key Components:

- RESTful API endpoints for handling requests from the frontend.
- Controllers for managing business logic related to users, properties, and bookings.
- Middleware for authentication and request validation.

3.2.3 Database

Technology: MongoDB

Key Collections:

- Users: Stores user credentials and profiles.
- Properties: Stores property details and images.
- Bookings: Stores booking information and statuses.

4. Technology Stack

4.1 Core Technologies

Frontend:

- React.js
- HTML, CSS, JavaScript

Backend:

- Node.js
- Express.js

Database:

- MongoDB

4.2 Development Tools

- Git
- GitHub
- npm
- Visual Studio Code

4.3 Libraries and Frameworks

- Authentication: JSON Web Tokens (JWT)
- Styling: CSS frameworks (e.g., Bootstrap or Material-UI)
- Testing: Jest, Mocha