Technology Stack Document

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

1. Project Overview

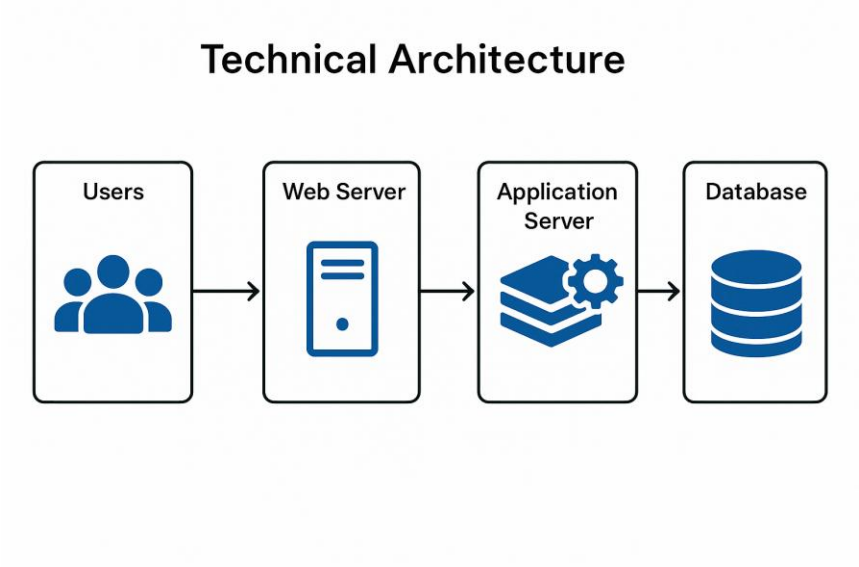
HouseHunt is a MERN-based web application designed to streamline the process of renting and leasing properties. It allows users to browse, book, and manage properties with ease, while providing owners and admins tools for managing listings and users.

2. Technical Architecture

The architecture of the HouseHunt project is based on a robust and scalable three-tier model. It consists of:

- Frontend (React)
- Backend API (Node.js + Express)
- Database (MongoDB)

Architecture Diagram



3. Components & Technologies

3.1 Frontend

Component: User Interface
Description: Web-based interface for users to browse properties and manage their bookings.
Technologies Used:
- HTML
- CSS
- JavaScript
- React.js

3.2 Backend

Component: Application Logic
Description: Handles core logic, user management, and API communication.
Technologies Used:
- Node.js
- Express.js

3.3 Database

Component: Data Storage
Description: Manages all user data, properties, bookings, and reviews.
Technologies Used:
- MongoDB

4. Application Characteristics

4.1 Open Source Frameworks

The project uses widely adopted open-source libraries to ensure flexibility and community support.
Technologies:
- React.js
- Node.js
- Express.js

4.2 Scalable Architecture

Built with scalability in mind using modular components and RESTful APIs.
Follows microservices architecture principles.
Technologies:
- REST APIs
- Microservices-ready structure

5. Development Tools

Tool	Purpose
Git	Version control
GitHub	Code repository hosting
VS Code	Code editor and IDE
npm	Package and dependency management

6. References

- React.js Documentation: https://reactjs.org/docs/getting-started.html

- Node.js Best Practices: https://nodejs.dev/en/learn

- Architecture Diagrams: https://www.draw.io or Lucidchart

Conclusion

This document outlines the technological foundation and system architecture behind the HouseHunt project. It serves as a reference for developers, contributors, and stakeholders to understand the core components and development ecosystem.

For further collaboration or questions, please refer to the project GitHub repository or contact the development team.