

PropEase - Real Estate Management System

Weekly Progress Report – Sprint 2

(22 September – 28 September 2025)

Summary of Tasks Completed

This sprint expanded the **User-side module** by introducing property-related functionalities — listing, search, filtering, and detailed property viewing. Integration between the **frontend and backend** was also achieved for these components.

Frontend Development

- Designed and developed the following components:
 - **Property Listing Page:** Displayed multiple property cards with essential details (image, title, location, price, type).
 - **Property Detail Page:** Created a dedicated page to show detailed information of a selected property.
 - **Search & Filter Bar:** Implemented search functionality by location, budget, and property type.
- Added **dynamic routing** using for navigation between pages.
- Integrated **Axios** for API communication with the backend.
- Enhanced **UI responsiveness** for mobile and tablet layouts.
- Added **loading spinners** and error messages for better UX during API calls.

Backend Development (Node.js + Express.js + MongoDB)

- Designed and implemented **Property Schema** with fields: title, description, location, price, type, amenities, imageURL, ownerId.
- Developed and tested the following APIs:
 - **Add Property API** (POST)
 - **Get All Properties API** (GET)
 - **Get Property by ID API** (GET)
 - **Search Properties API** (GET with query filters: location, price range, type).
- Integrated property endpoints with the frontend interface.

Documentation

- Updated **API documentation** (Swagger + internal notes).
- Recorded all completed features in the **Sprint Progress**.

Roadblocks / Challenges Faced

Issue	Description	Resolution
API Filtering Issue	Search filters initially returned incorrect or incomplete results.	Fixed MongoDB query syntax and added multiple conditional filters.
State Sync	Filters and search input were not updating results dynamically.	Implemented controlled components and for dependency updates.
Image Rendering	Property images not loading due to inconsistent URLs.	Added fallback images and validated URLs before rendering.
UI Performance Lag	Multiple re-renders when fetching large property data.	Optimized API calls with pagination and memoization.

Upcoming Tasks

The next sprint will focus on **integrating user interactions** and **enhancing the user module** for the mid-semester demo.

Planned Tasks:

- **Frontend:**
 - Develop **User Profile Settings Page**.
 - Implement **Favorite/Save Property** functionality.
 - Improve UI consistency and add icons/images for better visuals.
- **Backend:**
 - Add **Property Favorites API** for saving user-selected listings.
 - Begin implementing **Chat and Notification structure (initial setup)**.