

PropEase - Real Estate Management System

Weekly Progress Report – Sprint 1

(6 October – 12 October 2025)

Summary of Tasks Completed

This sprint focused on **completing and refining all user-side functionalities**, integrating **Google Maps**, **EMI Calculator**, and performing **UI/UX polishing** in preparation for the **mid-semester presentation**.

Frontend Development

- **Google Maps Integration:**
 - Integrated **Google Maps API** for visualizing property locations with interactive markers.
 - Implemented “View on Map” button on property details page to show nearby properties.
- **EMI Calculator:**
 - Developed a fully functional EMI calculator page.
 - Implemented formula-based calculation for monthly payments with adjustable interest rate and tenure.
 - Added graphical representation (pie chart) to show principal vs. interest distribution.
- **UI/UX Enhancements:**
 - Improved layout consistency across all pages (Search, Details, Profile, Favorites).
 - Added toast and modal alerts for user actions (property saved, appointment booked, etc.).
 - Ensured **full mobile responsiveness** for all major screens.

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

- **Google Maps Search API Integration:**
 - Enhanced property search with location-based filtering using latitude and longitude.
 - Added support for map coordinates in search query parameters.
- **Data Optimization:**
 - Improved query performance by adding property indexing on `location` and `price` fields.

Integration & Demo Preparation

- Completed **end-to-end integration** for the entire User Module:
Register → Login → Search → View Details → Save Property → Calculate EMI → View on Map.
- Final internal demo conducted to review flow consistency.
- Created **demo script and walkthrough slides** for upcoming mid-semester evaluation.

Documentation

- Updated **README** and **deployment guide** for the client module.
- Maintained sprint documentation and project status report.
- Added screenshots for UI and API endpoints to project report draft.

Roadblocks / Challenges Faced

Issue	Description	Resolution
API Key Restriction (Google Maps)	API initially failed due to restricted key permissions.	Generated new restricted key with correct domain configuration.
Map Marker Overlap	Multiple markers overlapped for close locations.	Adjusted marker clustering and zoom threshold.
Chart.js Rendering Bug	EMI graph not loading correctly on route change.	Added component re-render triggers and dependency updates.
Minor UI Bugs	Some icons and responsive layouts misaligned.	Fixed using Tailwind grid and flex adjustments.

Upcoming Tasks

With the user module completed, the team will now move on to the **Owner Module** development in the next sprint.

Planned Tasks:

- **Frontend (Owner Side):**
 - Build **Owner Dashboard** with overview cards (Total Listings, Pending Approvals).
 - Implement **Add Property Form** with image/document upload functionality.
 - Design “My Listings” and “Manage Appointments” sections.
- **Backend (Owner APIs):**
 - Implement **Owner Authentication and Property CRUD APIs**.
 - Begin **Lead Management System** (basic setup).