Project Proposal:

Property Pulse - Real Estate Marketplace

Collaborators:
Kenny Vo - (Collaborator)
Edison Zheng - (Collaborator)

Mobile App Development
Professor: Louis Henry

Overview:

Property Pulse is a modern real estate marketplace app designed to help users browse through various property listings while offering the ability to save favorites, compare listings, message sellers, etc., all in one place.

The goal of the app is to provide a smooth, intuitive experience where buyers can explore homes, view detailed listing information, and messaging between buyers and sellers. Sellers will also gain access to create and manage property listings through a simple, mobile-friendly interface

Property Pulse focuses on core marketplace functionality: browsing listings, robust search filtering, in-app messaging, photo galleries, and a straightforward scheduling system.

Functionality:

From	*To*	*Description*
Nav Bar	Home	*Tap the Home icon to go to Home Screen*
Nav Bar	Search	*Tap the Search icon to go to Search Filters Screen*
Nav Bar	Favorites	*Tap the Favorites icon to go to Favorites Screen*
Nav Bar	Messages	*Tap the Messages icon to go to Chats Screen*
Nav Bar	Profile	*Tap the Profile icon to go to Profile Settings Screen*
Home	Property Details	*Tap a property car to view full property details*
Search	Filter Results	*Apply filters → navigate to filtered property list*
Property Details	Chat	*Tap "Message Seller" to open chat*
Property Details	Schedule Tour	*Tap "Schedule Tour" to open calendar scheduler*
Favorites	Comparison	*Select multiple favorites → open comparison view screen*

Layout: User Experience

- ☐ *Navigation Bar:*
  - ☐ Home Page Button
  - ☐ Search Screen Button
  - ☐ Favorites Screen Button
  - ☐ Messages Screen Button
  - ☐ Profile Screen Button

- ☐ *Home Page:*
  - ☐ Shows featured properties and recent listings
  - ☐ Horizontal scrolling image card
  - ☐ Estimated Value tag for properties with valuation data
  - ☐ Quick access to search filters

- ☐ *Search Filters:*
  - ☐ Price range slider
  - ☐ Bedrooms/Bathrooms info dropdown
  - ☐ Property type (House, Condo, Townhome, etc.)
  - ☐ City/State filter
  - ☐ Apply/Clear filter button
  - ☐ Results displayed in grid or list view

- ☐ *Property Details:*
  - ☐ Large image carousel
  - ☐ Property information: price, beds, baths, sqft, year built
  - ☐ Decription + features
  - ☐ "Message Seller" button
  - ☐ "Favorite" toggle
  - ☐ "Schedule Tour" button

- ☐ *Favorites Screen:*
  - ☐ List of saved properties
  - ☐ Select multiple properties for comparison
  - ☐ Remove property from favorites
  - ☐ Delete properties

- ☐ *Comparison Screen:*

- ☐ Side-by-side comparison of 2-3 properties
- ☐ Metrics: price, estimated value, bedrooms, bathrooms, sqft, year built
- ☐ Color-coded highlights (Green = Better Value)

☐ *Messages Screen:*
- ☐ Chat list preview
- ☐ Tap conversations to view full chat
- ☐ Simple buyer/seller messaging with timestamps
- ☐ Real-time Firestore sync

☐ *Schedule Tour:*
- ☐ Date/time picker
- ☐ Options: Virtual or In-Person
- ☐ Checks seller availability to prevent double-booking
- ☐ Confirmation screen appointment details

☐ *Profile & Settings Screen:*
- ☐ Edit name, email, phone number
- ☐ Dark/light theme mode toggle
- ☐ Notification preferences
- ☐ Manage your listings (for seller accounts)

Layout: User Interface

- ☐ Rounded cards
- ☐ Minimalistic UI similar to Zillow (Zillow-inspired)
- ☐ Uses icons for clarity and accessibility
- ☐ Light/Dark mode support with clean, minimalistic colors based on the selected theme

Core Features & Challenges:

Week 1:
- ☐ User Authentication & Profiles

Week 2:
- ☐ Property Listing Management
- ☐ Advanced Property Search

Week 3:
- ☐ Favorites & Comparison
- ☐ In-App Messaging
- ☐ Virtual Tour Scheduling

Post Core Features & Challenges: Additional tweaks and features TBD

Testing and Approach:

Throughout development, we will test the app from both the buyer and seller perspectives using realistic real estate scenarios. Test cases will include searching for properties, filtering by price or size, comparing listings, messaging between seller and buyer, and scheduling tours. We will also test data reliability by ensuring listings and messages update in real-time via Firebase. Usability testing will focus on clarity of UI, navigation flow, and load times for images.

GitHub Repo Link:

URL: https://github.com/kvo110/property_pulse.git

Acknowledgement:

Statement:

We, the undersigned members of the group, acknowledge that we understand the conditions outlined in this proposal. We are committed to actively participating in the implementation of the group project from start to finish. We understand that individual grades may vary based on our contributions and performance, and we agree to present an important phase of the work collectively.

Signed Proposal:

Name: Kenny Vo   Date: *11/21/2025*