Comprehensive Real Estate Insights Platform

Members:

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Guidelines for Milestone 5 Progress Evaluation

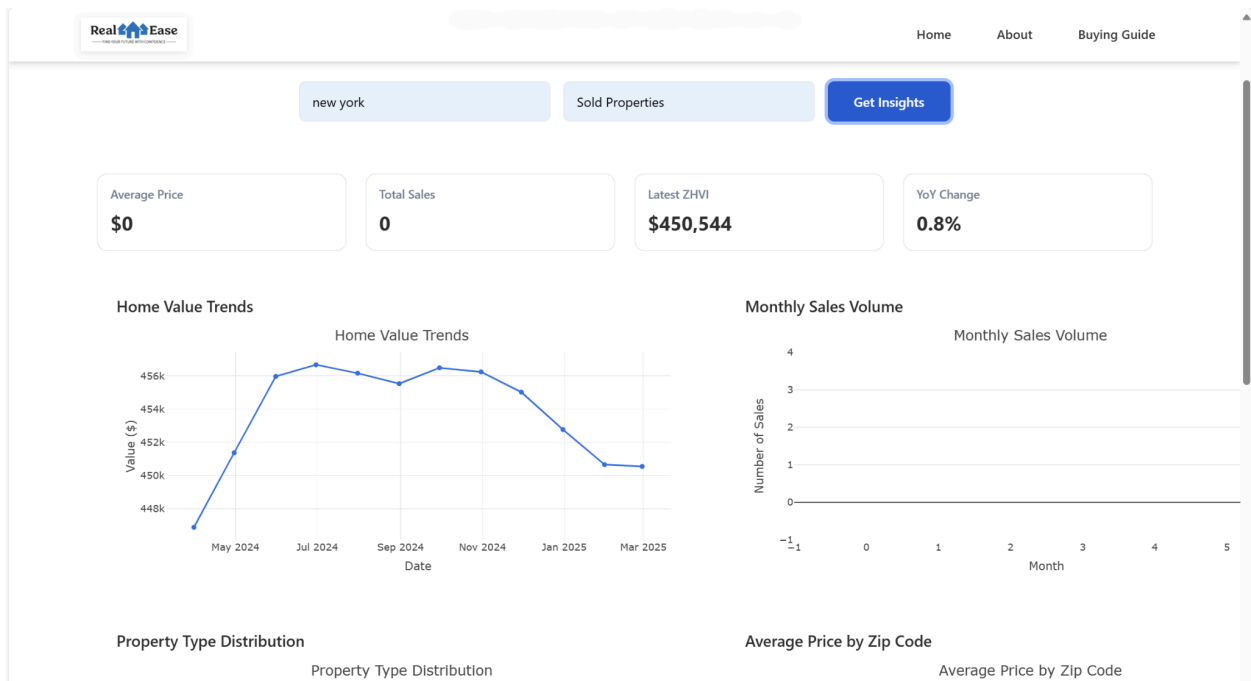## Progress of Current Milestone (Progress Matrix):

Task	Completion %	Donovan	Jonathan	Enrique	To do
Neighborhood Insights Tool	60%	20%	20%	20%	Fully implement Neighborhood Insights Tool and test
Website Refresh & Speeding up home display (cache)	90%	70%	10%	10%	Transfer all existing implementations over to new front
Working Website Demo's	80%	33%	33%	33%	Create more extensive demo for neighborhood insights

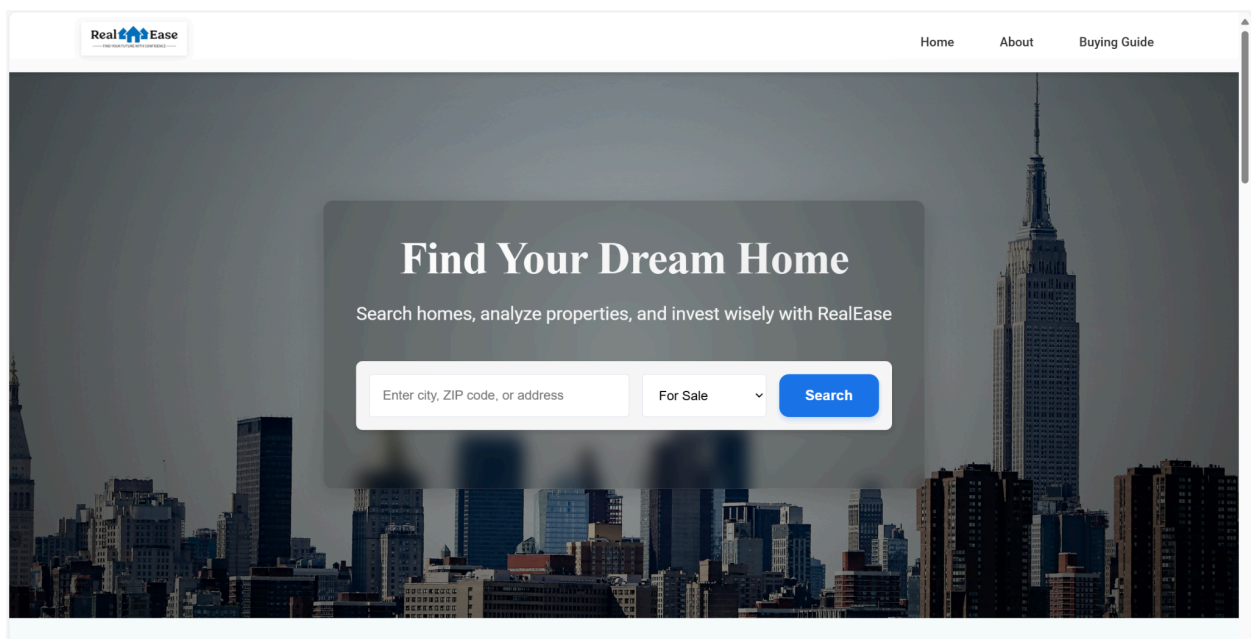# Discussion of each accomplished task for the current Milestone:

Task 1: Neighborhood Insights Dashboard

We made significant progress on the neighborhood insights dashboard, which provides users with valuable contextual information about properties and the area surrounding them. The backend infrastructure is now in place to collect and process data related to demographics, school ratings, walkability, and more. We have implemented initial API integrations to pull this data from external sources. The frontend component displays this information in an easily digestible format, though we still need to complete the styling and improve the visual presentation.

Task 2: Website Refresh

We successfully migrated our existing implementations to a new frontend architecture, resulting in a more responsive and visually appealing interface as well as speeding up the time it takes for a user to search for a house (caching method added). The redesigned property cards and detail pages significantly improve the user experience with intuitive navigation and clearer information hierarchy. We've standardized our color scheme and typography throughout the site, creating a more cohesive brand identity. The comparison tool, ROI calculator, and neighborhood insights have been fully integrated into the new design framework.

Task 3: Working Website Demos

We developed a comprehensive demonstration workflow that showcases our platform's key functionality. Users can now experience the complete journey from property search to detailed analysis, including the comparison tool and ROI calculator. The demos effectively highlight our platform's unique value proposition and differentiate it from existing solutions. We've created initial demonstrations for the Neighborhood Insights Tool, though these need to be expanded to show the full capabilities of this feature. Our next step is to develop a more extensive demonstration specifically focused on neighborhood analytics and community data.

Discussion of contribution of each team member to the current Milestone:

Donovan Murphy:

During this milestone, I focused on revamping the website's overall design, introducing a fresh and modern aesthetic to enhance the user experience. A key part of this redesign included implementing a new card display for property information, making it more intuitive and visually appealing while maintaining concise and relevant details. Most significantly, I worked on integrating the Neighborhood Insights Dashboard into the front end, a critical feature for providing users with valuable local data. This dashboard includes a couple of charts, though we are still gathering and incorporating all the desired data. This effort will continue into the next milestone.

Using HTML, CSS, and JavaScript, I ensured these updates aligned with the project's goals and user expectations, delivering a cohesive and polished interface. I also collaborated closely with backend developers to integrate the dashboard with our database schema, optimizing data flow and ensuring a smooth connection between the front and back end. Additionally, I explored further enhancements to our Flask-based Python backend framework, identifying ways to support these new features and improve overall functionality. These efforts reflect my commitment to advancing our project milestones with innovative, user-focused solutions while maintaining technical precision and strong team coordination.

Jonathan Bailey:

My work focused on transitioning ROI calculations from a command-line interface to a dynamic, user-friendly UI. I implemented interactive elements to ensure users can enter data effortlessly while viewing real-time ROI metrics. I also contributed to backend testing and helped ensure accurate calculations for financial indicators. Additionally, I researched and implemented UI responsiveness with Tailwind CSS to improve compatibility across devices.

Enrique Obregon:

My primary focus this milestone was developing the Neighborhood Insights dashboard, which required integrating multiple data sources to provide comprehensive community information. I implemented backend services to collect demographic data, school ratings, and walkability scores, etc, then created visualization components to present this information clearly to users.

Additionally, I supported the website refresh initiative by helping migrate existing functionality to our new frontend architecture. This involved refactoring components to maintain compatibility while improving design coherence and responsiveness. I worked closely with team members to ensure the ROI calculator and property comparison tools integrated smoothly with the updated UI, maintaining functionality while enhancing the visual presentation. This collaborative effort significantly improved our platform's usability and professional appearance.

Plan for the next Milestone (task matrix):

Task	Donovan	Jonathan	Enrique
1. Finish Neighborhood Insights Dashboard	implement/test 40%	Research 20%	Research/implement 40%
2. Test all tools thoroughly	Design 50%	Design 25%	Design 25%
3. Touch up anything as suggested by advisor and or instructor	Implement 40%	Implement 30%	Implement 30%
4. Integrate with python everywhere	Research and implementation 60%	Research 20%	Research 20%

Discussion of each planned task for the next Milestone:

Task 1: Fully Flush Out Neighborhood Insights Dashboard

We will complete the Neighborhood Insights Dashboard, including finalizing all data integrations, improving visualizations, and enhancing the user interface. This includes implementing interactive maps to display walkability scores, adding demographic trend analysis, and creating comprehensive school score features. We'll also ensure that neighborhood data is properly contextualized with regional averages to provide meaningful comparisons for users unfamiliar with the area.

Task 2: Test All Tools Thoroughly

We will conduct comprehensive testing across all platform features to identify and resolve any bugs or usability issues. This includes stress testing the comparison tool with various property combinations, validating ROI calculator results against established financial models, and ensuring the Neighborhood Insights dashboard delivers accurate and relevant information. We'll also perform cross-browser and mobile device testing to guarantee a consistent experience across different platforms.

Task 3: Touch Up Based on Feedback

We will implement refinements suggested by our advisor and instructor to improve the overall quality and user experience of our application. This may include adjustments to the user interface, enhancing specific features, or adding additional functionality that would increase the platform's value. We're committed to iteratively improving our product based on expert feedback to ensure it meets the highest standards of quality and usefulness.

Date(s) of meeting(s) with Client & Faculty Advisor during the current milestone:

- March 26, 2025

Client & Faculty Advisor feedback on the current milestone

Task 1: Feedback on Home Comparison Tool

The client provided valuable insights during the development of the Home Comparison tool, shaping its functionality and overall user experience. One of the most impactful pieces of feedback was the recommendation to integrate images of the homes into the comparison tool. By adding pictures, we significantly enhanced the visual appeal and usability, making it easier for users to quickly assess and compare properties at a glance.

Through regular discussions and iterative refinements, we adjusted the user interface and overall flow of the tool to align more closely with the client's vision. Their feedback was instrumental in ensuring a smoother, more intuitive experience that meets end-user needs while improving the tool's overall functionality. The collaborative process continues to drive meaningful enhancements as we progress.

Task 2: Guidance on Front-End Design

The client expressed overall satisfaction with the frontend design and was pleased with the progress made in terms of aesthetics and usability. However, they provided crucial suggestions for further refinement, particularly regarding visual hierarchy within the home details section. They emphasized the need to highlight the most important information in a way that naturally draws the user's attention, ensuring a seamless browsing experience.

To implement this feedback, we are working on:

- Adjusting font sizes, colors, and spacing to create a clearer distinction between primary and secondary information.

- Utilizing bold and contrast elements to emphasize critical details such as pricing, square footage, and key features.

- Refining layout organization to improve readability and ease of navigation.

By continuously incorporating client feedback, we are ensuring that the frontend design remains user-friendly, visually appealing, and aligned with their expectations. These refinements will contribute to a more engaging and efficient experience for users as they interact with the application.

Task 3: Guidance on ROI Implementation

Our faculty advisor provided critical feedback on enhancing the ROI tool's functionality, focusing on improving user experience and reducing unnecessary input fields. One of the main recommendations was to introduce a call-to-action button prominently displayed on home comparison cards. This button, when clicked, would trigger a pop-up form pre-filled with existing property information, allowing users to enter only the necessary additional details. This adjustment aims to streamline the process and improve ease of use.

During our meeting, our advisor also stressed the importance of optimizing frontend performance, particularly addressing **latency issues** when users search for a specific location in the main menu. To tackle this challenge, we:

- Brainstormed multiple solutions, including data preloading, optimized API calls, and caching mechanisms.
- Plan to conduct performance tests to determine the most effective solution for reducing delays.

Lastly, in terms of the ROI tool itself, our advisor recommended minimizing the number of required manual inputs. Instead of having users fill in extensive fields, they should be able to select a button while viewing a home, which will instantly display the calculated ROI with pre-integrated housing data. This adjustment will not only save time but also make the feature more intuitive and user-friendly.

By implementing these suggestions, we aim to enhance the efficiency, usability, and overall performance of the application, ensuring that users have a seamless experience while accessing key real estate insights.

Faculty Advisor Signature: _____ Date: _____

Evaluation by Faculty Advisor

Faculty Advisor: detach and return this page to Dr. Chan (HC 209) or email the scores to pkc@cs.fit.edu

Score (0-10) for each member: circle a score (or circle two adjacent scores for .25 or write down a real number between 0 and 10)

Donovan Murphy	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Jonathan Bailey	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Enrique Obregon	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10

Faculty Advisor Signature: _____   Date: _____