

Updates Based on Your New Approach:

1. Real-Time Messaging:

- Replacing real-time messaging with a **contact info card** (like WhatsApp or other contact details) is a **great simplification**. It reduces complexity significantly, as you no longer need to implement real-time communication and notifications through the backend (Socket.IO, etc.). This will save time and effort, and it still provides a practical way for users to reach out to landlords or roommates.
- **Benefit:** This will save time and keep the project focused on other essential features, especially since WhatsApp is widely used and trusted.

2. Fair Rent Calculation:

- Regarding **real-time updates** to the fairness score: you're right that the score does not need to change every time a user views a listing. You can simplify it by updating the **fair rent score periodically** (e.g., when a property is listed or updated). For instance, when a new listing is added, you can recalculate the rent fairness based on the most recent listings in that area or category.
- **Simplified Approach:** You could also compute a **static score** based on a set of **criteria** (such as location, size, amenities) when the listing is first added. This means users don't have to wait for the rent score to update dynamically, and you reduce the load on your system.
- **Simplified Calculation Example:** The score could be a function of:
 - Average rent in the area
 - Size of the property
 - Available amenities
 - Comparison to similar properties in the same price range

3. Commute Time Estimation:

- Starting with just **walking time** is an excellent initial approach and reduces the complexity. You can later extend the system to include **bus** or **drive time** based on user feedback and available time.
- **Why This Works:** Walking time can be calculated using **OpenStreetMap API** (which you already plan to use) or even built-in Google Maps functionality, which simplifies the process significantly. You can always expand this feature in the future based on project feedback.

Adjusted Project Scope:

Given these changes, here's how your project now looks:

1. **Simplified Real-Time Messaging:** You will no longer need to build a real-time chat system. Instead, focus on providing a **contact info card** that includes WhatsApp or phone numbers for landlords and students.
 - **Reduced Complexity:** This reduces the backend workload (no need for Socket.IO or messaging logic).

- **Time Saved:** You can allocate more time to ensuring that other parts of the platform (listings, booking, etc.) work smoothly.
 - 2. **Fair Rent Calculation:** Instead of real-time dynamic updates, the **fair rent score** can be simplified by calculating it when a listing is posted or updated. You could also offer a **range** of fair rents (low, medium, high) based on a set formula, rather than trying to calculate an exact score every time a user interacts with the listing.
 - **More Focused:** This approach will allow you to avoid real-time calculations, making your database queries simpler and faster.
 - **Easier Testing:** With a static calculation, it becomes easier to test and debug.
 - 3. **Commute Time Estimation:** Focus on **walking time** at first, which is much easier to implement. Later, you can extend the system to include bus times, etc., based on user feedback or project requirements.
 - **Simplified & Feasible:** The initial version of the feature will be simple and should meet the needs of your users.
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Final Thoughts:

By simplifying the messaging system, fair rent calculation, and commute time estimation, you're making the project much more **manageable within the 7-8 week timeframe**. This allows you to focus on **core features** (listings, bookings, user registration, etc.) and ensures that you're not overwhelmed by overly complex features that would require more time and effort.

You're on the right track by focusing on creating a **solid MVP** with the core features. As you gain more time and experience, you can always enhance and extend the project, but this will set a strong foundation for a successful completion.