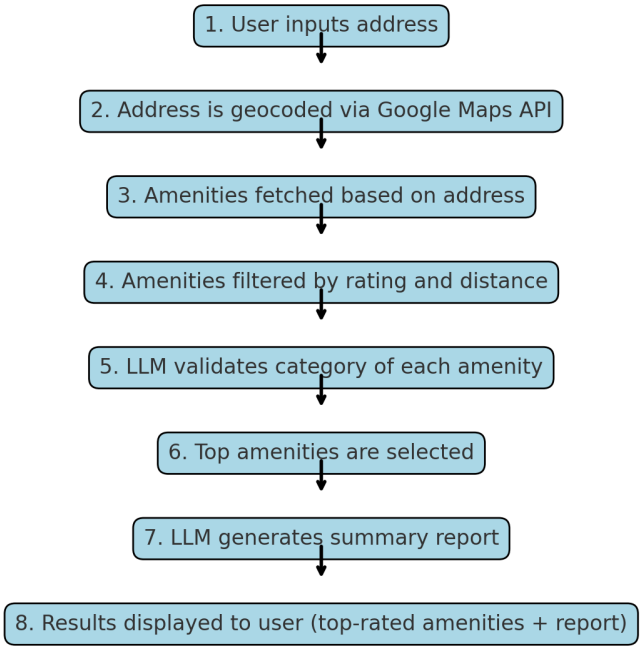
Enhancing Neighborhood Exploration with AI-Powered Amenity Finder.

Imagine you're moving from Texas to Seattle. You've found a fantastic apartment, but before signing the lease, you want to know more about the neighborhood—what restaurants are nearby, how close the public transport is, and which places are highly rated. Normally, you'd open Google Maps and start searching for all of these one by one. But wouldn't it be great if there was a tool that did all of this for you in one go? That's exactly what this project does!

How It Works

This project simplifies the process of exploring a new neighborhood by taking an address and finding nearby amenities, like restaurants, gyms, hospitals, and public transport. It also checks their ratings and distances, giving you a clear picture of what's around you. Here's a breakdown of how the tool works:

1. **Input an Address**: You enter an address (for example, the address of your new apartment).
2. **Location Processing**: The app uses Google Maps to get the exact location of the address.
3. **Find Nearby Amenities**: For each category—like schools, restaurants, and grocery stores—the app finds the top-rated places nearby (within a 10-mile radius).
4. **Check Ratings**: It filters out only the places that are rated 4.0 or higher, ensuring you're only seeing the best.
5. **LLM-Generated Summary**: A language model (LLM) then provides a quick, easy-to-understand summary of the neighborhood based on the nearby amenities.



Why This is Useful

Moving to a new city or even a new neighborhood can be stressful, especially when you're unfamiliar with the area. Here's how this tool can help:

- **Save Time**: No more switching between maps and review sites to check each place. The app gives you everything in one view.
- **Top-Rated Places First**: You only see the best-rated amenities, so you can trust that you're getting quality information.
- **A Quick Overview**: The LLM-generated report gives you a short, concise summary, so you get the most important info fast.

Real-Life Example

Let’s say you're moving to Seattle and you’ve found a great apartment in Capitol Hill. You want to know if it's a good area for foodies. You enter the address into this tool, and within seconds, you get a list of the highest-rated restaurants within 10 miles, along with how far they are from your potential home. You also get a summary of the nearby schools, grocery stores, gyms, and hospitals.

This feature is perfect for real estate websites like Zillow, where people are actively exploring new neighborhoods before making big decisions.

How the LLM is Used

The integration of an LLM (Language Learning Model) adds intelligence to the project, making it more than just a map search tool. Here's how it works:

1. **Category Validation**: When the app fetches nearby amenities, the LLM checks if the amenity actually fits within its category. For example, if a place is listed as a “Restaurant,” the LLM helps validate that it’s genuinely a restaurant based on its name, ensuring that the category labels are accurate.
2. **Summary Report Generation**: Once the top-rated amenities are found, the LLM generates a short, concise summary report. This report gives a clear picture of whether the area is good to live in, based on the nearby amenities. It analyzes the balance of services—like whether there are enough grocery stores, public transport options, and restaurants in the area—and presents this information in a few easy-to-understand sentences.
   For example, the LLM might generate a summary like:
   “The area around this address is highly livable with well-rated restaurants, parks, and grocery stores within 5 miles. Public transport options are easily accessible, making this a convenient place for daily commuting.”

This use of LLM helps automate tasks that typically require human judgment, like validating information and generating readable summaries.

Possible other Future Uses of maps API and LLMs

While this tool already offers a lot, there are several exciting ways it could be expanded:

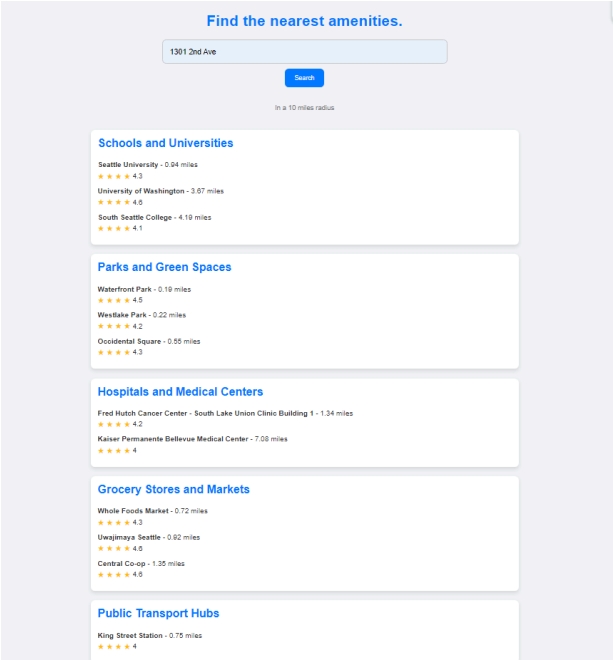
1. **Optimized Routes**: If you're planning a day out and want to visit multiple locations (like Starbucks, Walmart, and a park), the tool could help you find the best route to save time.
2. **Traffic Data Integration**: By combining the app with real-time traffic data, it could help you avoid busy routes and reach your destinations faster.
3. **Multi-Destination Planning**: The tool could help you plan trips that involve visiting multiple places, suggesting the best sequence to visit them based on distance, traffic, and personal preferences.

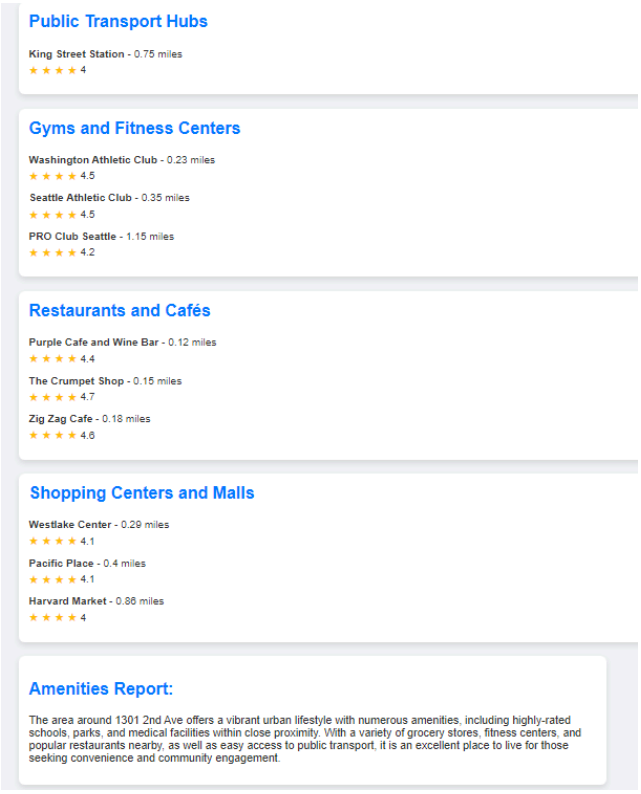
Conclusion

In short, this project is designed to make exploring a new neighborhood easier and more efficient. Whether you're relocating to a new city or just curious about what's around your home, the Nearby Amenities Finder takes the guesswork out of the process by offering a one-stop solution for discovering top-rated places near you. With a few clicks, you get a clear, organized overview of the area, saving you time and effort.

The use of LLM adds a layer of intelligence, ensuring accuracy in categorizing amenities and providing a concise summary report. This feature has the potential to enhance platforms like Zillow or real estate apps, making them more useful for people who are exploring new places and trying to find the perfect neighborhood.

Example Use Case:1301 2nd Ave





Note: Also I am looking for entry level opportunities if you know any please do recommend.