

1. **Project Title** : PropertyHub

2. **Project Summary**: It should be a 1-2 paragraph description of what your project is.

The Real Estate Listings Website project aims to create a dynamic online platform for property buyers, sellers, and real estate agents to interact and facilitate property transactions. The website will feature a user-friendly interface allowing users to search for properties based on various criteria such as location, price range, and property type. Each property listing will include detailed information such as address, photos, amenities, and contact details for the listing agent. The front end will be developed using HTML, CSS, and JavaScript. The Database Management System will be developed using MySQL.

3. **Description of an application of your choice. State as clearly as possible what you want to do. What problem do you want to solve, etc.?**

The real estate listing website can solve many problems for both the buyer and the seller. Prospective buyers often struggle to efficiently discover and explore available properties that match their criteria. The website facilitates easy property discovery through advanced search functionalities, allowing users to filter properties based on location, price range, size, and other relevant criteria. Buyers may also find it challenging to access comprehensive information about properties, leading to uncertainty in decision-making. Additionally, Buyers may spend significant time visiting properties that do not meet their requirements without a website like ours.

4. **What would be a good creative component (technically challenging function) that can improve the functionality of your application? (What is something cool that you want to include? How are you planning to achieve it?)**

PropertyHub will allow users to perform multidimensional searches by combining various criteria such as location, price range, amenities, and proximity to landmarks. This functionality will enable users to find properties that precisely match their preferences with speed and accuracy. PropertyHub's other creative component is the implementation of a recommendation system using machine learning algorithms. This system could provide personalized property recommendations to users based on their past search history, saved listings, and preferences. By analyzing user behavior and interaction patterns, the recommendation system will suggest properties that align with the user's interests and needs, including the ones they might not have considered.

otherwise. This feature adds a layer of intelligence to the platform, enhancing the user experience by offering tailored suggestions and helping users discover properties that match their unique preferences more efficiently. Achieving this involves training machine learning models on historical user data to predict property preferences and integrate these recommendations seamlessly into the browsing experience.

- 5. Usefulness. Explain as clearly as possible why your chosen application is useful. What are the basic functions of your web application? (What can users of this website do? Which simple and complex features are there?). Make sure to answer the following questions: Are there any similar websites/applications out there? If so, what are they, and how is yours different?**

Our web app offers multiple useful features that make it stand out from other real estate listing websites like Realtor.com and Zillow.com. The users will be able to navigate from a wide range of property listings and view comprehensive property details. The web app will also offer multiple filters for users to refine their search criteria based on location, beds/ baths, price, and amenities offered. The application will also provide both simple and complex functions, including basic features like search, view, and save listings, as well as advanced functionalities like proximity-based search and personalized recommendations. Although there are similar existing websites in the market, our app will distinguish itself with its user-friendly interface, advanced search capabilities, and focus on delivering relevant and accurate property listings tailored to each user's preferences.

- 6. Realness. We want you to build a real application. So, make sure to locate real datasets. Describe your data sources (Where is the data from? In what format [CSV, xls, txt,...], data size [cardinality and degree], what information does the data source capture?). It would be hard to satisfy stage 2 requirements with one dataset. Thus, we strongly recommend identifying at least two different data sources for your project.**

<https://www.kaggle.com/datasets/ahmedshahriarsakib/usa-real-estate-dataset/data>

<https://www.kaggle.com/datasets/tawfikelmetwally/chicago-house-price>

The datasets are both in CSV format. The dataset contains info such as number of bedrooms, number of baths, size, geographic location, price, and other relevant categories for a property listing.

7. Project Work Distribution

We have decided that we will split up the backend into 2 different jobs. The first job will be split between Sourya and Divyam who will take our raw datasets and sift through them and prepare them for SQL. The second job will be split between Abhiram and Mihir and their job will be to come up with integrating the ADD query to the website, integrating the SQL to the website, and also working with the front end.

Add Listing

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Password

Login

Sign Up

Email Address

Password

Confirm Password

Name

Signup

Listings

Q 123 My Address

Price v

Property Type v

Rooms v

Bathrooms v

image

PRICE

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Square Ft:

Year Built:

Bedrooms:

Bathrooms:

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PRICE

123 My Address

Square Ft:

Year Built:

Bedrooms:

Bathrooms:

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Street Address

Price

City

Number of Bedrooms

State

Number of Bathrooms

Zipcode

Square Footage

Property Type

Year Built

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