Property Assessment Tool

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Primary Objective

The primary objective of this project is to design and develop a user-friendly, data-driven property assessment tool that leverages geospatial mapping technology to enable financial firms to accurately evaluate and manage property-related risk, optimize investment decisions, and enhance overall portfolio performance.

Project vision and mission

- A web-map based property assessment tool with a user-friendly interface.,
- A comprehensive database of property information and market data.
- Automated valuation models and risk assessment algorithms.
- Customizable reporting and analytics dashboards.
- Integration with existing financial firm systems and processes.

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01. Streamline property valuation processes: Automate and standardize property assessments, reducing manual errors and increasing efficiency.

02. Enhance risk management: Provide a comprehensive risk profile for each property, enabling financial firms to make informed decisions.

03. Improve investment decision-making: Offer data-driven insights to optimize property investment and portfolio management.

04. Increase transparency and compliance: Ensure adherence to regulatory requirements and industry standards.

1. **Map-Based Property Search:** Utilize mapping APIs (e.g., Google Maps, Leaflet) to enable users to search and select properties by location, radius, or boundary.

2. **Property Data Integration:** Integrate with public records, MLS listings, and other data sources to provide detailed property information (e.g., ownership, zoning, sales history).

3. **Automated Valuation Models (AVMs):** Develop machine learning-based AVMs that consider property characteristics, market trends, and location-based factors.

4. **Risk Assessment**: Incorporate natural hazard data (e.g., flood zones, earthquake areas), environmental factors, and crime statistics to provide a comprehensive risk profile.

5. **Customizable Reporting:** Offer interactive dashboards and reports that allow users to visualize property data, valuations, and risk assessments.

6. **Integration with Financial Systems:** Ensure seamless integration with existing financial firm systems and processes.

Key Features

Creation process

1. **Front-end:** Develop a user-friendly interface using HTML5, CSS3, JavaScript, and a mapping library (e.g., Leaflet, Mapbox).

2. **Back-end**: Design a robust API using Node.js, Python, or Ruby, integrating with databases (e.g., PostgreSQL, MongoDB) and data sources.

3. **Data Integration:** Utilize APIs, web scraping, or data partnerships to aggregate property data.

4. **Machine Learning:** Train and deploy AVMs using libraries like scikit-learn, TensorFlow, or PyTorch.

Property Map Search

Detailed Property Reports

Mind map

Exploring creativity

Property Search

Property Sales Comparison

State Name (Drop down button)-fetch the State names from the Database

District (Drop down button)-fetch the District names from the Database

Property Search Window

Address | Map Search | Aadhaar ID | Property ID | Advance Search

Address Search Window

Type Address here (Options will be listed in drop down)

House No/House Name

Street

City

Postal Code | Property ID/TP No

Search | Clear

Property Report Window(When you select the address on address search,this window will pop up)

Save CSV/PDF

Print

Map/Image/Location

Google Street view/Photos

Property Info

Ownership Details(Owner Name ,Address,Sreet,House name ,Etc)

Land Details (Size,Type,Acres etc)

Building details (Type,No of Rooms etc)

Tax and Assessment

Tax year

Tax amount

Tax assessed value

Sales History

Owner Name

Year of Sales

Amount

Mortgage History

Date

Original Amount

Loan Type

Lender Name

Recently Sold Comparables (Nearby sold properties that are similar to this property)

Address

Distance

Type of Property

Area (Sq ft)

Sales Date

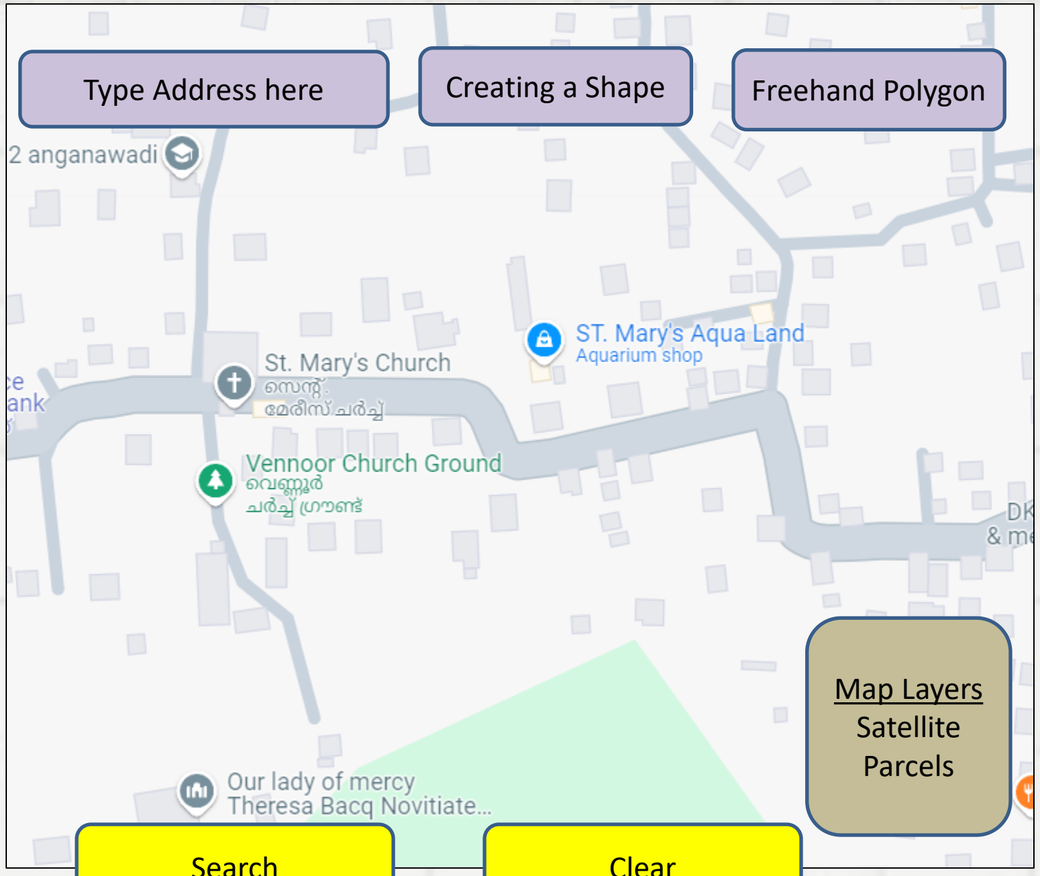
Total Price

Price /Sq ft

State Name (Drop down button)-fetch the State names from the Database

District (Drop down button)-fetch the Disstrict names from the Database

Map Search Window



Map Address Search Window

Street

Property ID/TP No

City

Postal Code

Price Range | From | To

Area | From | To

Recent Sales | From | To

Search

Clear

Search Criteria (Filter)

Save

Print

Results window

Automated Valuation Models (AVM)

Owner Name
Address
Property Type
Property Report

Owner Name
Address
Property Type
Property Report

Owner Name
Address
Property Type
Property Report

Owner Name
Address
Property Type
Property Report

Owner Name
Address
Property Type
Property Report

Owner Name
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Property Type
Property Report

Owner Name
Address
Property Type
Property Report

Owner Name
Address
Property Type
Property Report

Owner Name
Address
Property Type
Property Report

Market Value Estimate

%

Owner Name

Address

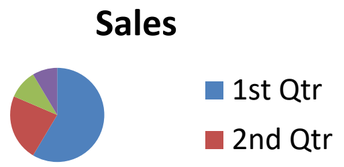
Property Type

Rent Value Estimate

Owner Name

Address

Property Type



Advance Search

Street

City

Search

Owner Name

Postal Code

Classification

Occupancy

Year of Built

Acres

Clear

Advance Search Result

☐	Photo	country	state	City	Street	Postal Code
☐	Photo	country	state	City	Street	Postal Code
☐	Photo	country	state	City	Street	Postal Code
☐	Photo	country	state	City	Street	Postal Code
☐	Photo	country	state	City	Street	Postal Code

Sales Search

Sales Date	From	To
Sales Price	From	To
Street		
City		
Postal Code		
Property Size (acres)	From	To
Year of Sale	From	To

Search

Clear