

Visualizing Housing Market Trends: An Analysis of Sale Prices and Features

Project Overview

Objective: Analyze housing market data to uncover patterns in sale prices based on features such as location, size, bedrooms, age, and amenities. Build interactive dashboards for data-driven decision-making.

Problem Statement

The housing market is dynamic and influenced by multiple variables. Structured analysis is required to predict price movements, understand feature impact, compare neighborhoods, and identify investment opportunities.

Project Scope

Includes historical sales data analysis, feature engineering, trend analysis, regional comparison, and dashboard development. Excludes real-time scraping and legal advisory.

Data Requirements

Key attributes: Sale Price, Sale Date, Location, Lot Size, Square Footage, Bedrooms, Bathrooms, Year Built, Property Type, Amenities.

Project Phases

1. Requirement Gathering
2. Data Collection & Preparation
3. Exploratory Data Analysis
4. Dashboard Development
5. Insights & Reporting

Key Performance Indicators

Average Sale Price, Median Sale Price, Price per Sq.Ft, YoY Growth Rate, Days on Market, Sales Volume by Region.

Tools & Technologies

Python, Excel, SQL, Tableau/Power BI.

Risk Management

Handle incomplete data, outliers, regional bias, and ensure data privacy.

Expected Deliverables

Cleaned dataset, analytical report, interactive dashboard, presentation slides, documentation.

Timeline (4–6 Weeks)

Week 1: Requirements
Week 2: Data Cleaning
Week 3: EDA
Week 4: Dashboard Development
Week 5: Insights
Week 6: Final Presentation