

Real Estate Market Analysis for Zingat

Problem Statement

Zingat, established in 2015, is a leading online real estate marketplace in Turkey that connects prospective buyers with real estate offices. With over 225,738 property listings, Zingat seeks to enhance its platform's user experience and market competitiveness through data-driven insights.

The company aims to better understand the patterns, trends, and factors influencing real estate listings in the Turkish market. Through comprehensive data analysis, Zingat intends to provide more valuable information to its users, optimize the platform experience, and strengthen its position as a market leader.

Project Objectives

Your task is to analyze Zingat's comprehensive dataset of 225,738 property listings to extract meaningful insights about the Turkish real estate market. This analysis will help Zingat better understand its listings, identify market opportunities, and improve the user experience on its platform.

Assignment Tasks

1. Initial Data Exploration & Basic Insights

- Perform comprehensive dataset inspection to understand its structure, features, and quality
- Analyze the distribution of listings across different categories and regions
- Identify key variables in the dataset and their potential significance
- Generate summary statistics to understand central tendencies and variability

2. Data Visualization

- Create multi-dimensional visualizations to reveal patterns in property listings
- Develop informative charts to explore relationships between different property features
- Visualize data distributions to identify potential anomalies or interesting patterns

3. Data Cleaning & Preprocessing

- Implement appropriate techniques to handle missing values

- Detect and address outliers using established methodologies
- Standardize inconsistent data entries and correct anomalies
- Document and justify each cleaning method based on its impact on data integrity

4. Data Transformation & Feature Engineering

- Transform variables to improve their usefulness for analysis
- Implement appropriate encoding techniques for categorical variables
- Apply normalization and scaling methods where necessary

5. Exploratory Data Analysis (EDA)

- Conduct in-depth analysis to uncover hidden patterns in the data
- Perform correlation analysis to identify relationships between variables
- Investigate market segments and their unique characteristics
- Generate actionable insights that could guide strategic decisions at Zingat

Deliverables

1. A well-documented Jupyter notebook containing all analysis, code, and visualization
2. Summary of key findings and insights about the Turkish real estate market
3. Recommendations for improving data collection and management
4. Visual representations of the most significant patterns discovered