

Exploratory Data Analysis (EDA) Report on Real Estate Data

1. Introduction

The properties dataset offers insights into the real estate market, featuring data on property location, size, and sale price. This report aims to explore these aspects through various exploratory data analyses to uncover underlying patterns and correlations. The objective is to provide a comprehensive understanding of the market dynamics represented within the dataset.

2. Preliminary Analysis

The preliminary analysis involved loading the dataset and examining its structure. Key statistics were reviewed to understand the distribution of property sizes and sale prices. No missing values were detected, ensuring a smooth analysis process.

3. Distribution Analysis

Distribution plots for property sizes and sale prices indicated a relatively uniform distribution for sizes and a normal distribution for prices. This suggests a wide range of properties in the dataset, with sale prices centered around a mean value.

4. Location-Based Analysis

Variability in sale prices was observed across different locations, with downtown properties generally commanding higher prices. This highlights the significant impact of location on property values.

5. Correlation Analysis

A scatter plot and correlation coefficient analysis showed a weak negative relationship between property size and sale price, suggesting that other factors, likely including location, play a more

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significant role in determining property values.

6. Summary of Findings

The exploratory data analysis revealed several key insights: location significantly affects sale prices, property sizes are uniformly distributed, and there is a weak correlation between size and price. These findings enhance our understanding of the dataset and suggest areas for further research.

7. Conclusion

This report provided a detailed exploration of the real estate dataset, revealing the crucial role of location in determining property prices and the varied distribution of property sizes. Future analyses could delve deeper into the impact of other factors on sale prices and explore predictive modeling to assist in real estate valuation.