House Sales Analysis In NorthWestern County

By: LEVINE NAKHONE

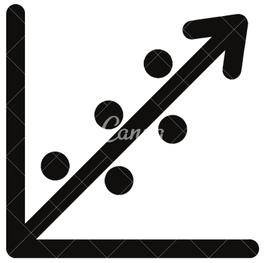
Overview

- Introduction
- Business Understanding
- Data understanding
- Regression results
- Recommendations
- Next Steps
- Thank You

Introduction

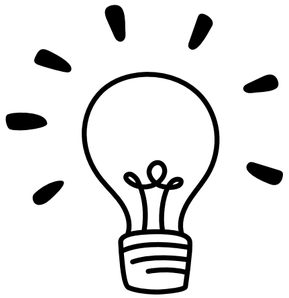
- House prices are influenced by various factors such as the number of bedrooms, bathrooms, and square footage of the living room among other features.

- The goal of this project is to analyze house sales data in the northwestern county and develop a predictive model to estimate house prices.



- This project used multiple linear regression modeling techniques to gain insights into the factors that influence house prices and provide recommendations to stakeholders in the real estate industry.

Business Understanding

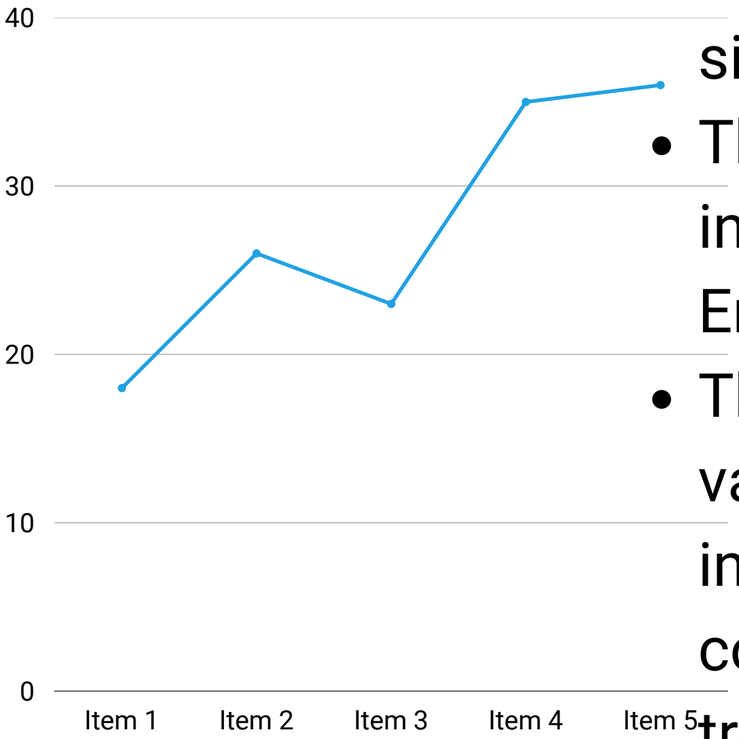


This project provides valuable insights and analysis to a real estate agency that assists homeowners in buying and selling homes. The project will focus on addressing the need for homeowners to receive advice on how home features can potentially increase the estimated value of their homes and by what amount. By utilizing regression modeling techniques on the King County House Sales dataset, we can provide recommendations to homeowners regarding home renovations and their impact on the estimated value of their properties

Data Understanding

- The dataset used in this project is the King County House Sales dataset, which provides information about house sales in a northwestern county.
- The dataset contains various features such as number of bedrooms and bathrooms, square footage of the living area, lot size, condition, grade, year built, and sale price.
- These features are important as they directly influence the value of a property and can provide insights into the potential impact of renovations on house prices.
- Limitations and challenges encountered include missing values, outliers .

Regression Modelling results



- The regression models revealed the number of bedrooms, bathrooms, and the square footage of the living area being significant predictors of house prices.
- The final model achieved a high level of performance, as indicated by the metrics such as R-squared and Mean Squared Error (MSE).
- The R-squared is 64% meaning that approximately 64% of the variability in sale prices can be attributed to the features included in the model while the remaining 46% can be contributed from features such as economic conditions, market trends, and individual buyer preference

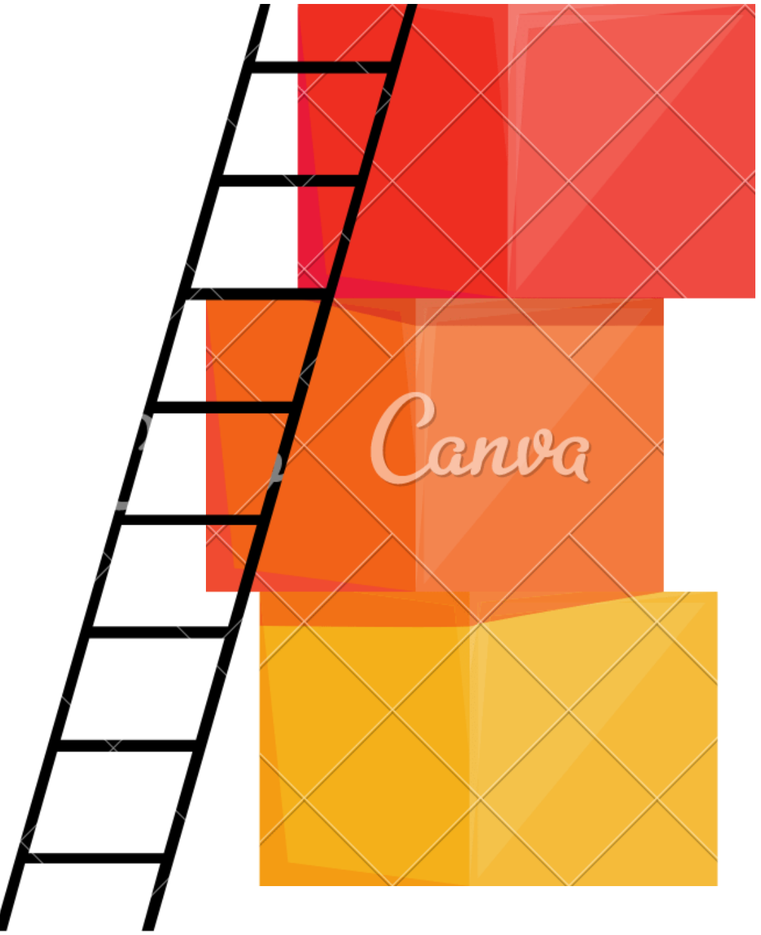
Recommendation

Sellers can leverage this information to determine an appropriate listing price for their property based on its size and bathroom count.

Investors can consider these features when evaluating potential investment properties, as they play a significant role in determining the property's value appreciation over time.

Developers can focus on constructing properties with larger living areas and more bathrooms to cater to the demand, as they are likely to command higher sale prices.

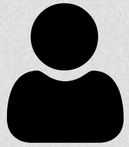
Next steps



- We can explore different combinations of features and potential transformations. This can help improve the model's predictive power and capture more variability in sale prices.
- Incorporating additional relevant data sources, such as neighborhood demographics or housing market indicators, could enhance the model's accuracy.
- Collaborating with domain experts and monitoring the model's performance over time are also recommended to refine the model and keep it aligned with changing market conditions.

Thank You

Contact details



Levine Nakhone

mugenilevine@gmail.com