Canadian Real Estate factors

Abstract

The housing market in Canada is a complicated system that is impacted by different elements including where the property is situated, what amenities are included in the home, and the economic climate in that region. The main goal of this research is to delve into the factors that affect house prices in the major cities of Canada. By utilizing the programming language R and employing advanced data analysis methods, our aim is to uncover patterns, connections, and shifts within the dataset to offer meaningful insights for individuals who are looking to buy a house.

The primary problem addressed in this study is to analyze the Canadian housing market, specifically focusing on top cities, and identify the key factors that contribute to house price variations. Key research questions include:

1. What are the major determinants of house prices in Canadian cities?
2. How do economic indicators, such as median family income for the city, impact the housing market?
3. Are there anomalies or outliers in the dataset that require further investigation?

The dataset used for this study is sourced from Kaggle, titled Canadian house prices for top cities. (Jeremy Larcher. (2023). *Canadian house prices for top cities* Kaggle. https://doi.org/10.34740/KAGGLE/DSV/6825977)

Using the R programming language and employing various data analysis techniques, we propose addressing the research questions and extracting meaningful insights.

1. Factors that significantly contribute to variations in house prices are identified and categorized through classification.
2. To understand the connections between independent variables and house prices, one can build predictive models using regression.
3. Identifying unusual patterns, Anomaly Detection may indicate outliers or unique market conditions.

In this ever-evolving real estate landscape, we aim to provide a thorough analysis of the Canadian housing market by combining these techniques, enabling homeowners to make informed decisions.

https://github.com/TracySchut/Final-Project-TMU-Data-Analytics