**Housing Affordability: A Critical Analysis**

**Executive Summary**  
Housing affordability is a growing concern in Canada, with rising home prices, increasing rent burdens, and challenging mortgage conditions creating barriers for many individuals and families seeking stable housing. This project utilizes modern data analysis tools, including Python, Tableau, and various statistical methods, to explore housing affordability trends across different Canadian regions. The primary focus will be on factors such as home prices, rent-to-income ratios, vacancy rates, and mortgage rates, with the goal of providing actionable insights for policymakers, housing developers, and stakeholders to address the housing affordability crisis.

**Key Performance Indicators (KPIs)**  
The study will track the following KPIs:

1. **Average House Prices** – Trends in home prices across various regions and their relationship with local economic factors.
   * Target: Monitor annual price changes to identify affordability shifts.
   * Measured quarterly based on regional data from Statistics Canada and other sources.
2. **Rent-to-Income Ratio** – The percentage of household income spent on rent, a critical measure of affordability.
   * Target: Reduce rent-to-income ratios in major cities.
   * Calculated annually based on available household income and rent data.
3. **Vacancy Rates** – The availability of rental units in different regions, indicating supply-demand dynamics.
   * Target: Identify areas with high vacancy rates that could benefit from increased rental development.
   * Measured monthly through real estate transaction data.
4. **Mortgage Rates** – The interest rates impacting homeownership affordability, reflecting broader economic conditions.
   * Target: Track the impact of interest rate fluctuations on housing affordability.
   * Updated quarterly based on Bank of Canada and mortgage lender rates.
5. **Housing Supply** – The number of new housing units built annually, assessing the adequacy of the supply to meet growing demand.
   * Target: Increase the rate of housing construction in high-demand areas.
   * Measured annually through real estate transaction and construction permit data.