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PROJECT TITLE:

Exploring the Impact of Property Features, Crime Rates, Demographic Changes, and Educational Proximity on Housing Prices in the Northern Territory, Australia.

INTRODUCTION: This study examines how property features, crime rates, demographic changes, and proximity to educational institutions influence housing prices in the Northern Territory, Australia. Aimed at informing investors, urban planners, and policymakers, it seeks to highlight key factors driving real estate values, facilitating smarter decision-making in urban development and property investment.

MOTIVATION : I've always been fascinated by what causes property prices to change. My interest in the Northern Territory's property market stems from its complexity, where factors like crime, demographics, property features, and educational proximity intertwine. This study aims to untangle these influences, offering insights for real estate investment and urban planning.

QUESTIONS

1. How do property characteristics (such as the number of bedrooms, bathrooms, and parking availability) and local crime rates collectively influence housing prices in the Northern Territory's cities and suburbs?
2. How does the changing population within the Northern Territory's government regions affect the property values in those areas?
3. How does the proximity to educational institutions affect housing prices in the Northern Territory?

DATA SOURCES

- A. **Australian Housing prices (last updated 2022):** tabular data in CSV: ~1000rows x 27columns. It includes data types such as categorical (e.g., Property Type), numerical (e.g., Price), textual (e.g., Address), and spatial (e.g., Latitude, Longitude) attributes. The spatial details will be derived from tabular data in csv format : <https://www.peterjohnson.com.au/AustraliaPlace/>(~3500rows x 3columns) consisting of latitude longitude of all Australian places. (<https://www.kaggle.com/datasets/thedevastator/australian-housing-data-1000-properties-sampled>)
- B. **NT Crime Statistics (Last Updated July 2022):** tabular data in CSV with ~45,000 rows x 10 columns, crime incidents from 2008 -2022 across the Northern Territory. It includes data types such as categorical (e.g., Offence Category), nominal (e.g., Reporting Region), and temporal (e.g., Year of Crime), offering a comprehensive overview of crime trends and their potential impact on housing markets. (<https://data.nt.gov.au/dataset/current-northern-territory-crime-statistics-may-2022>)
- C. **NT Government Regions (1986-2023):** tabular data in CSV .It contains ~16k x 7columns featuring both spatial (e.g., region) and temporal (e.g., population data over time) attributes.(<https://data.nt.gov.au/dataset/nt-government-regions-1986-2023/resource/754fb4e0-33d8-4641-b06e-4e867407a171>)
- D. **NT Schools Dataset (2019):** Tabular data in CSV, ~271 rows x 16 columns with school names, addresses, levels (Pre, Primary, Middle, Senior), sectors, and remote categories.(<https://data.nt.gov.au/dataset/school-list/resource/3d8f5e87-ccff-45d8-96be-dbbd4db5070a>)

Data Source A and B will be used to address Question 1, whilst A and C will allow me to answer Question 2,Data Source A and D will be used to answer Question 3.