

Melbourne House Price Analysis

By Minija kannath

Content


- Problem Statement
- Data Collection
- Data preparation
- Data analysis and visualisation
- Findings
- Conclusion



Problem statement

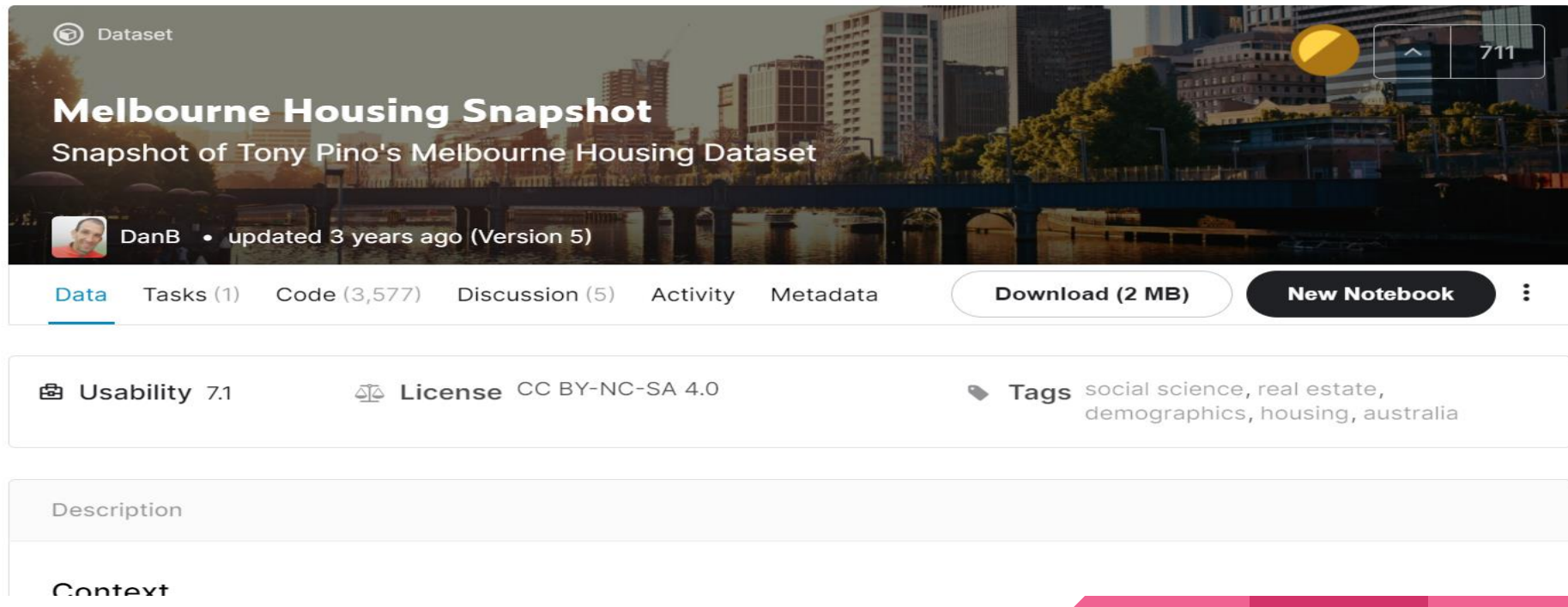
The objective of this project is to analyze which features affect home prices the most in the Melbourne Housing Market.

This Data is useful to:

- Real Estate investors
 - Mortgage lenders and Home insurers
 - Prospective buyers
- 

Data collection

The dataset used in this project is Collected from Kaggle



The screenshot shows the Kaggle dataset page for 'Melbourne Housing Snapshot'. The header features a cityscape background with the dataset title and subtitle. Below the header, there's a navigation bar with tabs for Data, Tasks, Code, Discussion, Activity, and Metadata. To the right of the tabs are buttons for 'Download (2 MB)' and 'New Notebook'. Below the navigation bar, there's a section for 'Usability' (7.1), 'License' (CC BY-NC-SA 4.0), and 'Tags' (social science, real estate, demographics, housing, australia). The page also has sections for 'Description' and 'Context'.

Melbourne Housing Snapshot
Snapshot of Tony Pino's Melbourne Housing Dataset

Data Tasks (1) Code (3,577) Discussion (5) Activity Metadata **Download (2 MB)** **New Notebook**

Usability 7.1 **License** CC BY-NC-SA 4.0 **Tags** social science, real estate, demographics, housing, australia

Description

Context


Data Collection

The data set consists 13378 records and 21 features. Some of the major features with descriptions are:

- Rooms: Number of rooms
- Price: Price in dollars
- Type: h – house/cottage/villa u - unit,/duplex; t - townhouse.
- Distance: Distance from CBD
- Regionname: (West, North -West, North, North- east ...etc)
- Bedroom2 : Number of Bedrooms
- Bathroom: Number of Bathrooms
- Car: Number of car spots
- Landsize: Land Size
- BuildingArea: Building Size
- CouncilArea: Governing council for the area

Data cleaning and preparation


The data is downloaded in to power query and necessary cleaning and transformations are performed:

- Records with null values are removed.
 - Created and derived a new column for Bedroom. And trimmed text data of the entry and converted it into number type.
 - Anomalies detection and correction: Found average area of the bedroom and dropped the records with entries which was less than 300 sq ft
 - New column price per building area is created
- 

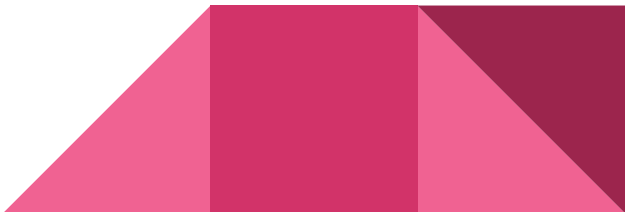
Data analysis & visualisation

To start with the analysis, Different charts are plotted using pivot chart showing the average prices of houses per different features in different regions and Suburbs of Melbourne.

Questions analysed:

- Which are the top five expensive Regions and Suburbs in Melbourne .
 - Which are the top five inexpensive Regions and Suburbs .
 - What is the effect of different features on the average price of the house
- 

Findings

- Median prices for houses are over \$1M, townhomes are \$800k - \$900k and units are \$500k.
 - Median prices in the Metropolitan Region are higher than that of Victoria Region - with Southern Metro being the area with the highest median home price (~\$1.3M).
 - With an average price of \$1M, historic homes (older than 50 years) are valued much higher than newer homes in the area, but have more variation in price
 - Most homes in the dataset have 4 or 5 rooms.
 - There is a negative correlation between Distance from Melbourne's Central Business District (CBD) and Price. The most expensive homes (\$2M or more) tend to be within 20km of the CBD..
- 

Conclusion

This data exploration and visualisation helped to gather a few useful insights about the Melbourne real estate market for aspiring buyers especially for those who are new to this area. It is good for people to be well informed on making cost effective descisions when renting or buying property.



Thank you

Reference

<https://www.kaggle.com/anthonypino/melbourne-housing-market>