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Project Proposal – Private Residential Property Transaction in Singapore

Dataset

I will be using dataset from the open sources of URA website namely from:

<https://www.ura.gov.sg/realEstateWeb/transaction/search.action>

<https://www.ura.gov.sg/maps/api/#private-residential-property-transactions>

The dataset will show the transactions of private residential property transaction in Singapore from a predetermined range of dates, giving clear insights into some of the important aspect in terms of prices, dates purchase, district etc.

Project Name	Street Name	Type	Postal District	Market Segment	Tenure	Type of Sale	No. of Units	Price (\$)	Nett Price (\$)	Area (Sqft)	Type of Area*	Floor Level	Unit Price (\$/sqft)*	Date of Sale*
1 CANBERRA	CANBERRA DRIVE	Executive Condominium	27	OCR	99 yrs lease commencing from 2012	Resale	1	1,210,000	-	1,270	Strata	06 to 10	953	Jan-21
10 SHELFORD	SHELFORD ROAD	Apartment	11	CCR	Freehold	Resale	1	970,000	-	872	Strata	01 to 05	1,113	Jan-21
1 CANBERRA	CANBERRA DRIVE	Executive Condominium	27	OCR	99 yrs lease commencing from 2012	Resale	1	938,200	-	1,055	Strata	06 to 10	889	Jan-21
1 CANBERRA	CANBERRA DRIVE	Executive Condominium	27	OCR	99 yrs lease commencing from 2012	Resale	1	1,220,000	-	1,582	Strata	01 to 05	771	Jan-21
1 CANBERRA	CANBERRA DRIVE	Executive Condominium	27	OCR	99 yrs lease commencing from 2012	Resale	1	840,000	-	947	Strata	01 to 05	887	Dec-20
1 KING ALBERT PARK	KING ALBERT PARK	Condominium	21	RCR	Freehold	Resale	1	1,900,000	-	1,281	Strata	01 to 05	1,483	Dec-20

Above is an example of data which can be extracted. From here we will have the:

Project name of the property – a very specific attribute on the location, could be a specification on outliers, e.g. an ultra-expensive project compared to its peers in the same postal district.

Street name – a broader look on the project, can be used to gauge for an expensive street among the postal districts.

Type of property – important classification among condominiums, apartment, EC etc

Postal District – an important criterion on location which determine prices.

Type of sale (New/Sub or Resale) – helps to categorise according to market demands.

Market Segment (CCR/RCR/OCR) – an even broader terms on location use for a quick broad view of the different Segment for quick analysis on the market demand.

Tenure of the property – freehold or 99 years, important criteria when pertaining to the depreciation of the property value with reference to legal ownership = \$0 when tenure date left = 0 years

Number of units – Total how many unit was sold.

Price of transaction – the sold of the property.

Area (Sqft) – Area of the property which helps to make sense of the price of transaction.

Type of area – Strata, Landed.

Floor level – another small criterion on the property pricing where higher level usually meant a higher price.

Unit price (PSF) – an important criterion on pricing which is more suitable as a mean of comparison among the properties.

Date of sale – can be used to read trend of the market.

There is almost no restriction in the size of the dataset that we can extract, only constraint is that the extraction will be split into 4 batches in accordance to the postal district.

Challenge

Absence on the date of TOP for the project as well as the relevant age of the property when sold each time. Common assumptions now are that property prices (especially for Tenure of 99years) will have an appreciating value accordance to time due to inflation, demand etc, until a point when the depreciating tenure cost exceeds the appreciation, resulting in the downward trend of the property, since the property value will be deemed as \$0 after 99 years when tenure left = 0 years.

Thus, the age of the property for 99 years tenure upon sales will be an criteria following the course of time. E.g. on the same street, 2 property will see a divergence in price appreciation over a specific year, but the reason could be that one is 10 years old turning 11 and the other is 35 years old turning 36.

This challenge should be able to be overcome by doing research on the property name and adding 2 more columns on the data: “date of TOP” and “remaining lease”.

Goals

Some questions that we will want to find answers with the dataset.

1. Transaction units between market segments.
2. Growth of sales among the 3 market segments in the past 5 years.
3. Floor area (sqft) vs transaction price in 3 different market segments.
4. Floor area PSF (per sqft) vs transaction price.
5. Average transaction price within CCR.
6. The relationship between floor level and transaction price within CCR.
7. Which project has the highest and lowest transaction price in CCR?
8. Which project has the highest and lowest PSF in CCR?

Index

Singapore districts:

https://www.ura.gov.sg/realEstateIIWeb/resources/misc/list_of_postal_districts.htm

Singapore region map:

<https://www.propertyguru.com.sg/property-guides/ccr-ocr-rcr-region-singapore-ura-map-21045>

What is CCR, RCR and OCR?

Singaporeans sure love acronyms, and same goes for the real estate sector. Broadly, the Urban Redevelopment Authority (URA) has divided Singapore into three main regions, which the URA calls "market segments".

These regions are: Core Central Region (CCR), Rest of Central Region (RCR) and the Outside Central Region (OCR).

Singapore regions	Postal districts it covers
Core Central Region (CCR)	9, 10 and 11, and parts of 1, 2, 4, 6 and 7
Rest of Central Region (RCR)	3, 8 and 12, and parts of 1, 2, 4, 5, 6, 7, 13, 14, 15 and 20
Outside Central Region (OCR)	16 to 19, 22, 23 and 25 to 28, and parts of 5, 14, 15 and 20