# FIT3179 Data Visualisation: Assignment 2

# Design Planning

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# Domain

The domain for this project is the state of the housing market in Melbourne between 2016-2018.

# Who are the users?

This visualisation will be targeted at anyone interested in **exploring** various aspects of how properties are bought and sold in Melbourne.

# Why?

Users may find this interesting as it shows the state of the housing market from a wider lens than if they were to conduct research on the market manually (e.g. browsing through Domain.com.au for house prices).

# Datasets

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

# Design Ideas

I will attempt to create this visualisation following a Martini-glass style narrative structure [1, 2] that will display first display some key facts regarding the OVERALL state of the housing market.

The visualisation will then open to a wider visualisation view that encourage the user to explore and generate their own insights, given more complex prompts that require them to investigate further.

# Questions

# Author-driven questions (questions, annotations, labels)

1. **New Kids On The Block:** Which suburbs were considered popular and how it did it change from 2016 to 2018?
   * Popularity = High frequency in properties sold vs. unsold
   * Bump chart showing top 10 popular suburbs across 3 different years
   * Theme: suburb comparison, ‘hot’ properties
   * Chart, line chart

     Description automatically generated
   * Annotate massive changes between 2017 to 2018 compared to 2016-2018
   * Tooltip: Include suburb name, postcode, previous rankings
2. **Going once… going twice…**: Does selling frequency change month to month? Are there any seasonal trends here? ([e.g. less moving in holiday season](https://www.investopedia.com/articles/investing/010717/seasons-impact-real-estate-more-you-think.asp))
   * Selling frequency = amount of properties sold within a given month
   * Can either be multiple line chart overlaying 3 years OR single line chart varying year by year
   * Theme: seasonal trends
   * Chart, line chart

     Description automatically generated
   * 2016: Dip in July, October, December
   * 2017: Dip in April, August, December
   * Not really any seasonal trends except for dip in December
   * Allow highlighting of line instead of filtering
3. **SOLD!:** How is the method of selling distributed? How did the method of selling change from 2016 to 2018?
   * Stacked bar chart of total distribution of method of selling
   * Chart, bar chart

     Description automatically generated
   * Remains mostly consistent between the years, no drastic change in selling type
   * Choices:
     + Change to donut chart for total composition.
     + Chart, pie chart

       Description automatically generated
     + Property sold > Property Sold Prior > Property Passed In > Vendor Bid
     + Make donut chart for composition of house types too?
       - Chart, pie chart

         Description automatically generated
   * Theme: method of selling
4. What’s the price distribution like of the whole dataset? And between different regions?
5. **Living Lavish:** Which suburbs were considered pricier? What factors do you think contribute to this higher price? Could this be because they had more rooms, bathrooms, land size?
   * Choropleth map of different suburbs, coloured by average price
   * Map

     Description automatically generated
   * Include main question as prompt
   * Include click to hide and show insights

# Reader-driven stage where they can freely explore the data (interactivity, filtering, navigation, highlighting)

1. **Playing the Agent:** Interactive dot map that prompts the user to find properties based on a given criteria with filtering/searching/highlighting

# Typography

Header: Museo Sans 700

Subheader: Museo Sans 500

Text: Museo Sans 300

Tooltips: Museo Sans 300

# Colouring

Main red: #e21e2d

Plain black: #000000

Plain white: #ffffff

Grey background: #f7f8f9

Font for grey background: #353535

# Text

Title:

**Looking for a Home**

Explore and learn interesting insights about the Melbourne housing market (2016-2018)

**Living Lavish:**

We analysed over 35000 sales all over Victoria with properties selling for as high as $11M AUD! Explore how the price varies across different suburbs in this interactive map below.

Try typing in your suburb and see what happens!

Can you figure out what causes the difference in the average price between suburbs?

**New Kids on the Block:**

We ranked every suburb by their popularity, that is, how many properties were sold in that suburb each year and ranked them accordingly. Inspect how the ranking changes over the 3 years.

**Going once…going twice…:**

Property transactions come in different shapes and sizes. Find out how selling varies across different factors.

**Playing the Agent:**

Browse and search your way through the various properties of Melbourne by playing as a real-estate agent for your clients!

**Question:** Alex was driving around town when he spotted an amazing property on Preston. He can’t remember the address of the property but he remembers seeing it priced around 800-900k AUD, with 4 rooms, 2 bathrooms and 2 car-spots. Which house did he see?

ANSWER: ‘35 James St’

**Question:** Rhi is interested in the property on “29 Dominic St” and has asked you to find out more details on it. How much is it valued at?

ANSWER: $2.65M

**Question:** Sam has won the lottery and was looking to buy the largest property in Brighton. Which property will you recommend to him?

ANSWER: 36/568 New St

**References**

[1]: https://modicum.agency/blog/responsive-storytelling/

[2]: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjh6pWr6v\_yAhV2zTgGHeFlBe8QFnoECAYQAQ&url=http%3A%2F%2Fvis.stanford.edu%2Ffiles%2F2010-Narrative-InfoVis.pdf&usg=AOvVaw3XP\_bZ6BSc0qJdptuIjS5P