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.

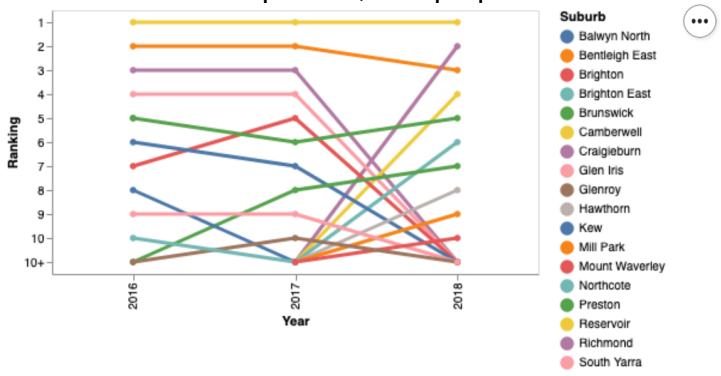
Why?
Users may find this interesting as it shows the state of the housing market from a wider lens than if they were to conduct research on the market manually (e.g. browsing through Domain.com.au for house prices).

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.

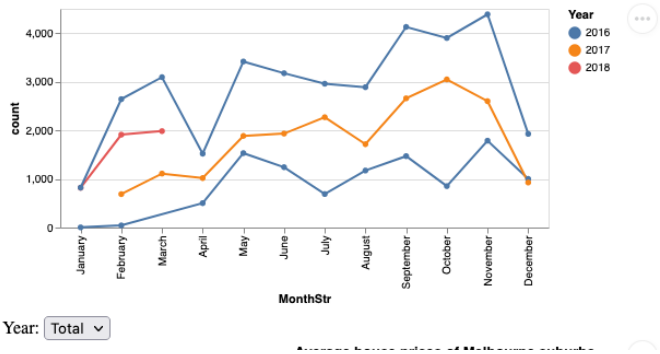
The visualisation will then open to a wider visualisation view that encourage the user to explore and generate their own insights, given more complex prompts that require them to investigate further.

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



    - 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)

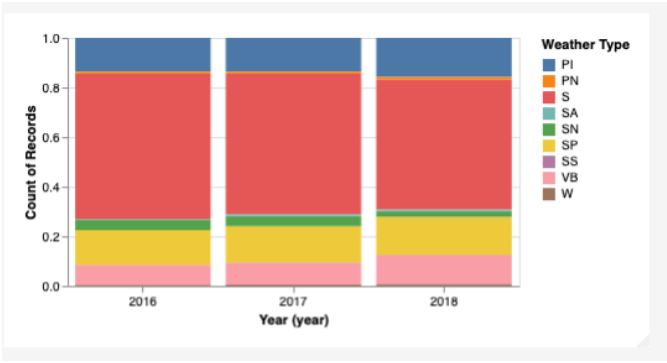
- Selling frequency = amount of properties sold within a given month
- Can either be multiple line chart overlaying 3 years OR single line chart varying year by year
- Theme: seasonal trends



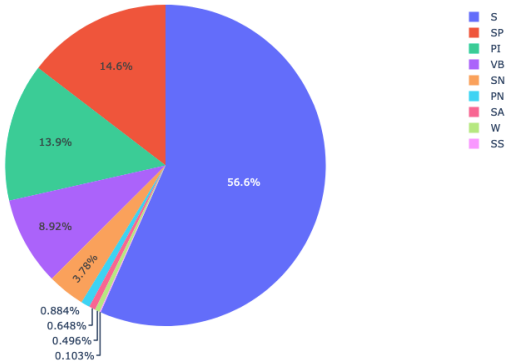
Year: Total

- 2016: Dip in July, October, December
- 2017: Dip in April, August, December
- Not really any seasonal trends except for dip in December
- Choices:

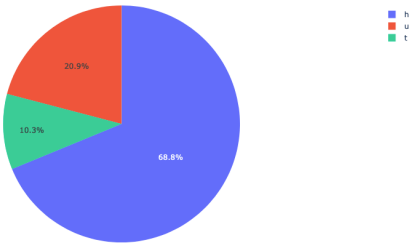
3. **SOLD!:** How did the method of selling change from 2016 to 2018?
   - Stacked bar chart of total distribution of method of selling



   - Remains mostly consistent between the years, no drastic change in selling type
   - Choices:
     - Change to donut chart for total composition.

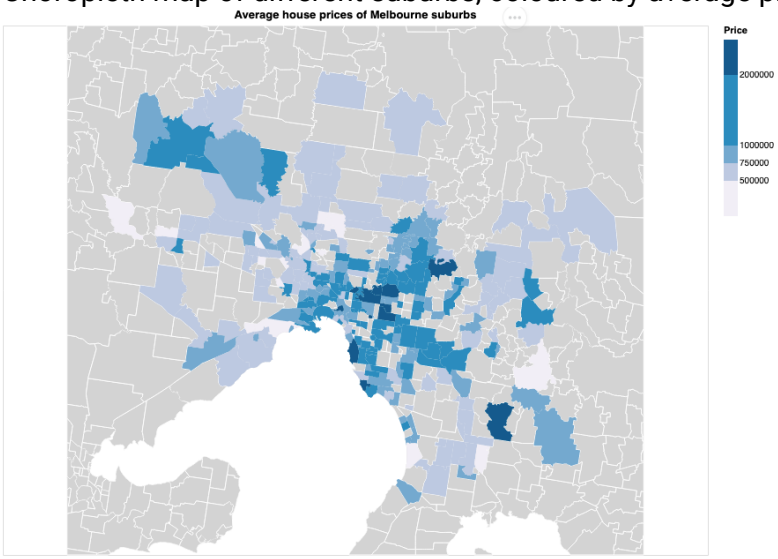


     -
     - Property sold > Property Sold Prior > Property Passed In > Vendor Bid
     - Make donut chart for composition of house types too?



- Theme: method of selling

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

4. 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
    

    - Include main question as prompt
    - Pair with proportional symbol map of houses based on number of rooms, no. of bathrooms, land-size (binned)
5. **Packed to the Rafters:** How do suburbs vary in terms of number of properties (normalised per suburb area)?
    - Choropleth map of different suburbs, coloured by property density
    - Unsure if technically possible
    - Theme: suburb comparison, 'hot properties'

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