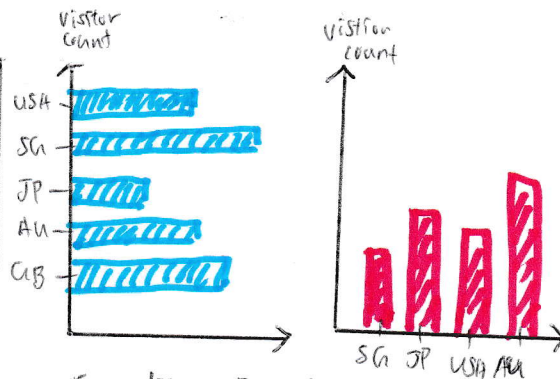
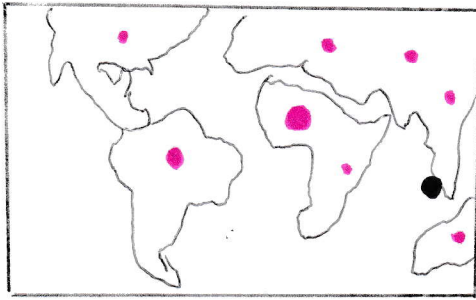
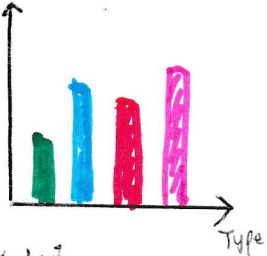
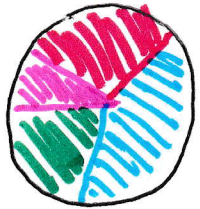


## IDEAS

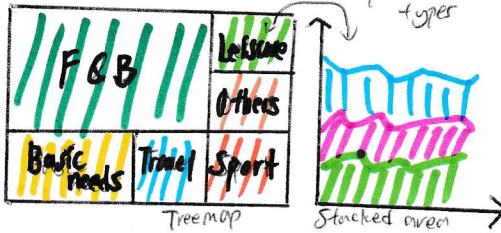
### Visitor Arrival by Country



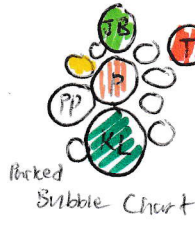
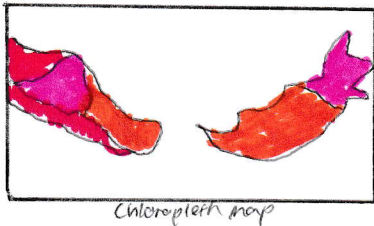
### Visitor Transport



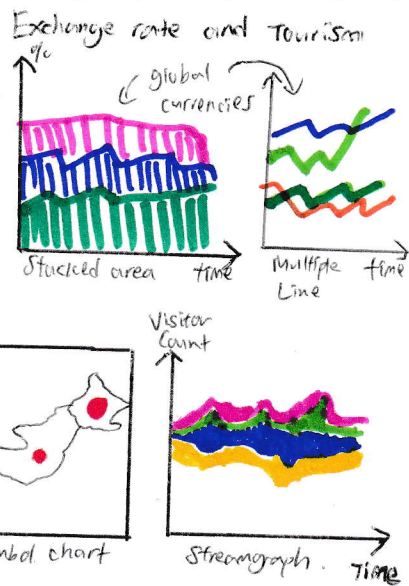
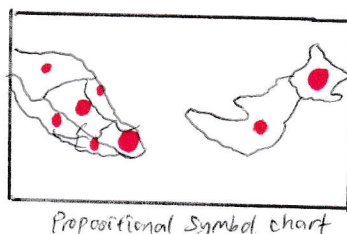
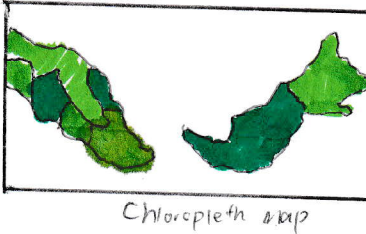
### Expenditure Breakdown



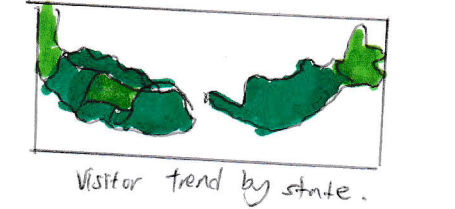
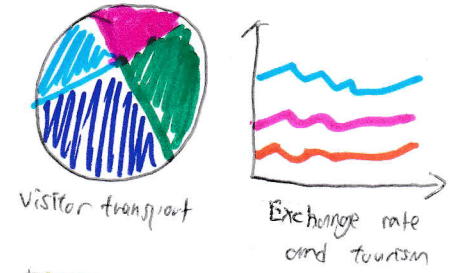
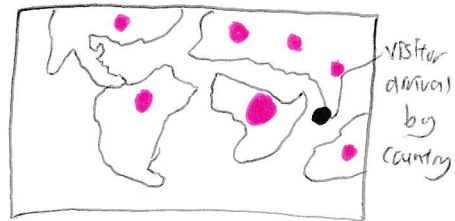
### Visitor Entry by State



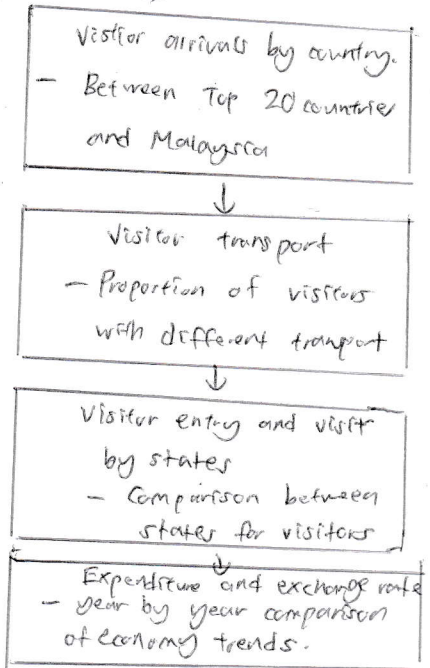
### Visitor Trend by State



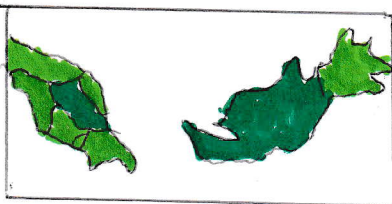
## FILTER



## CATEGORIZE



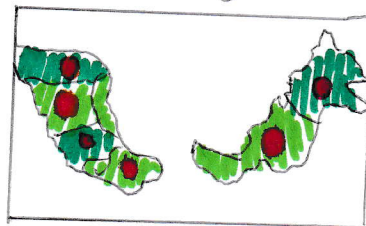
## COMBINE AND REFINE



← choropleth map



Proportional symbol chart



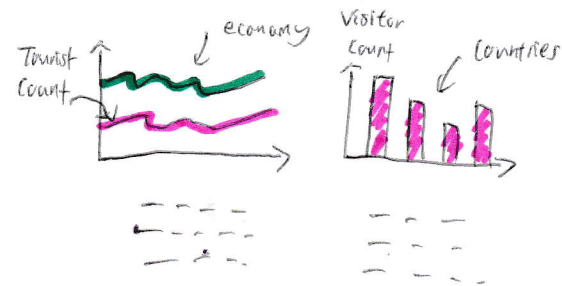
combine to show multiple data at once.

## DISCUSSION

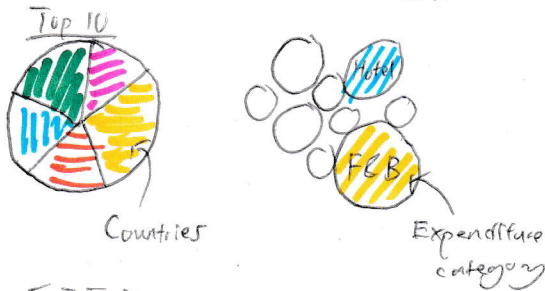
1. Can the combined chart be implemented using vegalite alone?
2. Are the charts interpretable to the general public?
3. Should other libraries be used to implement these charts?

## LAYOUT:

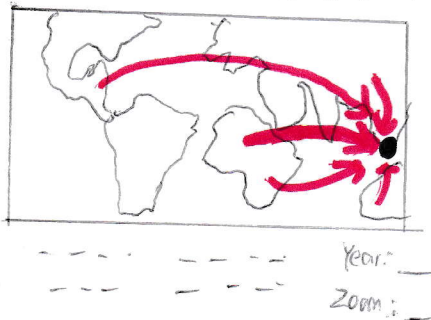
① How is the tourism industry for Malaysia



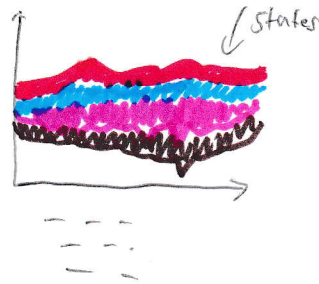
② A breakdown of tourism income



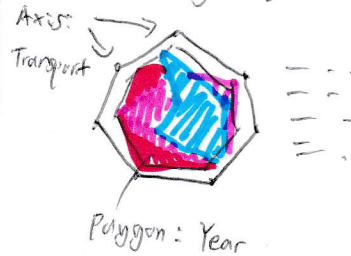
③ Where are the tourists from



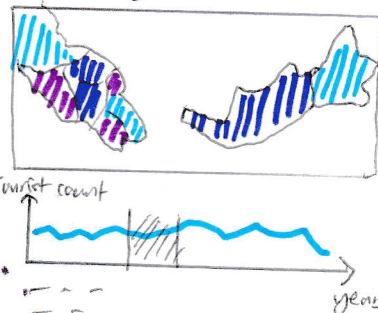
④ Hotel guests per state



⑤ How did they arrive in Malaysia?



⑥ Arrival trends across the years.



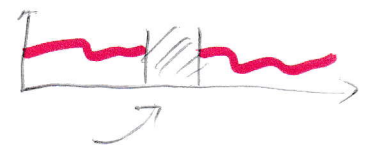
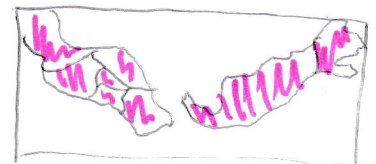
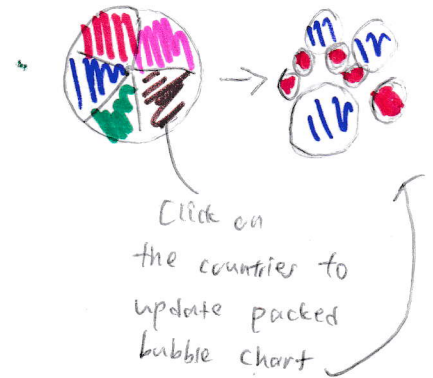
Title: Simplistic view of Malaysia's Foreign Tourism

Author: Justin Tan

Date: 19 August 2025

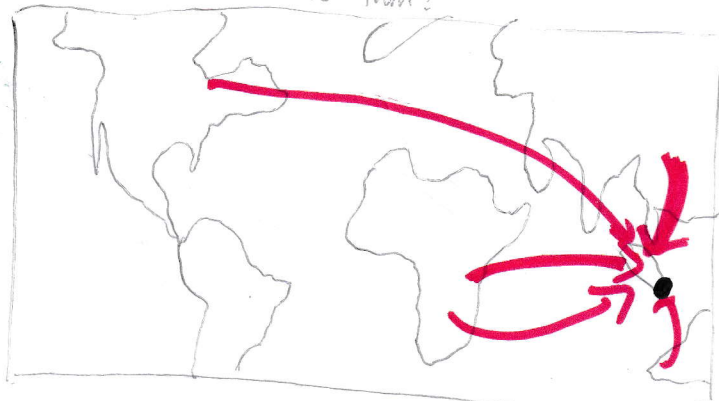
Sheet: 2

Task: Malaysia Foreign Visitor Tourism



Brush to update the Choropleth map data.

③ Where are the tourists from?



Zoom in to continent scale

Change year of data here

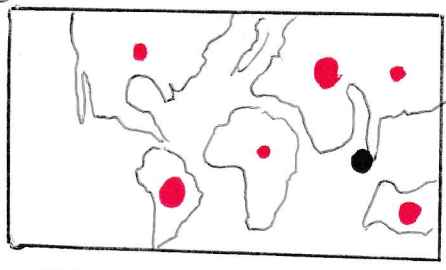
Year: \_\_\_\_\_  
Zoom: Oceania  
Asia  
Asia Pacific

Discussion:

1. Is the flow map part of Vega / Vega-life? Do we need custom code for this?
2. Do we need more interactivity for the user's experience?
3. Does this design satisfy general audience's knowledge on Malaysia's Tourism?

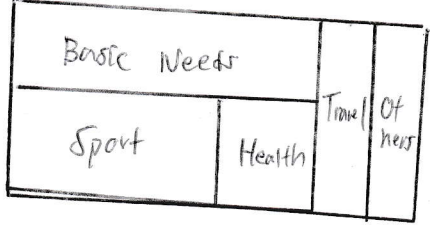


Layout: Visitor arrivals by country



Year: \_\_\_\_\_

Expenditure of visitors

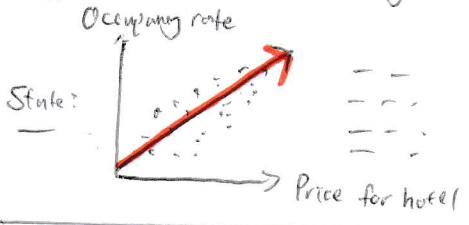


Layout: \_\_\_\_\_  
Aspect ratio: \_\_\_\_\_

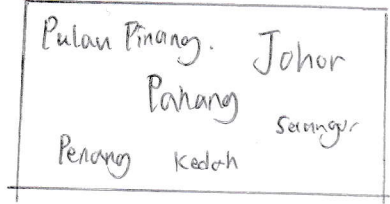
What are the entry points to Malaysia?



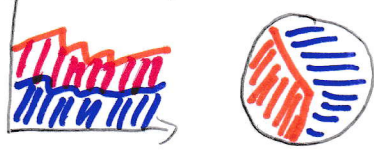
Hotel trends in Malaysia



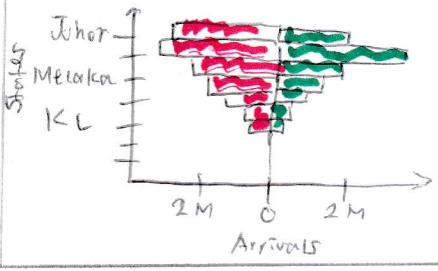
Hotel occupancy by state



2023 vs 2024 trends (visitor count)



Gender distribution among foreign visitors



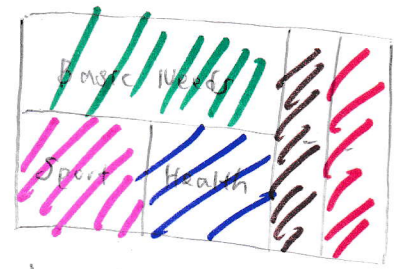
Title: Comprehensive view of Malaysia's Foreign Tourist

Author: Justin Tan

Date: 19 August 2025

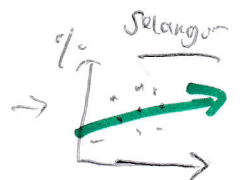
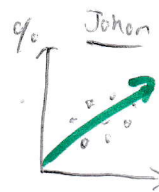
Sheet: 3

Topic: Malaysia Foreign Visitor Tourism



Layout: \_\_\_\_\_ Aspect ratio: \_\_\_\_\_

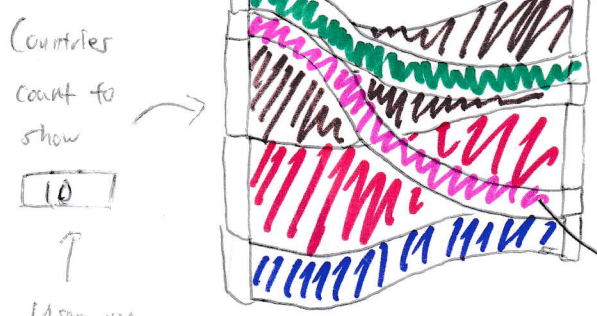
User provide their intended choice to adjust the treemap



User pick state to update the graph

What are the entry points to Malaysia?

Sankey diagram States of entry Entry point for state



Click on flow to update pie chart

Countries count to show

10

User can choose number of countries to show

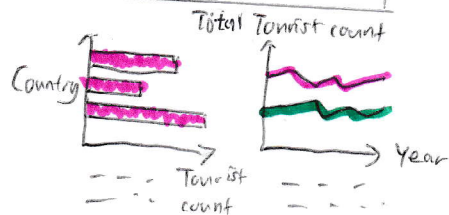
Discussion

1. Is the sankey diagram available by default in both Vega / Vega-lite?
2. Will the information shown provide sufficient info for the reader to understand Malaysia's Tourism?
3. Can the sankey diagram easily comprehensible by readers?

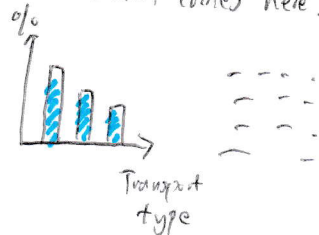
# LAYOUT:

## An Overview of

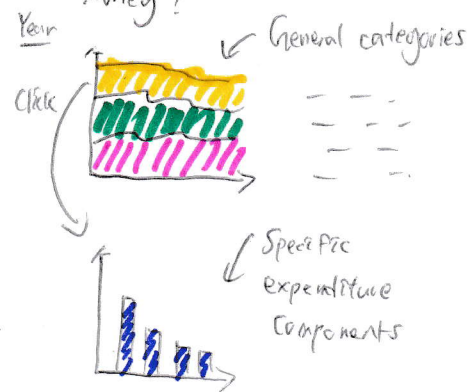
### ① Tourism in Malaysia.



### ② How tourist comes here?



### ③ How tourist spends their money?



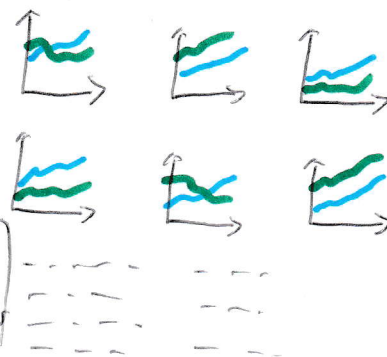
### ④ Top 20 countries in terms of receipts value / arrivals.

West Asia	Europe	
	JP, KR	US
Oceania		

### ⑤ Tourist top entry points

LTA Senai	KLIA2
KLIA	Tambak
Padang Besar	Johor

### ⑥ Foreign currency and Tourist arrivals



### ⑦ Tourism gives an economic boost to Malaysia's economy. Therefore, ....

## Title: Spending-oriented

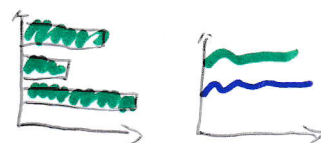
## Tourism Visualisation

Author: Justin Tan

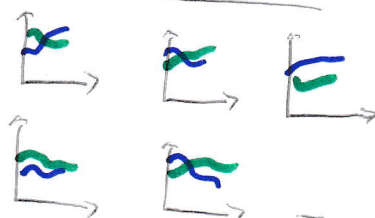
Date: 19 August 2025

Sheet: 4

Topic: Malaysia Foreign Visitor Tourism



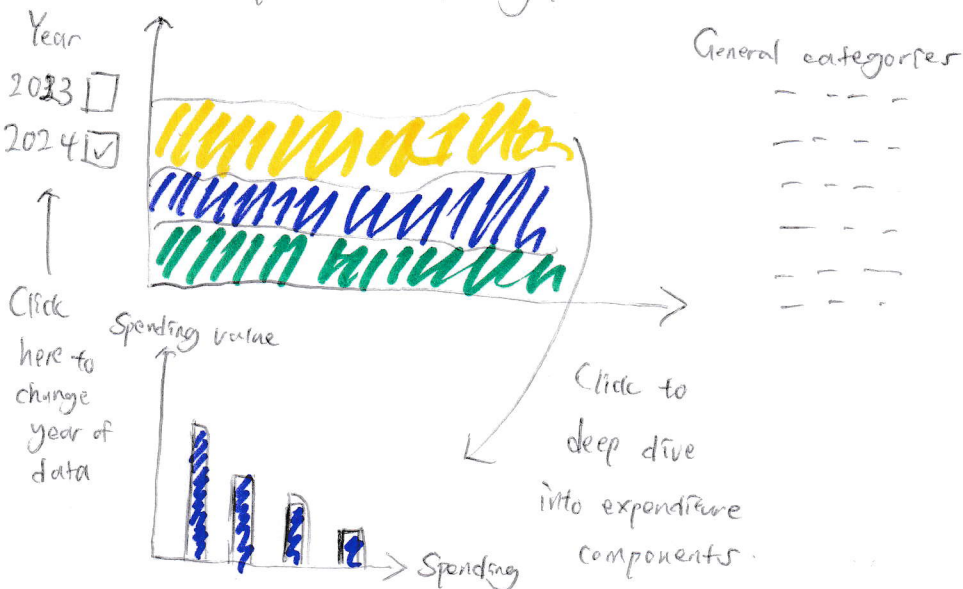
Can be updated by clicking on the states on map



Add more countries

Click to add more currency to compare.

### ③ How tourist spends their money?



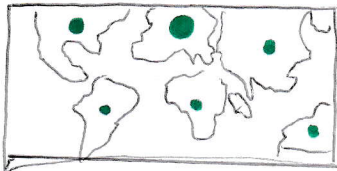
## Discussion:

1. Design for each visualisation should be fit to screen dimensions so user doesn't need to scroll continuously.
2. Do we need Vega or Vega-lite to construct the treemap?
3. Do we need tooltips to guide user to interact with the visualisation?



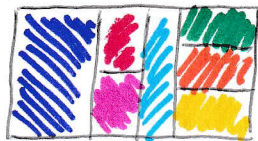
# LAYOUT

## Foreign Tourist Ecosystem in Malaysia



① Where does tourist come from?

② Air and Land dominates.

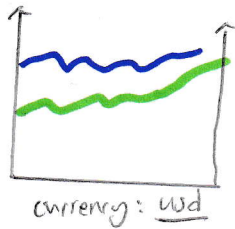


③ Expenditure breakdown

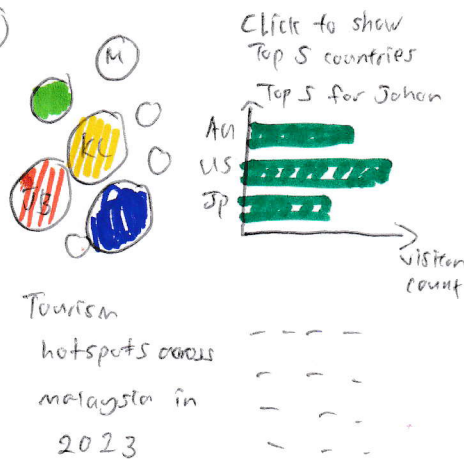


④ where malaysia hotel guest stay?

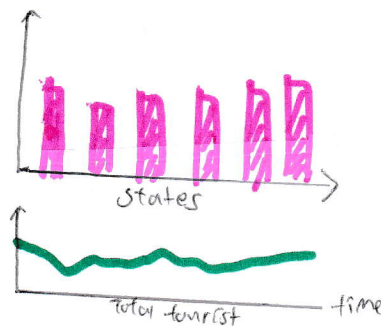
⑤ Exchange rate to tourist arrivals.



⑥



⑦



Tourist entries by entry point state and month

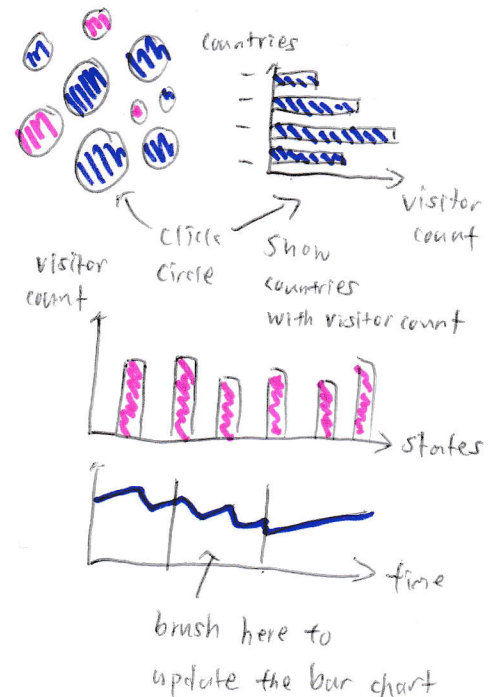
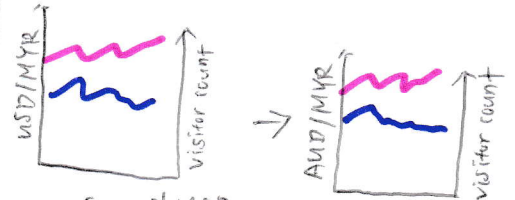
Title: Final Design Sheet

Author: Justin Tan

Date: 19 August 2025

Sheet: 5

Topic: Malaysia Foreign Visitor Tourism



④ (MALAYSIA Hotel Occupancy by State)

Guest type: Foreign / Local



Change here to set zoom range

Zoom

years: 2023/2024

where malaysia hotel guests stay?

Choose here to change guest type.

Click to change data year

## Detail

1. Data is stored and processed in CSV file format and stored in temporary database.
2. Implement with Vega and Vega-lite for the visualisations and use HTML, CSS, JS for the webpage.
3. Time to implement:  $\leq 14$  Days