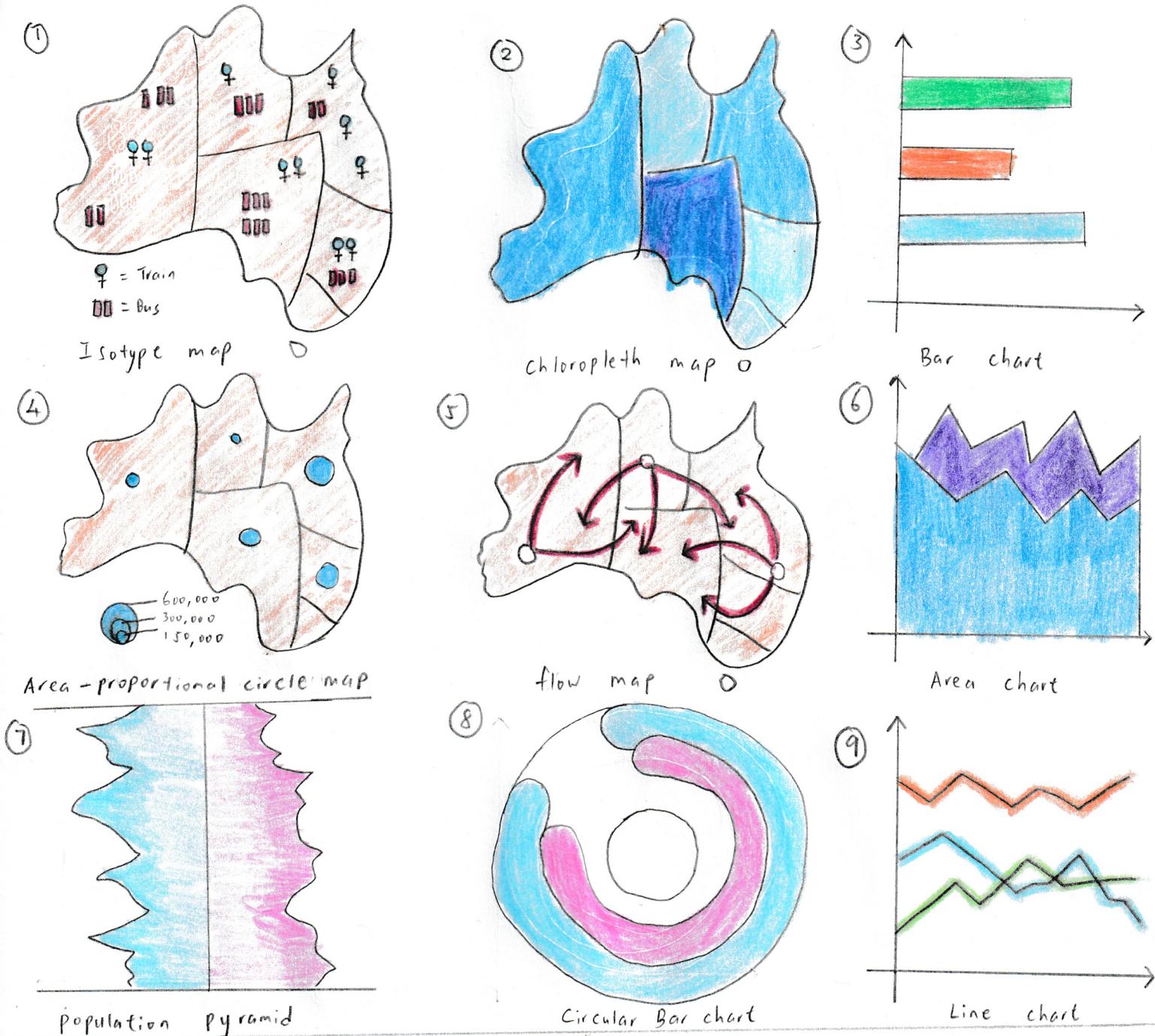


IDEAS



FILTERS

⑥ Area chart

- Overlapping Data, where it is hard to see the differences clearly
- Distortion where it can mislead about the size or importance of each facility

⑦ Line chart

- Not ideal for many categories or discrete data

Author: Sum Yin Aw

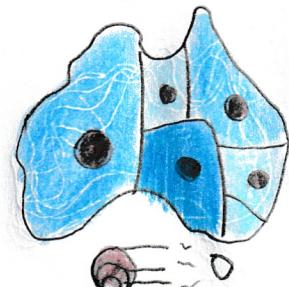
Date : 28/9/24

Sheet : 1

Task : Brainstorm ideas for Visualisation 2

COMBINE & REFINES

② + ④ → chloropleth map + Area proportional circle map

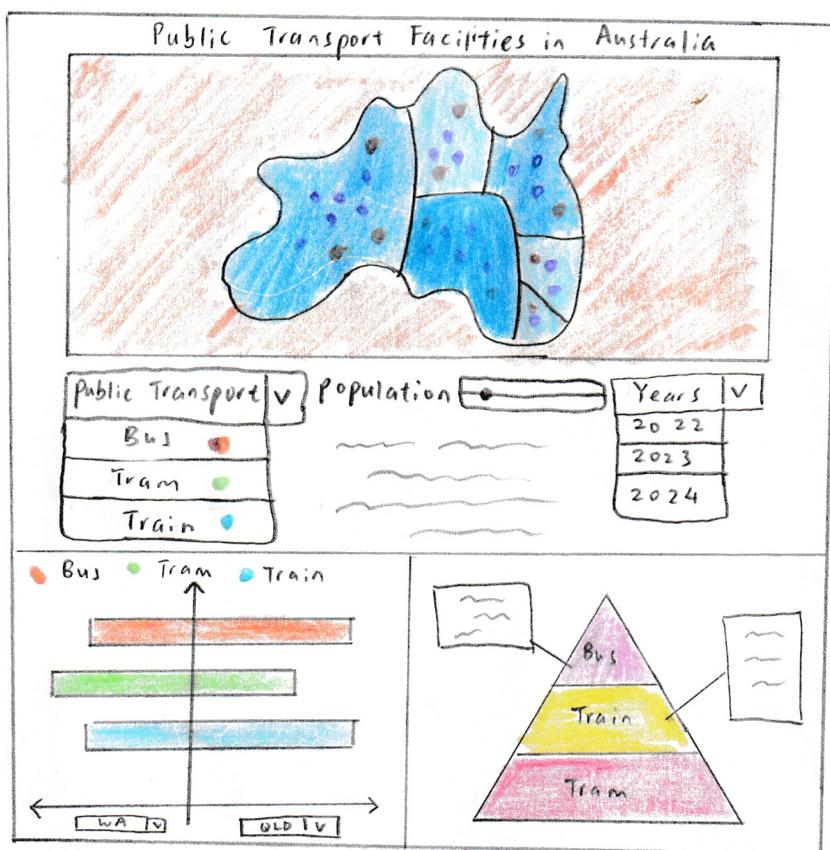


- Shows Geographic patterns with color intensity while also indicating size importance using circle
- offers both regional distribution and relative importance

QUESTION

- Is there a better way to represent the data other than these charts
- What's a creative way to tabulate my data visualisation

LAYOUT



Author : Sum Yin Aw

Date : 28/9/24

Sheet : 2

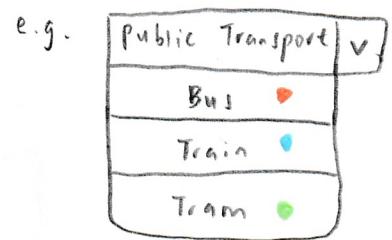
Task : Public transport facilities in Australia

OPERATION

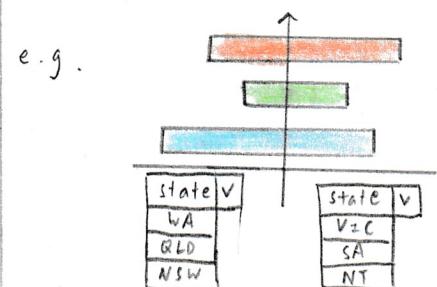
- All data is pre-loaded
 - The user interaction of selection for year will change the saturation of the states in the map
- e.g.
- | Years | V |
|-------|---|
| 2022 | |
| 2023 | |
| 2024 | |
- The filter button will change the dot plots for each state of the map based on the population

e.g. population : 500,000

- There will be a filter for types of public transport, where it shows different dot plots on the map



- For comparative bar chart, user will be able to compare different state by selecting the filter.



FOCUS

Chloropleth map & Dot map

chloropleth map :

- used to show which state has the most to least amount of public transport facilities
- allow users to visualise and compare for each state

Dot map :

- used to show the population of each state in Australia
- The higher the number of dots, the bigger the population of the state

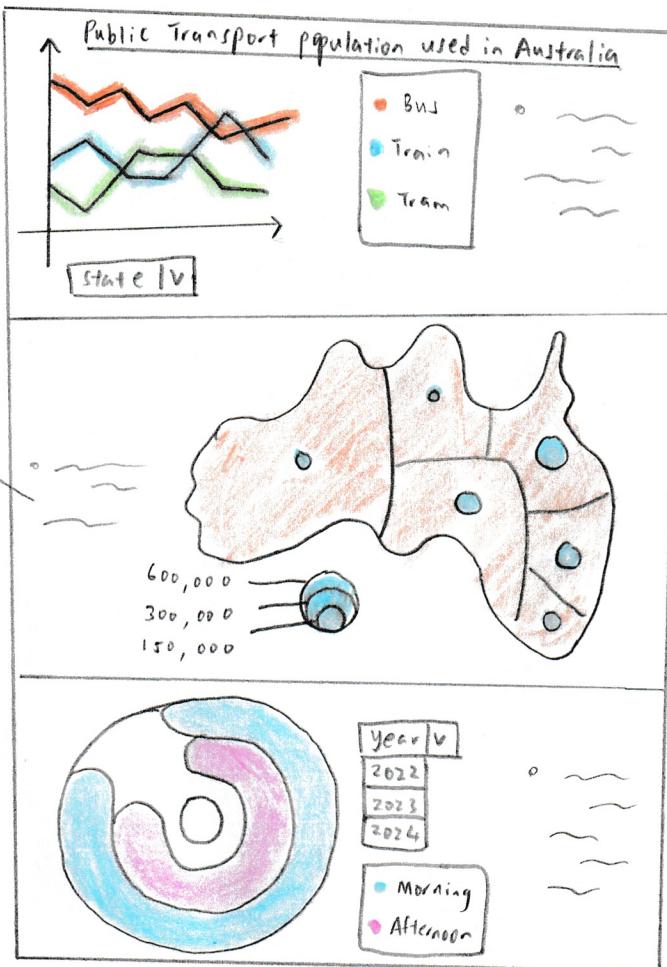
Comparative bar chart

- length of the bar shows the total amount for each type of public transport
- Each color represents a type of public transport

Pyramid chart

- Shows the total number of public transport for all states in Australia

LAYOUT



Author : Sun Yin Aw

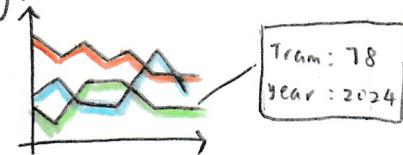
Date : 28/9/24

Sheet : 3

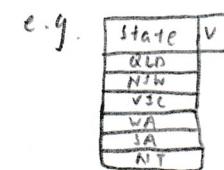
Task : Public transport population used in Australia

OPERATION

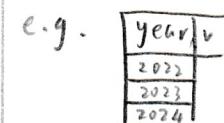
- All data is pre-loaded
- Line chart will have tooltip for user interaction where it shows the value of the point line chart based on the year.
e.g.



- User will also be able to select the states in Australia with the filter in line chart.



- For circular bar chart, user will be able to select the year to change the value of the chart.



DISCUSSION

Advantage :

- Overall of the visualisation is clear and neat

Disadvantage :

- Line chart might not be the best way to show the data

FOCUS

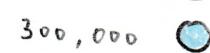
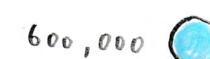
Line chart

- Each line represents the public transport that is used in Australia
- Color are used to differentiate types of public transport

Area - proportional circle map

- the area size of the circle determines the number of population of each state in Australia

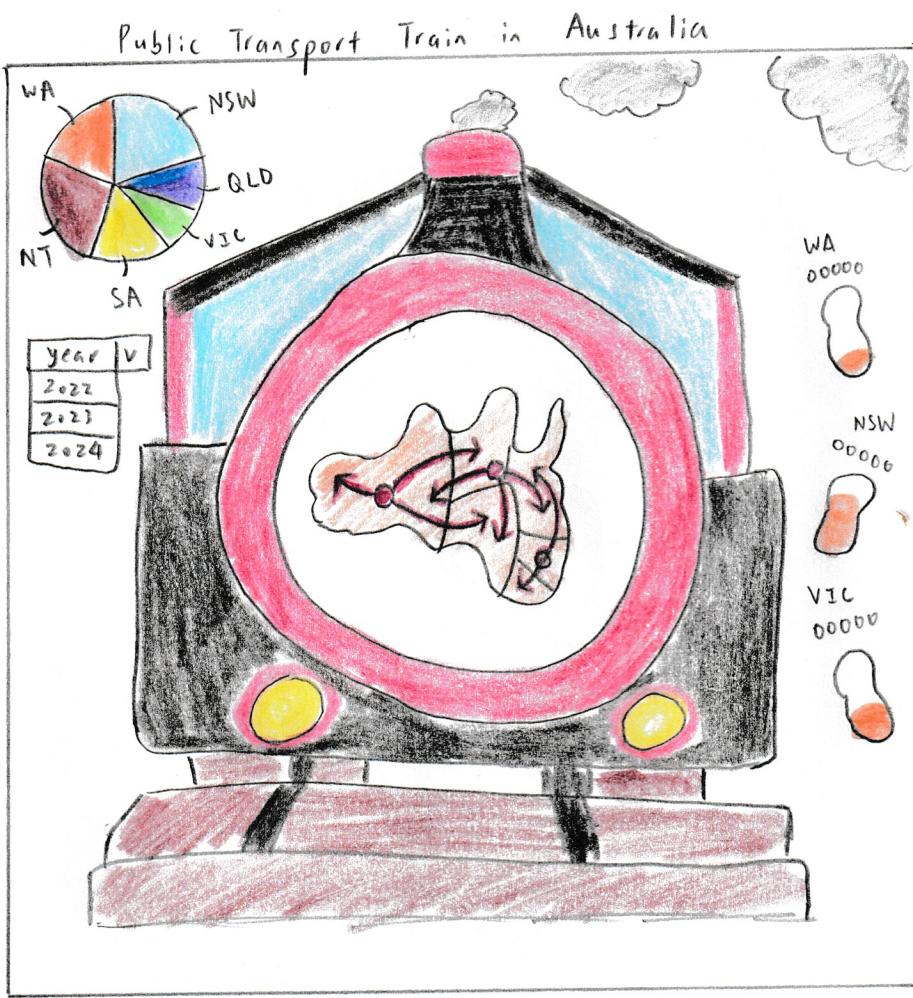
- There are 3 sizes of the circle : 600,000



Circular Bar chart

- The circular bar represents the morning / afternoon session of the public transport.
- Color is used to differentiate the sessions.

LAYOUT



Author : Sun Yin Aw

Date : 29/9/24

Sheet : 4

Task : Usage of public transport in Australia

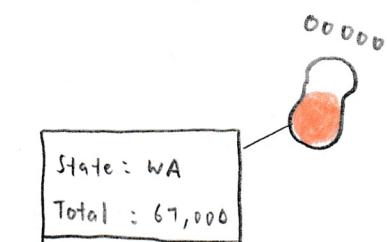
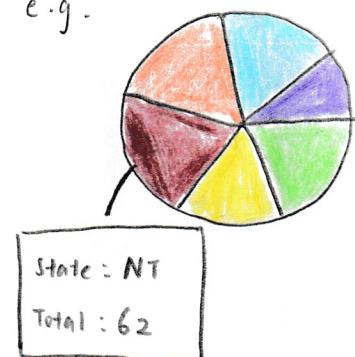
OPERATION

- All data is pre-loaded
- There will be selection for year in pie chart for the states in Australia
- e.g.

year	v
2022	
2023	
2024	

- Tooltip is used for piechart and filled bar chart

e.g.



DISCUSSION

Advantage :

- Has the most creative visualisation

Disadvantage :

- Might not be the best visualisation as it is not structured well.

FOCUS

Pie chart

- Each sector represents the state of Australia
- Shows the number of public transport trains in each state

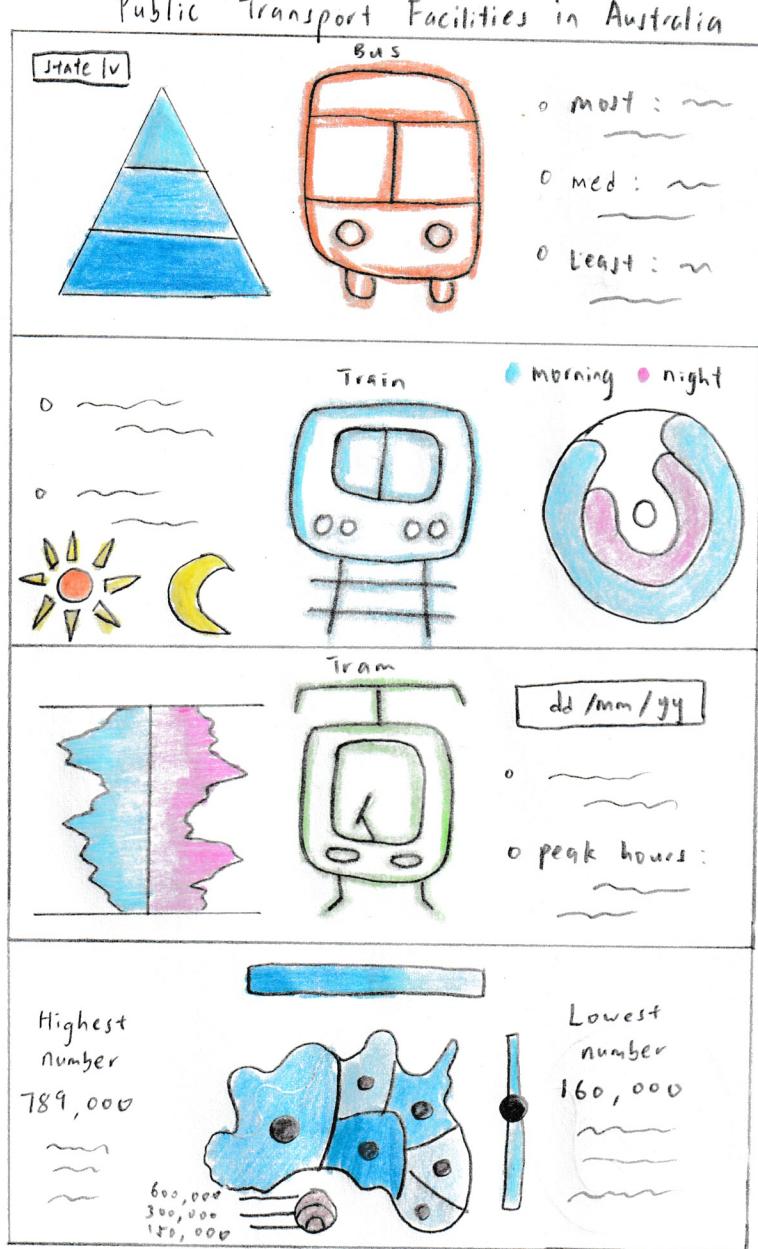
flow map

- Each arrow represents the public train moving to another location.
- The circle represents the initial state of the public train

filled bar chart

- Each filled bar chart represents the state of Australia
 - e.g. 00000
-
- used area of the foot shape to determine the value
- Total population that walks instead of using the public train

LAYOUT



Author : Sum Yin Aw

Date : 29/9/24

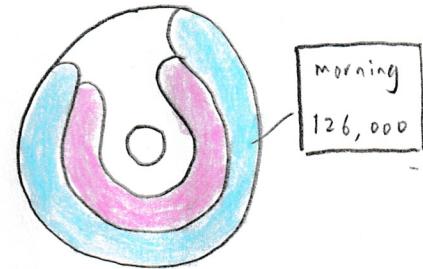
Sheet : 5

Task : Final design sheet

OPERATION

- All data is pre-loaded
- Tooltip:
 - ↳ use for all charts in terms of color
 - ↳ customise colors based on preference

e.g.



- Annotations are used for highlighting interesting data only

- Filter will be used for population at choropleth map & Area-proportional circle map

e.g. 500,000

- User will be able to select date for choropleth map & Area proportional circle map.

e.g.
dd / mm / yy
1 2 3 4 5 6
7 8 9 10 11 12
13 14 15 16 17 18
19 20 21 22 23 24
25 26 27 28 29 30

DETAILS

- create visualisation via vega-lite
- Due : 13/10/24, 11.55pm

FOCUS

Pyramid chart

- Each sector represents the population for each session. (morning, afternoon, night)

Population pyramid

- Shows the number of people using the public tram for each hour of the day.
- able to determine peak hours.

Circular bar chart

- 2 circular bar represents the morning / night session for Public session

Choropleth map & Area proportional circle map

- Show the population that uses the public transport for each state
- allow users to visualise clearly from the combination map