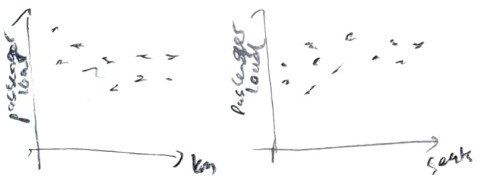
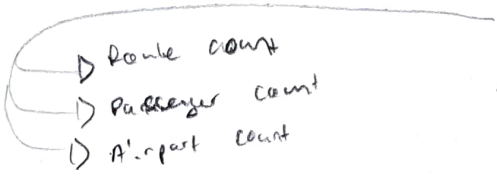
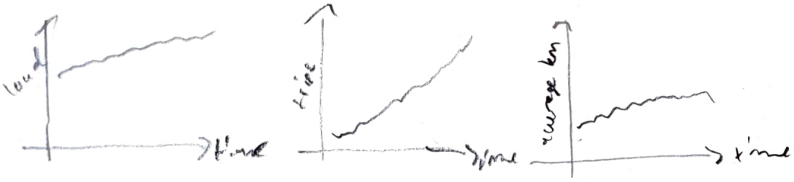
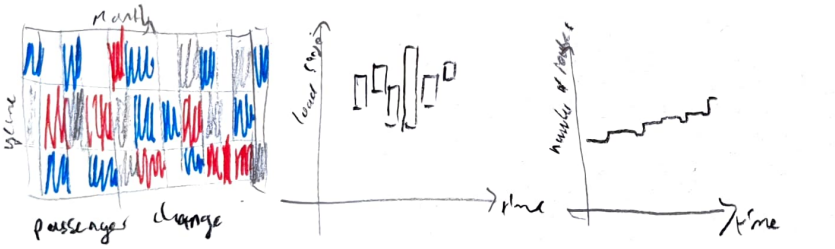
Data Visualisation 2 - FD sheet 1 - Noah Bajayo

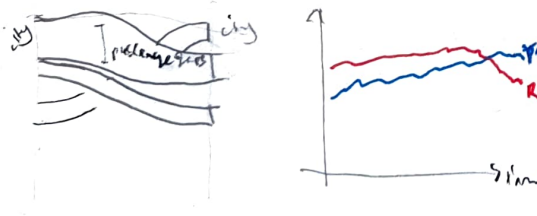
IDEAS

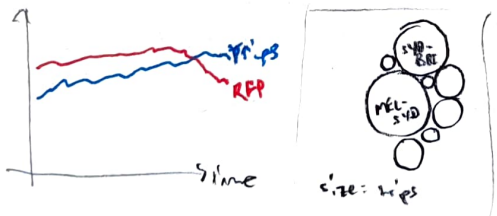


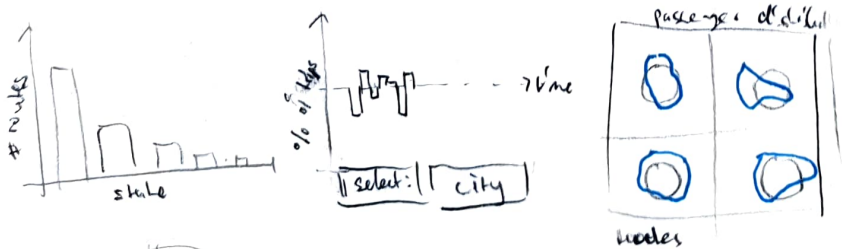


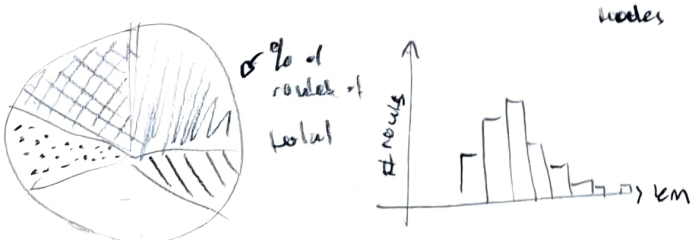






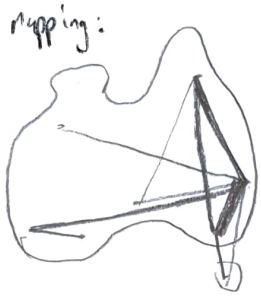




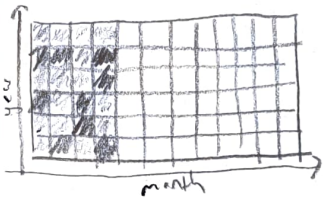


FILTER

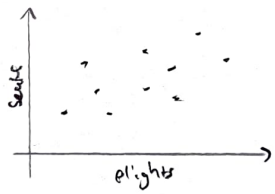
Mapping:



Trend over time:



Distributions:



colour: state
size: load

CATEGORISE

Distribution

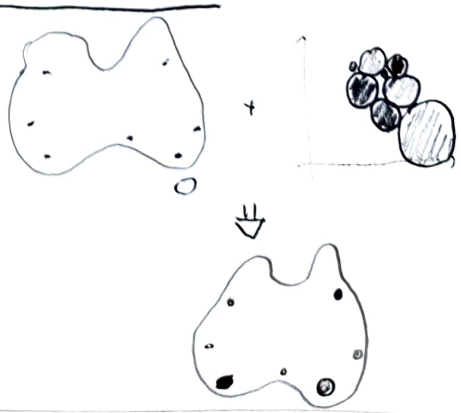
↓

Trends over time

↓

Mapping

COMBINE & REFINE



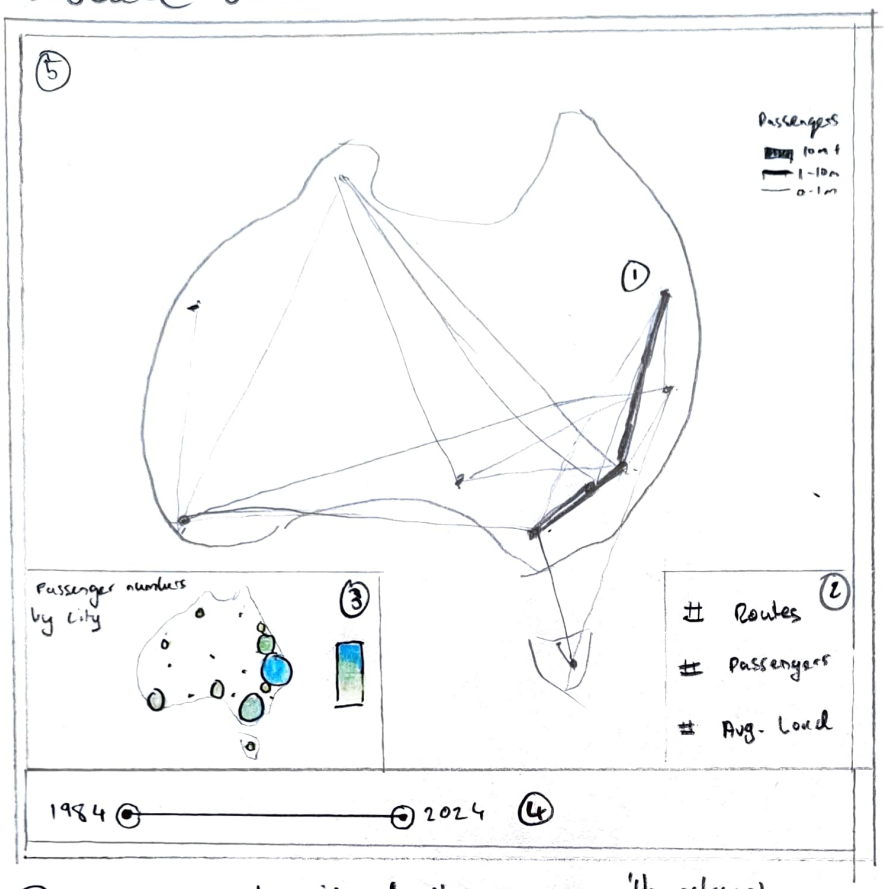
QUESTIONS

- Is the coloured message being conveyed?
- Is it easy to use?

Data visualisation 2 - FD Sheet 2 - Noah Bajayo

LAYOUT

Dashboard view:



(1) Tooltips on each point and line on map with relevant details including city names and passenger numbers etc.

(2) At-a-glance summary statistics

(3) Added metrics to visualise city figures without cluttering main route visualisation - Colour hue / luminance used to scale by size.

(4) Time range slider to add interactive element. covers all visualisations.

(5) General layout to draw attention to the principle visualisation of routes & passenger numbers.

Title: Dashboard

Author: Noah Bajayo

Date: 8/10/2024

Sheet: 2

Task: Dashboard visualisation of dataset

OPERATION

- Hover over any element to gain specific figures for points / routes of interest
- Drag either end of slider to select a time range

FOCUS

- Main focus is on the routes across Australia visualised on a map to convey geographic information. the sum of passengers by route is a good representation of route popularity
- Aim to supplement primary map with other information
- Channels of colour/hue & luminance as well as size draw attention to non-location attributes

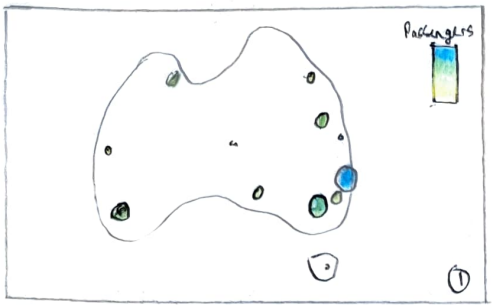
DISCUSSION

Pros: - Visualisation clearly shows hierarchy and displays spatial information in a way that can be easily comprended.

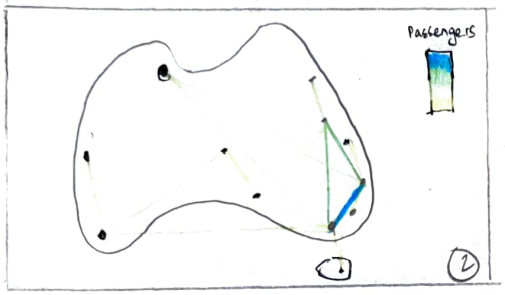
Cons:
- Potentially too many elements in the white space of another visualisation
- Issues with the size of the secondary map may make it difficult to read
- May not provide enough detailed information.
- Insufficient analysis

Data Visualisation 2 - FD Sheet 3 - Noah Bajayo

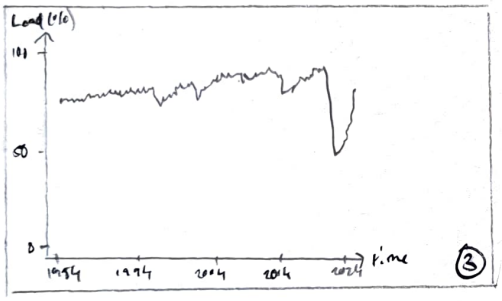
LAYOUT



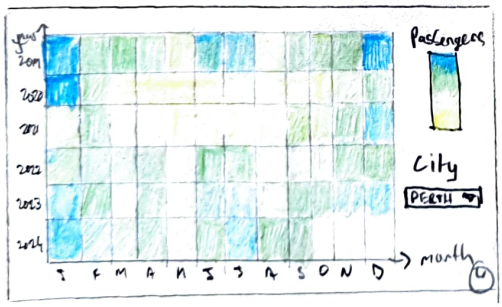
① Visualisation to show passenger numbers by city.



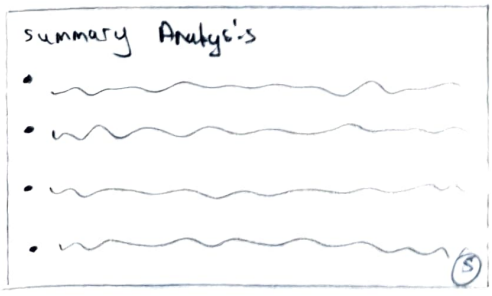
② Demonstrates routes of interest across the same cities in sheet ①.



③ Show change of time of a different metric that can be aggregated for all cities



④ Heatmap with city filter to show change of time of key metric in detail.



⑤ Provides a sentence summary on each of the preceding slides.

Title: Simple narrative
Author: Noah Bajayo
Date: 8/10/2024
Sheet: 3
Task: Narrative visualisation for dataset.

OPERATION

- Hover over points/lines for tooltip information
- scroll to access next visualisation
- Filterable information for slide 4.

FOCUS

- Designed narrative to become gradually more granular in focus, initially starting with Australia wide visualisation before enabling city specific analysis.
- Use of consistent colour hue scale to link similar ideas and create narrative.

DISCUSSION

Pros:
- Consistent use of colour
- Guides the user along a narrative with analysis

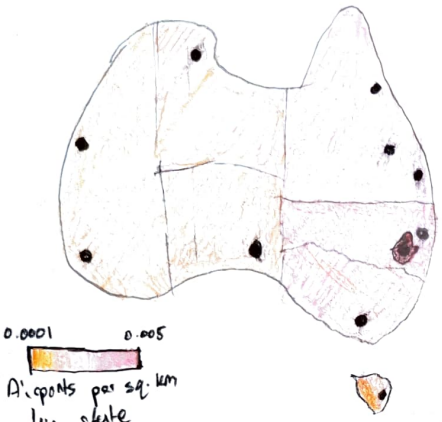
Cons:
- May not adequately explain each of the visualisations
- Path of visualisations may make it difficult to compare non-adjacent visualisations
- Visualisations limited to small number of attributes

Data Visualisation 2 - FD Sheet 4 - Noah Bajayo

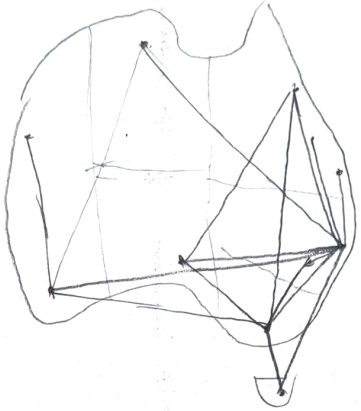
LAYOUT

Mapping Domestic Flight Data

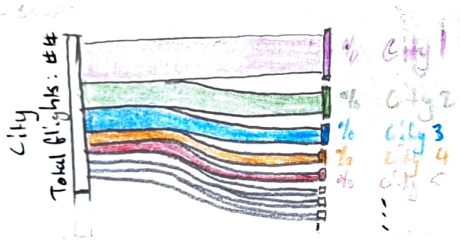
Where are the airports?



Where can you fly?

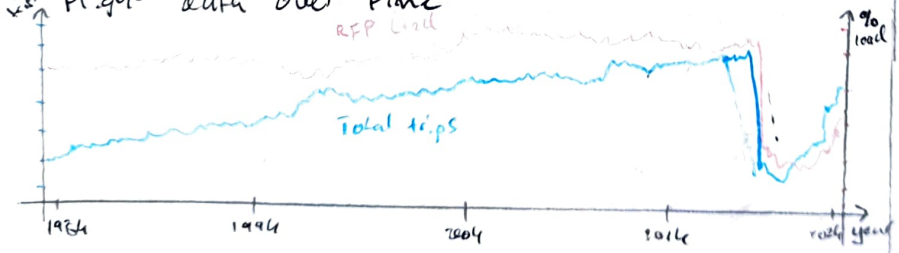


Breaking down flight routes



Analysis

Flight data over time



Analysis

Where to from here?

Analysis

Title: Analytical Narrative
Author: Noah Bajayo
Date: 9/10/2024
Sheet: 4
Task: Analytical Narrative

OPERATION

- Tooltips for each point and line on the maps as well as the line graph
- Selecting the filter on the ribbon chart will adjust the routes displayed in the graph on the top right.
- User is to scroll down to view the full page.

FOCUS

- Focus is on giving the user actionable analysis that is relevant to their selection in the filter as well as providing overall context.
- Aim to split out airport location and routes to avoid over cluttering the visualisation.
- Give the user the ability to compare information by city for greatest insight.

DISCUSSION

Pros:
- Good use of channels to appropriately communicate data through a varied display of idioms. Good use of analysis areas.

Cons:
- Could be particularly challenging to implement, especially with so many smaller components utilising a filter.
- Very detailed visualisation which may lead to an overload of information.
- Does not easily show route & passenger number variation over time.

Data Visualisation 2 - FD Sheet 5 - Noah Bajayo

LAYOUT

Flight routes in Australia

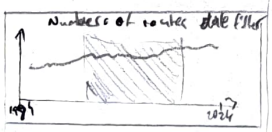
Introduction & metadata

Interactive map

Busiest route: MELB to SYD, # trips

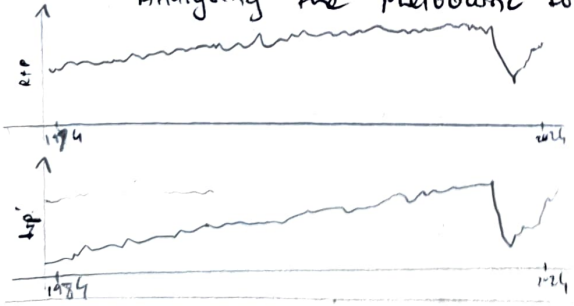
Date range: # to #

0 200m trips



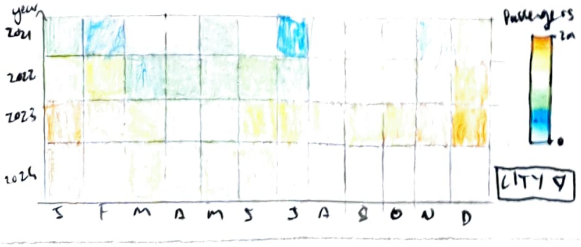
Analysis

Analysing the Melbourne to Sydney route



Analysis

Understanding airport loads



Analysis

Title: Balanced narrative
Author: Noah Bajayo
Date: 10/10/2024
Sheet: 5
Task: Final design sheet

OPERATION

- Use of a chart as a date filter in interactive map - users to drag select the date range on the number of routes chart which will update the map routes and text aspects of the primary visualisation.
- Use of a selectable filter in the last visualisation to toggle between any city.
- Use of tooltips on all charts to provide relevant figures and attributes on demand.

FOCUS

- Primary aim is to get users to interact with the map and to provide accompanying analysis that cannot be necessarily derived only from the dataset.
- Using a very large (scaled) map will encourage that data is easier to see and interact with.
- Additional charts will provide more information to answer specific questions about the dataset and encourage interaction.

DETAIL

- Initial wireframe in HTML document and format with CSS
- Compile any derived fields as new columns, and combine to geographic data separately. Source airport data from Aus Gov data.
- Clean all data in excel then host CSV file github repo
- Estimated time: 2 weeks
- Any want to consider sizing of elements and placement of analysis along sightlines.