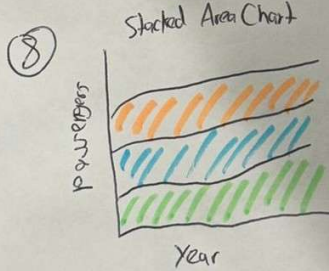
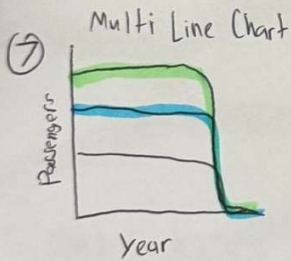
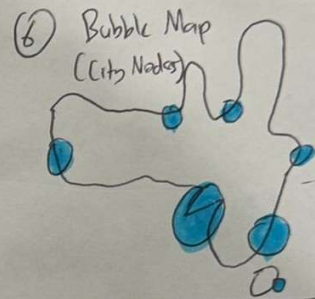
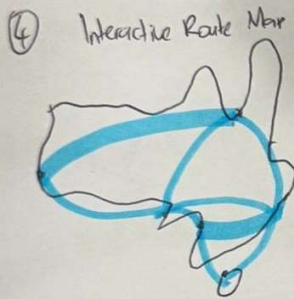
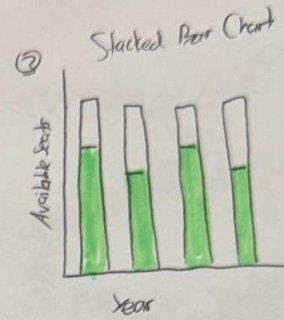
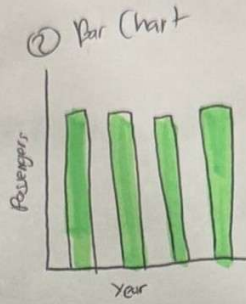
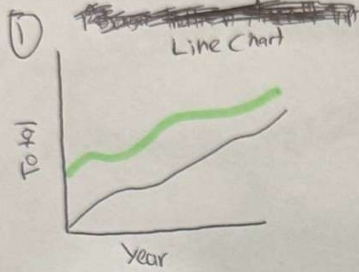


IDEAS



FILTER

5,6

↳ Not needed since they are redundant with route maps; duplicated size encoding already used for route thickness

CATEGORIZE

1,2,3 → National Trends

4,5,6 → Route & Geographic Patterns

7,8 → Airport graphs

COMBINE & REFINE

1,3 → Can potentially consolidate into one chart with stacked bar and line chart

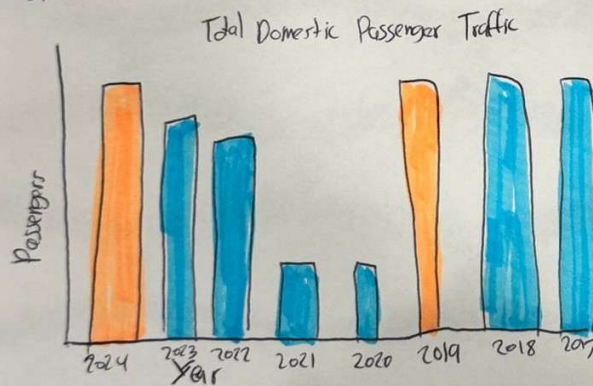
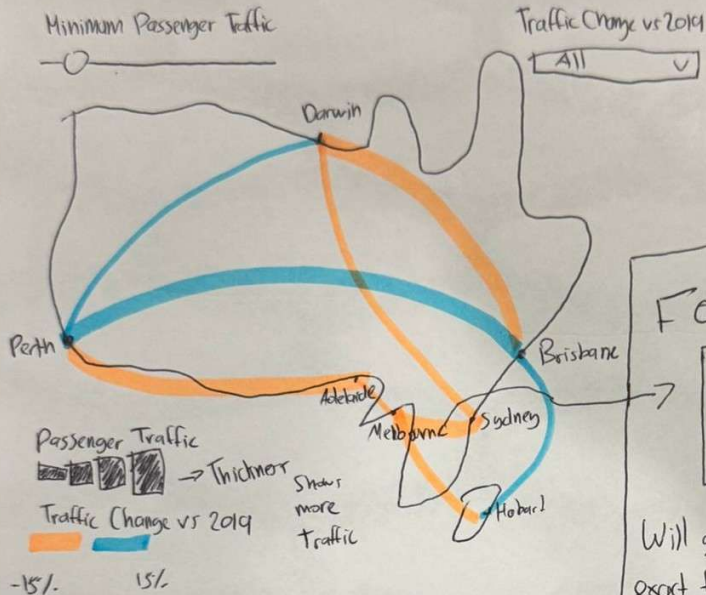
QUESTIONS

How did domestic passenger traffic and aircraft trips evolve after 2020?

- Which routes and airports recovered fastest relative to 2019?

- How did airline capacity and seat utilisation adapt ~~the~~ through 2020-2024?

LAYOUT



INFO

Title: FIT3129 Data Visualisation 2

Name: Kerim Bolal

Date: 19/10/2025

Sheet No: 2

FOCUS

Route: syd - Melb
Distance (km): 2701
Passengers: 2,030,217

Will give in depth information including exact totals and % change of traffic as well as other key KPI's.

OPERATIONS

- Dropdown Filter: Traffic Change vs 2019
↳ Options: All / Decrease > 15% / Decrease > 5% / Increase > 5% / Increase > 15%.
- Slider: Minimum Passenger Traffic filters out minor routes
- Hover tooltip: Shows city-pair, exact passenger count and more

DISCUSSION

Advantages:

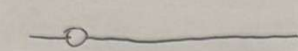
- Adds a spatial narrative, letting viewers see the domestic network structure at a glance
- Colour and thickness encoding efficiently communicates both traffic magnitude and growth/decline

Disadvantages:

- Overlapping arcs between dense hubs (eg. Sydney and Melbourne) can reduce legibility
- Requires good colour calibration

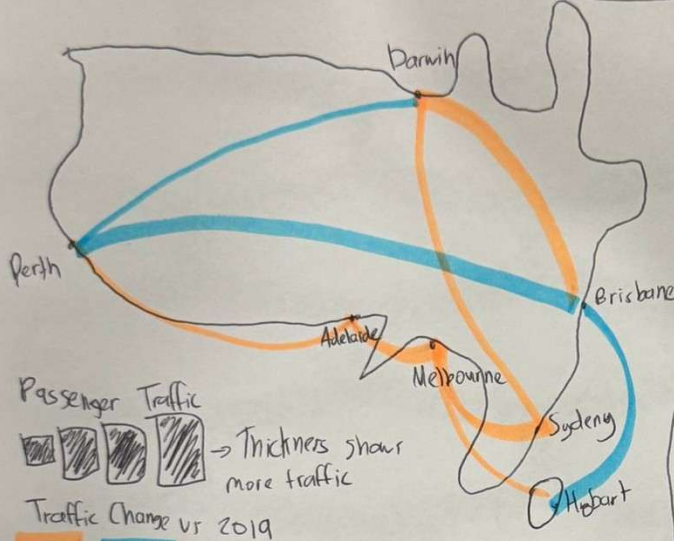
LAYOUT

Minimum Passenger Traffic

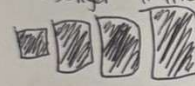


Traffic Change vs 2019

All ✓



Passenger Traffic



→ Thickness shows more traffic

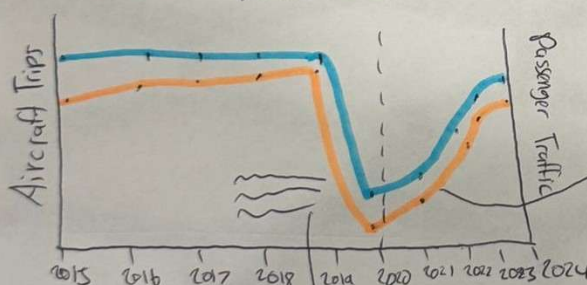
Traffic Change vs 2019



-15%

15%

Domestic Aircraft trips and Passenger Traffic



Year → Annotations

● Aircraft Trips ● Passenger Traffic

INFO

Title: Data Visualisation 2

Name: Kerim Bolcal

Date: 10/10/2025

Sheet No: 3

FOCUS

Year: 2021

Metric: Traffic / Trips

Value: 367.19

Shows extended detail about Traffic / Trips for particular year

OPERATIONS

Hover tooltip: Displays both metrics for a selected year

Annotation Points: To explain further details such as "x% drop due to COVID restrictions"

- Colour Encoding

DISCUSSION

Advantages:

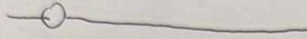
- Demonstrates clear causal link between lockdowns and aviation activity
- Integrates temporal and spatial layers coherently

Disadvantages:

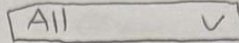
- Dual axes can confuse viewers

LAYOUT

Minimum Passenger Traffic



Traffic Change vs 2019



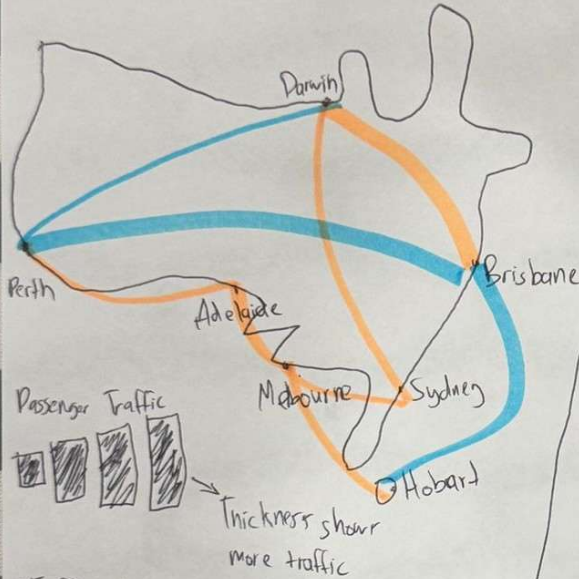
INFO

Title: Data Visualisation 2

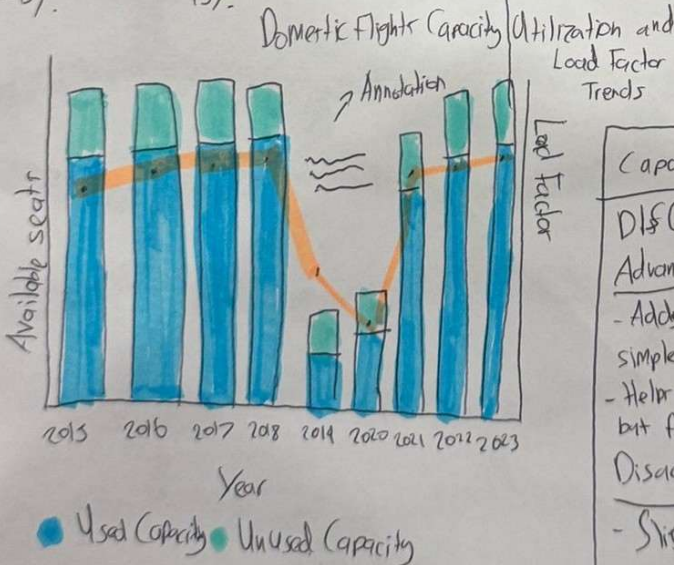
Name: Kerim Bekel

Date: 19/10/2023

Sheet No: 4



Traffic Change vs 2019



FOCUS

Year: 2023
Category: Used/Unused
ASK: 68.4

Shows additional information ~~such as~~ such as ASK (used + unused) + Load Factor (%) for each year

OPERATIONS

- ~~Filter~~ Filter Dropdown: Select airport or region

- Colour encoding: Dark blue = Used ASK

Light blue = Unused ASK

Orange = Load Factor line

- Linked maps: Selecting a region updates corresponding

Capacity chart

DISCUSSION

Advantages:

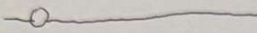
- Adds deeper operational insight beyond simple passenger totals
- Helps explain partial recovery -> full flight but fewer overall services

Disadvantages:

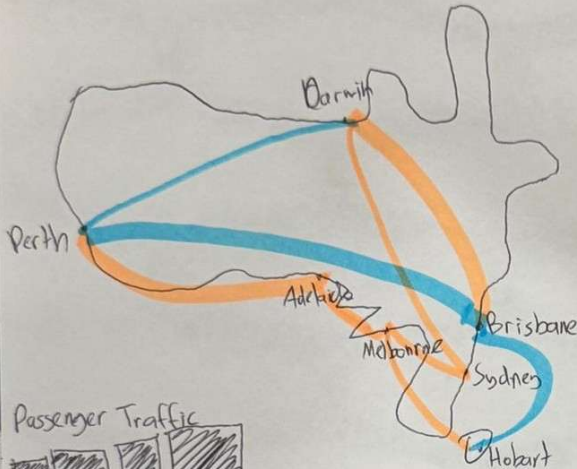
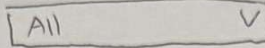
- Slightly technical - ASK might require definition

LAYOUT

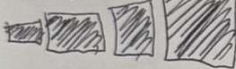
Minimum Passenger Traffic



Traffic Change vs 2019



Passenger Traffic



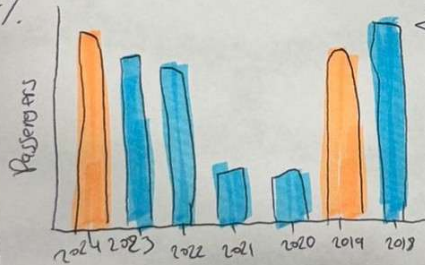
Traffic Change vs 2019



FOCUS

- Comprehensive narrative
- Integrate spatial, temporal and operational insights

Total Domestic Passenger Traffic



DISCUSSIONS

Advantages:

- High Interactivity: Supports both guided analysis and exploratory use
- Consistent colour palette and legends enhances interpretability

Disadvantages:

- High Information Density - can be overwhelming
- Colour-blind users may need alternate schemes

INFO

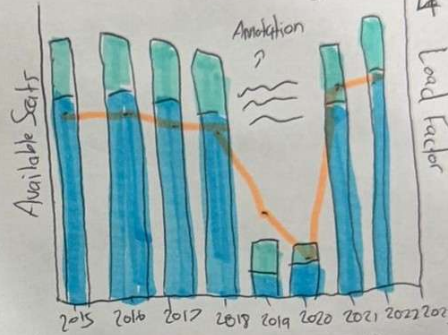
Title: Data Visualisation 2

Name: Kerim Bolat

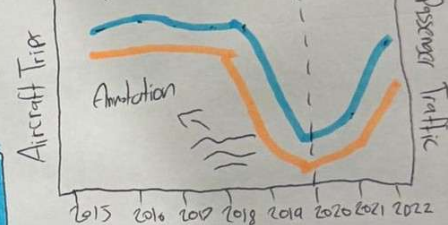
Date: 19/10/2025

Sheet No: 5

Domestic Flight Capacity Utilization & Load Factor



Domestic Aircraft trips & Passenger Traffic



OPERATIONS

- Filter: Traffic Change vs 2019
- Slider: Minimum Passenger Traffic
- Click Highlight: Emphasize selected route

DEPENDENCIES

- Software: Vega-Lite + HTML + CS
- Libraries: TopoJSON

ESTIMATES: ~7-8 hours total

ALGORITHMS

- Colour Mapping: Linear diverging scale
- Thickness encoding