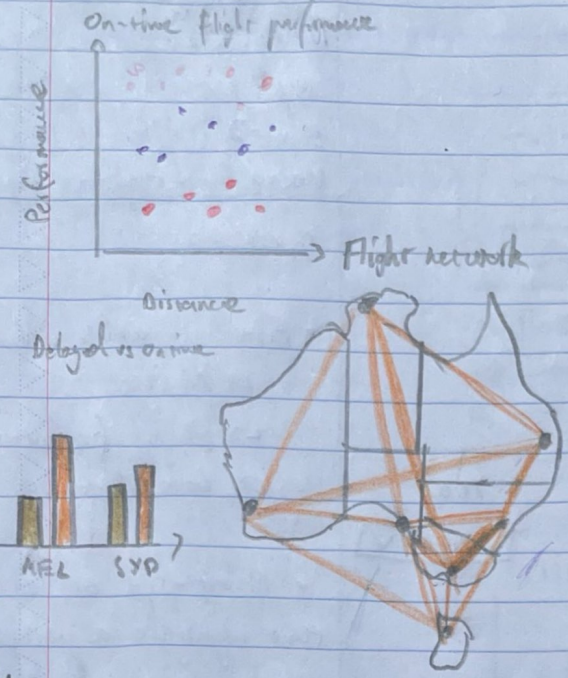
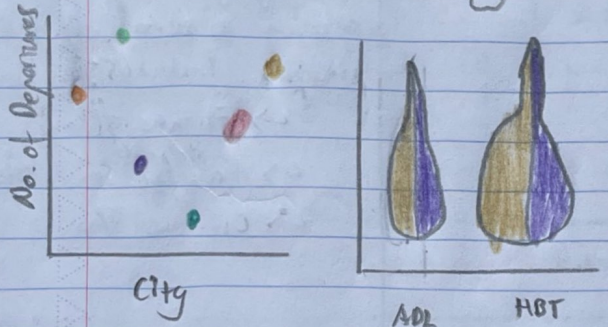
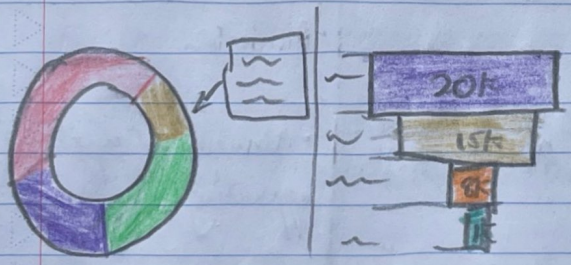
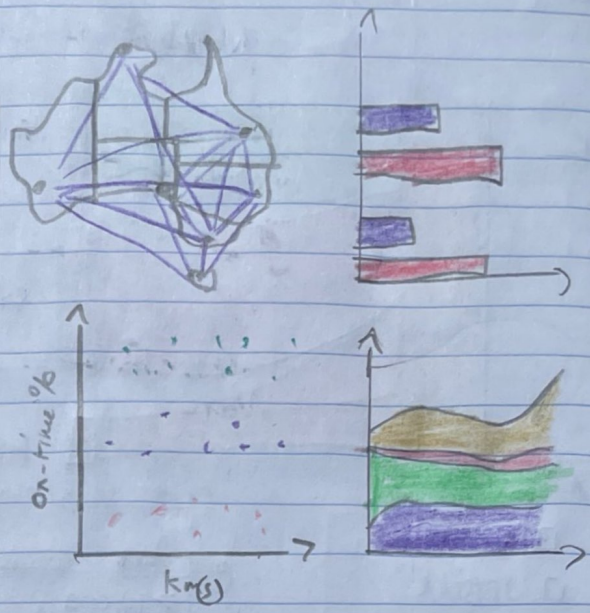
1. IDEAS







2. FILTER



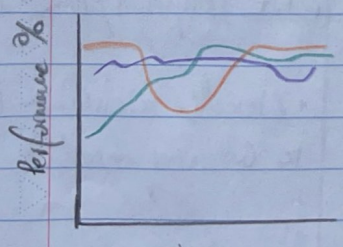
3. CATEGORISE

On-time performance (a)
↓
Delayed vs on-time (1a)
↓
Grouped by cities (1c)
↓
Time series of all Domestic airport OTP (1d)
↓
Cancellations (1e)

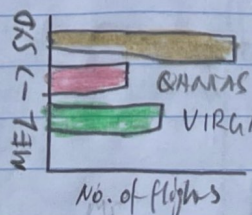
Key flight stats (2a)
↓
Look at ASK, RPKs, Weight carried (2b)
↓
Most common flights (2c)
↓
Popular Airlines flown (2d)

4. Combine & Refine

(1a) + (2d) : Best performing Airline



(2c) + (2d) : Flight paths by Airline



(1c) + (1d) : Best performing air pair

5. Questions

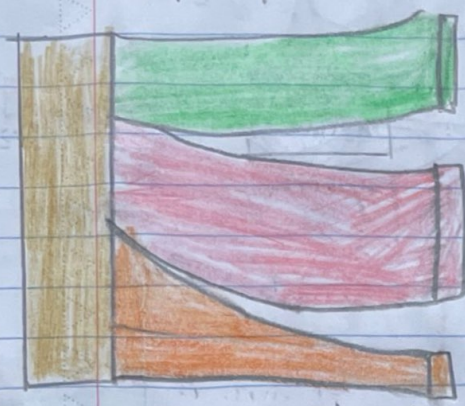
1. How to best visualize OTP across airlines/cities?

2. What type of inter-activities would make the visualisation better?

(2)

Layout

Departure/Arrivals



Airlines

☑ ALL

☐ JEISTAR

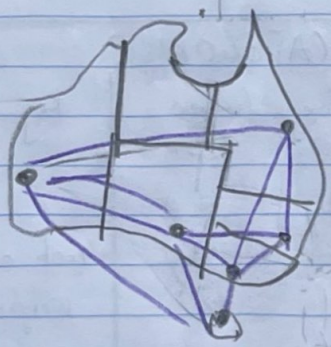
☐ QANTAS

Filter flight number

>10,000

Year

2024 ∨



Nicholas Chan

7/10/25

Sheet 2

Route flow explorer Page

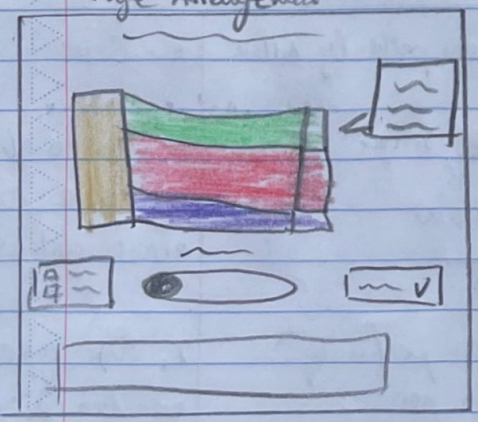
Operations

- Filtering which include:
  - ↳ Airline
  - ↳ Flight frequency
  - ↳ Date (year)
- Hover-tips or tool tips that highlight a particular section to reveal further insights. Includes:
  - ↳ Flights flown
  - ↳ Available seat kilometers
  - ↳ On-time %

Focus

- Primary focus on spatial exploration of the data provided across Australia
- Drills into connectivity patterns -> reveal frequent domestic air-travel patterns in Australia

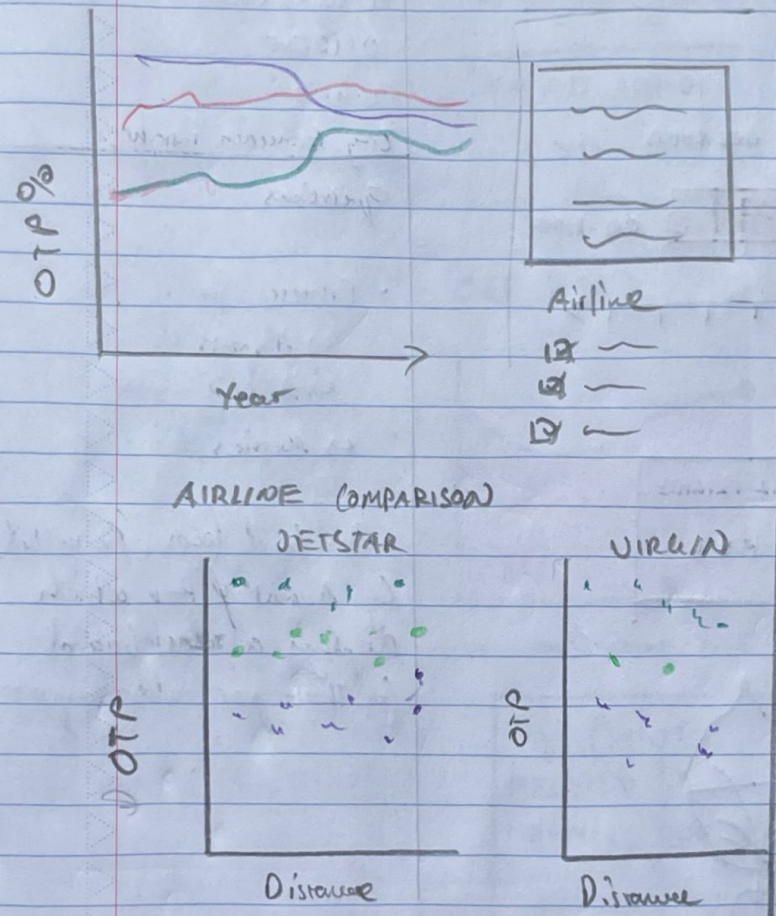
Page Arrangement



Discussion

- Visually compelling and appealing.
- Easy to interpret network/spatial data since its the best form to convey air-travel.
- Less focus on trends (i.e temporal/time analysis)
- Needs consistent layout to be interpretable

Layout



Nicholas Chan
10/10/25
Sheet 3
On-time performance dashboard

Operations

- Filters:
  - ↳ Airlines
  - ↳ Time range
  - ↳ Route
- Hoverips for each mark
- "Comparison" mode allowing you to directly compare airlines and analyse a particular metric

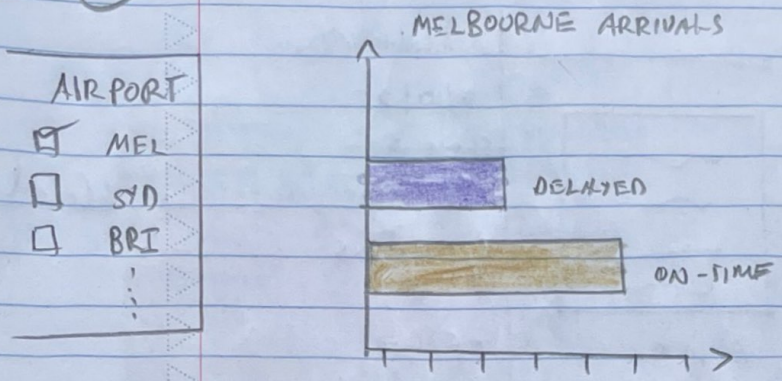
Focus

- Analysis focused dashboard that looks at trends and correlations in on-time performance
- A particular focus on Airline performance as the dashboard allows for direct comparison
- Dashboard also explores the potential reasons for delays, enabling for more nuanced discussion & analysis

Discussion

- Strong temporal focus (can clearly see performance over time)
- Catered towards a "KPI" metric focused approach
- Little spatial data, providing less visual appeal
- Charts can become cluttered since lots of comparison is conducted

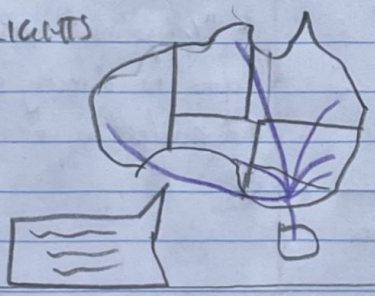
4



MELBOURNE DASHBOARD

OTP %	TOTAL FLIGHTS
89%	84,621

OUTGOING FLIGHTS



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Sheet 4
City Connection Insights

Operations

- Filters for:
  - Airports
  - Airlines
  - Metrics
- Dashboard focus, Controlled by Airport filter which displays a dashboard for those particular airport

Focus

- Integrates Connectivity & performance at the airport level
- Shows performance relative to the amount of traffic received
- Identifies underperforming hubs, bottlenecks, and regional differences

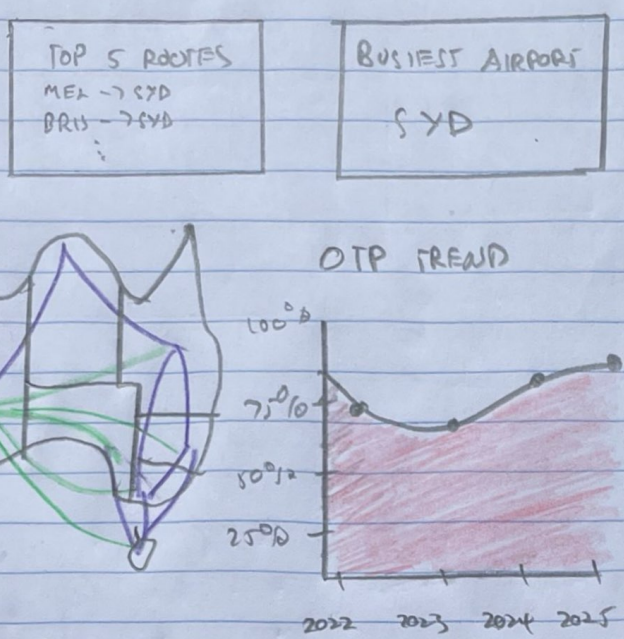
Discussion

- Combines spatial & performance metrics for a diverse page
- Highlights airport performance in context/relation to its busyness
- Requires an in-depth data set to make this page
- Easy to spot performance drops

⑤

INTEGRATED FLIGHT PERFORMANCE

Nicholas Chan
10/10/25
Sheet 5
Final Layout



Operations

- Filter control centre which has all filters accessed. Connected globally to all visualisations
- Hover tips and tool tips over data points to reveal drill down insights
- Tab navigation to jump to different sections of the page.

Focus

- "Integrated "Flight Performance" page that culminates analytical & visual/spatial data
- A scalable page which can accomodate new data sets and new functionality.
- A "filter" control "centre is used to globally control all visualisations
- More story-telling focused which makes it accessible to analysts, researchers, or the general public

Detail

- Combines spatial, temporal, and comparative data
- Highly interactive
- High-level of complexity with filtering and linking of data sets
- Lots of sections could lead to confusion and page clutter.