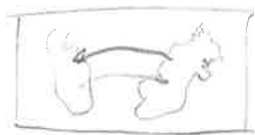


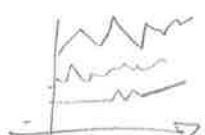
## 1. Domestic flight insights.



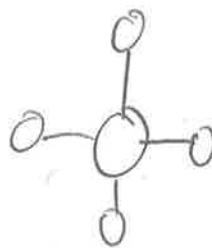
(a) Route Map



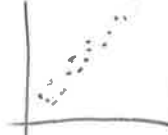
(b) bar chart



(c) multi-line chart

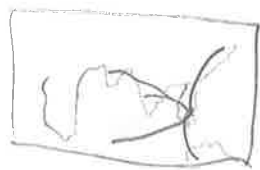


(d) bubble map



(e) scatterplot

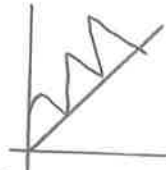
## 2. International flight insights.



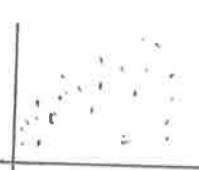
(a) Route Map



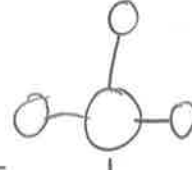
(b) bar chart



(c) trend line



(d) scatter plot



(e) bubble map

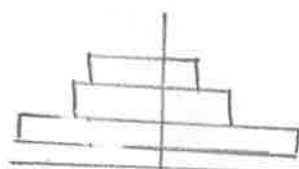
## 3. Airport performance.



(a) multi-line



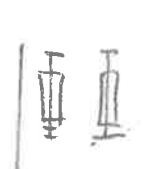
(b) grouped bar



(c) butterfly chart



(d) column chart



(e) box plot

## 4. Fleet composition.



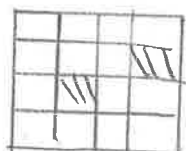
(a) line chart



(b) Pie chart



(c) Stacked bar

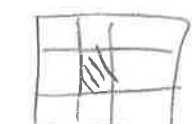


(d) Heatmap

## (5) Aircraft movement.



(a) Bar chart



(b) Heatmap



(c) Scatterplot



(d) line chart

## (6) Fleet trend.



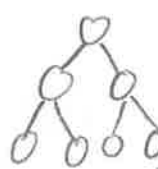
(a) Pie chart



(b) line chart



(c) bar chart



(d) Tree map

Title: First Design Sheet

Author: TENG JOO HOON

Date: 21st October 25

Sheet: 1

Task: Generate ideas, filter, combine

## FILTER

- (d) bubble map will be too small for each route representation
- (d) scatterplot will be too hard to represent each route
- (e) box plot not suitable as not all data: how mean mode median
- (d) Heat map not suitable, too small for visualisation
- (b) Heatmap deemed unsuitable as too vague
- (d) Tree map looked too complicated

## CATEGORISE

Network connectivity

Airport Operations

Fleet analysis

## QUESTIONS

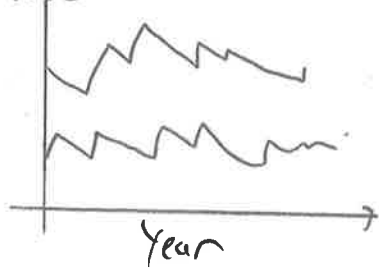
- Does it answer the research question
- Does it tell a good story
- Is it engaging
- Is the visualisation realistic?

# LAYOUT

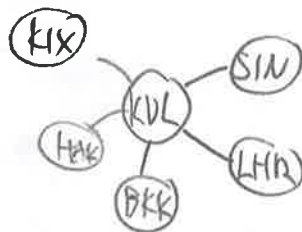
HOOK (TEXT BOX)

## EXPLORING MALAYSIA'S AIR TRAVEL LANDSCAPE

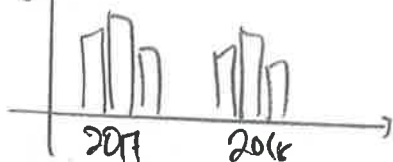
Domestic flight insight  
ROUTES



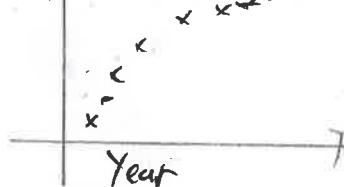
International flight insight



Airport performance (number of passenger)  
No of passenger



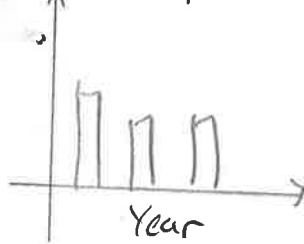
Aircraft maximum  
No of maximum



Fleet composition  
Number of A/C



Fleet trend  
Number of A/C



### FOCUS

→ All with equal importance. To highlight network connectivity, Airports operations and fleet analysis.

Title: Sheet 2.

Author: TCH JOO HONG.

DATE: 19 OCT 2025

TASK: Comic style design

OPERATIONS.

1. Drop down (Year)

2017

2018

2019

2 Highlight in selection.



3 Colour Gradient

EX



Darker it is, the more flights it has

### Discussion

1. Bobble map insuitable for Route Visualiser in. As may require larger space.
2. limitation on scatterplot, as unable to categorise Airports
3. limitation on bar chart, unable to see details.

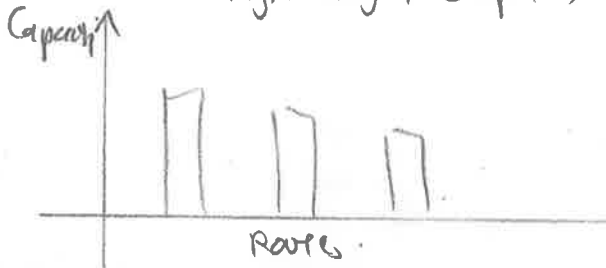
## HOOK (TEXT BOX)

### 1. Domestic flight insight (Top 10)



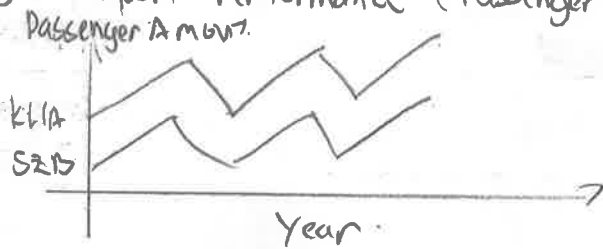
Text to explain.

### 2. International flight insight (Top 10)



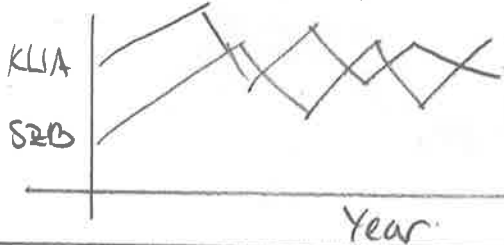
Text to explain.

### 3. Airport Performance (Passenger Movement)



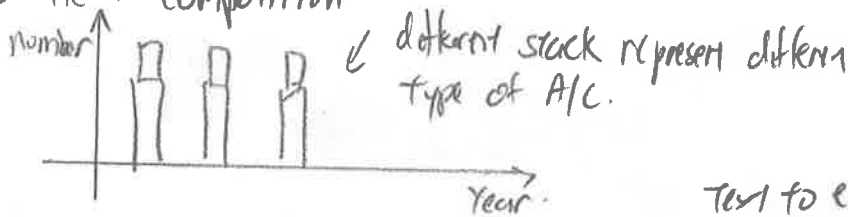
Text to explain

### 4. Aircraft movement.



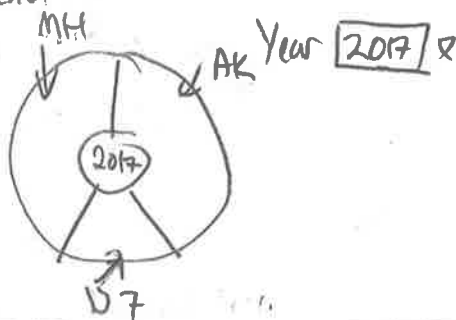
Text to explain.

### 5. fleet composition



Text to explain

### 6. fleet Trend



Text to explain,

TITLE: SHEET.3

AUTHOR: TETIJOD HON

DATE 19 OCT 2025

TASK NARRATIVE STYLE

Operations

1. Drop down (Year)

2017

2018

2019

2020

2. Tooltip Detail.

FROM KUL  
TO SZB  
Year 2025

## DISCUSSION

① Excessive use of line graph.

② Text explanation able to provide better insight.

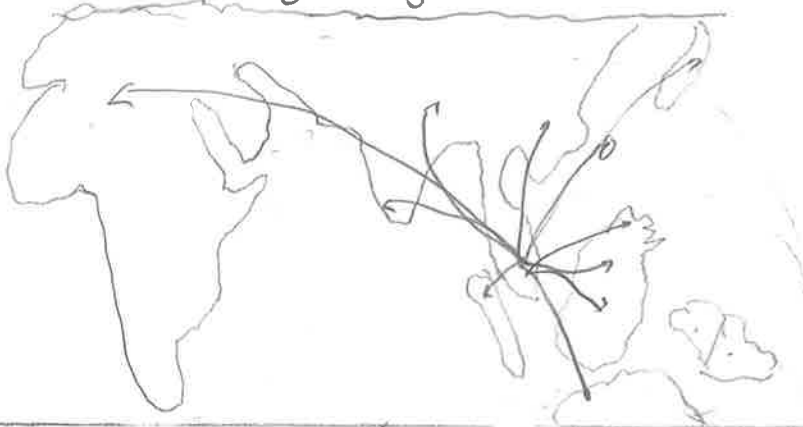
③ Better flow from network connectivity to Airports ops to fleet analysis.

④ easy to implement.

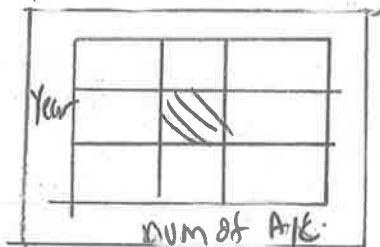
# (DASH BOARD VIEW)

## LAYOUT.

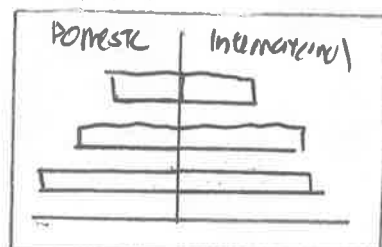
(DOMESTIC & INTL flight insight)



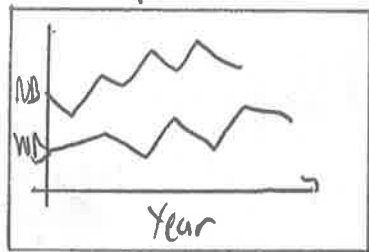
Aircraft movement



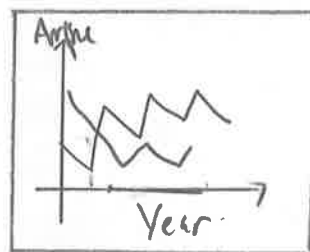
Pass number (in)



Fleet composition



Fleet trend



Focus, flight insight is focused as a map, others are supporting

TITLE : SHEET 4  
AUTHOR : TEHJODHOM  
DATE : 19 OCT 2023  
TASK : DASH BOARD

Operations

1. Dropdown (Year)

2017 ▾

2018

2019

2020

2021

2022

2023

2024

2. Slider (Year)

← 2017

Discussions

① unable to zoom in domestic route, map size inappropriate.

② Chart may look smaller

③ less informative

④ easy to implement

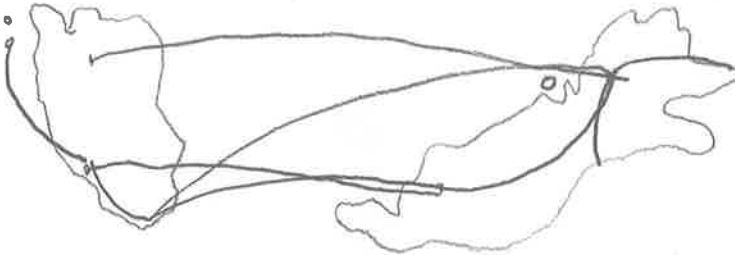
Layout (5)

HOOK (TEXT BOX)

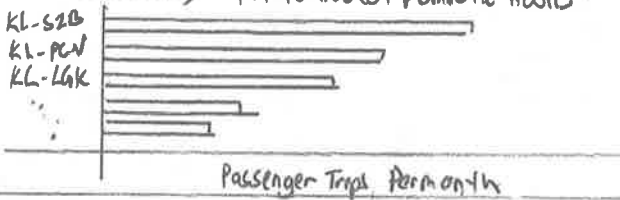
## Exploring Malaysia's Air Travel Landscape

### Air Network Connectivity

#### Domestic Network



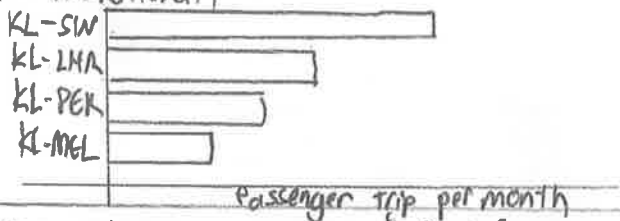
#### BAR (Domestic) TOP 10 Busiest Domestic Routes



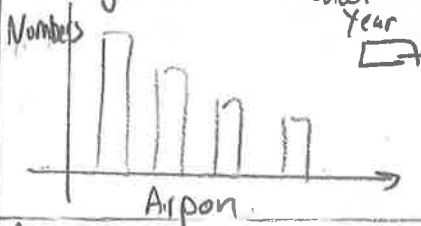
#### International Network



#### BAR (International)



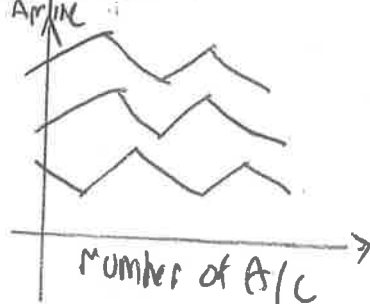
#### Passenger Movement



#### Aircraft Movement



#### Fleet Trend



#### Fleet Composition



Title: final design Sheet

Author: TETJOO HONG

DATE: 19 October 2025

Task: final Implementation Design

#### Operation

##### 1. Date range

2017 2024

##### 2. Tool Tip detail

Airport Year

##### 3. Drop down

Select Year

2017 8  
2018  
2019  
2020  
2021  
2022  
2023  
2024

#### Focus

Normal chart, all graphs on equally important, with descriptive text beside and hook on-top. Main focus is story telling of Malaysia's aviation network, airport performance and airline fleets changes overtime.

Eg. Timeline (explain why flight activity ↓ in 2020-2021, then ↑ after reopening post-covid)

#### Detail

##### 1. Dependencies

Datasets: Kaggle | Planespotters.net | NOT

Software: VS Code

##### 2. Estimated time and effort:

- 8 Hrs Data collection
- 4 Hrs Data Analysis
- 5 Hrs 5 design Sheet
- 184 Hrs - Visualization

##### 3. Requirement

1. narrative storytelling
2. clear chart.