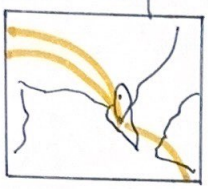
IDEAS

① Dot Map

- show airports in world
- show Malaysia's airport & helipad

② flow map



- show flight routes from KUL - KLIA
- shows connectivity

③ proportional symbol map

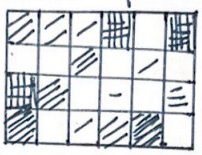
- shows domestic connectivity between Malaysia Airports.

④ isotype

⑤ scatterplot / bubble plot

→ shows relationship between quantitative values

⑥ heatmap



shows trend & correlation

⑦ stacked bar chart

→ compare monthly domestic & international passenger volumes.

⑧ Radar Chart

FILTER

X  Pie

 Donut

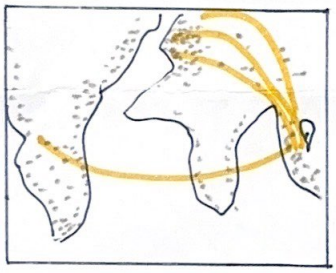
- Use Radar Chart for aesthetical purpose.

X scatter plot
→ no suitable data

X isotype 
→ consider as chart junk, use bar chart instead.

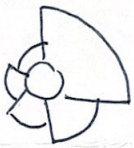
X  Bubble Plot
→ no suitable data.

COMBINE & REFINE

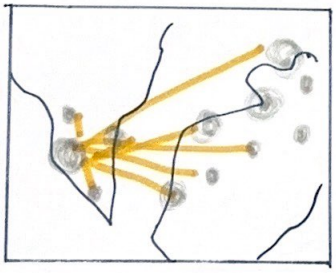


Dot Map + Flow Map

Dot: Airport
Flow: Flight Routes.

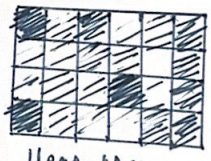


Radial Chart
→ types of airport

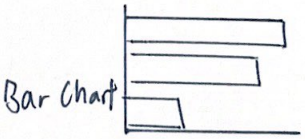


Proportional Symbol Map + Flow Map

Size: Airport Connectivity
Line: Domestic Flight Route.



Heat Map
→ shows Monthly Malaysia Passenger Traffic Trends



Bar Chart

CATEGORISE

① International Flights
→ showing airports as dots in warp map

② Malaysia Aviation
→ domestic flight routes & connectivity

→ Malaysia International Monthly Passenger Traffic

Display - Maps, Radial Chart

Trends - Heat Map.

QUESTIONS & SUMMARY

① which projection is suitable for world map & regional Malaysia map?

② how to distinguish Malaysia from neighbouring countries?

③ how to convert passenger amount into monthly rank?

Author: En Xi Liew

Date: 23/9/2024

Sheet: 1

A2 Data Visualisation

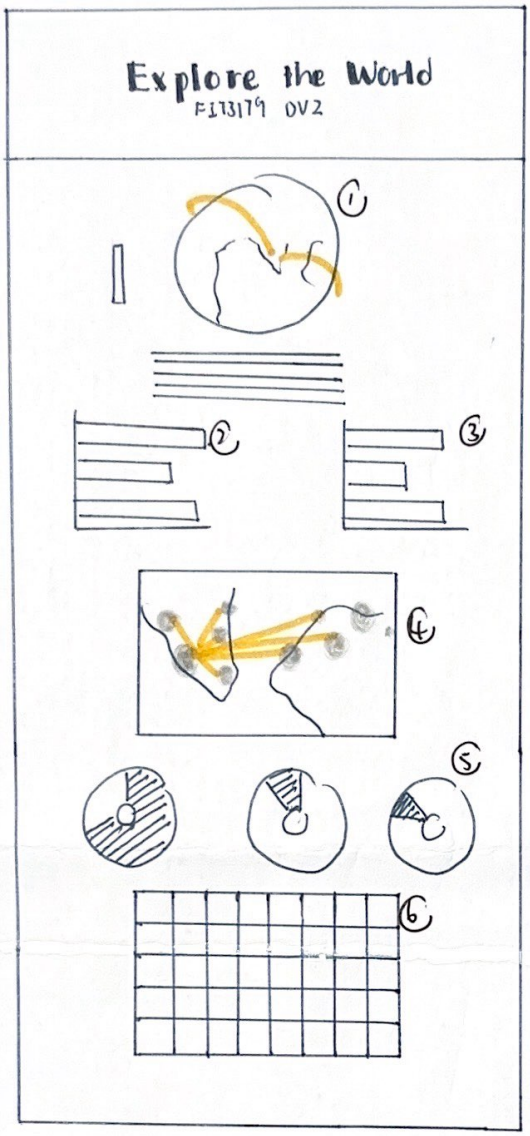
Name: Liew En Xi sheet 2

Date: 23/9/2024

Title: Malaysia Aviation

Task: Designing an ~~it~~ interactive data visualisation webpage.

BIG PICTURE/ LAYOUT

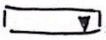


COMPONENTS & OPERATIONS

① Rotating Globe

rotate globe to observe the flight routes & airports

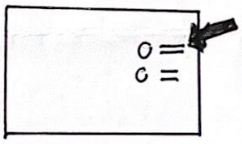
② filter



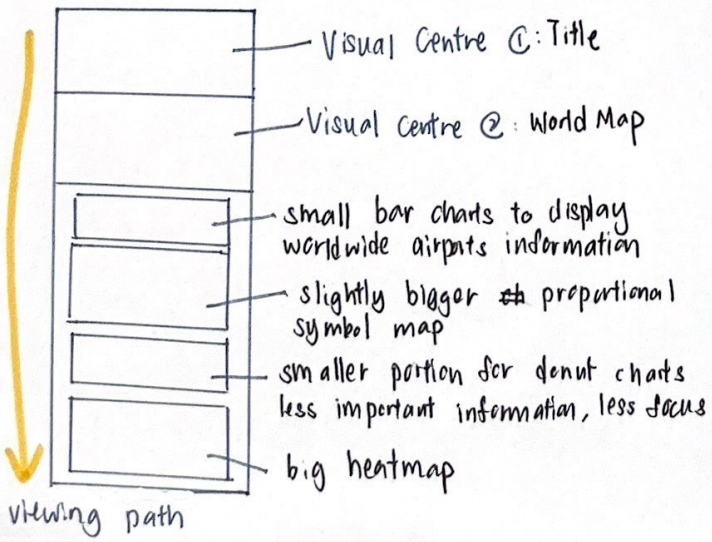
→ manually choose the country(s) in the bar chart

④ select flight routes by legend.

→ lower opacity for unselected airpats.



PART1 & FOCUS



PROS & CONS

Pros ① rotating globe cannot observe overall data at once.

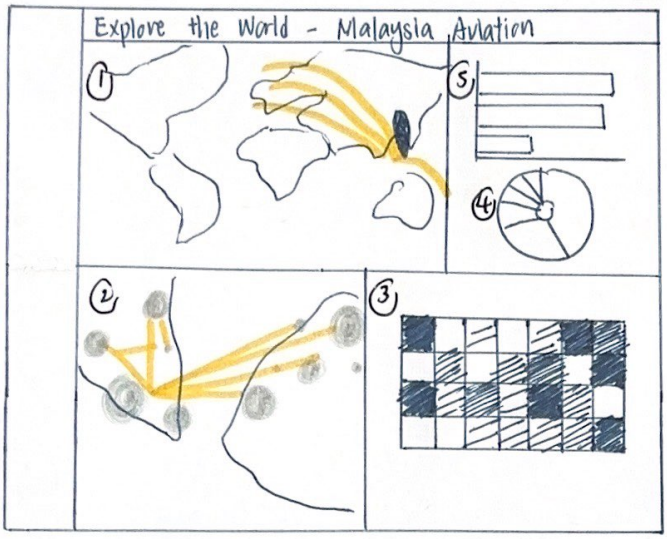
② title is focused - gives reader an immersive experience from reading title.

Cons ① separating donut charts is redundant.

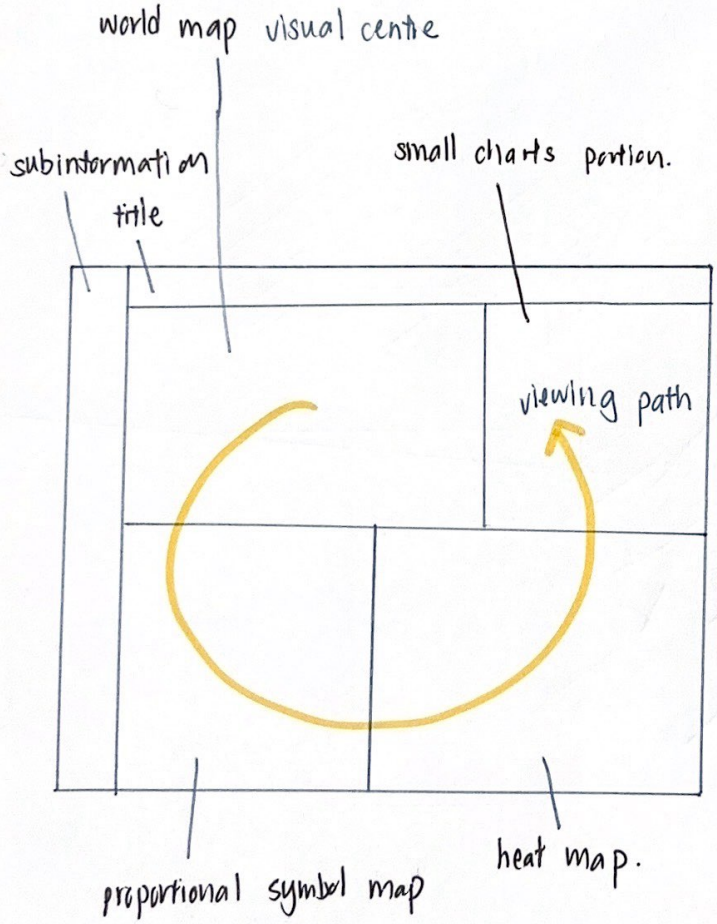
Name: Liew En Xi sheet 3
Date: 23/9/2024
Title: Malaysia Aviation

Task: Designing an interactive data visualisation webpage.

BIG PICTURE / LAYOUT

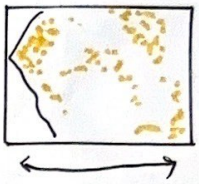


PARTI & FOCUS

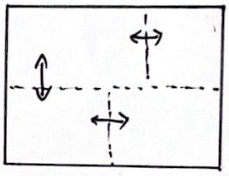


COMPONENTS / OPERATIONS

① zoomable map
- zoom & slide along the world map for better observation.



② adjustable layout
- allow user to enlarge the portion they want to focus on.



PROS & CONS

pros - allow overview for the whole dashboard

cons - very less whitespace, overwhelming.
- distracting
- title is not focused.

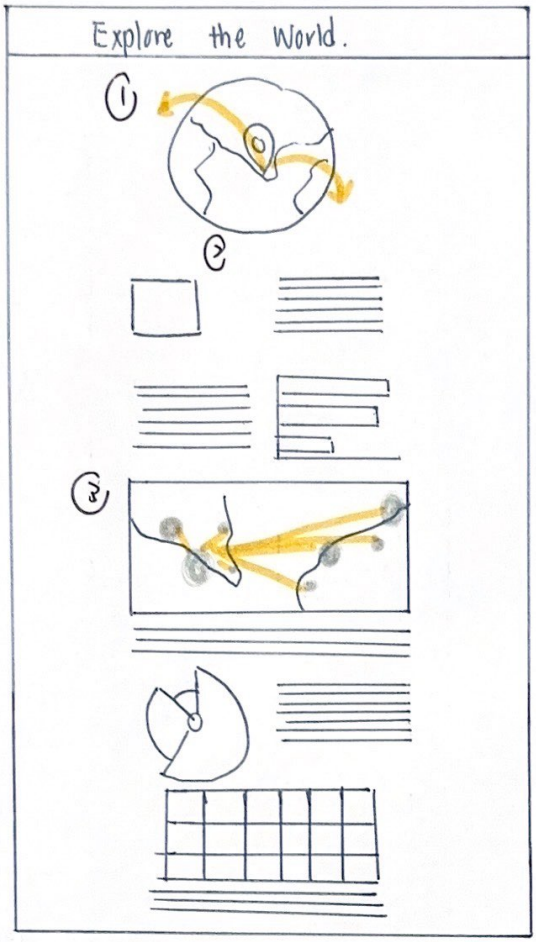
Name: Liew En Xi sheet 4

Date: 23/9/2024

Title: Malaysia Aviation

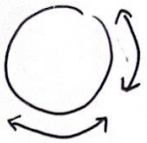
Task: Designing an interactive data visualisation webpage.

BIG PICTURE / LAYOUT



COMPONENTS / OPERATIONS

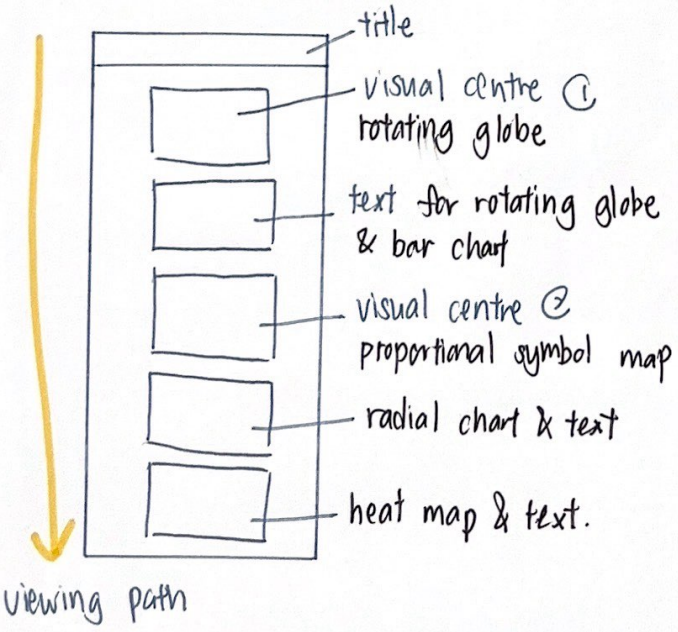
1. rotating & zoomable ~~map~~ globe



2. change opacity slider
   - gives user access to control

3. hover over to see flight routes, hide flight routes if not selected.

PARTI & FOCUS



PROS & CONS

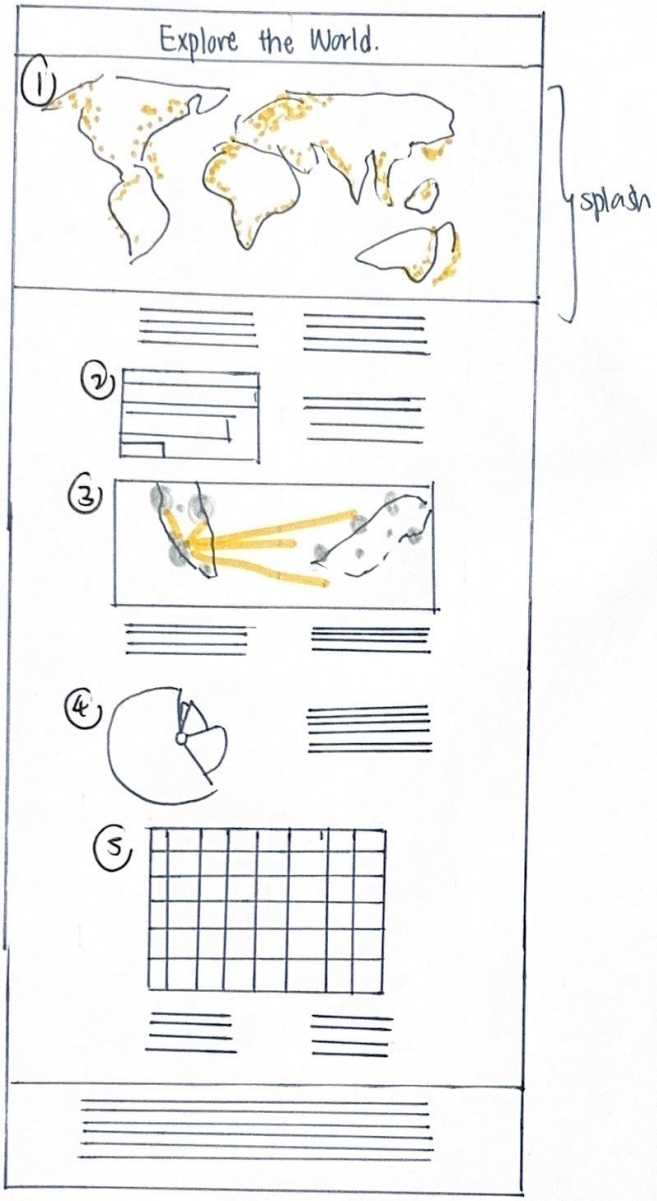
pros - charts are larger, user can observe information clearer.

cons - rotating globe cannot see the overall data in a view.

Name: En Xi Liew sheet 5
Date: 13/9/2024
Title: Malaysia Aviation

Task: Final Design Decision.

BIG PICTURE / LAYOUT



COMPONENTS / OPERATIONS

① opacity slider

change dot's opacity based on slider.

② bar chart

hover over will change the colour & size of the bar

③ proportional symbol map

hover over will show different routes & connectivity.

splashing container

creates interesting splashing effect to enhance user's experience.

PART I & FOCUS

① main focus: world dot map.
→ gives user an immersive view of world wide airports' density.

other charts' size are equally distributed, fixed to let the user view one chart & description at one screen.

DETAILS

time planning

1 week → combine & data wrangling, inspects data.

1 week → generate all the possible suitable idiams.

1 week → interactive features & website design.

dependencies:

R, vega-lite, HTML, CSS, Pure Css.