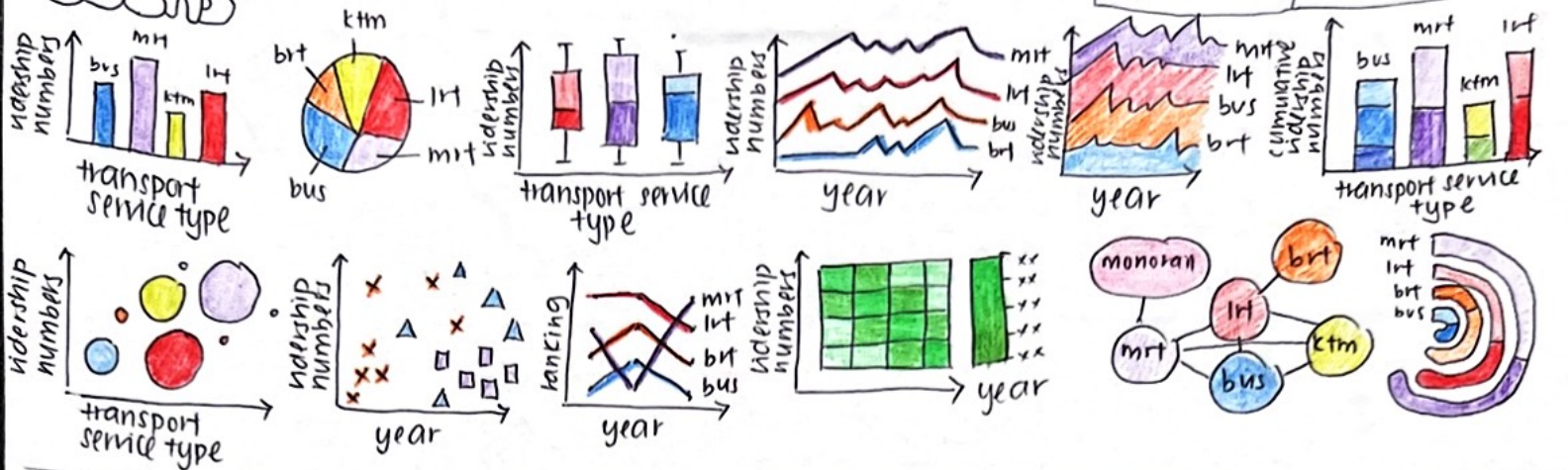


IDEAS

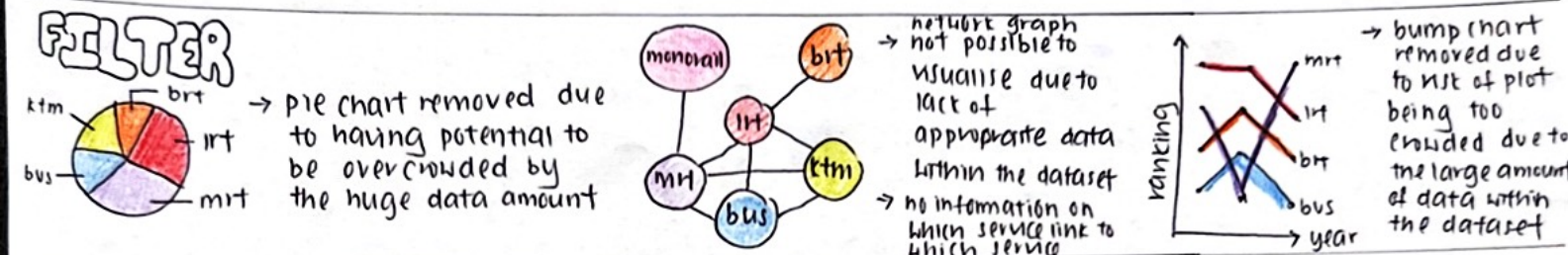
FOU Caiyan
33685625

sheet 1

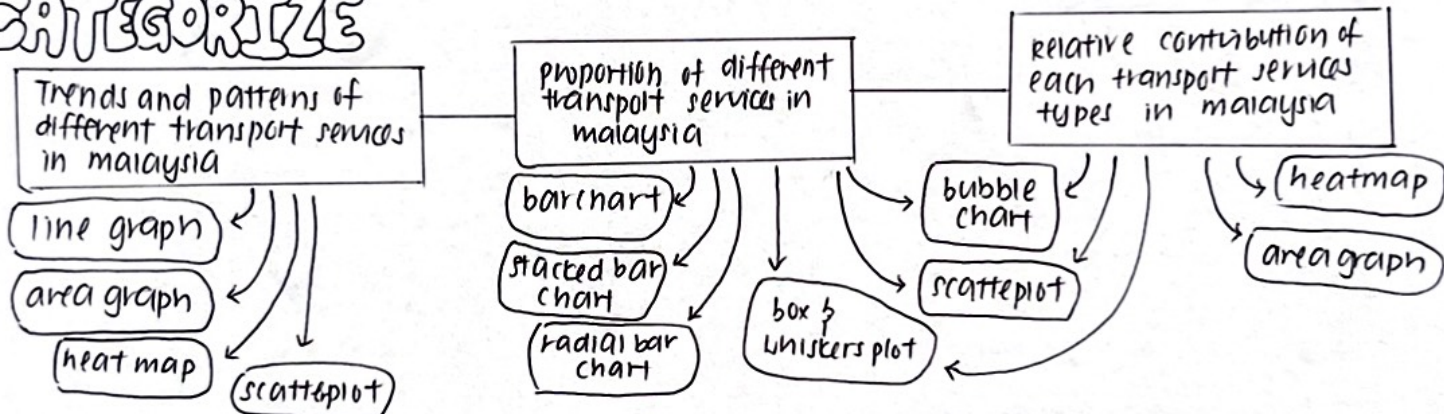
PT13M



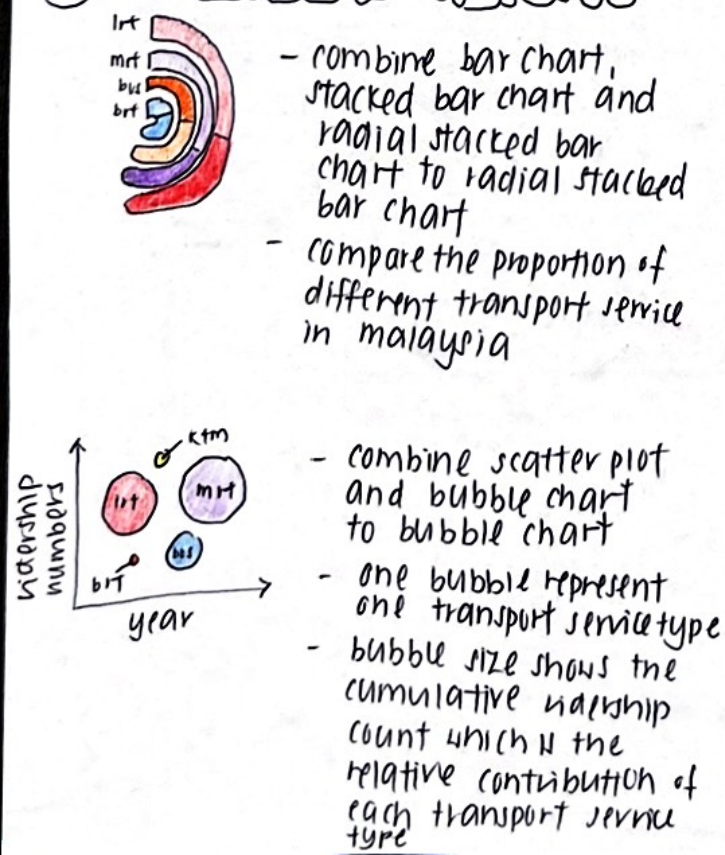
FILTER



CATEGORIZE



COMBINE & REFINE



DISCUSSION

- can the graphs be implemented in Tableau?
- will the graphs tell a clear story flow?
- should graphs involve in time show the time monthly, daily or yearly to convey the message better?
- is the graphs too simple in nature?
- do the graphs fully convey the key message to be intended to be conveyed?
- will these visualisation help the Malaysian minister of transport in any way?
- will the graphs ideas generated be similar to other group of people that has chosen the exact same dataset?

LAYOUT

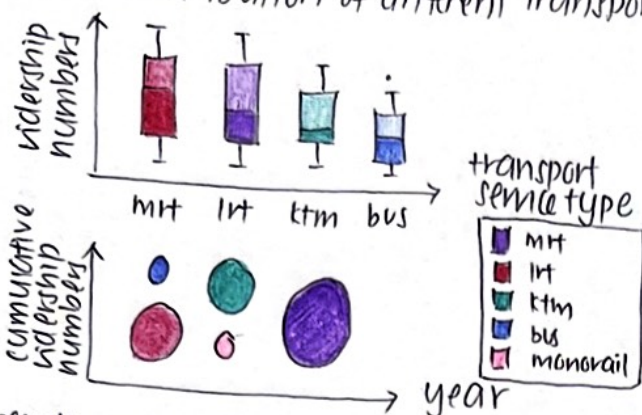
Sheet 2

OPERATION

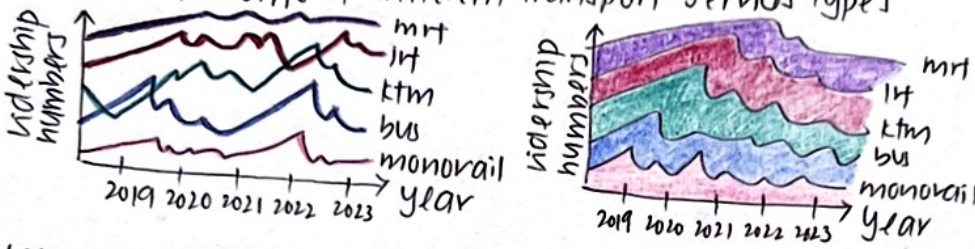
MALAYSIA'S PUBLIC TRANSPORT SERVICES

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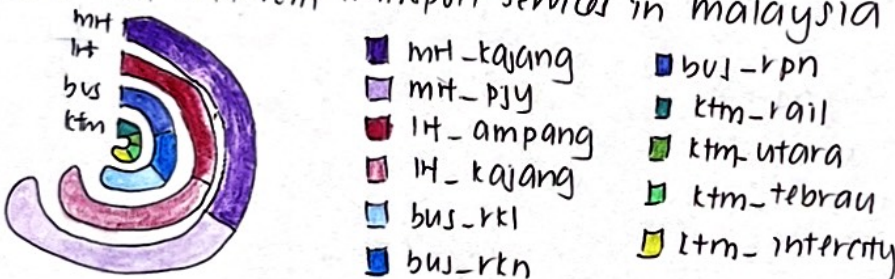
① relative contribution of different transport service type



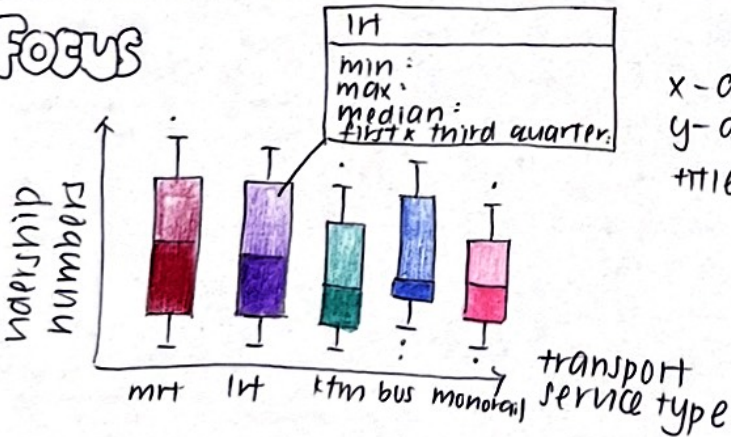
② trends and patterns of different transport services types



③ proportion of different transport services in malaysia



FOCUS



transport
x-axis: service type
y-axis: ridership number
title: ridership comparison across different transport services in malaysia

- box and whiskers plot
- each box and whiskers within the graph represents each transport service type
- obtain information includes: median, IQR, minimum, maximum, first quarter and third quarter
 - will be shown in tooltip when user cursor hovers over it

- mouse hover over the box and whiskers plot each time then the tooltip information box will display information like minimum and maximum value as well as first and third quarter, and type of transport service

DISCUSS

Pros:

- different box and whiskers will be represented with different colours so users can associate different colour hue means different transport service type

Cons:

- the size and dots of the box and whiskers plot might not be easily identified and would be difficult to get their values without the assists of the borders and grids of the graph
- attention would need to be paid to the sightlines, spacing and whiskers to the layout else it'll be messy
- data-ink ratio might be high due to the many colours.

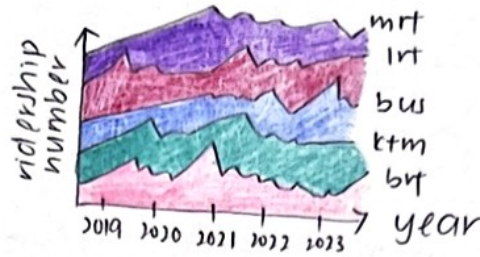
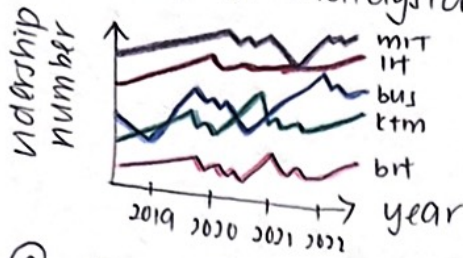
LAYOUT

Title: Malaysia Public Transport Service

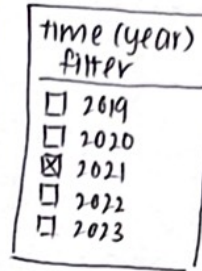
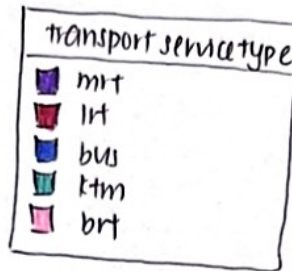
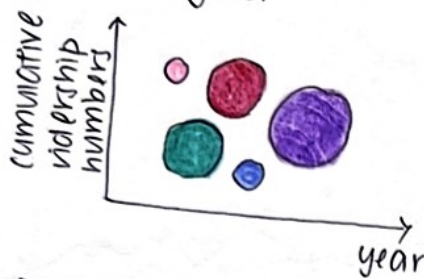
sheet 3

Faaraiyan
33085625
FIT3179

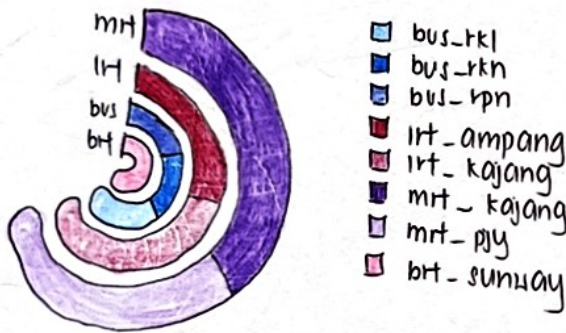
① trends and patterns of different transport services in Malaysia



② relative contribution of different transport services types in Malaysia



③ proportion of different transport services in Malaysia



OPERATION

- drop down menu to select viewing year for the bubble chart
- if year 2021 is selected then the x-axis will have 12 labelled marks where one for each month
- only data from 2021 will be shown on the graph
- user's cursor if hover over the bubble then will display the tooltip information to the users to allow users to get an idea on what is shown and used to display the bubble

DISCUSS

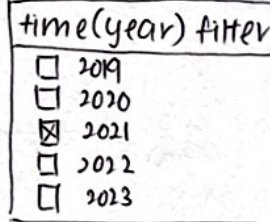
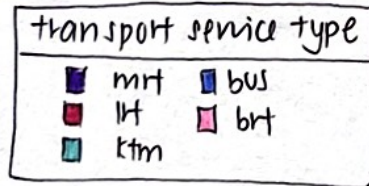
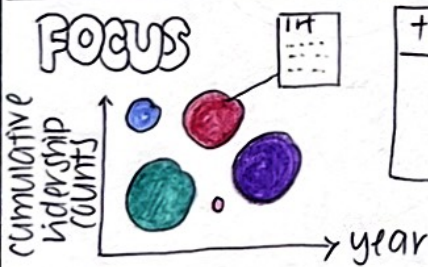
pros:

- users can gain an idea on the underlying data used to display each bubble which may allow the user to gain an understanding on how it reflects the data
- high readability due to the colour hues of various kind used to represent the bubbles
- easier to tell apart the bubbles

cons:

- size of bubbles can make it hard to accurately compare value
- bubble chart might not effectively convey trend over time
- human perception of area is not linear so larger bubbles might be disproportionately different

FOCUS



- bubble chart
- only years 2019-2023 will be shown as filter options as 2024 have yet to end (incomplete data)
- tooltip used so when user hover over the bubble they can view the information like what lrt lines and the cumulative ridership counts
- different bubbles have different colours that represents different transport service types
- example of tooltip information:

transport service type: lrt
consists of: lrt-ampang x lrt-kajang
total cumulative ridership counts: 102k (102,000)
- bigger the bubble, the more the ridership count

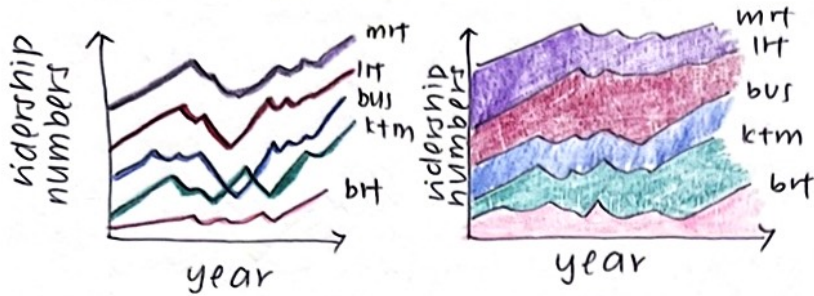
LAYOUT

malaysia Public Transport

sheet 4

FOURAIYAN
33085625
FT3179

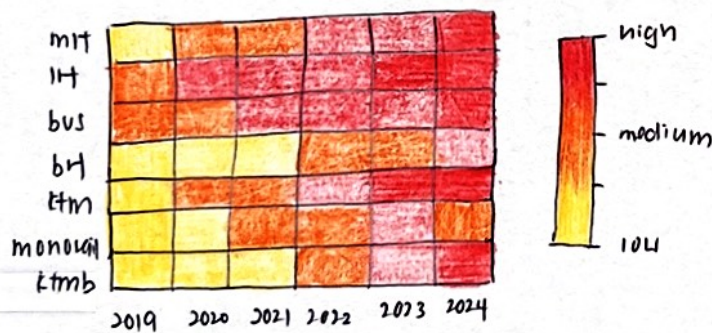
① Trends and patterns of different transport services in malaysia



② proportion of different transport services in malaysia



③ relative contribution of different transport service types in malaysia



OPERATION

- drop down menu to select the viewing year for the stacked area chart
- time will be displayed as monthly instead
- users' cursors hover over each stacked area will show the tooltip containing information on like the type of transport service and what year and the total cumulative ridership count of the month/year of the transport service

DISCUSS

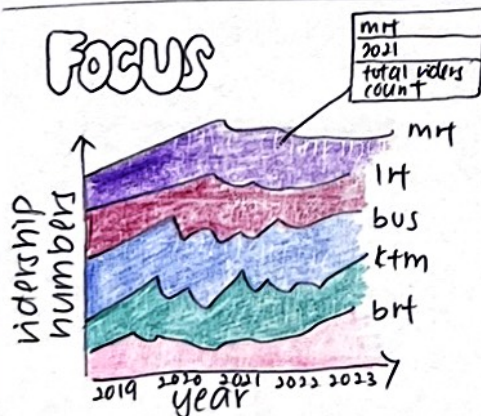
Pros:

- user can get an idea on the ridership count of each section and time when hovering above the area
- each colour difference indicates different transport services
- easily understood
- simple clarity

Cons:

- colourblind users might not be able to identify clearly the colour difference and link each section to different transport services in Malaysia
- white lines and sightlines must be paid attention else the whole layout/dashboard will be very messy

Focus



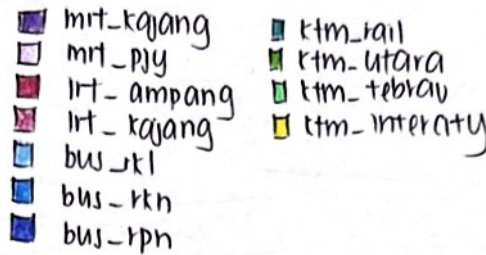
- tooltip will be used and shown whenever they hover over each area
- 2024 will ~~be~~ have a line over it to indicate that 2024 is not over yet and data is incomplete.
- area may have a lighter colour hue

- stacked area chart
- each area represented by different colour represents different transport service type

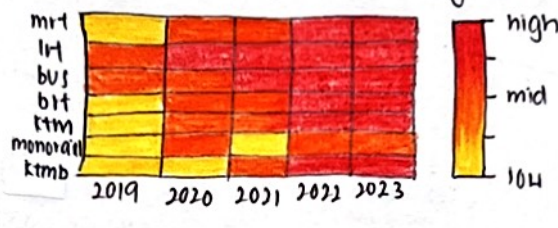
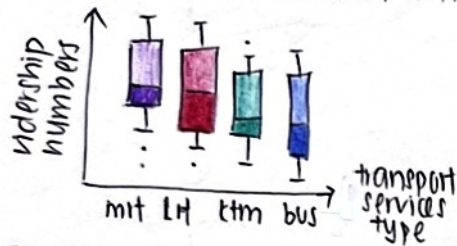
LAYOUT

malaysia's public transport service

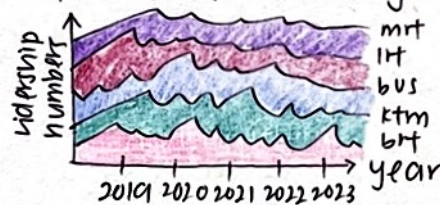
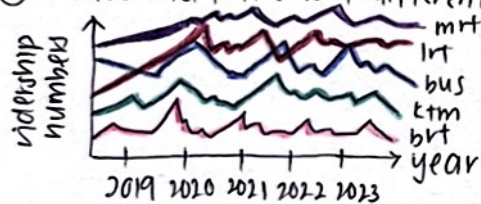
① proportion of different transport services in malaysia



② relative contribution of different transport service types in malaysia



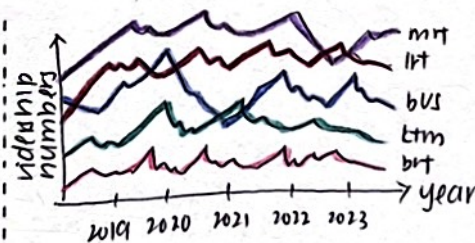
③ trends and patterns of different transport services in malaysia



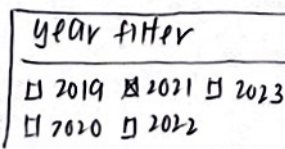
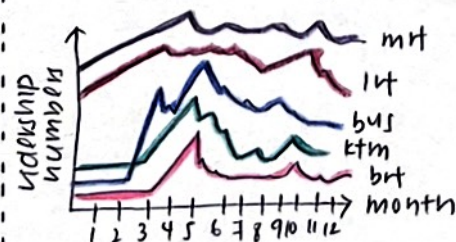
FOCUS



- radial stacked bar chart
- data for year 2024 will not be used, as 2024 data is incomplete
- tooltip will show when user hover over each stacked bar
- all bar have different colour hue but the stacks in each bar will have different colour brightness to represent different lines of the transport services types
- larger the bars, longer the bars means the higher the total ridership numbers



- multivariant line chart
- data for 2024 will not be used and shown as the data is incomplete as 2024 has yet to pass
- filter option is available if user just wants to see data for a particular year:



filter example

OPERATION

- drop down or tick filter for user to select viewing year for the multivariant line chart
- if year 2021 is selected then x-axis will be the 12 months in a year; x-axis title label is month and only data from 2021 will be shown.
- users cursor if hover over the stacked area chart or radial stacked bar chart then information will be displayed to user in tooltip
- there will be labels on the end of each line in the multivariant line graph to indicate which transport service type the data is

DISCUSS

pros:

- interactive diagram will retain viewer/user engagement and attention
- high readability due to the variety of colours used to generate the graphs which will also allow users to understand implicitly that different colour represents completely different transport services and their different routes

cons:

- colourblind users might not be able to clearly and accurately identify and differentiate the variety of colours linked to different transport services types
- white lines, sightlines and spacing must be paid attention to throughout the whole layout / dashboard else it'll be very messy and unclear
- need to manage the data:ink ratio carefully to have low data:ink ratio due to the many colours used in the layout.