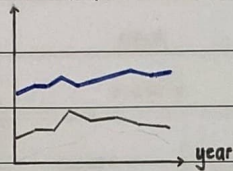


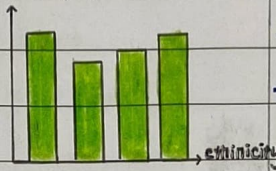
Sheet 1 : Brainstorming

IDEAS

1. no. of people



2. no. of people death / birth



CATEGORIES

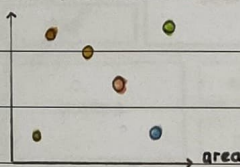
→ Chart 1, 2 & 3

→ Chart 5 & 6

→ Chart 9

→ Chart 10

3. no. of people death / birth



4.

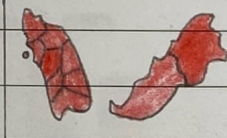
SARAWAK
KELANTAN
SELANGOR
JOHOR
PERAK
PERLIS
PULAU PINANG

COMBINE & REFINE

- Chart 5 & 6 can combine and represent as either one chart, considering that not useful as there're no other insight data to visualise.

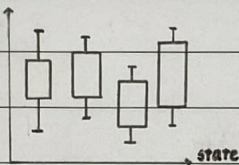
- visualise the patterns of death / births of each state

5.



no. of people death / birth

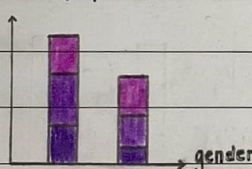
6.



- Chart 1, 2 & 3 can be used as either one chart, since most of them have same insight data to visualise.

- Chart 2 can be combined by duplicating it.

7. no. of people death / birth



8.

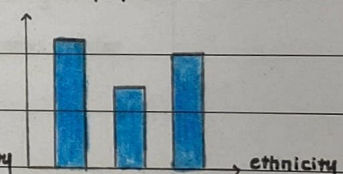


COMBINE & REFINE CHART

no. of people

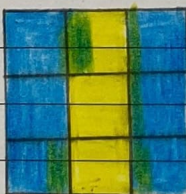


no. of people

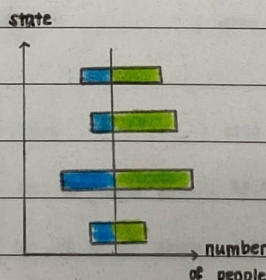


- visualise the correlation / cumulative of people death / birth

9.



10.



QUESTIONS

1. Does it accurately depict the number of births and deaths over time for various gender, state and ethnicity?

2. Easy to identify seasonal trends or fluctuation in the number across the time?

3. Does it show the difference of births and deaths in overall?

4. Is it possible for users to filter data by different combination in order to understand the usage?

FILTER

- Chart 10 similar to 4, but 10 can visualise more direct
- Chart 8 has the same information as 3
- Chart 5 similar to 6, but 5 can visualise more clearly

Sheet 3 : Initial Design 1

LAYOUT

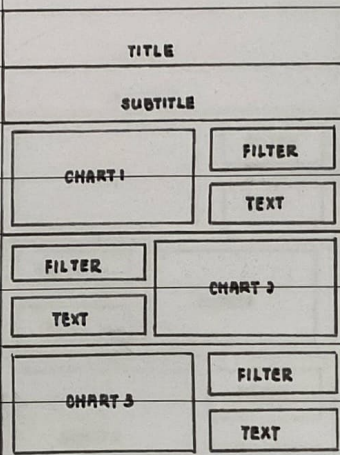


CHART 2

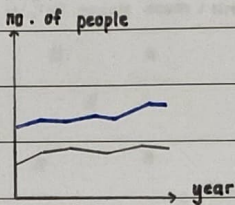


CHART 3

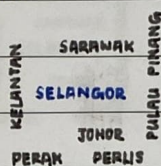
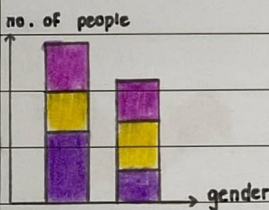
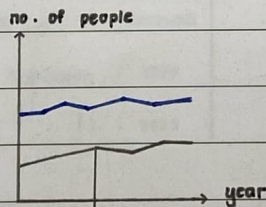
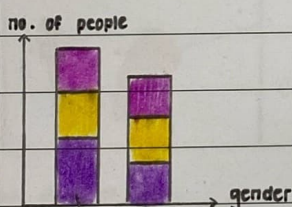


CHART 1

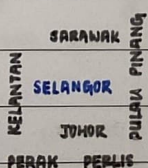


FOCUS



Year : 2022
Total Number Death : 7301
Total Number Birth : 10,000
Net Population : 2,699

Year : 2022
No. of people birth : 73,001
No. of people death : 3,000



Year : 2022
Density Population : 0.32

TITLE : Dashboard Design 1

Author : Jui Kai Hang

Date : 15 / 10 / 24

Sheet : 3

OPERATION

- Changing the filter will alter the highlight section of the chart
- Toggle on the specific mark on each chart will display relevant information in tooltip

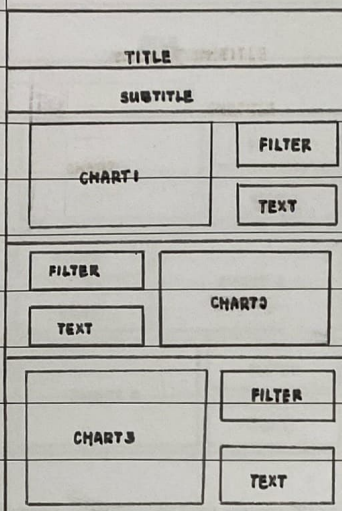
DISCUSSION - POSITIVE

- the line chart clearly demonstrate the patterns of birth and death along the year
- the word cloud display relative number of population for each state
- the stacked bar chart display the number of people group by ethnicity for each gender

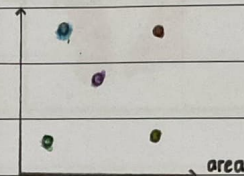
NEGATIVE

- it's hard to visualise and conclude the pattern of birth and death in Malaysia
- the word cloud only shows value relative to each other
- found it difficult to compare the individual segment in stacked bar chart

Sheet 3 : Initial Design 3

LAYOUTCHART 1

no. of people death / birth

CHART 2

SARAWAK
SELANGOR
Johor
PERAK PERLIS
KELANTAN
PULAU PINANG

Title : Dashboard Design 3

Author : Jui Kai Hang

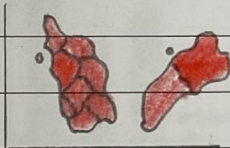
Date : 15/10/24

Sheet : 3

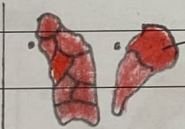
OPERATION

- Changing the filter will alter the highlight of the chart.

- Toggle on the specific mark on each graph will display relevant information in tooltips.

CHART 1DISCUSSIONPOSITIVE

- choropleth map clearly demonstrate the trends of births and deaths across different time
- bubble chart clearly display population density with number of people birth / death with the area of state
- word cloud display the relative number of net population for each state
- word cloud are visually appealing

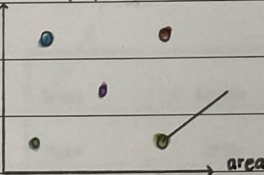
FOCUS

State : Sarawak
Net Population : 4000
Year : 2022

NEGATIVE

- choropleth map might be challenge when comparing values across maps due to shading or colour scale
- word cloud visually shows the value that only relative to other state
- overlapping bubble making it difficult to distinguish between individual data
- comparing bubbles might be challenging when there are many bubbles of similar size.

no. of people



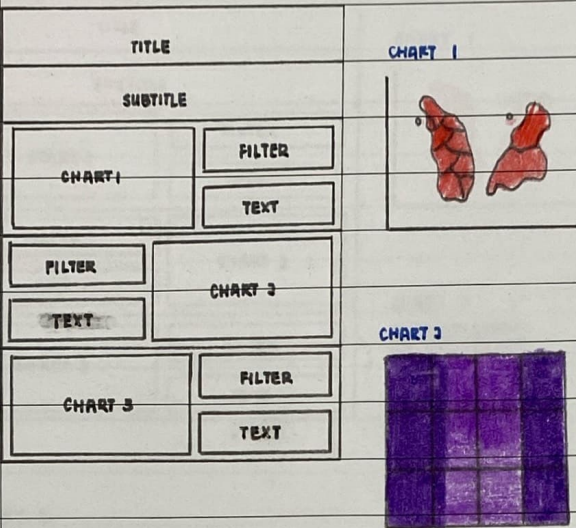
State : Perak
Year : 2022
Population Density : 0.27

KELANTAN
SARAWAK
SELANGOR
PULAU PINANG
PERAK PERLIS

Year : 2022
Number of people death : 127
Number of people birth : 10,000

Sheet 4 : Initial Design 3

LAYOUT



TITLE : Dashboard Design 3

AUTHOR : Jui Kai Hang

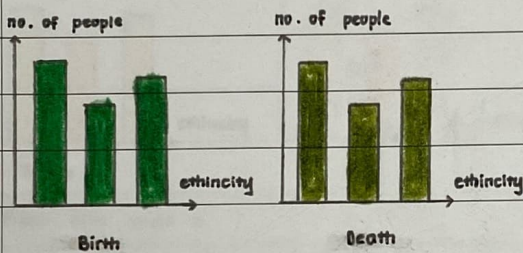
DATE : 15 / 10 / 24

Sheet : 3

OPERATION

- Changing the filter with alter the highlight section of the chart
- Toggle on the specific mark on each chart will display relevant information in tooltip

CHART 3

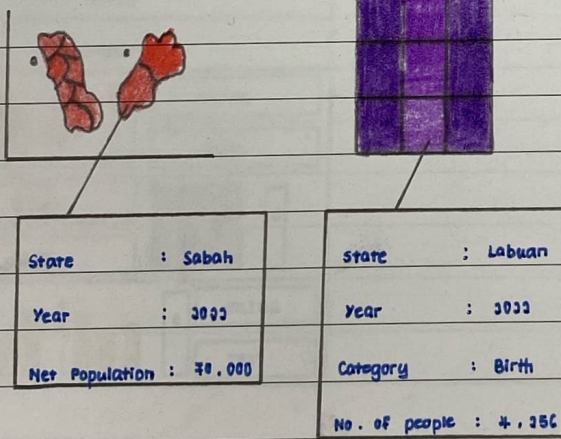


DISCUSSION

POSITIVE

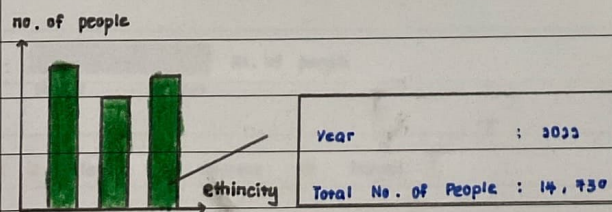
- choropleth map clearly demonstrate the trends of births and deaths across different time
- the bar chart display clearly the number of people for death and birth by ethnicity , while easy compare values
- heatmaps can show similarities , making it easier to identify related categories or patterns

FOCUS



NEGATIVE

- choropleth map might be challenge when comparing values across map due to shading or colour scale
- heatmap might hard to distinguish between shades , when the colour is too stable .
- heatmap don't provide exact numerical values , so interpreting precise data points can be challenging .



Sheet 5 : Realisation

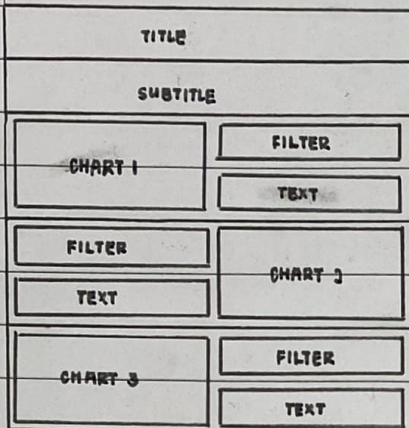
LAYOUT

CHART 1

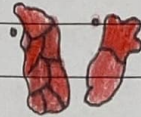
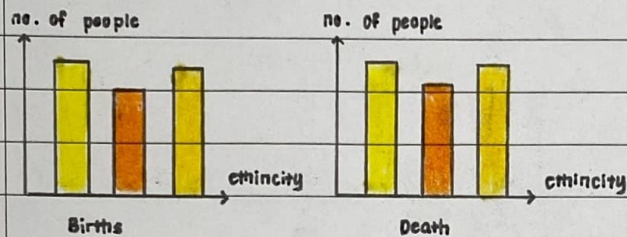


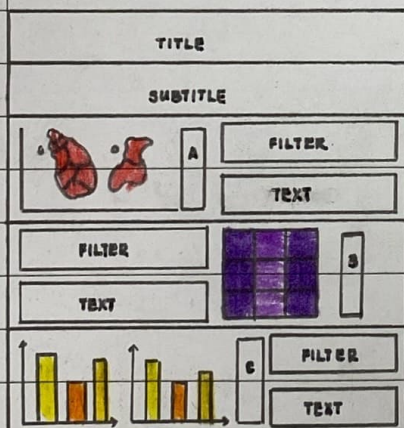
CHART 2



CHART 3



* taken from sheet 4

FOCUSA : Net population
10,000 30,000B : No. of people
10,000 40,000

C : Malay Chinese Indian

TITLE : Dashboard Layout

AUTHOR : Jui Kai Hang

DATE : 15 / 10 / 24

SHEET : 5

OPERATION

- select the state will show the visualisation of respective state information
- select the mark will visualize data for the specific number of people birth and deaths based on gender, state and ethnicity.
- text block conclude the finding in visualisation (exp : states with highest net population)

DETAIL

1. Choropleth map demonstrate the trends of births and deaths across different states and time
2. Bar chart can use to compare the number of births and deaths with gender or ethnicity
3. Heatmap can use to identify related categories or patterns of birth of death in Malaysia