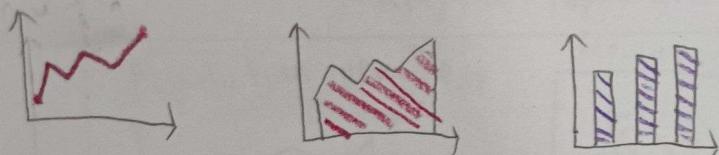


# I DEAS

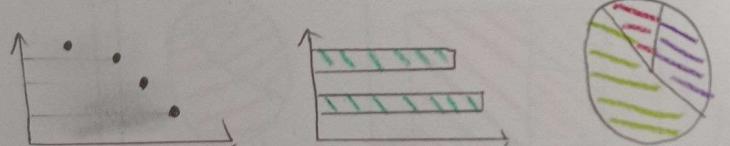
\* Population Trend Past 10 Years



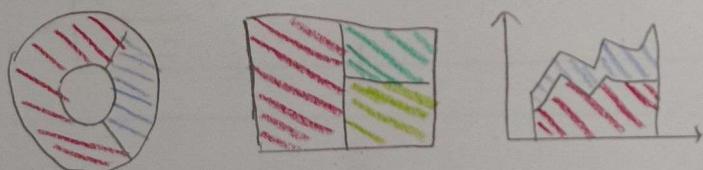
\* Map (Population Density by state)



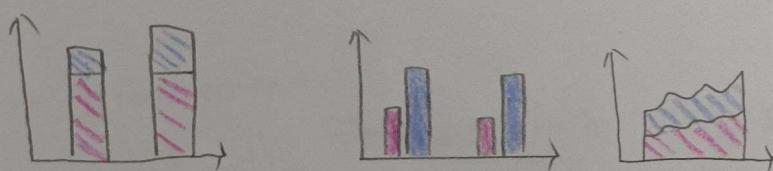
\* Age Group



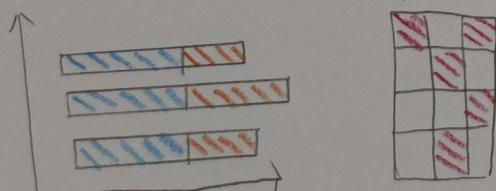
\* Ethnic composition



\* Gender

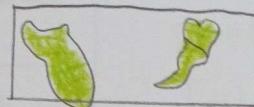


\* Citizenship



# Filter

Map: Cholorplet Map

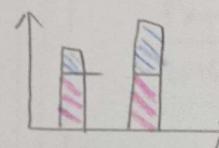


Ethnic Composition :

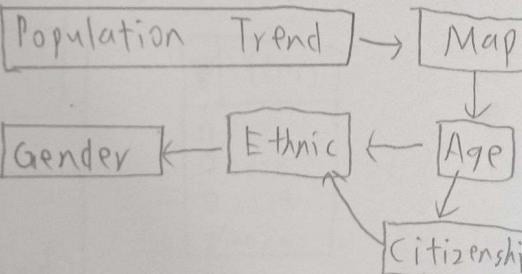
Donut Chart



Gender : Stacked Bar Chart



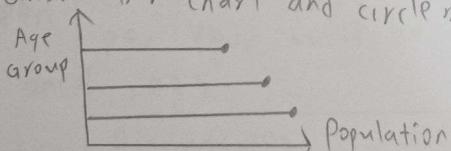
# Categorise



# Combine & Refine

Combine to make Lollipop

Chart for Age Group,  
combine bar chart and circle mark

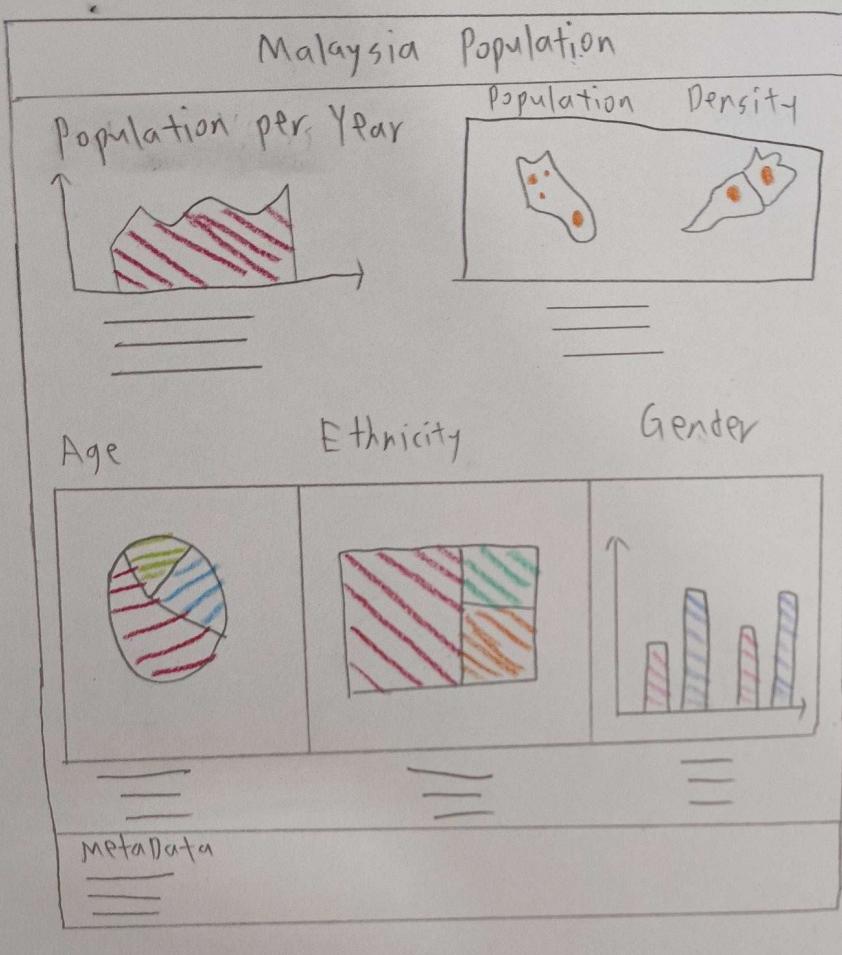


# Questions

- Should I include citizenship visualisation
- If I do, do I combine it with another attribute like gender or age.

## LAYOUT

### Dashboard View



## Focus

→ Main focus on Population per Year and the Population Density Map

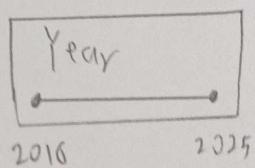
## Arrangements

- Fit all diagrams into one screen
- Able to view all graphs at once
- Able to see big picture first (Population per Year) then below are smaller categories (Age, Ethnicity, Gender)

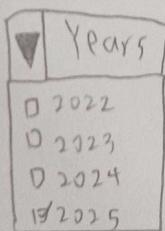
Title: Dashboard View  
Author: Yap Sion kit  
Date: 12/10/2025  
Sheet: 2  
Task: Malaysian Population

## Operations

### \* Slider to filter Years



### \* Dropdown List



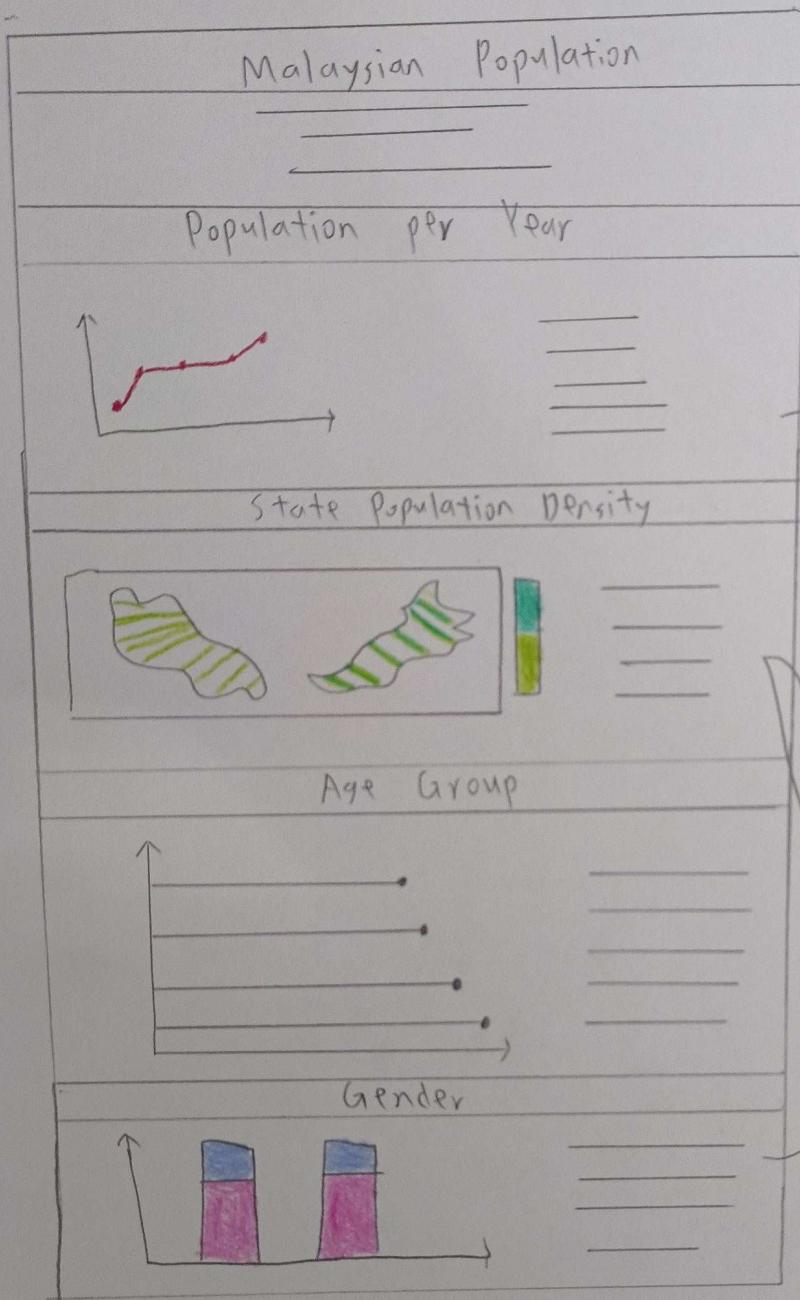
This to filter the year for the whole dashboard. For example select 2025, then all charts except population per year will be about 2025

## Discussions

- Everything is visible at once
- Might be too much information at a glance
- Descriptions for charts make appear a lot for each line

## LAYOUT

Dashboard View



## Focus

- Arrangements: Yearly → state → Age Group → Gender
- Bigger and equal size for each visualisation

Title: Dashboard  
View  
Author: Yap Sam Kit

Date: 12/10/2025

Sheet: 3

Task: Malaysian Population

## Operations

### Filters

Slider

- To filter the years to show

### Legend

- To filter different categories
- To show the colour classes

### Tooltips

- To show population, density, state, state area

## Discussions

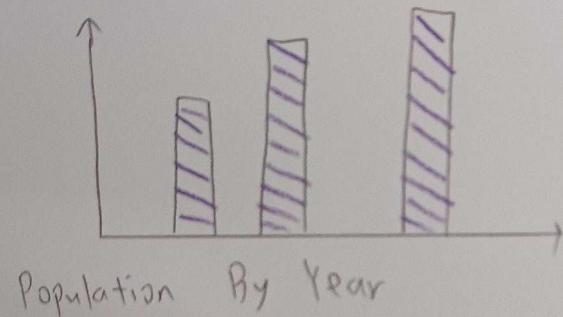
- Creates a clearer flow by having only one graph per row
- More information can be had in the description
- Spacing looks cleaner as layout is standardised

# LAYOUT

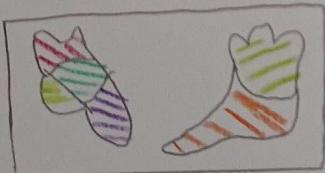
## Dashboard View

Malaysian Population

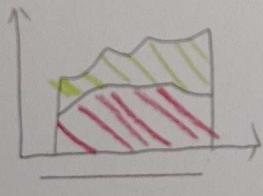
Flag



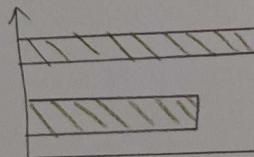
Population Density by state



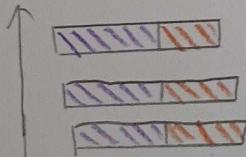
Ethnic composition



Age Group



Citizenship by Year



Title : Dashboard View

Author: Yap Sam Kit

Date : 13/10/2025

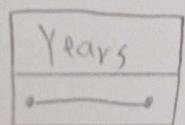
Sheet : 4

Task : Malaysian population

## Operations

Slider

- To filter the years selected



Filter

- To sort the bars for the horizontal bar chart

Legend

- Enable selection by clicking to select different citizenship statuses

## Discussions

- Uses suitable space for the whole dashboard
- Visual hierarchy — maybe for some charts is same size appropriate for a row?

## Focus

→ Main focus : population by Year to paint the big picture

→ Other visualisations are placed two for each row and description is below the chart

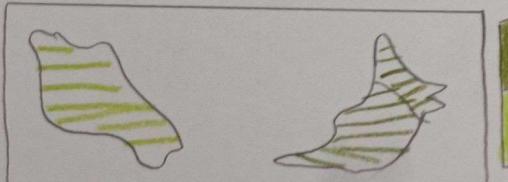
# LAYOUT

## Malaysian Population

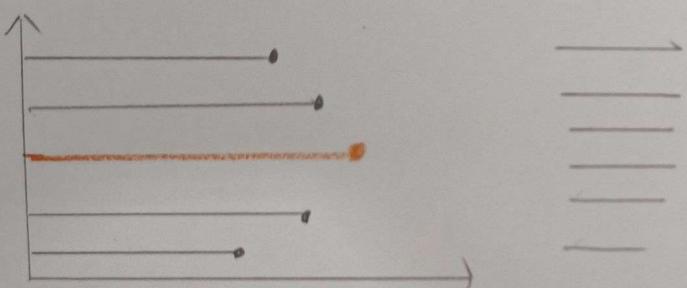
### Population Growth Trend (2016 - 2025)



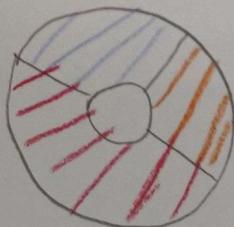
### State Population Density



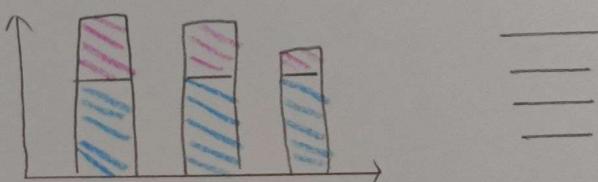
### Age Group



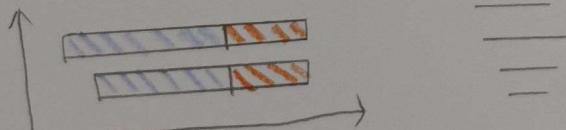
### Ethnic Composition (2016 - 2025)



### Gender Distribution



### Citizenship



Title : Final Design

Author: Yap Siong Kit

Date : 13/10/2025

Sheet : 5

Task: Final Dashboard Layout  
for Malaysian  
Population Visualisation

### Focus

- Focus on each visualisation as a chart takes up entire row
- Focus on past decade (2016 - 2025)

### Operations

Slider : Line chart can be filtered by years

Legend: Selection of gender for the stacked bar chart

Filter: Dropdown selection menu for the donut chart

Appropriate and concise tooltips for all charts

### Details

- Dependencies : Vega Lite, HTML & CSS for dashboard R for data cleaning
- Time and effort: 11 days to assemble final dashboard
  - ↳ 2 hours for report
  - ↳ 1 day for research and data cleaning