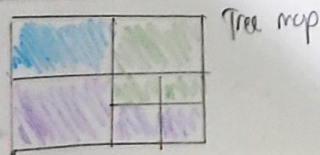
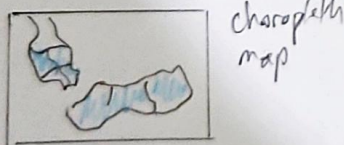
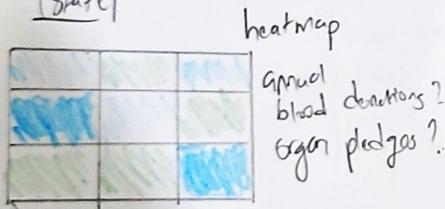
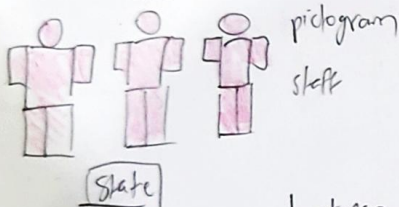
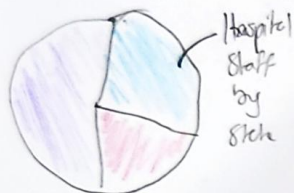
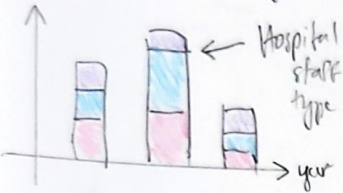
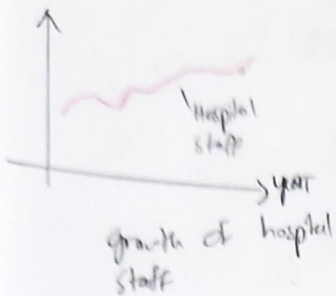


Ideas

Healthcare
In Malaysia



Filter and Organise

- Healthcare
 - Hospital Staff
 - Hospital Beds
 - Blood donations
 - Organ pledges
 - Pharmaceutical Manufacturers

Hospital Staff

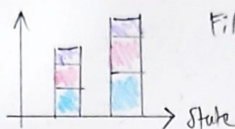


Number of staff by state

Filter by staff type?



Hospital Beds



stacked bar chart for different types of hospitals



Distribution of Beds by state

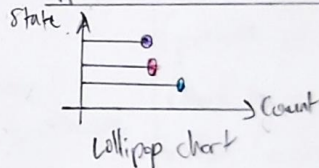
Filter by year?

Organ Pledges

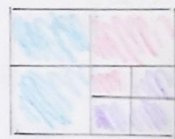


Heatmap
Daily? Monthly? Annual?

Approved Pharmaceutical Manufacturers



Number of manufacturers by state.



Tree Map

Title: Healthcare in Malaysia

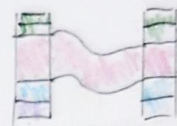
Author: Rahul P. Rajendran

Date: 17/10/2024

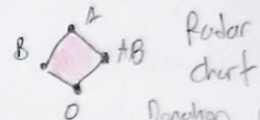
Sheet: 1

Task: Data Visualization 2

Blood Donations



Sankey diagram
Blood type to state



Donation and Blood type filter

Questions

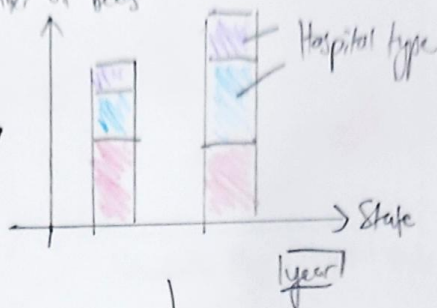
Will it tell a story?

Will it capture the audience's attention?

Is it doable with the current library (vega/vega-like)?

Healthcare in Malaysia

Number of beds



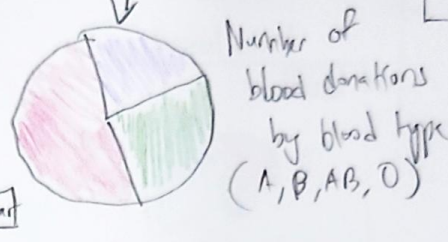
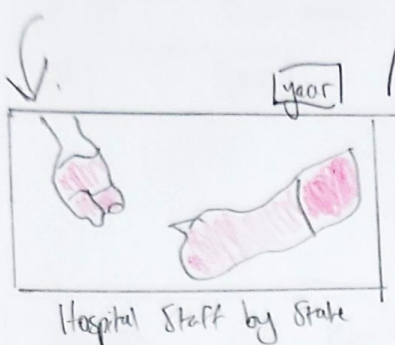
Title: Healthcare in Malaysia

Author: Rahul P. Rajendran

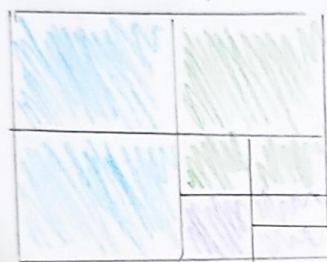
Date: 12/10/2024

Sheet: 2

Task: Data Visualization 2



Number of blood donations by blood type (A, B, AB, O)



Number of organ pledges by State



Shows the number of approved pharmaceutical manufacturers by state

Bee Swarm

channel: size

Treemap

Operations

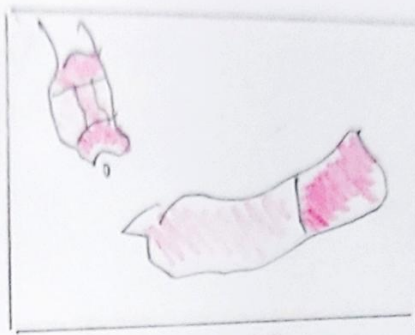
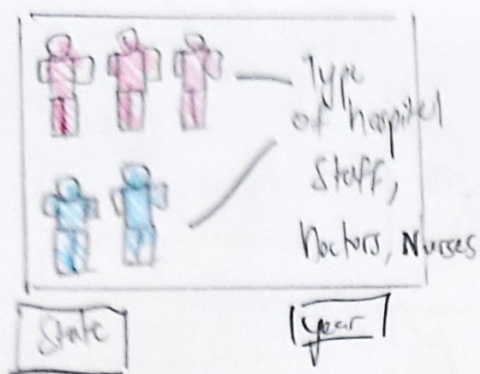
- Reader is able to filter the charts by year.

Focus

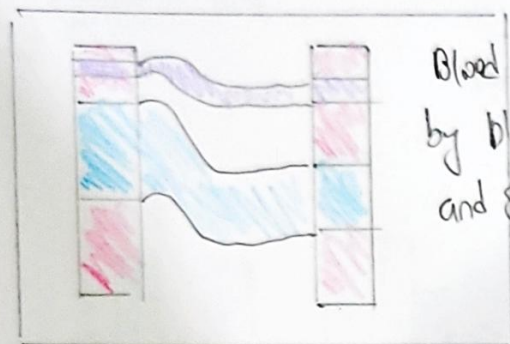
- Choropleth map and stacked bar chart showcases how healthcare has expanded over the years in Malaysia
- Drawn conclusion (educated guess) on the state and growth of healthcare over the years.

Discussion

- Heatmap may not be suitable as it shows rough values (precision is not needed.)
- Need to convert and calculate monthly/annual blood donations and organ pledges as data is only available daily.
- Bee Swarm may not be suitable based on Vega/Vega-lite library and dataset.

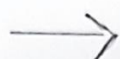


Choropleth Map (Hospital Beds by State).

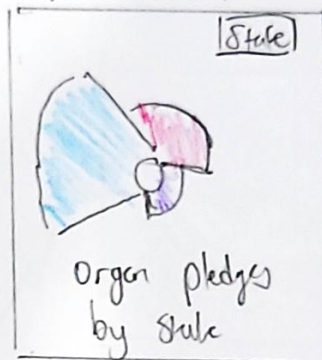


Sankey diagram

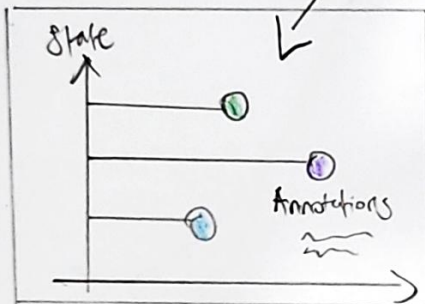
Blood Donations by blood type and state.



Radial Chart



Organ pledges by state



Number of pharmaceutical manufacturers

Title: Healthcare in Malaysia

Author: Dohul P. Rajendran

Date: 13/10/2024

Sheet: 3

Task: Data Visualisation 2

Focus

- Bigger focus and emphasis on how healthcare has progressed based on each state in Malaysia.
- Useful for policy makers.

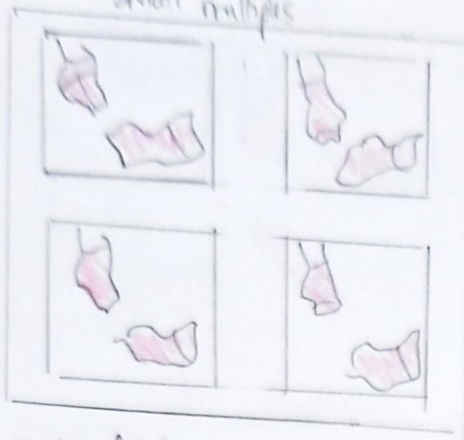
Operations

User is able to filter by year and state based on a dropdown

Discussion

- Pictogram may not be a good choice. (Precision is not needed.)
- Is pictogram and sankey diagram supported in Vega-lite or is another library needed?
- Helpful for policy makers but reader might not find the data "exciting".

Small multiples



Number of
hospital
staff
by
state

year

Title: Healthcare in Malaysia

Title: Healthcare in
Malaysia

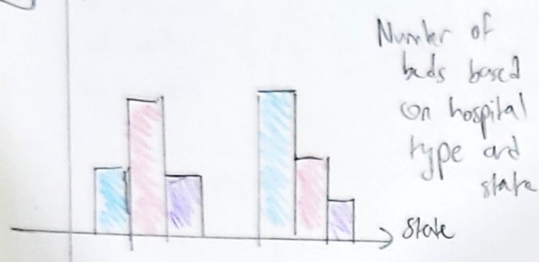
Author: Rishi P. Rajendran

Date: 13/10/2024

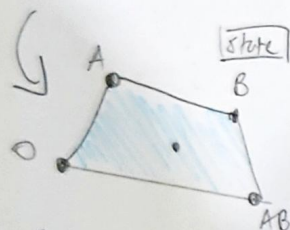
Sheet: 4

Task: Data Visualisation 2

Number of beds



Number of
beds based
on hospital
type and
state



Radar
chart

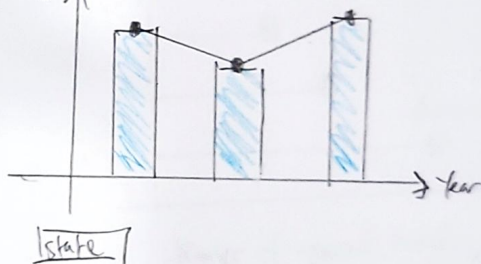
Number of blood
donations based
of blood type and
state



Treemap

Number of pharmaceutical
manufacturers by
state in 2024.

Number of
organ pledges



Annual organ
pledges
by state

Operations

- User is able to filter by year and/or state.

Focus

- Focus on blood donations and organ pledges.
- Good metric for policy makers to find out which state to focus on.

Discussion

- May not be thought provoking to the reader
- Radar chart may not be double in Vega/Vega-lite and may require different library.

Facts Regarding Hospital Staff and how they contribute to Healthcare

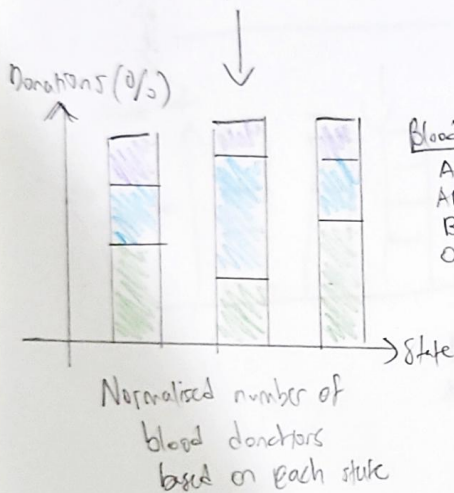


Annotations

Importance of availability of beds in hospitals

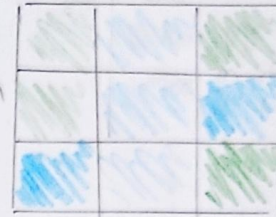


State
Number of beds by hospital type in "year"



State

Month

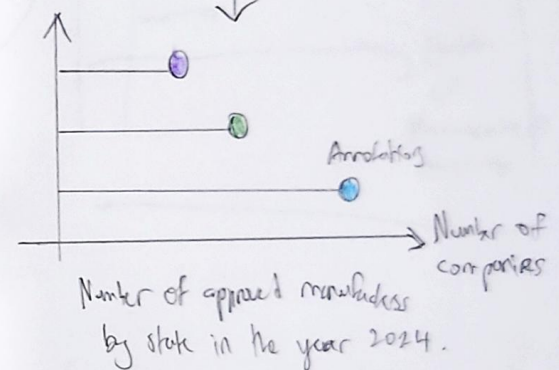


Importance of organ pledges for policy makers

Year

Nothing Organ Pledges Based on State

State



Focus

- Easier for readers to visualise the growth of hospital staff over the years using small multiples.
- Hospital beds is not an important visualization, hence only a year is shown.
- Stacked bar chart is good for visualising between donations distinguished between blood type.
- Heatmap shows the monthly organ donations for a specific year range.
- Lollipop chart shows the count of approved manufacturers in each state in 2024.

Detail

- Balance between visualising data between state and trends over the years.
- Calculate annual blood donations and monthly organ pledges based on daily dataset.
- Estimated hours to complete
 - Prepare and preprocess data - 3 hours
 - Retrieve facts online - 2 hours
 - Complete Visualisation - 10 hours.