

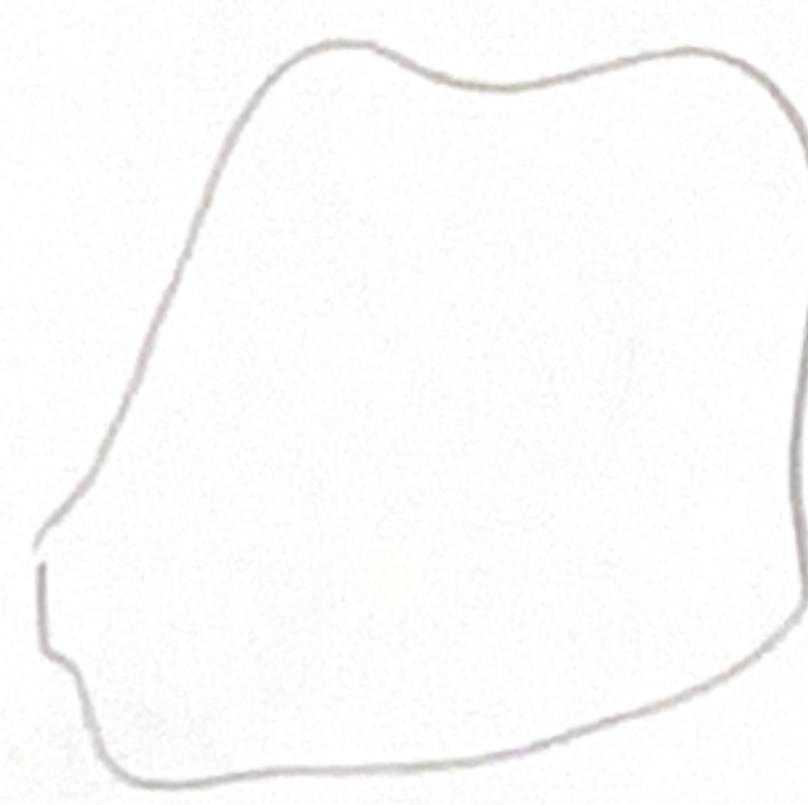
IDEAS

FDS - 1

- Finding out the access to ^{rail} public transportation depending on the population density
- Bus routes are tough to obtain - especially as it's not properly maintained.
- Self data collection is needed if we plot bus datasets
- Limit to rail network
- Airplane? Boats?
- Rail is more applicable and relevant to the general public
- Population is also easier to obtain for maps.
- Ridership & precipitation?



Malaysia Map



Riders?



Line performance?

Filter

- Limited by data available online
- Obtaining Malaysia's shapefile is easy, map is doable
- Correlation of ridership & daily precipitation is hard

Questions

- Does Malaysia provide accessible datasets?
- Cleaning data will be a lot of work.

Category

Rail access for population	Public transport use depending on the weather
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Zoom



It displays the population density and rail network.

Title : Rail Network in Malaysia.

Author : Bong Jian Yi

Date : 10/10/24

Sheet: 2

Task: chloropleth Map for Malaysia

Zoomable chloropleth map to inspect rail network in better detail.

Layout

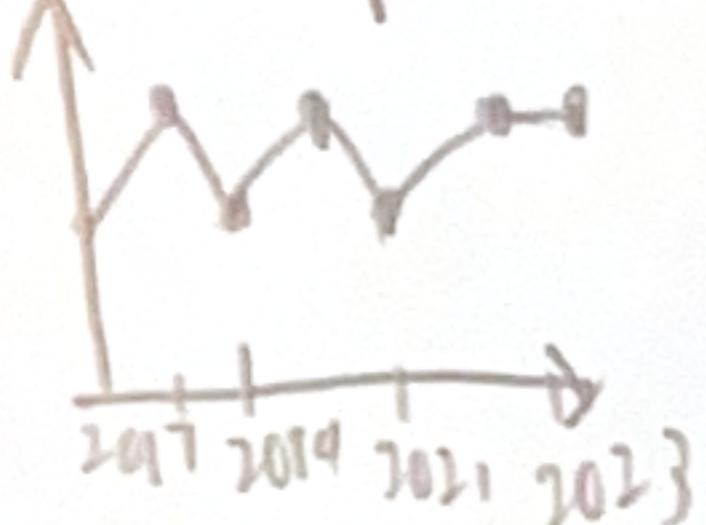
Focus

Operations

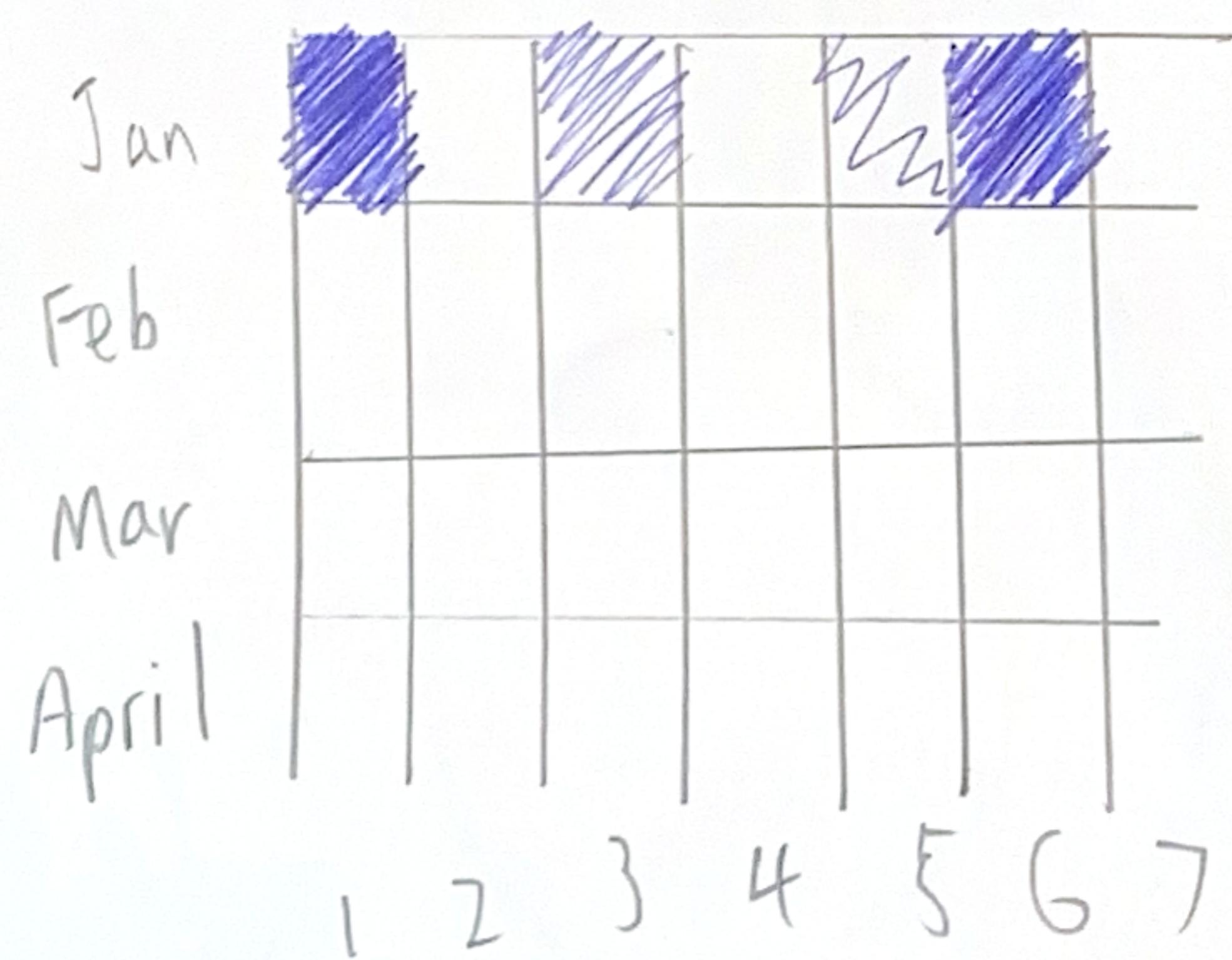
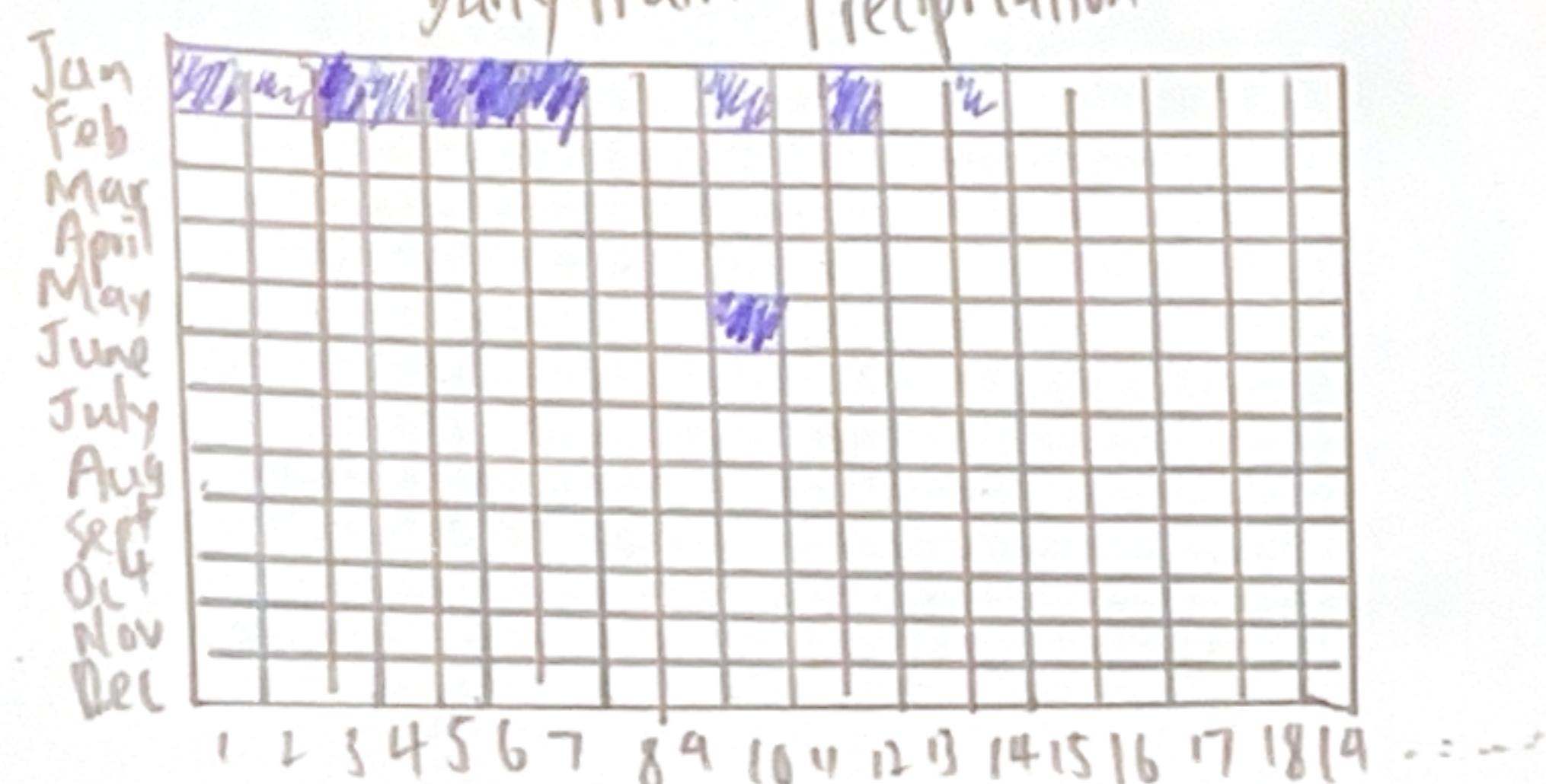
Discussion

- Rail network dataset is limited in shp format
- Normalising datasets to prevent misleading.
- Focus on West Malaysia for clearer view as East Malaysia is limited.

Total Ridership For Rail



Daily Rain Precipitation



Displays precipitation.

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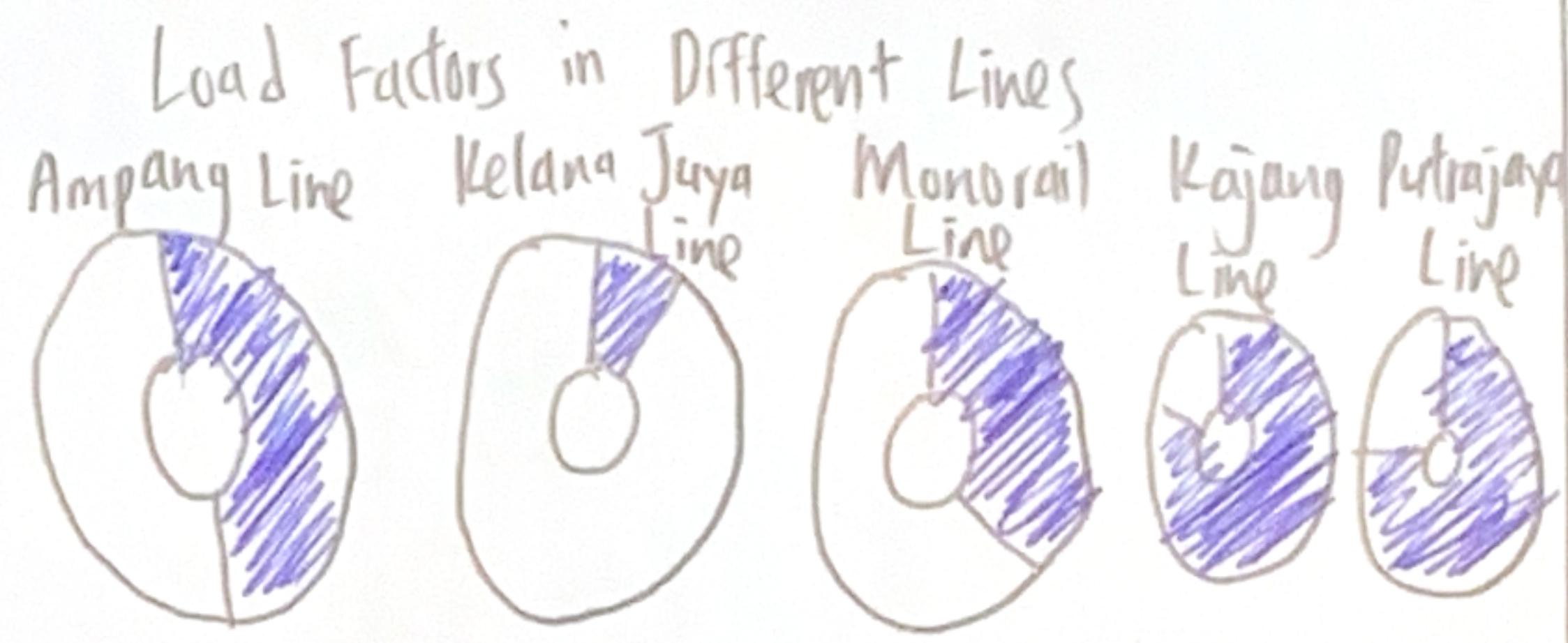
Task: Identifying the effect of rain on ridership

No operations other than tooltip.

Layout Operations

Focus Discussion

- Another graph may be needed to see changes overtime, maybe a year slider, to see ridership.



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Task : Displaying user load in each respective line

Tooltip helps to show user load factor.

Labelling is limited in Vega - Lite.

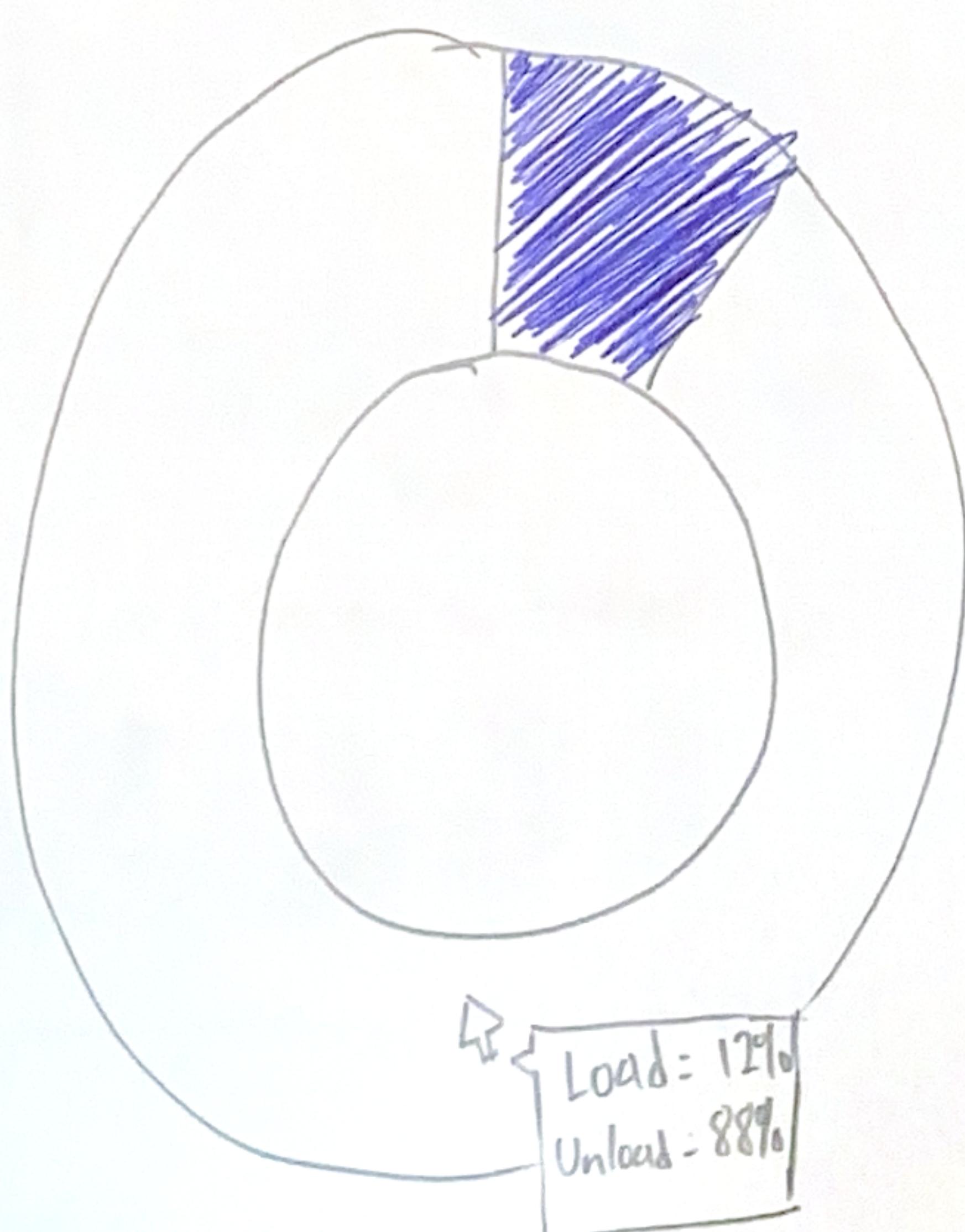
Layout
Focus

Kelana Jaya Line

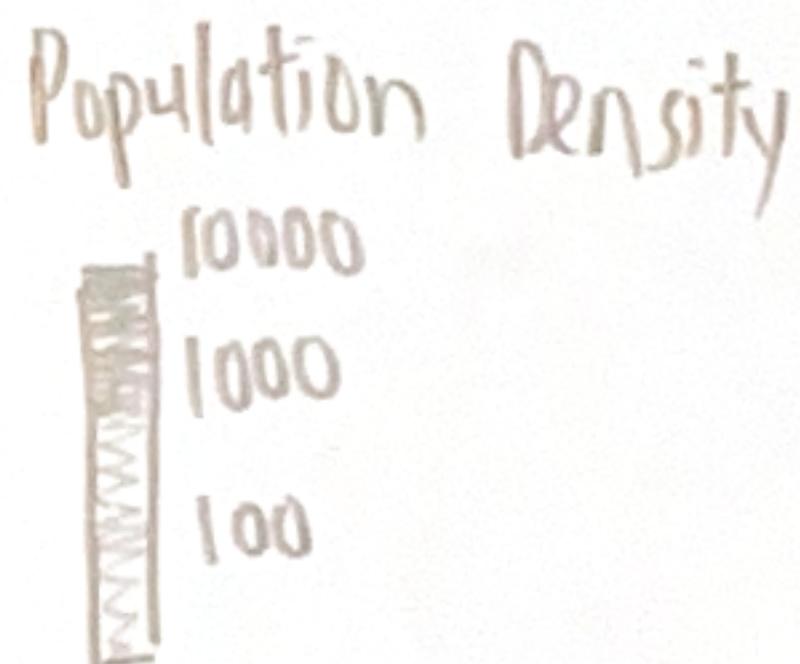
Operations

Discussion

- Bar chart may convey similar results with better clarity.
- Easier to gauge a general idea for donut chart though.

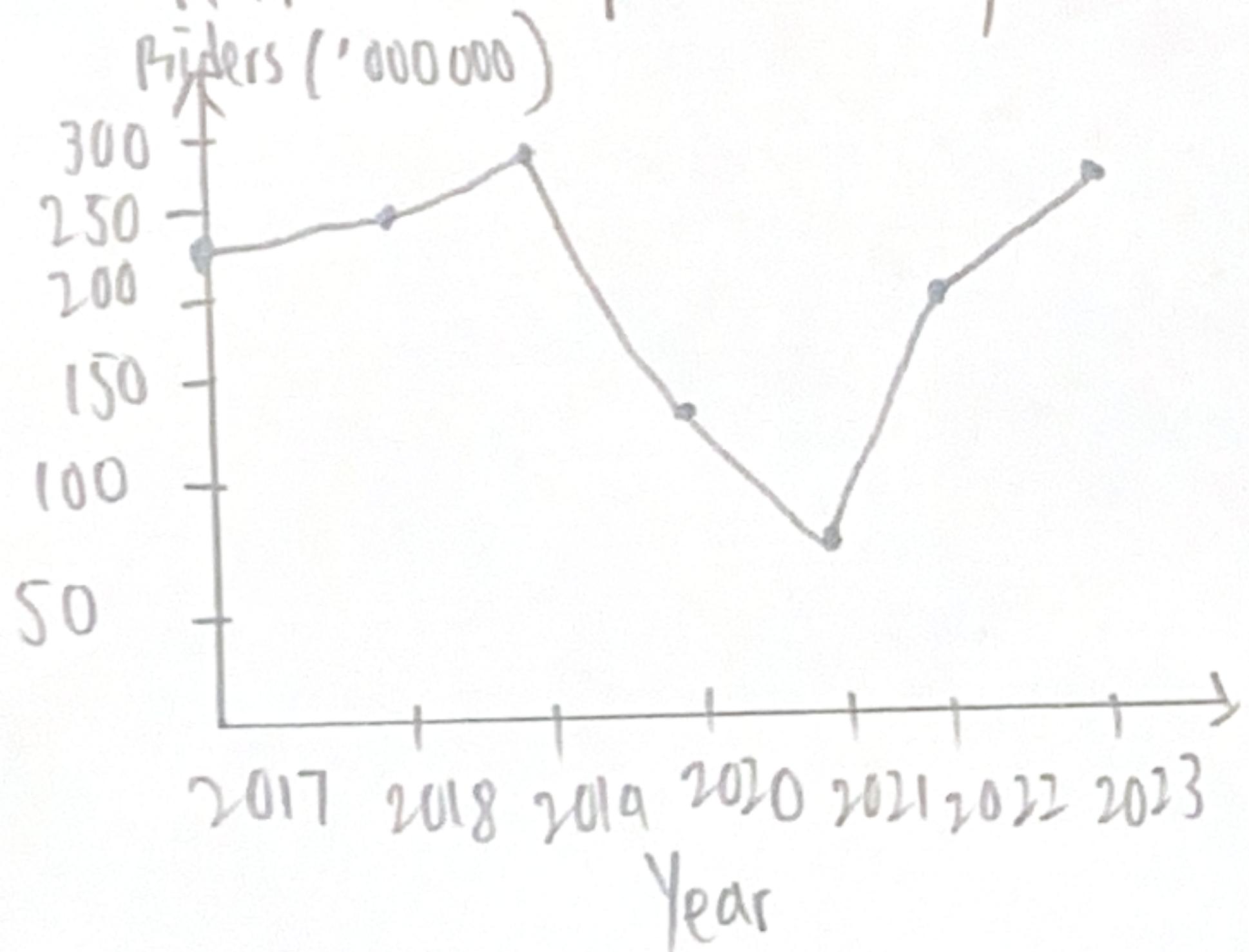


Railway Access by District Population Density

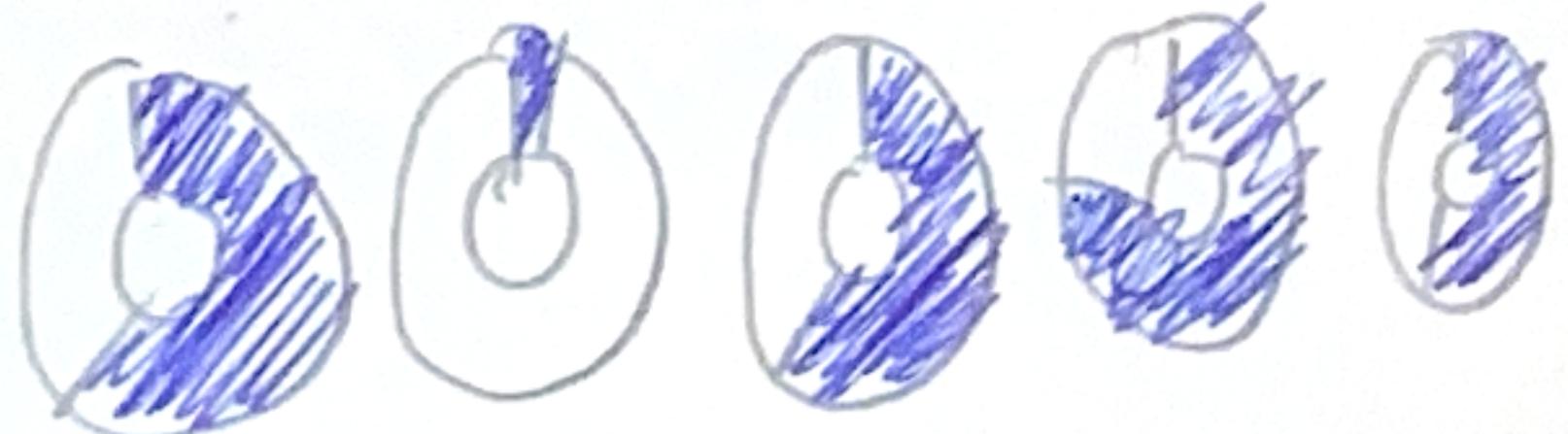


Zoom

Rail Ridership in Malaysia



Load Factors in Different Lines



Layout
Focus



We are able to make better comparisons.

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Sheet: 5

Task: Finalisation

- Zoomable map to see minute details.
- Tooltips explain in further detail, allowing users a clutter free experience.

Operations

Detail

- Extra details are restricted in Vega-Lite, such as zoom on mouse.
- Number in middle of donut chart cannot be annotated to explain load factors.
- Embedding charts in html is easy, but working around the chart is tricky.