Sheet 1 - Brainstorm

Ideas

① Bar Chart
② Box Plot
③ Donut Chart
④ Stacked Bar Chart
⑤ Line Graph
⑥ Dot Map
⑦ Scatter Plot
⑧ Heat Map
⑨ Packed Bubble Chart
⑩ Lollipop Chart

Filter

② Box Plot — ratings only range from 1-5, limited variability and statistically uninteresting.

⑦ Scatter Plot — dataset does not have continuous variables that are suitable for correlation analysis.

⑧ Heat Map — dataset does not contain enough categorical relationships for heatmap.

⑨ Packed Bubble chart: vegalite does not support this visualisation.

Categorise

Comparative : ①, ⑩
Compositional : ④
Temporal : ⑤
Geographical : ⑥
Multivariable : ③

Combination and refinement

- ① and ⑤ can be combined to form a dual axis chart for the audience to see trends.
- ③ can be refined by adding arcs to make a radial chart so that the audience can focus on certain segments more.
- ④ can be used to see the distribution among different variables.
- ⑥ introduces geographical distribution.
- ⑩ can be refined by highlighting important findings

Questions

1. Does this chart align with the key message?

2. Is the visualisation easily interpretable for a general audience?

3. Does it usually complement other charts?

4. Can it be implemented effectively in Vegalite?

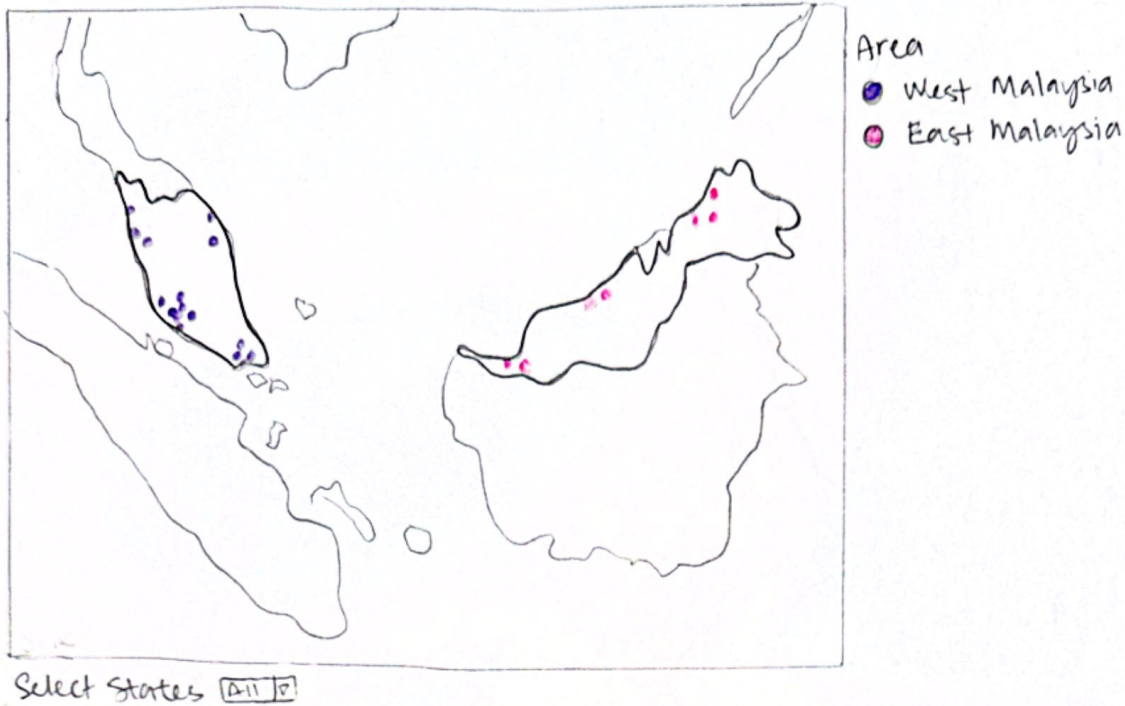5. Does it fit the dashboard's design language?

Author: Jia Wenn
Student ID: S4116109
Date: 18/10/2025
Sheet: 1
Task: Brainstorming

Sheet 2 — Alternative Design Sheet 1

Layout

Area
- West Malaysia
- East Malaysia

Select States [All ▾]

Operation

- dropdown filter : choose all states or specific state to highlight points.
- hover : tooltip displays business name, locality, region, and area.

Focus

- illustrate geographical spread and concentration of Malaysia's F&B businesses.
- highlight how certain regions from visible clusters.

Discussion:

Advantages.
- immediately highlights regional clusters of economic activity.
- supports user interactions via filters and hover details.
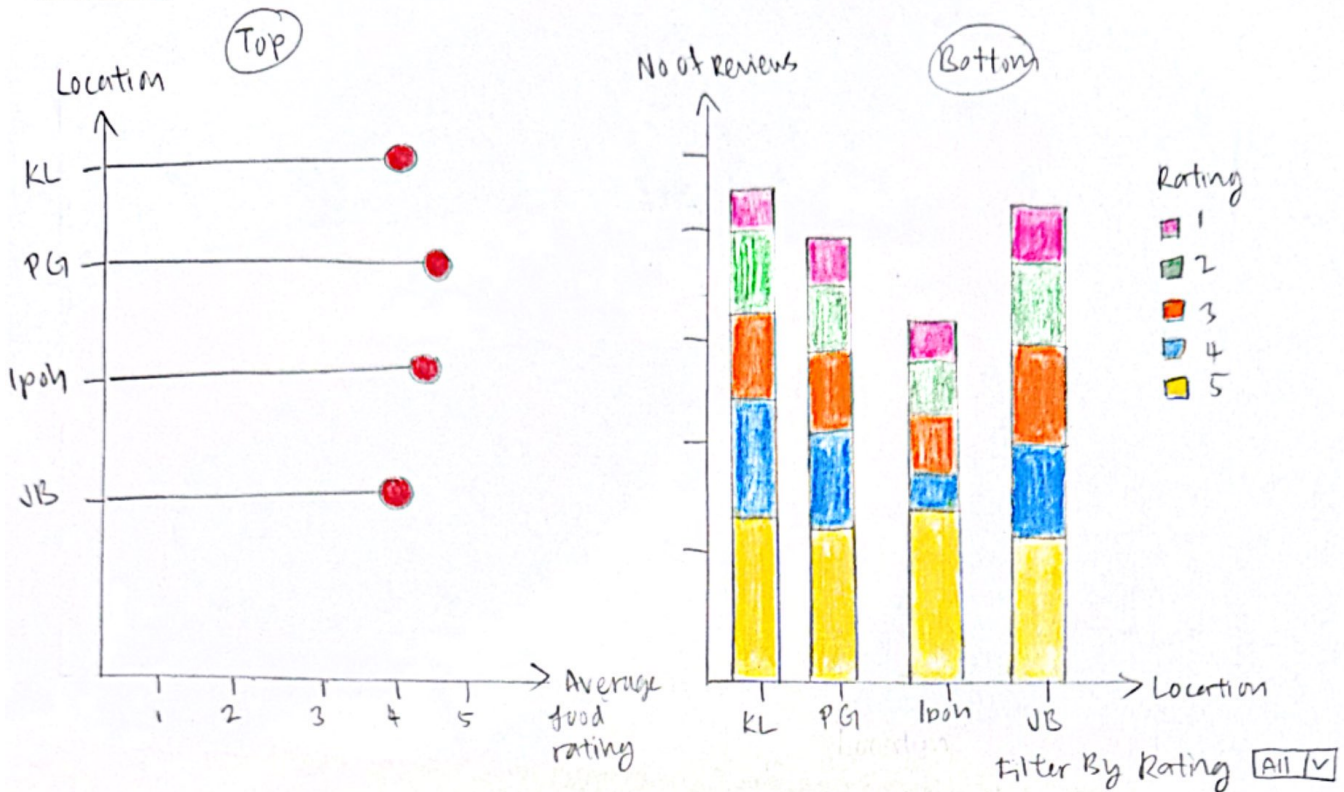- communicates spatial distribution

Disadvantages.
- dense areas may overlap, obscuring data points.
- difficult to perceive exact quantities from map alone

Author: Jia Wenn
Student ID: 34116109
Date: 18/10/2025
Sheet: 2
Task: Dot Map.

Sheet 3 - Alternative Design Sheet 2

Layout

(Top) — Lollipop chart: Location (KL, PG, Ipoh, JB) vs Average food rating (1-5)

(Bottom) — Stacked bar chart: No of reviews vs Location (KL, PG, Ipoh, JB), Rating legend (1-5)

Filter By Rating [All ∨]

Operation

- dropdown filter: select rating level (All, 5.0, 4.0, 3.0, 2.0, 1.0)
- hover: tooltip for stacked barchart (location, rating, number of reviews)
         tooltip for lollipop chart (location, average rating, review count)
- legend: isolate rating bands

Focus

- allow audience to compare quality and quantity of reviews per location
- shows how different regions score and how review activity varies.

Discussion

Advantages
- combines composition and ranking
- visually balanced and readable
- encourages interactive exploration via filters.

Disadvantages:
- two charts require more vertical space on screen.
- cannot represent geographical context directly

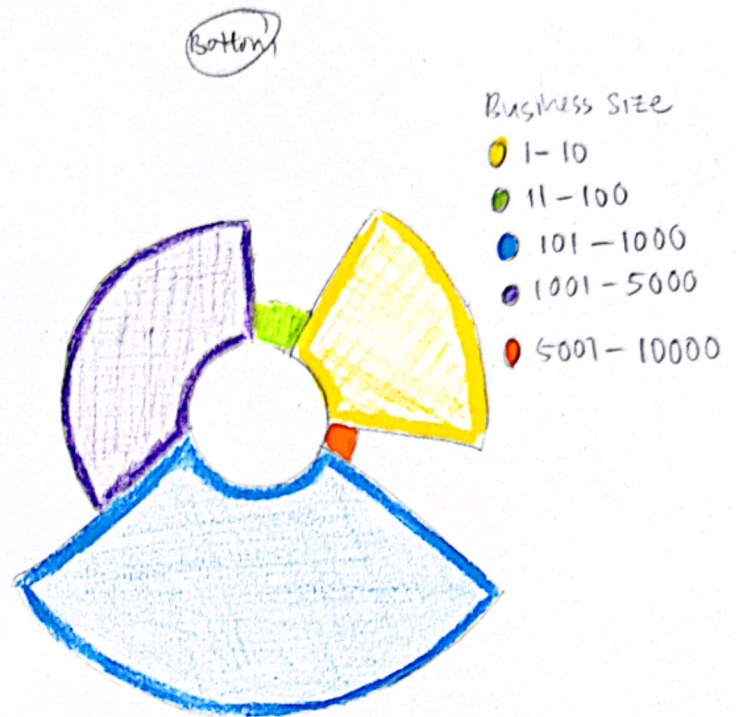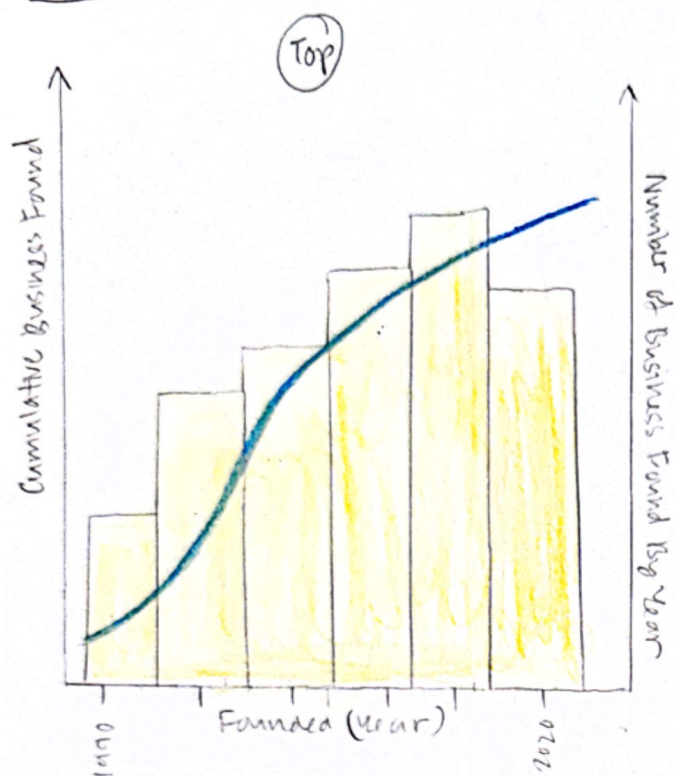Author: Jin Wenn
Student ID: 3411609
Date: 15110125
Sheet : 3
Task: Stacked + Lollipop

Layout

Top

Bottom

Cumulative Business Found

Founded (year)

1990   2020

Number of Business Found By Year

Business Size
- 1-10
- 11-100
- 101-1000
- 1001-5000
- 5001-10000

Operation

- hover : tooltip display counts and year for line + bar graph.
    tooltip display counts and size range of businesses for radial chart

- legend : highlights sector for radial chart

Discussion

Advantages :
- communicates growth trend and industry expansion clearly.
- radial chart adds visual appeal and multi-variable context.
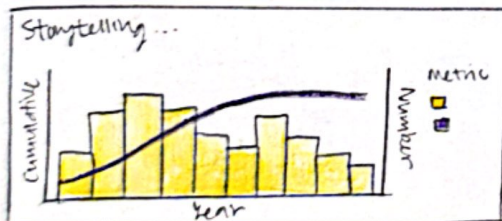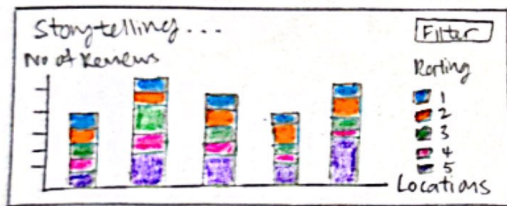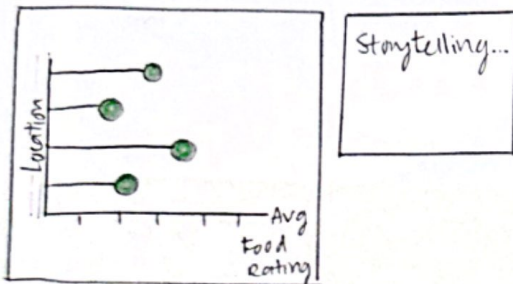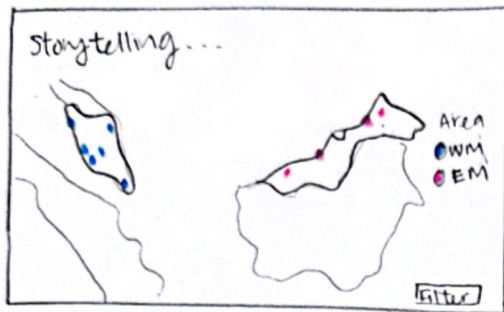- reinforces story of steady growth and business diversity.

Disadvantages,
- dual axis focus may split audience attention
- requires careful colour coordination for readability.

Author : Jia Wenn
Student ID : 34116109
Date : 18/10/2025
Sheet : 4
Task : Line, Bar + Radial

Sheet 5 - Realisation

Layout

Focus

The final design focuses on creating a narrative, interactive dashboard that intergrates spatial, comparative, and temporal data into a single cohesive story.

- visualise Malaysia's culinary landscape geographically
- compare cities and states based on customer review
- demonstrate growth of Malaysia's F&B sector.

Operation

- dropdown filters : users can select locations and rating levels.

- hover tooltips : reveal detailed metrics like total reviews, year, business size, business name etc.

- legend toggles : isolate specific data segments

Details

Dependencies

- vega lite for charts and graphs
- github for deployment
- HTML5 and CSS for framework.
- Google Fonts for text styling

Estimated time and effort

- 2-3 days to construct visualisations
- 2 days to develop dashboard.
- 1 day for final styling.

Author : Jia Wenn
Student ID : 34116109
Date : 18/10/2025
Sheet : 5
Task : Realisation