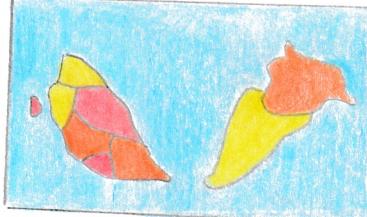


Ideas

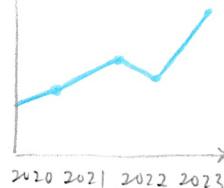
① choropleth map

overall / food inflation

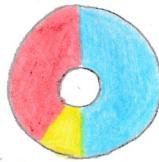


④ Line chart

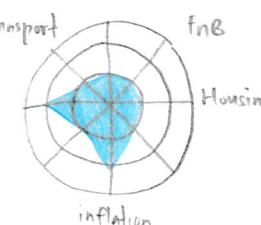
inflation/production



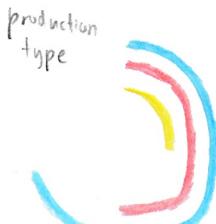
⑦ Donut chart



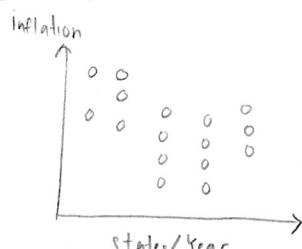
⑩ Radar chart



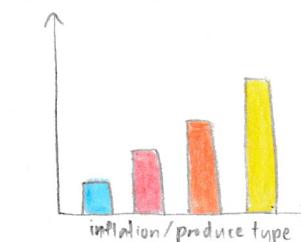
⑬ Radial bar chart



⑯ Strip plot

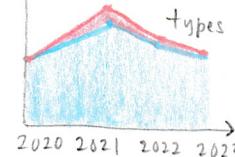


② Bar chart



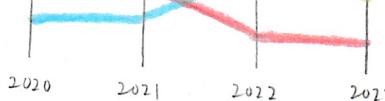
⑤ Area chart

inflation/production



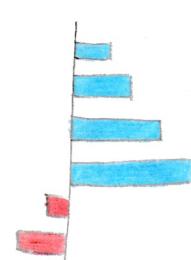
⑧ Bump chart

inflation/
production
type

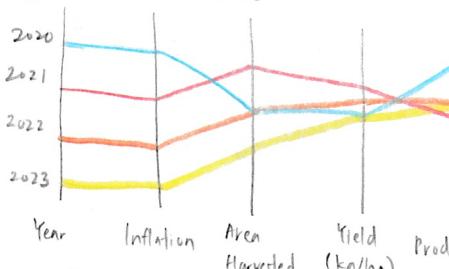


⑪ Pyramid chart

inflation/
production
type

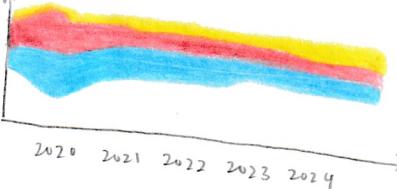


⑭ Parallel coordinates



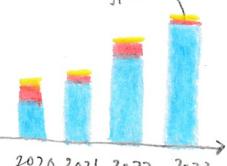
⑯ Streamgraph

inflation/production

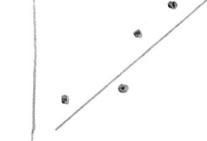


③ Stacked bar chart

inflation/production

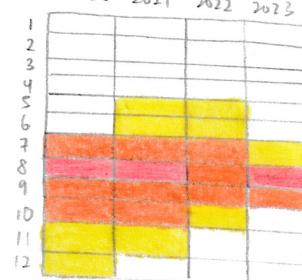


⑥ Scatter plot

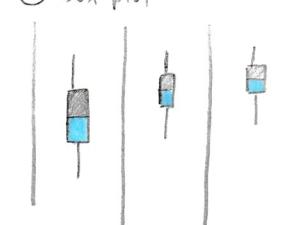


⑨ Heatmap

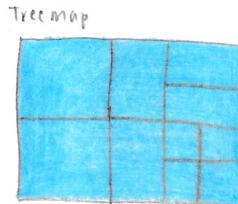
2020 2021 2022 2023



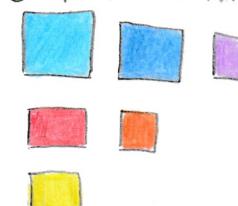
⑫ Box plot



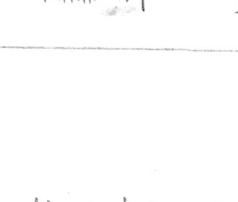
⑯ Treemap



⑰ Proportional area chart



⑱ Proportional area chart



Filter

- radar chart - Not supported in Vega Lite and hacky to implement - Also often criticised for poor readability

Categorise

1. Trends over time
(How food costs/inflation evolve)

④ Line chart

⑤ Area chart

⑧ Bump chart

⑨ Stream graph

2. Categories / Composition
(Which group contributes more)

② Bar chart

③ Stacked bar chart

⑦ Donut chart

⑪ Pyramid chart

⑬ Radial bar chart

⑮ Treemap

⑯ Proportional area chart

3. Distribution / Variability
(How spread out/unequal costs are)

⑫ Box plot

⑯ Strip plot

⑯ Heatmap

4. Relationship
(How factors link together)

⑥ Scatter plot

⑭ Parallel coordinates plot

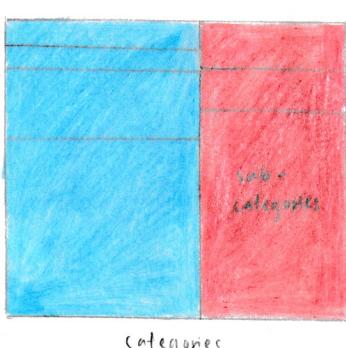
5. Geographical context
(Where costs are higher/lower)

① choropleth map

Combine & Refine

quantity

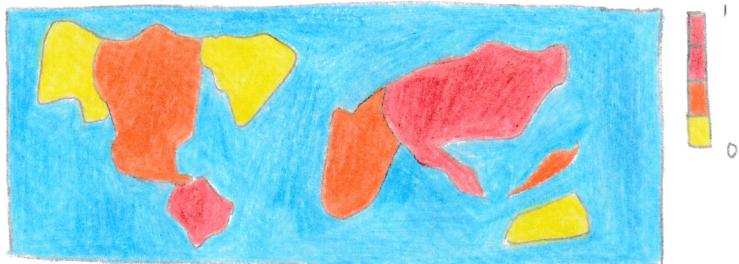
Bar + Donut → Replace with mannequin chart / mosaic plot for category + proportion in one view



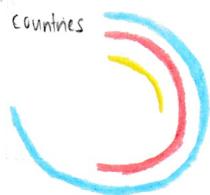
Summarise & Question

1. Does it answer the main question of the visualisation?
2. Who is my audience? What interaction can I expect to the visualisation?
3. Is the visualisation necessary?
Is it too complicated?

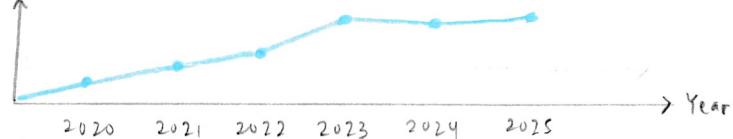
Rising Costs Around the World: Where Does Malaysia Stand?



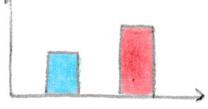
Top highest inflation countries



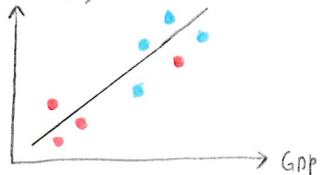
Global Average inflation inflation (%)



Malaysia vs ASEAN inflation inflation (%)



Developed vs developing economies



Food inflation groups in Malaysia



Sheet 2,3,4

Name Chia Xin Yue

Date 3/10/2023

Title Article storyboard (Global to Malaysia)

Description

Article-style design starting with a world map of inflation as the main hook. Supporting charts provide global-to-local insights, ending with Malaysia's food production and inflation link.

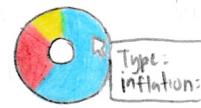
Components / Operations



Ensure that map shaded by color is normalised and has steps for fair comparisons

Tooltips/Annotations

- Charts hover over the data points show more detail



- Make sure clear headings, subheadings and supplementary text for more context
- Make sure the main hook (map) is at the top row and other info in following rows for storytelling
- Must be scrollable for all charts to be shown

Part / Focus

- Food inflation worldwide, zoom into Malaysia

Title
World map
Global inflation
Malaysia inflation
+ Food cost inflation

Main hook

- ① world map of food inflation (Malaysia-focused version possible)

Supporting stories

- ② show the global picture and Malaysia's place on it
 - Radar plot for top highest-inflation countries
 - Scatter plot for developed/developing countries
 - Line chart for global average inflation trend
 - Bar chart for Malaysia vs ASEAN inflation

③ Malaysian focus

- Donut chart for inflation groups
- Other charts about food production in Malaysia

End with clear takeaway: Malaysia's inflation is part of a global pattern but shaped with local production/consumption.

Pro & Cons

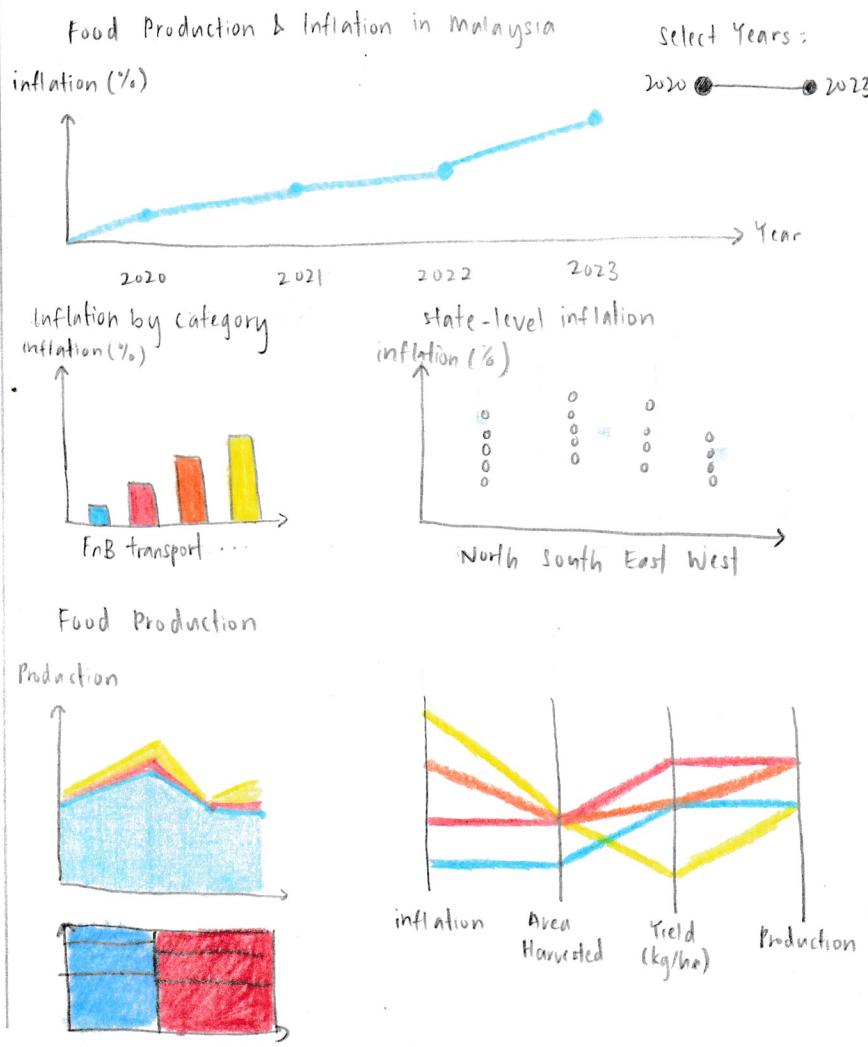
Pros

- Structured like an article, audience can follow from global to regional to local
- Mix of different charts e.g. map, radar, bar and donut to compare different dimensions (country-level, group-level)
- Connects global patterns with Malaysia's local food story, making it both broad and relevant

Cons

- Too many visualizations can overwhelm the audience
- Fitting all visualizations in one page without clutter can be challenging

Big Picture / Layout



Part / Focus

- Focuses on Malaysia's inflation

Main hook

- ① Line chart for Malaysia's food inflation over time

Supporting stories

- ② What food contributes to inflation?
 - Bar chart of food groups towards inflation
- ③ Who contributes to food inflation?
 - Strip plot on distribution of food price changes across states
- ④ Food production
 - Area chart on food production index e.g. rice, vegetables, meat
 - Parallel Coordinates plot for relationship between inflation, area harvested, yield and production for different years

Sheet 2,3,4

Name Chia Xin Yue
Date 3/10/2023

Title Malaysia's Food Story

Description

Article-style design centered on Malaysia's food inflation and production. The story flows from overall inflation trends, to production and spending patterns, down to state-level variations and crop-specific comparisons

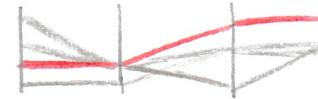
Components / Operations

- users can use the slider to filter the line graphs to show selected years

Select Years:

2020 ● → 2023

- can also click any year (line) in the parallel coordinates plot to highlight:



Tooltips/Annotations

- Charts hover over the data points to show more detail
- Make sure clear headings, subheadings and supplementary text for more context
- Make sure the story is from top to bottom for storytelling - Must be scrollable for all graphs to be shown

Pro & Cons

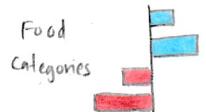
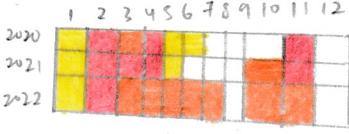
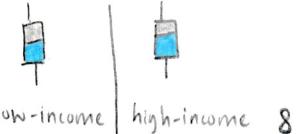
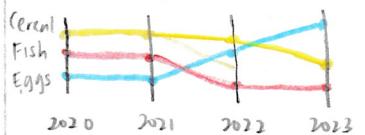
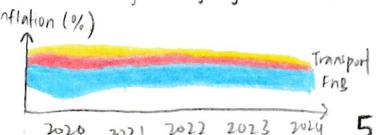
Pros

- Provides clear narrative flow: from national → categories → crops/states
- Full picture of Malaysia's food economy
- Visually appealing with colours and annotations that grab attention
- Summarises insights with some user interaction

Cons

- Requires strong annotation/explanation so non-technical audiences can follow the story
- Contains complex visualisation e.g. parallel coordinates plot.

Big Picture / Layout

<p>Food Costs & Inflation in Malaysia: Impact towards Consumers</p>	<p>Food Production Category</p> 
<p>Key Fact:</p> <p>"In Malaysia, food inflation has risen over 15% over the last 5 years, making daily essentials..."</p>	<p>Top Food Productions</p> 
<p>Inflation over time</p> 	
<p>Inflation by food group</p> 	<p>Summary</p> <ul style="list-style-type: none"> ① Trend ② What? ③ Why?
<p>Inflation by category over time</p> 	<p>9</p>

Sheet 2,3,4

Name Chia Xin Yue

Date 3/10/2025

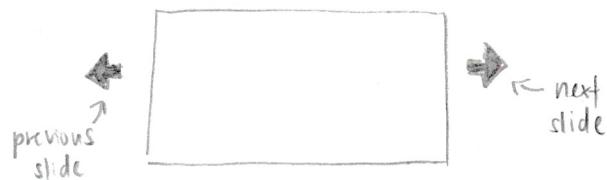
Title Slideshow (Unpacking Food Prices)

Description

Slideshow-style design where each slide reveals one aspect of the food inflation story. Starts with a simple hook, then moves through price trends, category breakdowns and state-level differences.

Components / Operations

- Need to implement arrows to allow users to navigate between slides



Tooltips/ Annotations

- Under each header of any visualisations, can add annotations/text for more insights for user to understand

Part / Focus

- The narrative slideshow is about storytelling
- Each slide builds upon the last, where it tells a linear story:
 - ① Slide 1-2 - Main Hook
Contains bold title and a key statistic callout
 - ② Slide 3 - Trend Story
Contains heatmap to show seasonality of inflation over time with possible annotation for more context e.g.
Inflation is high during months of August to September
 - ③ Slide 4-8 - Supporting Story
Contains various visualisations that can support the main hook and trend story.
 - ④ Slide 9 - Summary
- Contains conclusion that ties back to the main hook
- Can look something like this:
 1. Trend
 2. Contributions to inflations
 3. Food productions

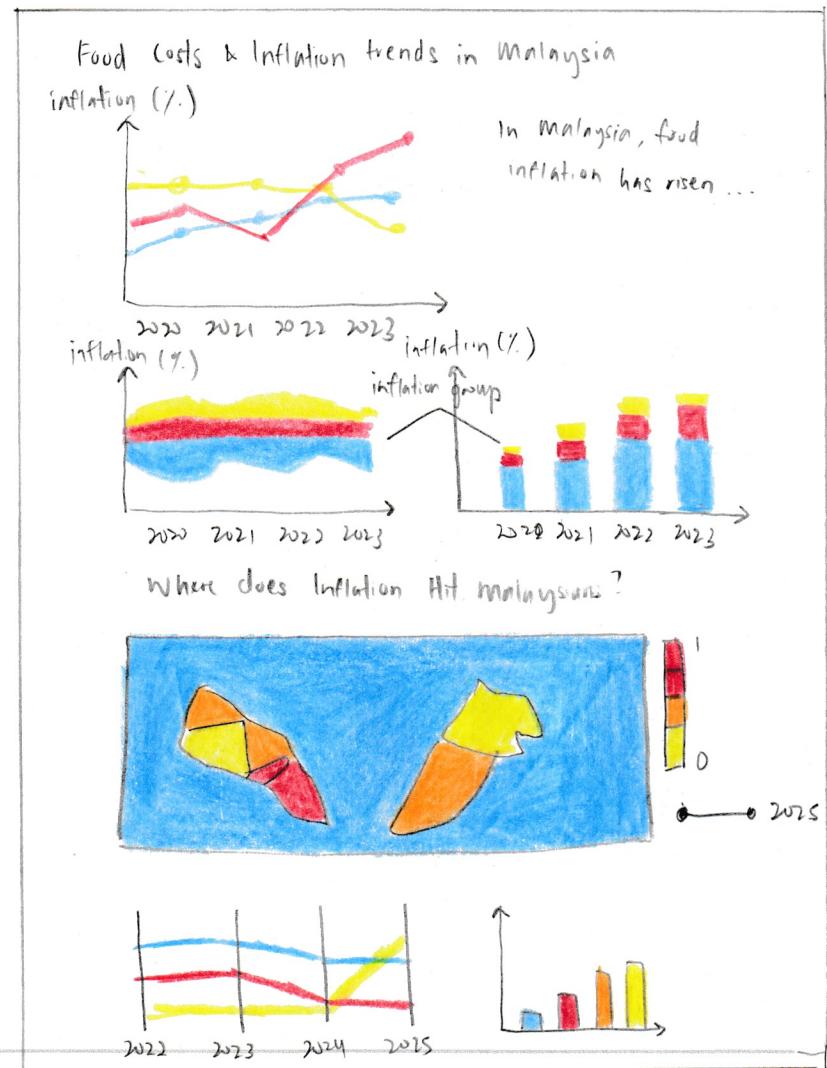
Pro & Cons

Pros

- Best for presentation - linear story, no distractions
- Guides users as they focus on one insight at a time with explanation

Cons

- Not interactive - audiences cannot explore / compare themselves
- Requires good storytelling writing or else the story will feel boring if the slides only show charts
- Less effective for audiences who want detail-rich article

**Part / Focus**

- Food inflation Malaysia in detail

Title
Global vs Malaysia inflation
Malaysia inflation by category
Inflation mapped in Malaysia
Food price + cost

- Main Hook**
- ① Line chart of inflation with Malaysia and global
 - ② Detail of Malaysia's inflation & production
 - Streamgraph for inflation breakdown
 - Stacked bar graph for specific years
 - Inflation differences for states in Malaysia map
 - Bump chart for inflation of food group
 - Bar graph of production food

Sheet 5

Name Chia Xin Yue

Date 4/10/2025

Title Article storyboard (Malaysia focus)

Description

Article-style design that has world vs Malaysia inflation as hook. Supporting charts dive deeper into local Malaysia's insights, ending with Malaysia's food production and price link.

Components / Operations

- Ensure that map shaded by cost is normalised and has steps for fair comparison
- have navigation bar for users to easily navigate between topics and know where they are in the story

Tooltips / Annotations

- Charts hover over should show more detail
- make sure clear headings, subheadings and supplementary text for more context
- Make sure the main hook is at the top row and other info in following rows for storytelling
- Must be scrollable for all charts to be shown

Details

- ① Dependencies**
- HTML, CSS, Javascript
 - Python for data cleaning & preprocessing
- ② Estimated time**
- Data cleaning & preprocessing: 2 days
 - Narrative design & all visualisations: 2 days
 - Interactivity: 2 days
 - Final refinement: 1 day
 - Total: ~1 week single-student effort
- ③ Specific requirements**
- Ensure consistent colour scheme/palette
 - Fonts & annotation readability at slideshow scale
 - Complex graphs e.g. streamgraph might need careful crafting