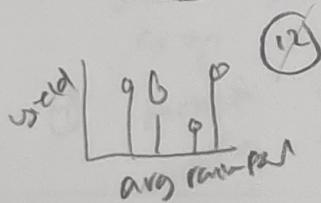
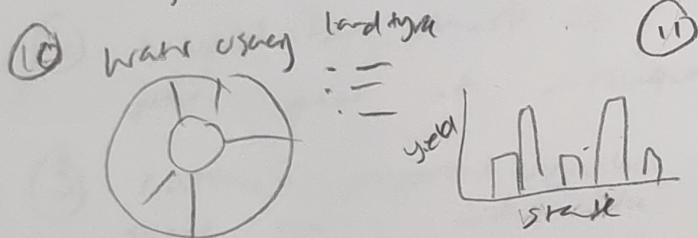
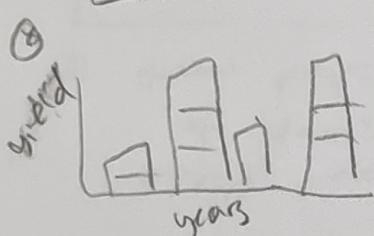
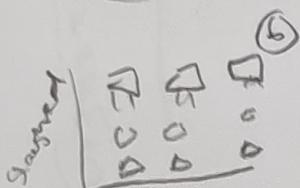
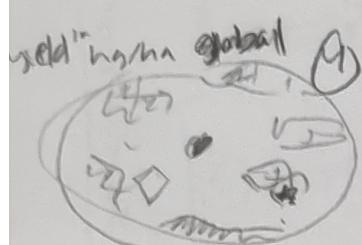
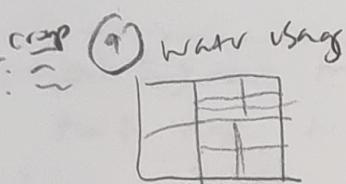
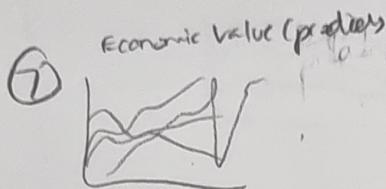
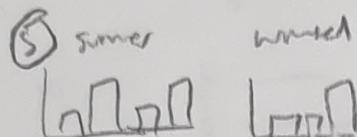
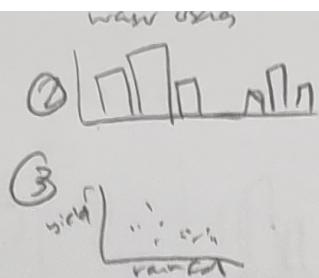


INRAS

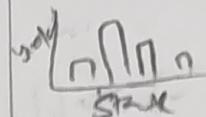
① crop yield (states)



avg rainfall



FILTER



Bar chart of yield by state.

- some states are more arid than others
- will not be visually pleasing
- needs to be normalised

Lollipop chart: yield / avg rainfall



same applies to:

CATEGORIES

- 1) ① & ⑪ crop yield by state.
 - state (categorical)
 - yield (quantitative)
 - crop (categorical)
 - year (ordinal)
- 2) ② & ⑩ water usage
 - land type (categorical)
 - usage % (quantitative)
- 3) ⑤ & ⑧ summer vs winter yield → season (categorical)
 - yield (quantitative)
- 4) ⑦ economic value of farm products → product (categorical)
 - price (quantitative)
- 5) ⑧ livestock (categorical)
 - animal (categorical) → year (ordinal)
 - sheephead (quantitative)

Combine & Refine

* ⑧ can be picked over ① & ⑪ as it effectively demonstrates how crop yield has changed over years (temporal). This can be improved using an interactive selector.

* ⑩ can be used as ② as traditionally water usage is demonstrated by donut charts prioritising easy understanding. Further more allows bar chart to be used to convey something more complex.

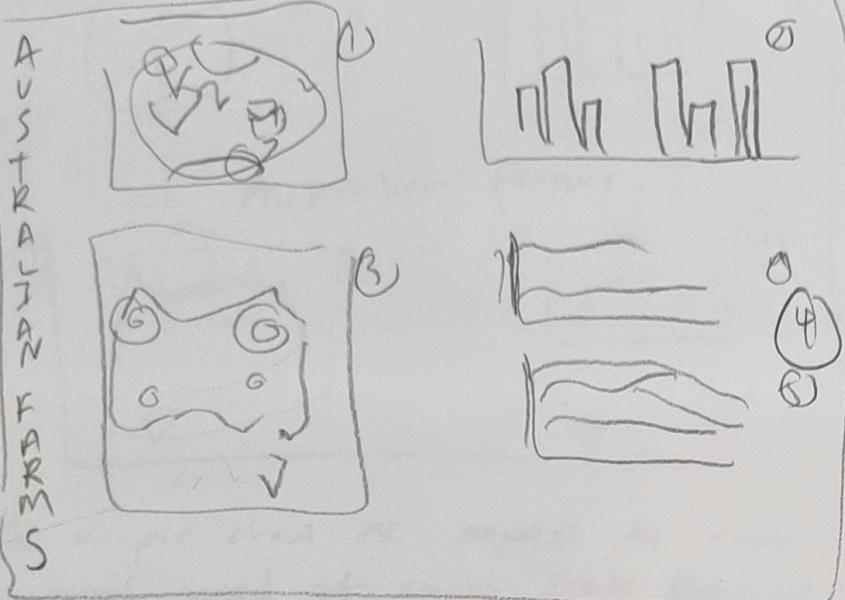
* economic value of products need to be modified to group products to another category or else there will be too many lines (categories).

Questions

- Will there be gaps in data at global maps?

- How to best convey the effect of both avg rainfall & avg temp?

Layout



- ① global proportional symbol map of farms that have the highest crop yields
- ② grouped bar chart of slaughter per year of different animals
- ③ national proportional symbol map to show states with the highest crop exports.
- ④ Area chart to show crop yields in summer vs winter.

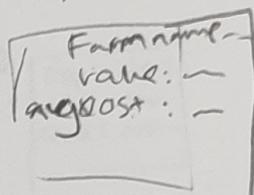
FOCUS

Focus is on the proportional symbol maps for both Australia and the world. Helps analyze Australia's contribution to global market.

- ① Farms crop yields → Farm: nominal
yield total: quantitative
- ② State crop export → export type: categorical
export total: quantitative
- ③ animals slaughtered → animal: (categorical)
year: (ordinal)
slaughtered: (quantitative)
- ④ crop yields: season (categorical)
yield (quantitative)
crop (quantitative)

Title: Partitioned poster
Author: Mariana Albin
Date: 05/10/2024
Sheet: 2
task: Design poster

operations

Clicking on circles in proportional symbol map will show more information i.e. 

Farm name:	value: -
	avg yield: -

DISCUSSION

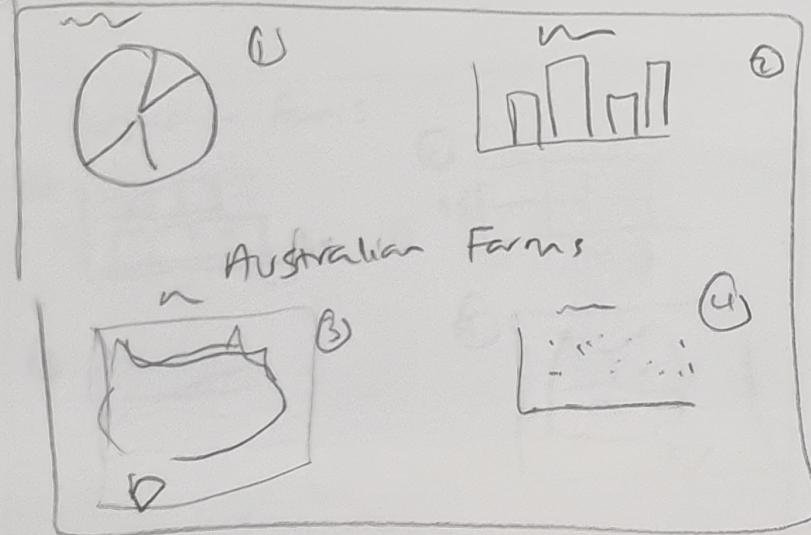
Pros

- good thorough analysis of crop yield.

Cons

- repetitive when it comes to crop yield.
- requires more interaction.

Layout



Title: Partitioned Poste

Author: Moran Alon

Date: 05/10/2024

Sheet: 3

task: Design poster

Operates

Hovering over
pie chart shows
selected a tool tip



Crop: Wheat
Yield: 100
State: NSW

- ① a pie chart that represent the crops and yield of each state (can be filtered by state).
- ② Bar chart that shows agricultural water usage based on land use type for Australia.
- ③ Show the state with average rainfall & avg. temp (choropleth)
- ④ Scatter plot shows the yield of crop by avg rainfall.

Focus

Focus is on the pie chart as it is the first element. Hover in this case focus seems to be equally shared by all chart as they are placed in each corner.

Pie chart → crop yield

- Yield (quantitative)
- Crop (categorical)
- State (categorical)

Bar chart → water usage:

- (Land type (categorical))
- (usage: (quantitative))
- (Year (ordinal))

Discussion

Pros

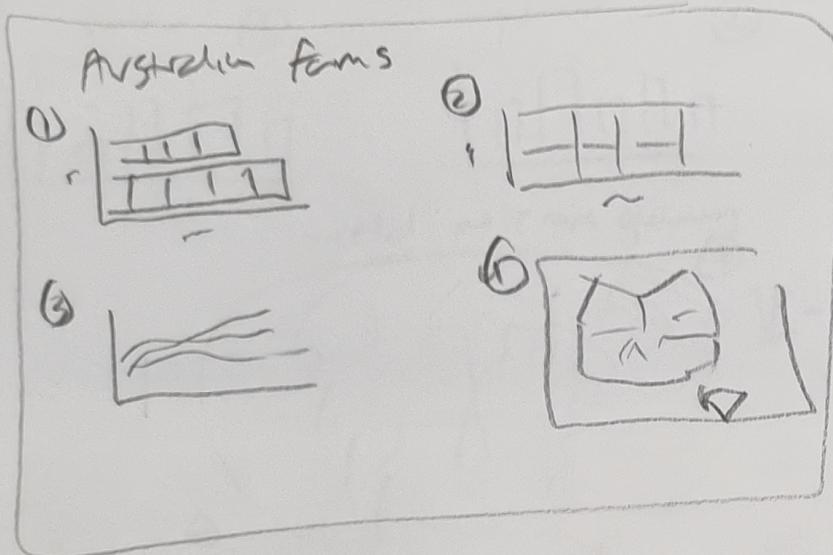
- Simplistic layout reducing data into ratios.

- Bar chart is intuitive to read.

Cons:

Pie charts → angles are not an effective visual channel for magnitude.

Layout



① stacked bar chart of crop yield

(Y-axis: year, X-axis: crops)

② treemap representing proportion of crops based on value (economic value). crop → categorical value → quantitative

③ line chart displaying number of livestock slaughtered.
animal → categorical
slaughtered: quantitative

④ map of Australian states and production for each crop.

Focus

Focus is equally distributed across all 4 maps due to the quarter split of layout.

However, viewers eyes will be drawn to choropleth map as it takes on a familiar shape (ie Australia).

stacked bar chart → crop yield
- year: ordinal

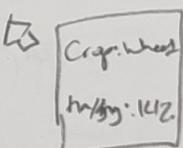
choropleth → economic value
- production value: quantitative
- crop: categorical
- total yield: quantitative

Title: partition poster
Author: Mariana Alvar
Date: 05/10/2021
Sheet: 4
Task: Design poster

Operations

Having our map (choropleth) reveals 5 a multiple of type of crop and its production rate.

E.g.



Discussion

Pros:

- Line chart is a clear idiom

- bar chart is intuitive to read

Cons:

- Sighline too simplistic

- require story telling
- repetitive idiom for crop yield.

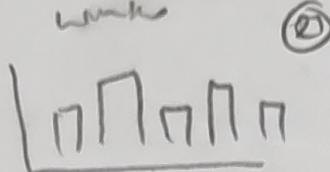
Layout

Australian Farming

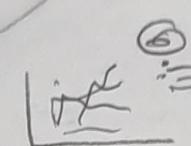
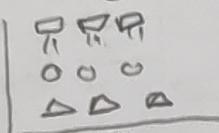
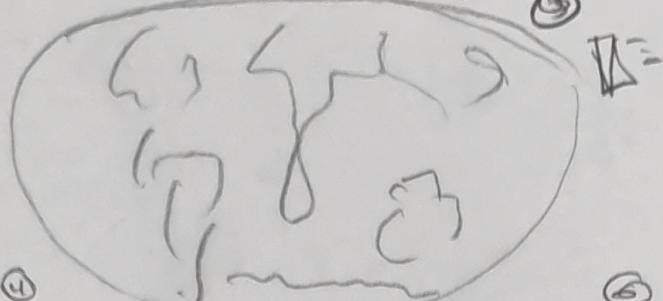
Summer ①



winter ②



yield of crops globally ③



① & ② line chart of summer & winter crops yields.

③ world map of crop yields

④ isotype chart of animals slaughtered

⑤ donut chart of water usage on agricultural land.

⑥ line chart of production value of different farm products.

Title: Partitioned poster
Author: Marwan Albal-
Date: 05/10/2024
sheet: 5
task: design poster

Operations

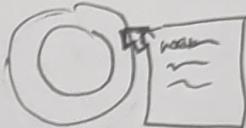
for chart ③

Ensuring that we can filter crop using a selection tool.

e.g. Crops:

Wheat
Milk
Potatoes

Hovering over ⑤ will show a tool tip



Focus

Focus is on the world map as it will be positioned in center of design with every other chart surrounding it.

Viewer first will set a summary of crops in 1 of Australia to see how it measures globally.

pie chart → water usage (categorical + quantitative)

line chart → production value of farm products (quantitative + quantitative)

Details

Dependencies:

- VegaLite

- pandas for wrangling

Estimated Effort

4 days to build all ideas

1 day to clean data and research.