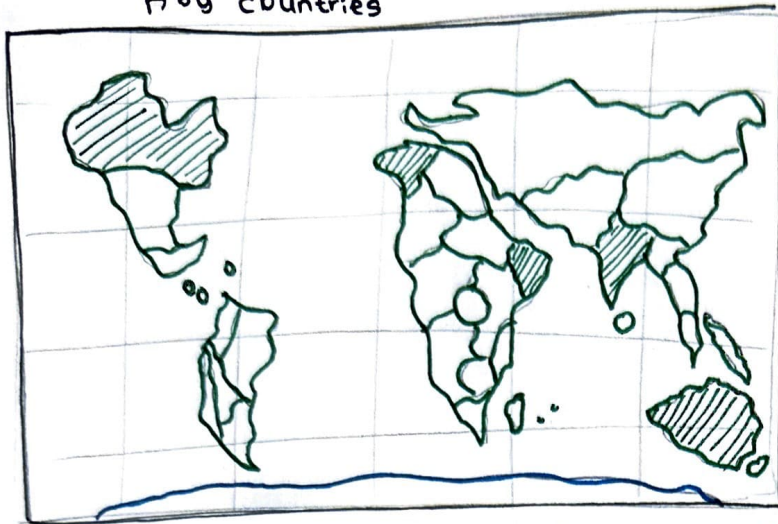


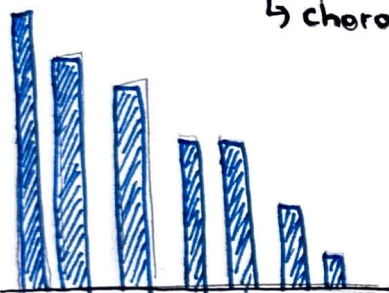
IDEAS

by countries

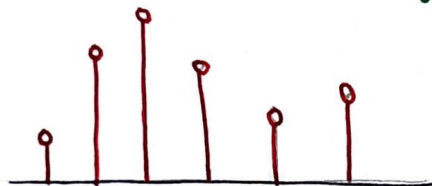


% Clean energy share by country

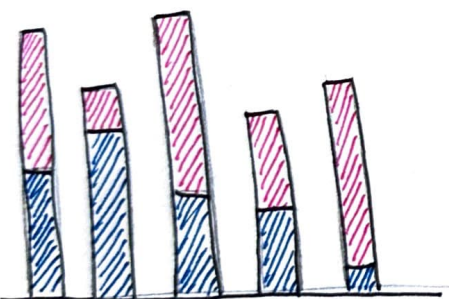
↳ choropleth map/bin map



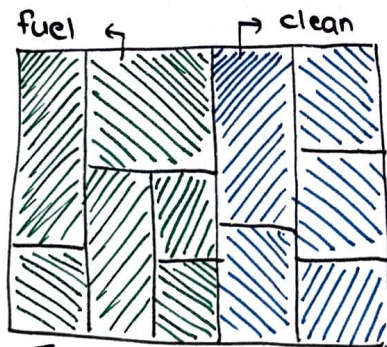
Ranked bar chart - Leaders in clean energy %



Lollipop chart showing worst performers

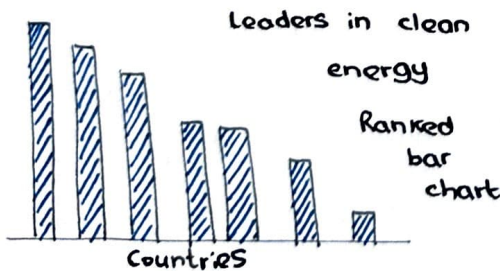


Stacked bar chart - clean vs fuel



Treemap by country showing fuel vs clean

COMBINE AND REFINE

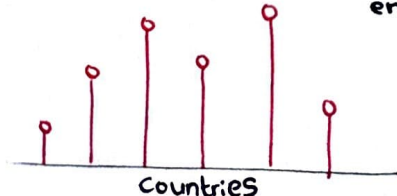


Leaders in clean energy

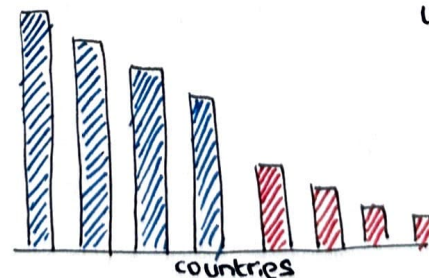
Ranked bar chart

Countries

Lollipop chart - worst performers in clean energy



Countries



Countries

merge and combine both

■ Best
■ Worst

FILTER

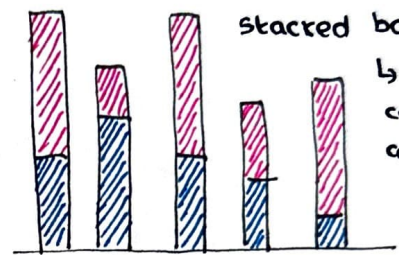
- Is there similarity between worst/top performers and can they be combined?
- Is a proportional symbol map better than a choropleth map?



choropleth
↳ varies saturation



proportional symbol
↳ shows ratio better

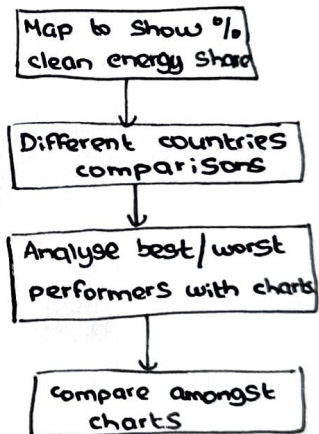


Countries

stacked bar chart

↳ shows good comparison.
can be made interactive

CATEGORIZE



We can have both best and worst performing countries in a single Ranked bar chart (By % clean energy share)

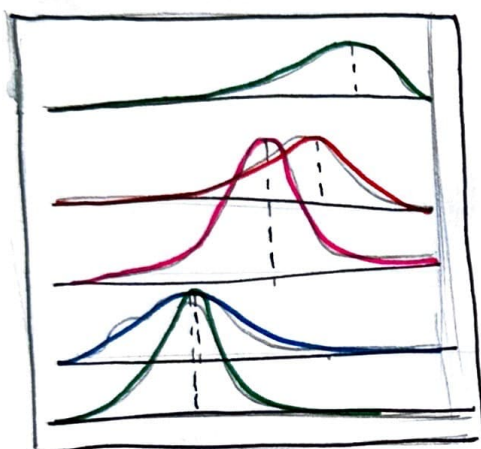
QUESTION

- Is story being told good?
- Is implementation doable?
- Is it aligning with main goal of evaluation and comparisons?

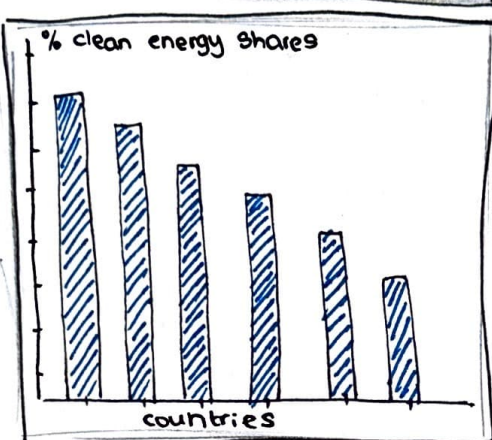
LAYOUT

(World map)

→ choropleth map showing % clean energy shares/countries



Ridgeline plot - commissioning year by top countries



Ranked bar chart to show top countries in % clean energy shares

Title: Clean energy shares by Countries

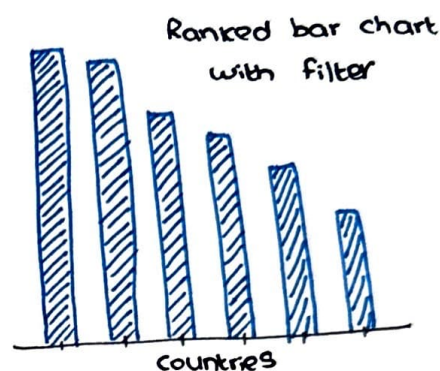
Author: Aditya Ryan Somarao

Date: 28/09/2025

Sheet : 2

Task: Visualize and compare % clean energy shares by countries

OPERATION



Country
China
India
UK
France
Mauritius

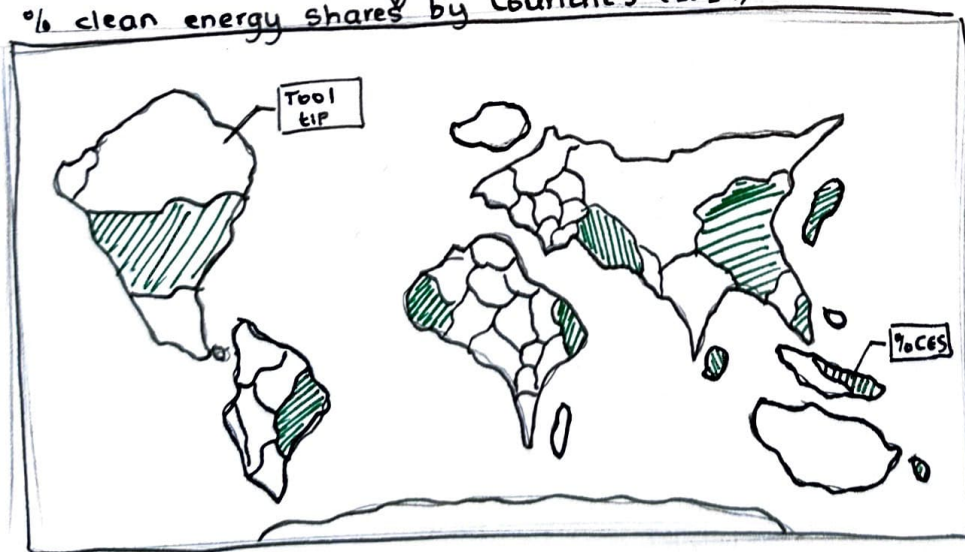
A drop-down 'Country' filter can be added to only display certain of the top countries.

FOCUS

Main Focus is on the choropleth map.

The other charts complement the choropleth map.

% clean energy shares by Countries (2024)



The focus is on the big choropleth world map. Shows an overview of % clean energy shares by countries. Countries with greater saturation are the sources of higher clean % of energy shares.



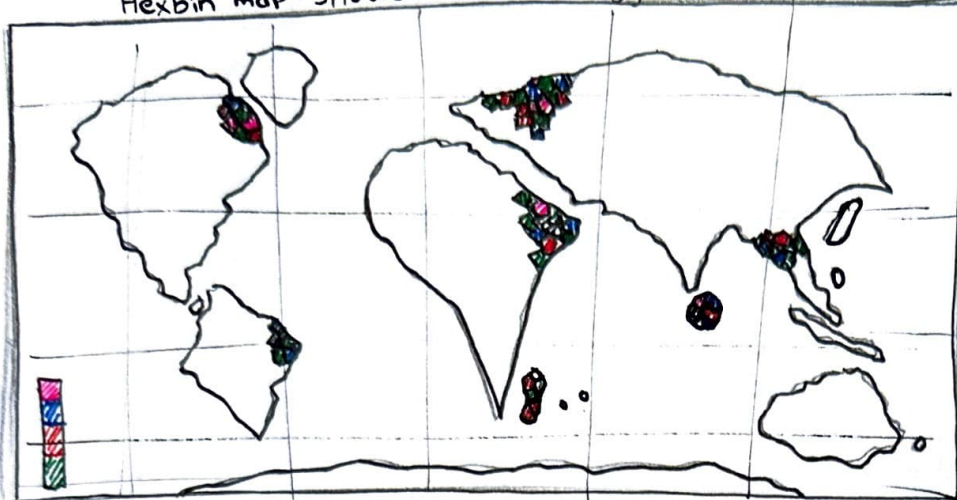
% clean energy shares/country

DISCUSSIONS

- ✓ Is sufficient information being displayed?
- ✓ More in-line text descriptions to be added in between charts and map
- ✓ Is everything being displayed relevant to the topic domain?
- ✓ Can we also include maps for individual countries and their regions?
 - ↳ or is it too much information?
- ✓ can additional interactive elements be added?

LAYOUT

→ Full world map
Hexbin map - shows % clean energy shares by countries



Title: Clean energy Shares by Countries

Author: Aditya Ryan Somaroo

Date: 30/09/2025

Sheet: 3

Task: Visualize and compare % clean energy shares by countries

OPERATION

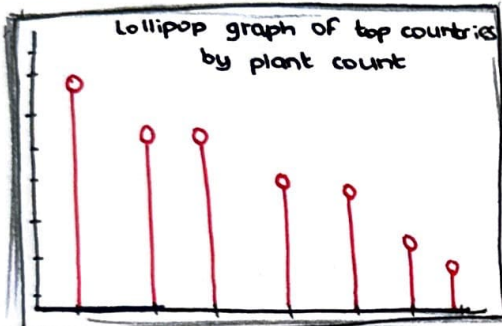


zoom-in/out

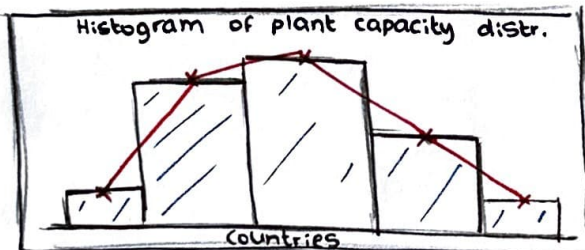
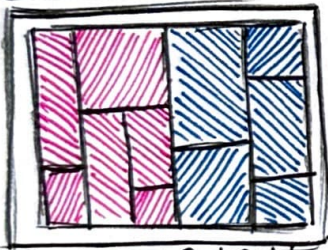
Bin map can be zoomed in and out to better analyse singular regions and clusters.

DISCUSSIONS

- ✓ Is sufficient information being displayed?
- ✓ Is story interesting enough?
- ✓ Are there too many charts or is it the right amount?
- ✓ Is implementation doable?
- ✓ Should more descriptive text be added?

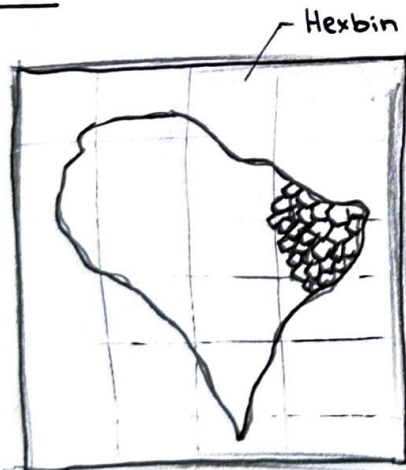


[DESCRIPTION + CONTENTS AND OUTCOME]



FOCUS

Tree map of best/worst performers



(Zoomed in view shown here)

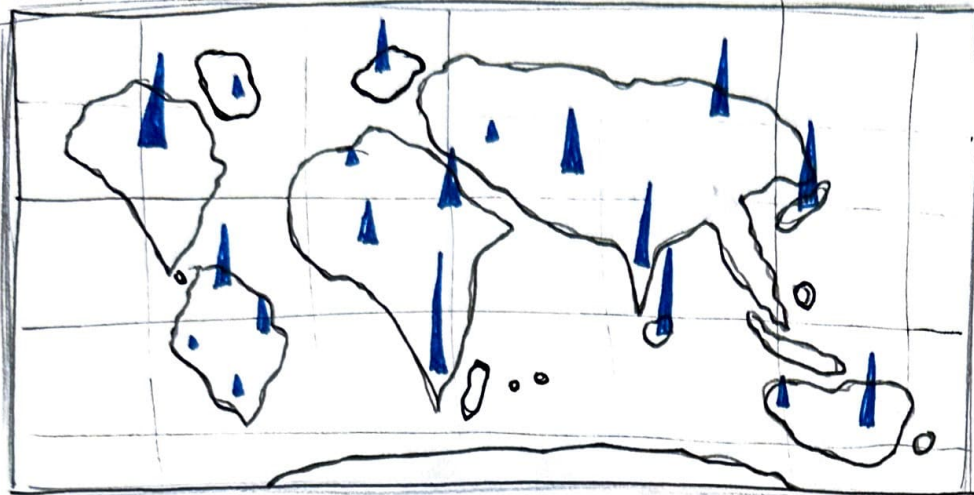
Worst
Best

Treemap also put into focus, showcasing the best/worst performing countries in % clean energy shares.



LAYOUT

Proportional symbol map - % clean energy shares by Countries



[INTRODUCTION

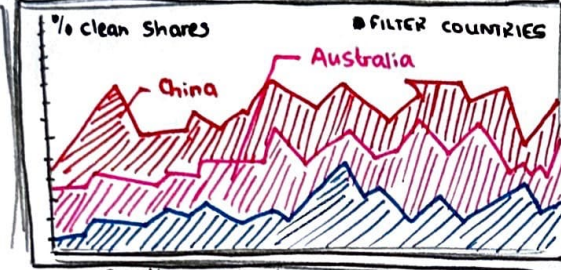
+

BODY
DESCRIPTIONS

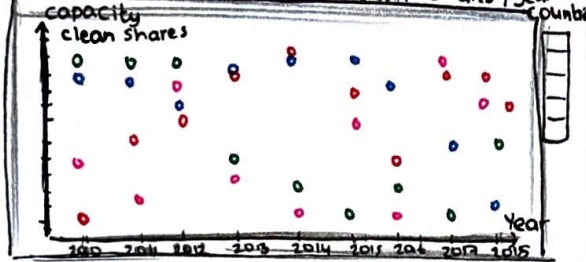
+

CONCLUDING
PARAGRAPH)

cummulative Area graph - clean shares



Scatter plot showing clean shares / year



Title: Clean energy Shares by Countries

Author: Aditya Ryan Somaroo

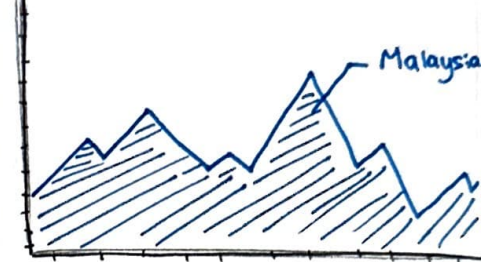
Date: 01/10/2025

Sheet: 4

Task: Visualize and compare % clean energy shares by countries

OPERATION

% clean shares

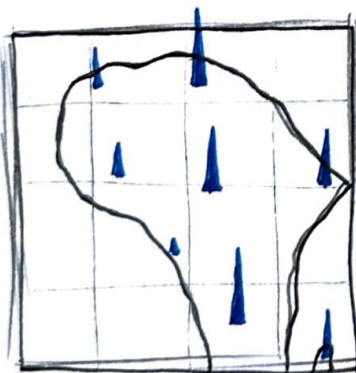


- ☐ France
 - ☐ Australia
 - ☒ Malaysia
 - ☐ China
- country filter

Add a country filter to the cumulative Area chart to only show selected countries on the chart

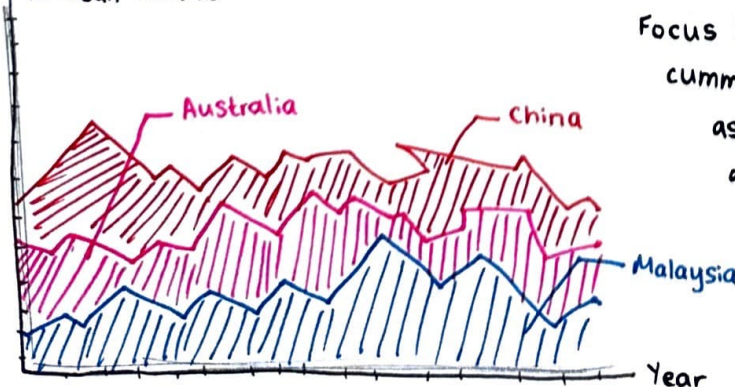
FOCUS

proportional symbol map



zoomed-in view

% clean shares



- Height of triangle
% clean shares for each country

The proportional symbol map shows triangles that display the % clean energy shares per country. Gives good / easy comparisons at a glance.

Focus is also on the cumulative Area graph as it shows how % clean energy shares grows with time.

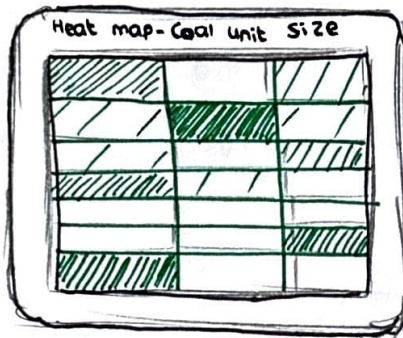
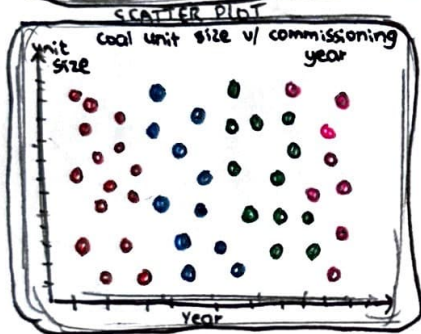
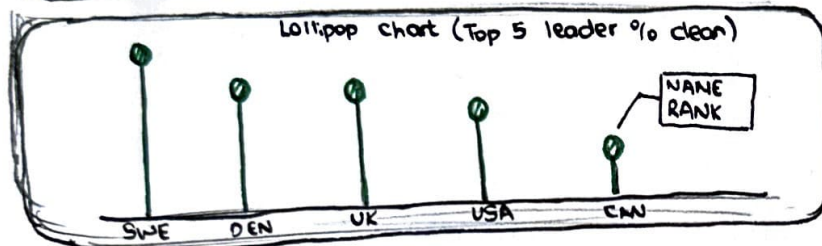
DISCUSSIONS

- ✓ Is enough information being displayed?
- ✓ Can some of the idioms be improved?
- ✓ Is the map accurately showing the data?
- ✓ Is implementation doable?
- ✓ Does the layout provide a good flow for users?
- ✓ Can further interactive elements be added?

LAYOUT

CLEAN ENERGY... [TITLE]

DESCRIPTION OF WHAT IS BEING ANALYSED



Title: Final Design Sheet

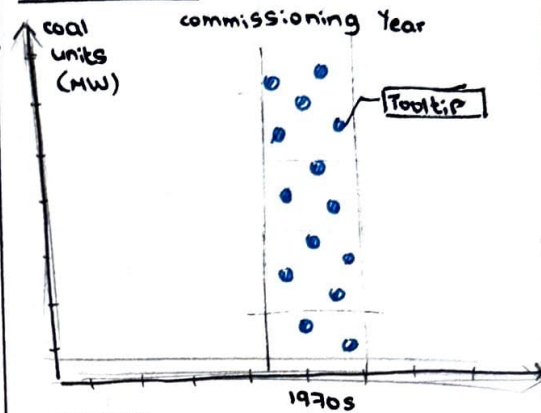
Author: Aditya Ryan Somaroo

Date: 01/10/2025

Sheet: 5

Task: Final implementation design

OPERATION



Decade
1960s
✓ 1970s
1980s
1990s

A decade drop-down filter added to scatter plot to view only data for specific decades.

Coal unit (MW) sliders also added.

Slider filters can also be added to the heatmap for more interactivity.

FOCUS

Focus is on the full website

① Choropleth map - shows % clean energy shares per country. Graticules 30 used. Shows an overview and introduction.

② Following ①, there is a Lollipop chart, which shows Top 5 leaders in % clean energy shares. Gives more context.

③ Scatter plot showing coal unit size per decade, to give more insights on coal, as compared to clean energy. Has slider and drop-down filters.

④ Heatmap of coal unit size per year also shows trends and how concentrated they are. Will also contain a slider filter.

* Conclusion bubble to give a conclusion of the Analysis.

DETAILS

✓ Opening paragraphs to give a small description.

✓ Small conclusion to analyse.

✓ Vega-lite + Pure CSS + HTML used to implement visualisation.

✓ Datasets used:

- Global power plant.csv
- GER.energy.shares.csv

✓ Cohesive colours / typography to be used throughout.

✓ Easy, not too time consuming to make.

Estimated time ~ 3 to 4 days

✓ Interactive elements to be used.