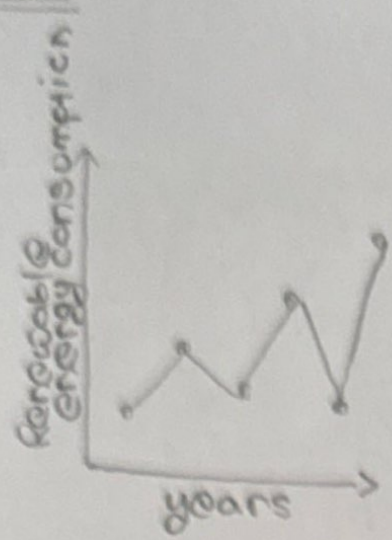
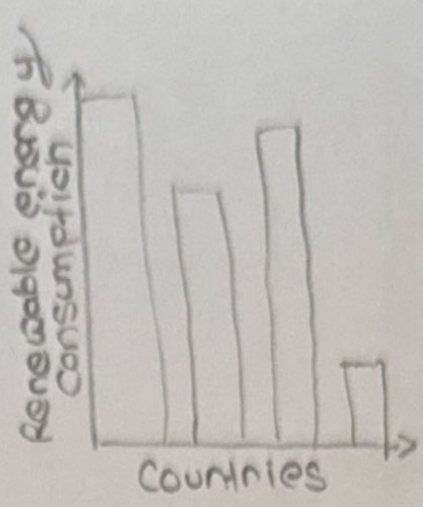


# Ideas

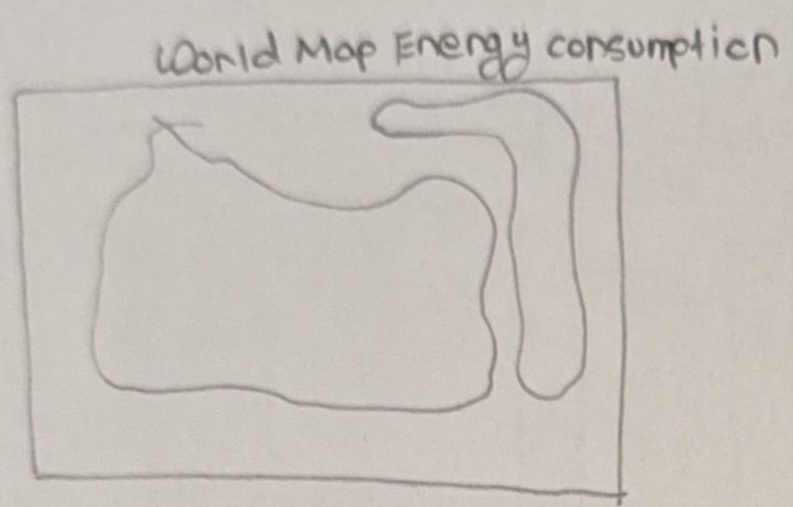
①



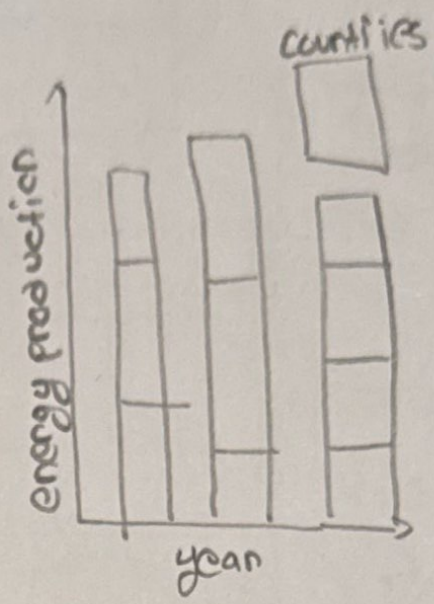
②



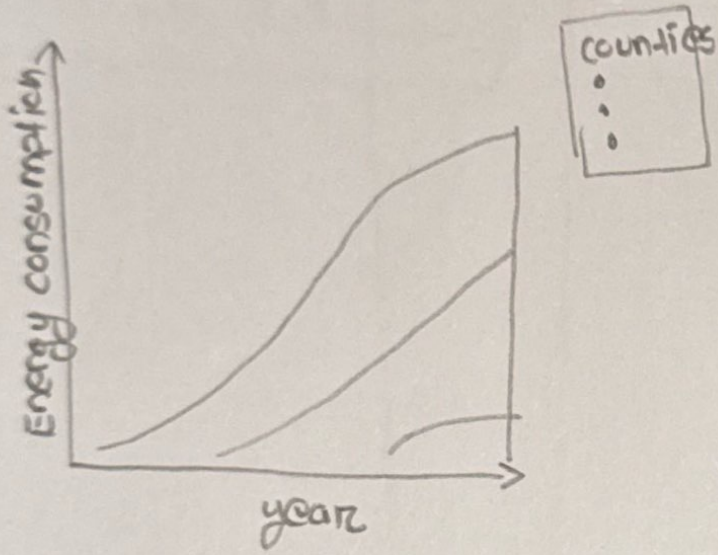
③



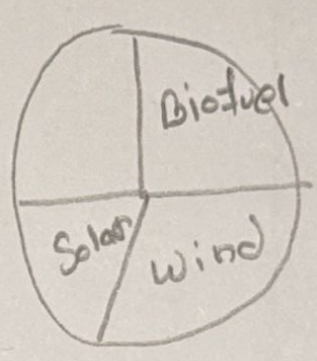
⑤



④



⑥



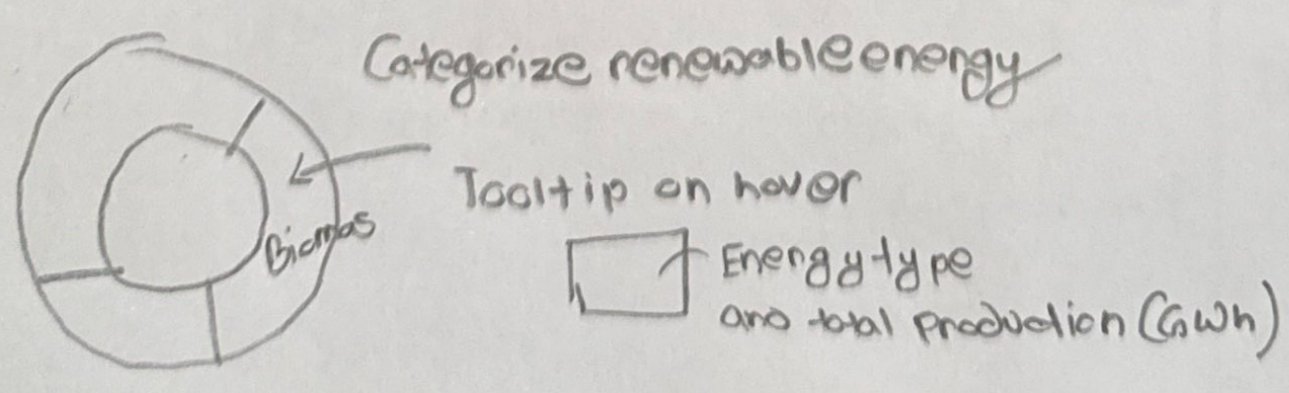
## Filters

- Remove Countries with 0 renewable energy data
  - might cause too much fluctuation in data to generate chart.
- Filter years from 1990 - 2020
  - Too old data might not be relevant to the present ideas about renewable energy.

## Categorize

- World Map [2]
  - Information about usage of renewable energy across globe
- ↓
- Renewable Energy production in Countries [5]
- ↓
- Countries with consumption of renewable energy [2]
- ↓
- Stacked area chart showing cumulative energy consumption over years. [4]

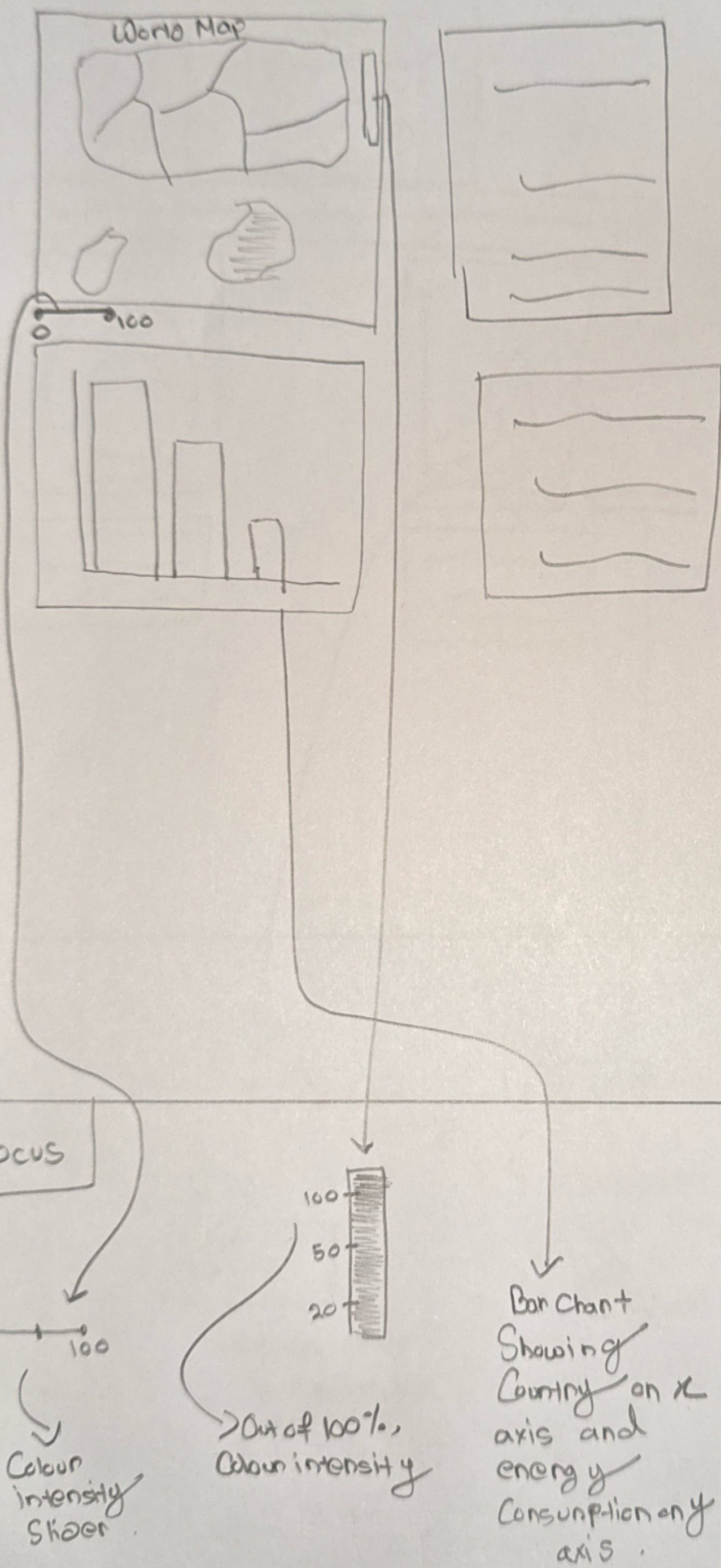
## Combined Refine



- Questions?
- 1) Are the visualization informative?
  - 2) Will people get terminology?
  - 3) Color palette ok?



# Layout



Title :- Visualisation 2

Author :- Ennamul Islam

Date :- 15th Oct, 2024

Sheet :- 2

Task :- Visualizing the Renewable energy Consumption by Countries across the World.

Operations :-

User interaction :-

- Hover over effects to display Specific data points
- Color intensity slider on the map to see Specific Color intensity ~~map~~ Countries

Discussions :-

Advantage :-

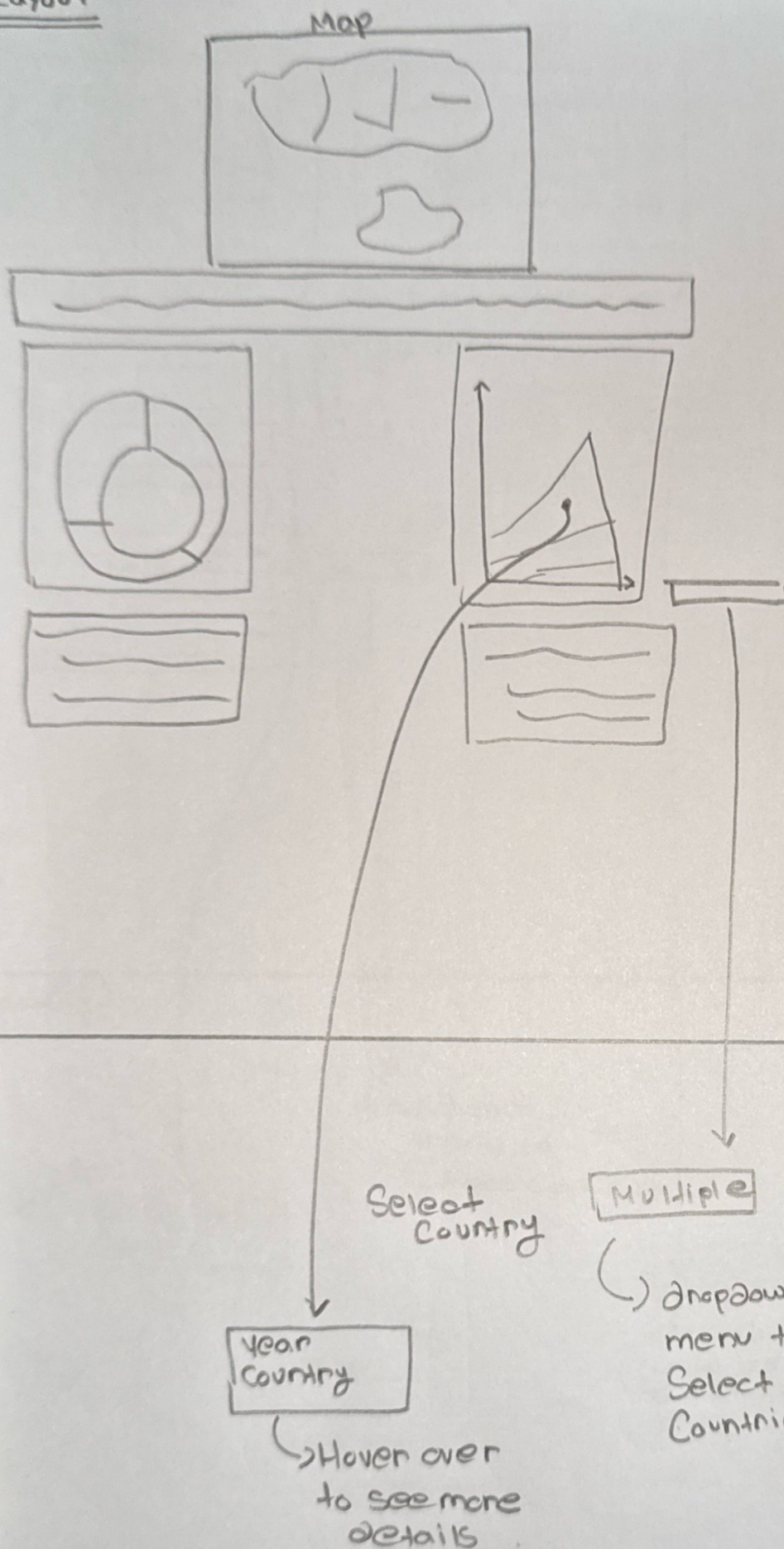
→ Clean enough Visualization for energy Consumption trends?

Disadvantage :-

→ Missing Countries in map will end up Showing 0 data.



## Layout



Title:- Visualization 2.

Author:- Ekram Islam

Date:- 13th Oct, 2024.

Sheet:- 3

Task:- Visualising the trend of the World adopting Renewable energy

Operations:-

User interaction:-

→ User should be able to hover over any area of the chart to see specific data points (e.g., points at a particular year for energy consumption).

→ Controls:-

→ Country selection in a dropdown menu.

Discussions:-

Advantages:-

→ Clear visualization of cumulative performance ~~over~~ of countries in usage of renewable energy over time.

→ Easy to identify the leading country in renewable energy consumption.

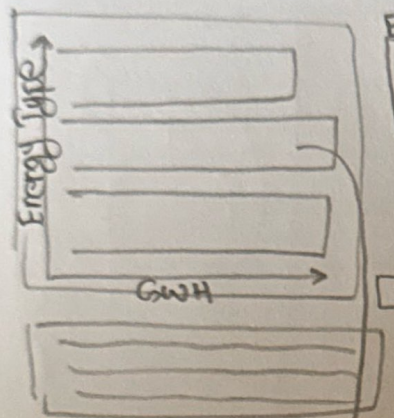
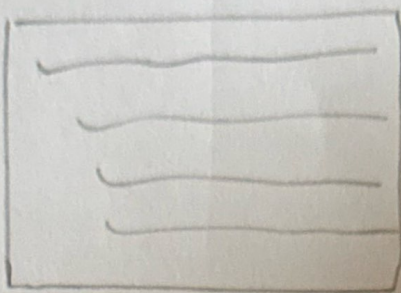
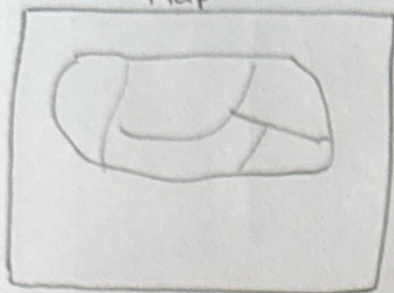
Disadvantage:-

→ Overlapping areas might get it difficult to distinguish.



Layout

Map



Energy type



All

Focus

hover

Energy Type  
GWh

Dropdown menu to  
Select Countries

Legend to  
Show Colour  
code of  
different  
Energy type

Title - Visualisation 2

Author - Enamul Islam

Date - 15th Oct, 2024

Task - Visualizing  
Sheet - 4

Operations -

User interaction -

→ The user should be able to hover over any area of the chart to see specific data points

Controls -

→ The dropdown menu should give user accessibility to choose the country

Discussions -

Advantages -

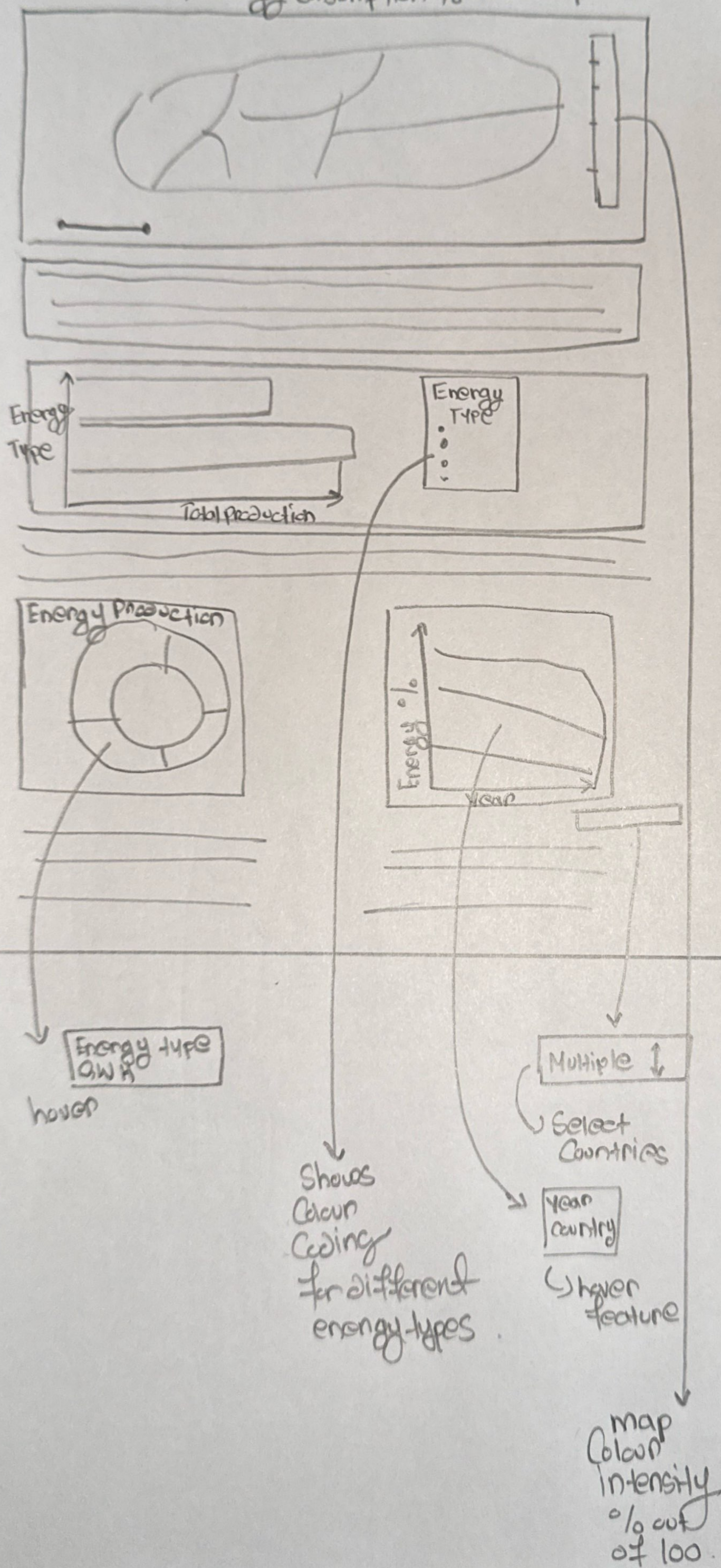
→ clean visualization of energy type of countries in GWh?

Disadvantage -

→ Might be difficult to visualize each and every country



# Global Energy Consumption % 2020 Map



Title % - Visualization 2  
 Author % - Ekramul Islam  
 Date % - 15th Oct, 2024  
 Sheet % - 5  
 Task % - Final Design Sheet

Operations % -  
 \* All data preloaded  
 • User Interaction % -  
 → Users should interact with each charts to select year and countries  
 → World Map shows the amount of renewable energy used by different countries  
 → Donut chart shows the different kinds of energy production  
 Controls % -  
 → Filter % - Country  
 → Hover % - To see more details about data  
 → Interactive legend.

Detail % -  
 • Time to Build % - 24-30 hours  
 • Data Source % - Kaggle, World Bank Group, Natural earth Data  
 • Colour Scheme % - Green Spectrum  
 • Data Ranges % - 1990 - 2022