

TITLE : FIT3179 Assignment 2

AUTHOR: MALIHA TARIQ

DATE : 22.10.2025

SHEET : 1

② FILTER

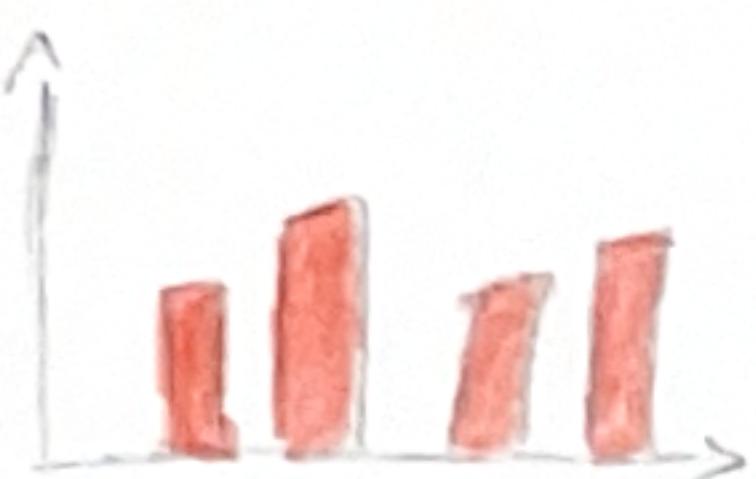
- will remove the network graph as too many node connections make the figure unreadable & very cluttered

① IDEAS

1 - Chloropleth map



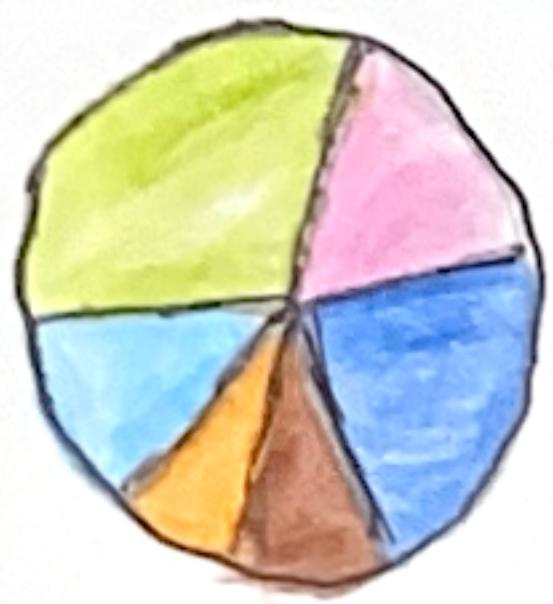
2 - BAR CHART



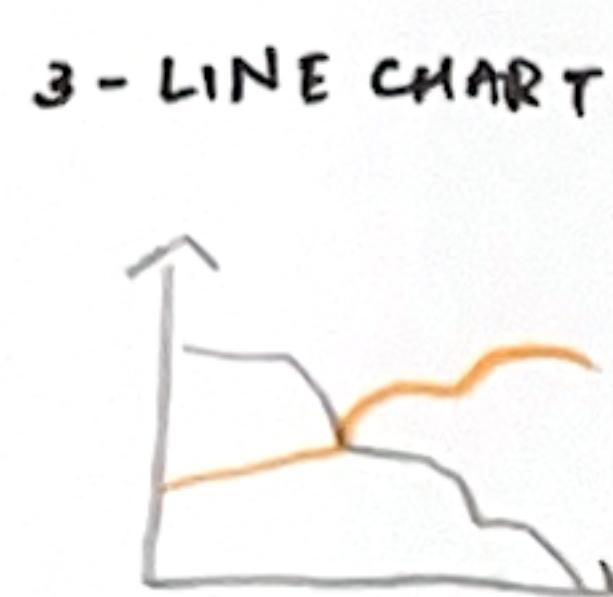
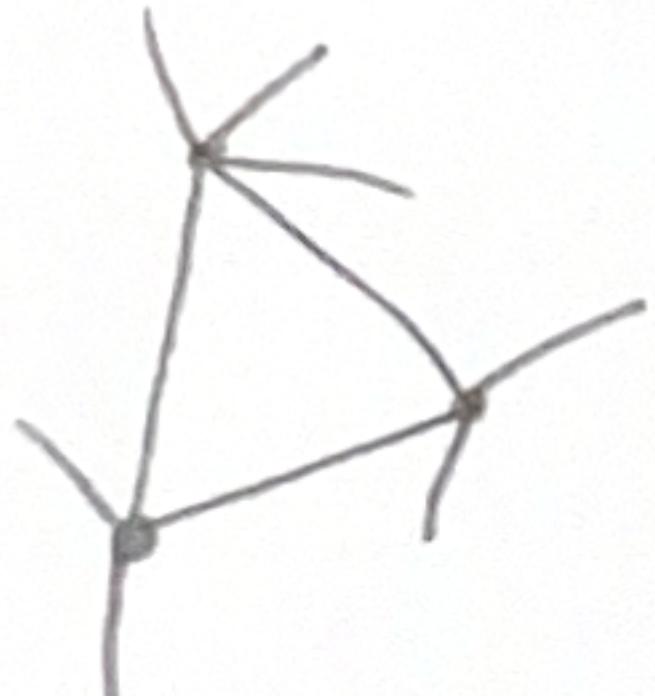
4 - Heatmap



6 - PIE CHART



8 - Network Graph



5 - Donut



7 - STACKED AREA



9 - SCATTER PLOT



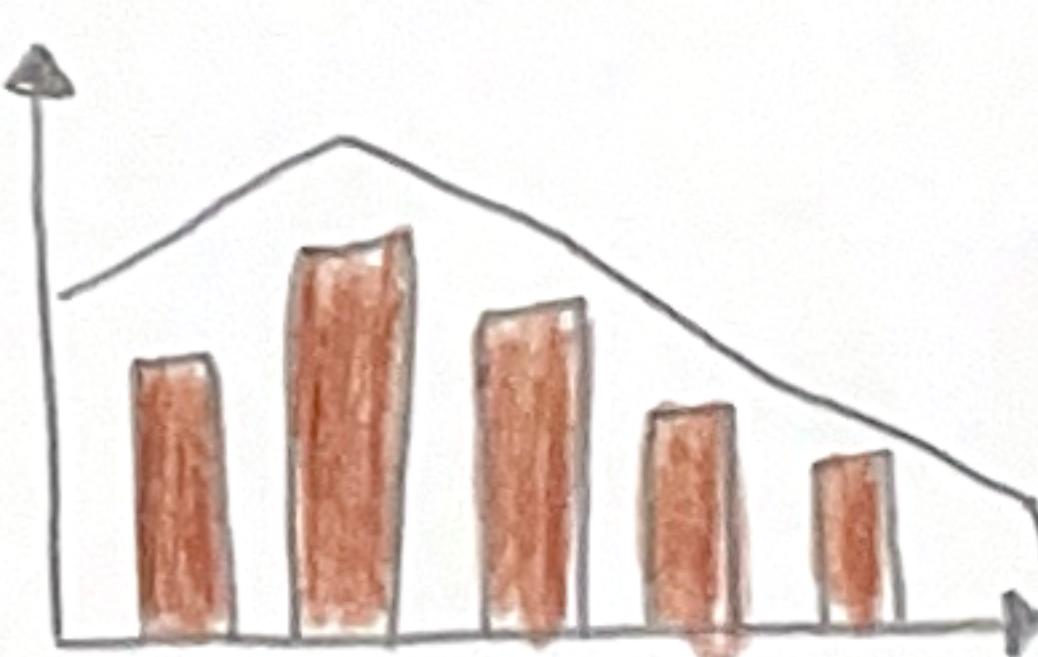
③ CATEGORISE

① chloropleth map: To show location of earthquakes with magnitude

② & ③ - To show the damage caused by earthquakes

⑥ & ⑤ - To show top 5 countries with highest magnitude quakes.

④ COMBINE & REFINER



using bar chart to show the no. of quakes in countries over 25 years

- use line to show the pattern

⑤ QUESTIONS

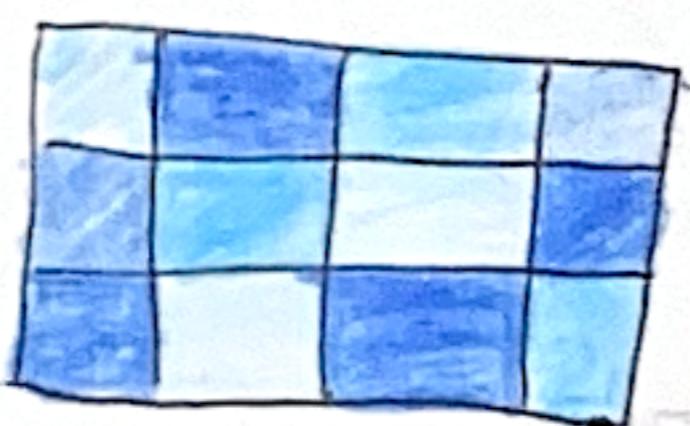
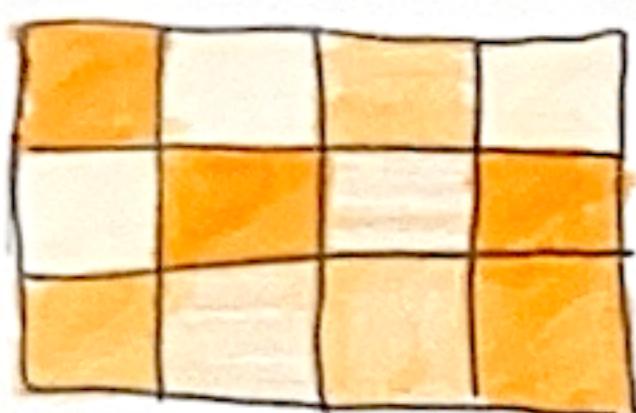
- where do the highest quakes occur?
- how deadly are they?
- how costly are they?
- how have the earthquake locations changed over time?

LAYOUT

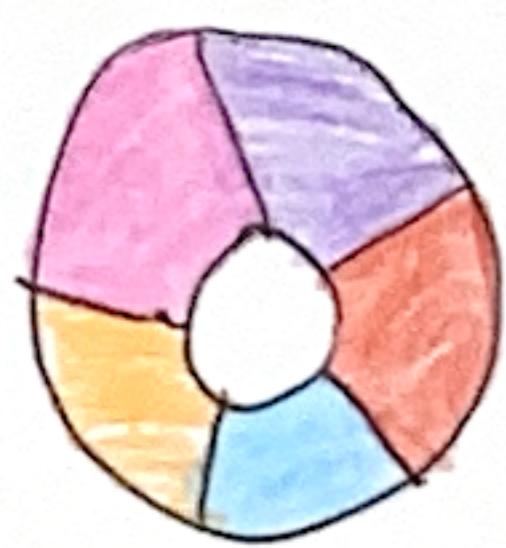
TITLE



FILTERS : YEAR



heatmaps



DONUT .



PIECHART

DISCUSSIONS

advantages:

- each section is well defined & easy to understand
- portrays a clear story

disadvantages

- ~~too many~~
- size of graphs are fixed & might be hard to understand
- heatmap might be hard to read.

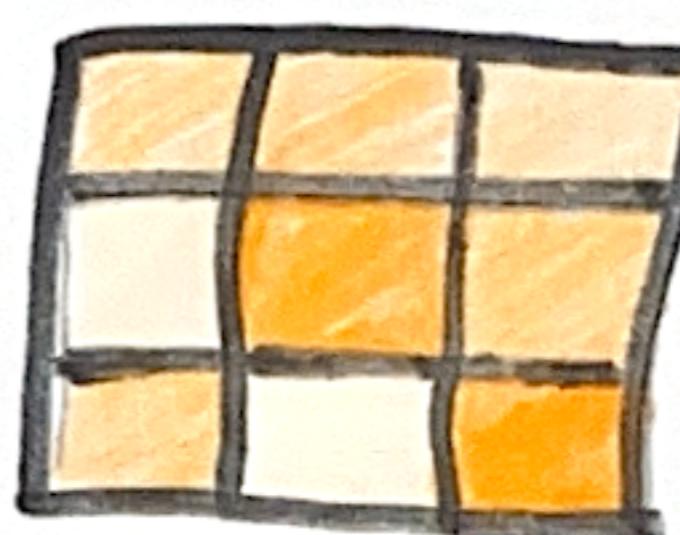
TITLE: ASSIGNMENT 2

AUTHOR: MALIHA TARIQ

DATE: 22 - OCT - 25

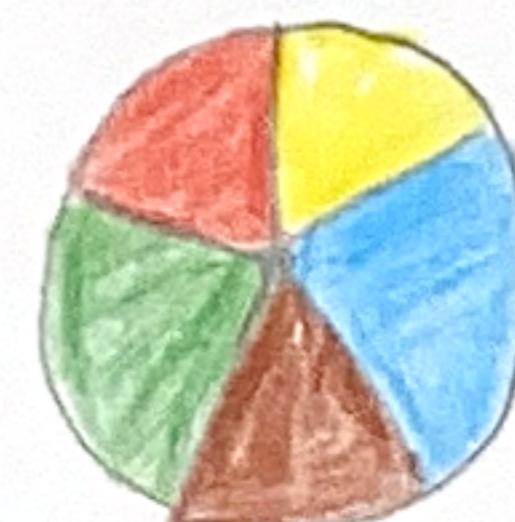
SHEET: 2

FOCUS



→ shows the years and the no. of earthquakes as well as the magnitude.

To show damage caused to countries during a whole year



- To show TOP 10 countries with the highest deaths due to earthquakes over 25 years

OPERATIONS

- Year filter for map & the heatmaps

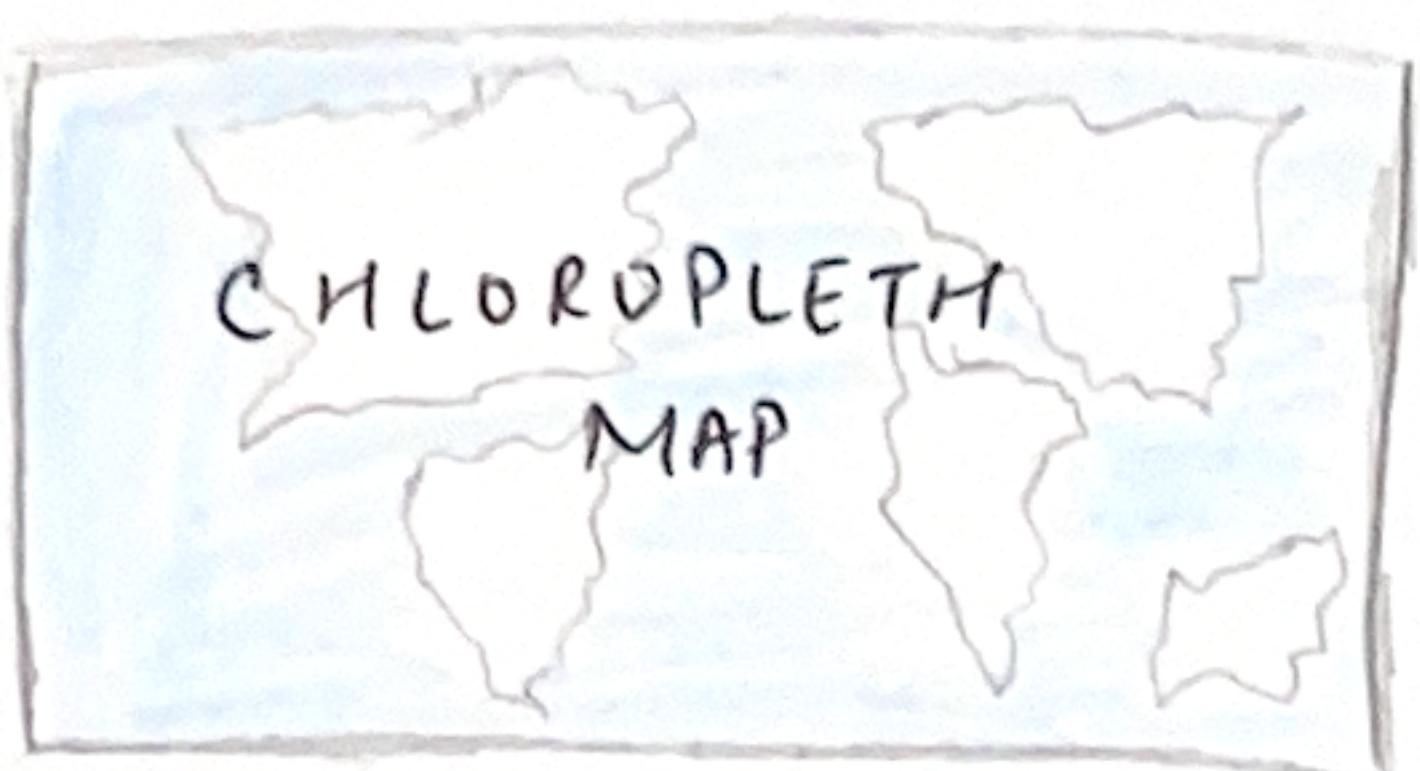
YEAR ————— 2011
- Year filter for donut chart

YEAR

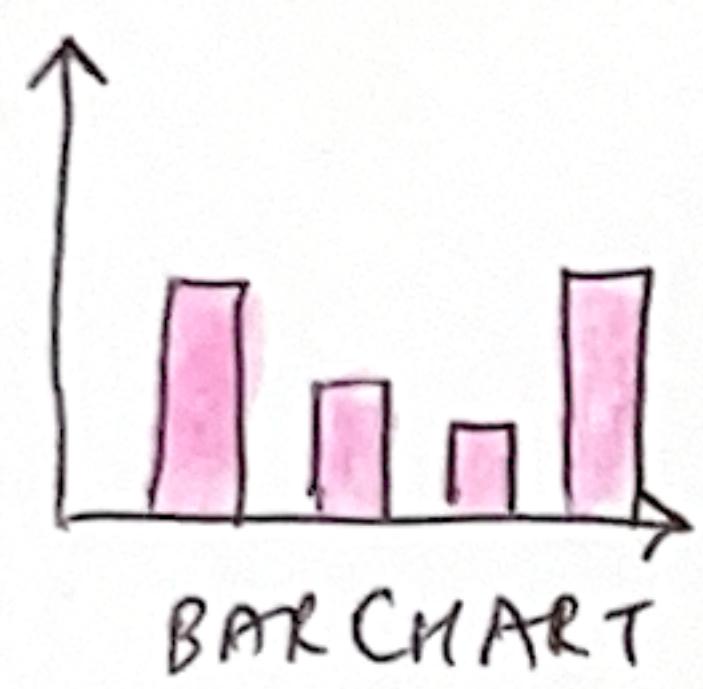
<input type="checkbox"/>	2000
<input checked="" type="checkbox"/>	2001
<input type="checkbox"/>	2002
<input type="checkbox"/>	2003
⋮	
- Add legends for chloropleth map

AYOUT

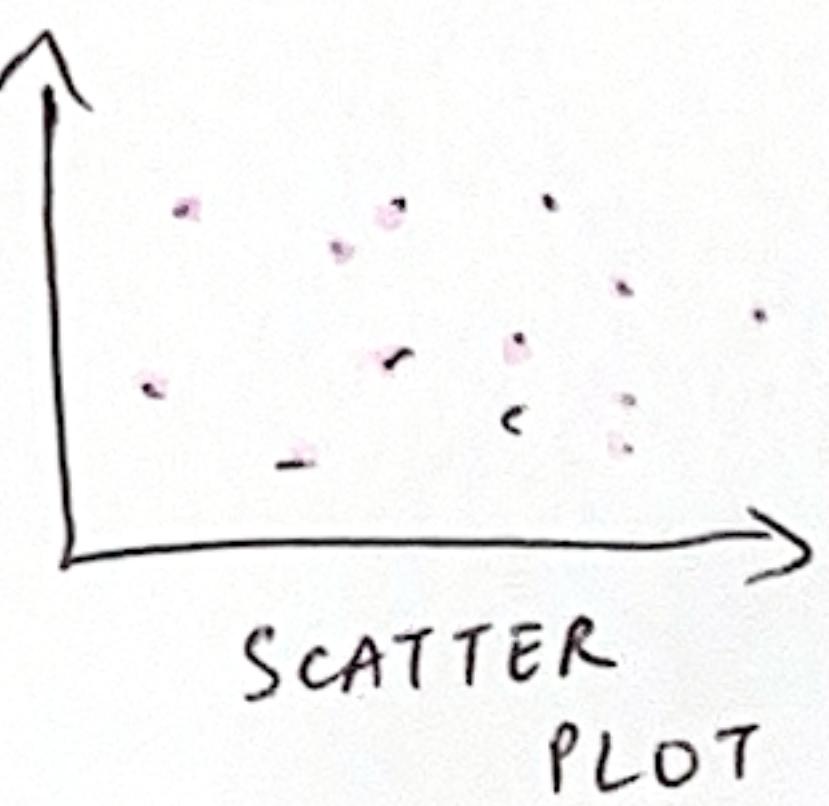
TITLE



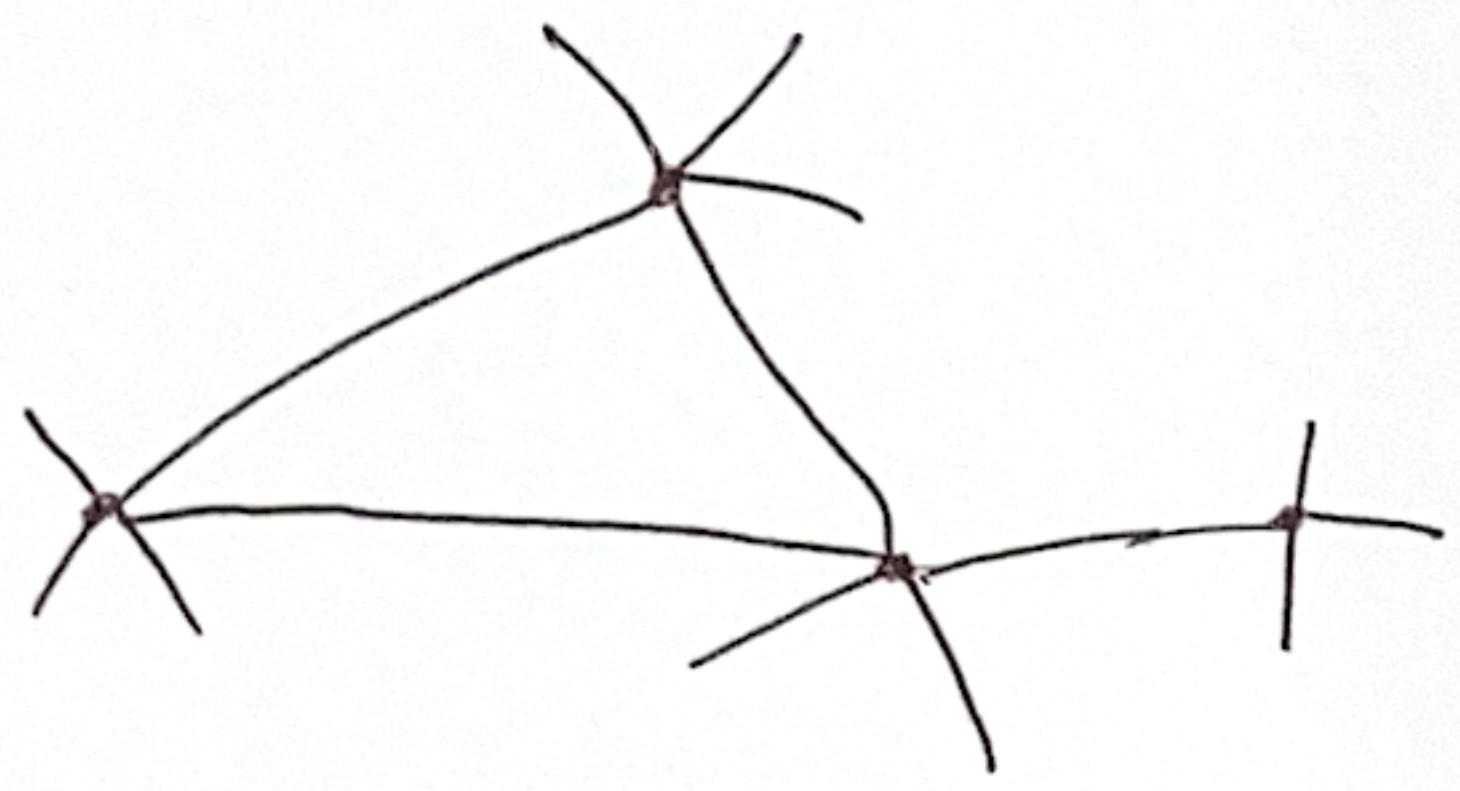
YEAR FILTER



BARCHART



SCATTER PLOT



NETWORK GRAPH

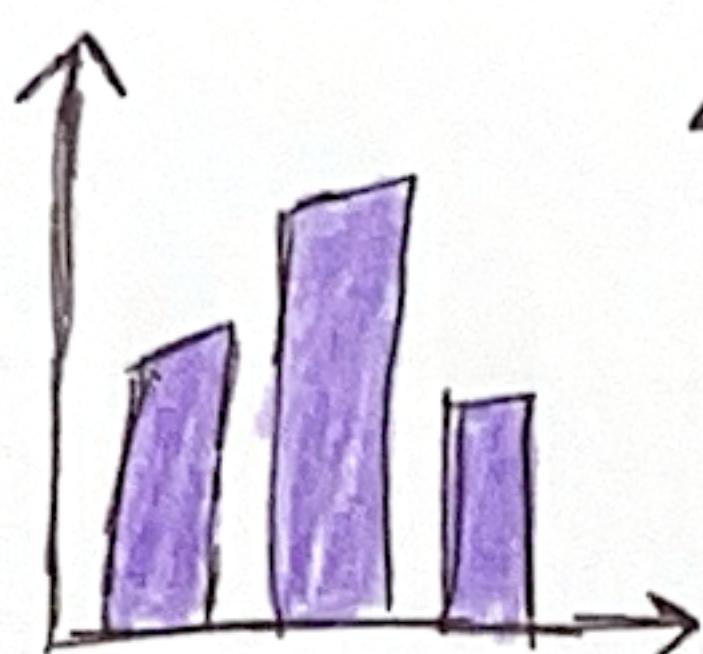
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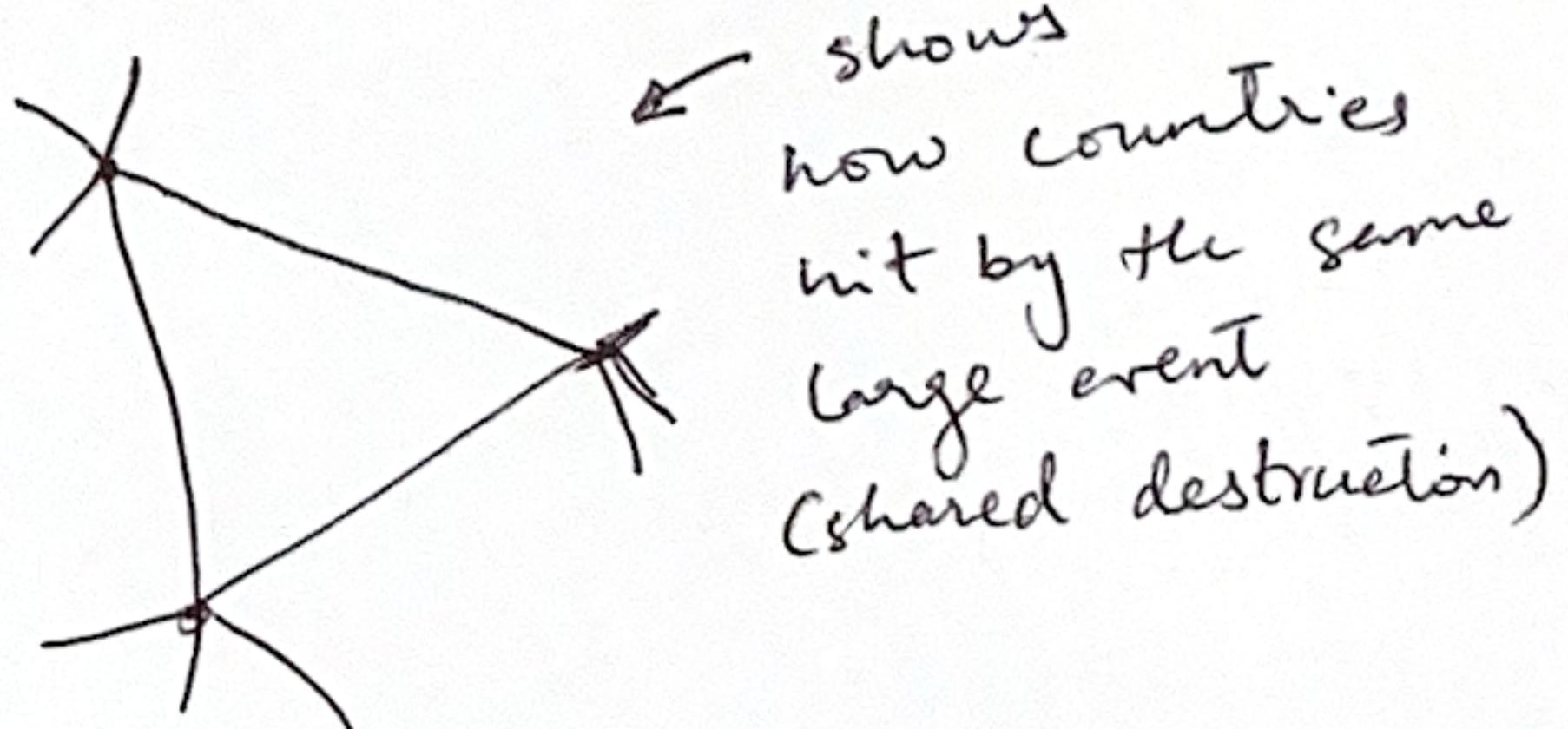
SHEET : 3

FOCUS



To show top 5 countries with deaths due to earthquakes

To show magnitude vs depth



shows how countries hit by the same large event (shared destruction)

DISCUSSIONS

PROS

- Network graph is visually appealing

CONS

- Scatter plot might not be suitable for presenting country earthquakes data

OPERATIONS

- Year filter for map & barchart

- Tooltip will be shown when any idiom is hovered over.

PROS

- Year filter makes it easier for users to view specific year & compare.

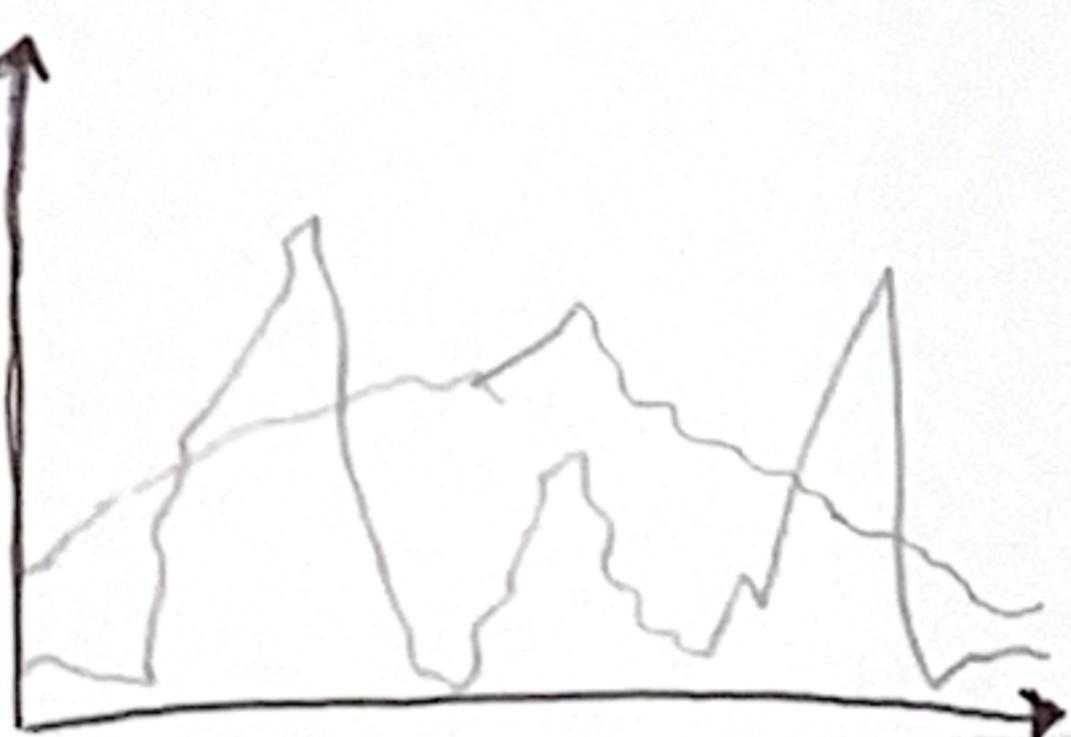
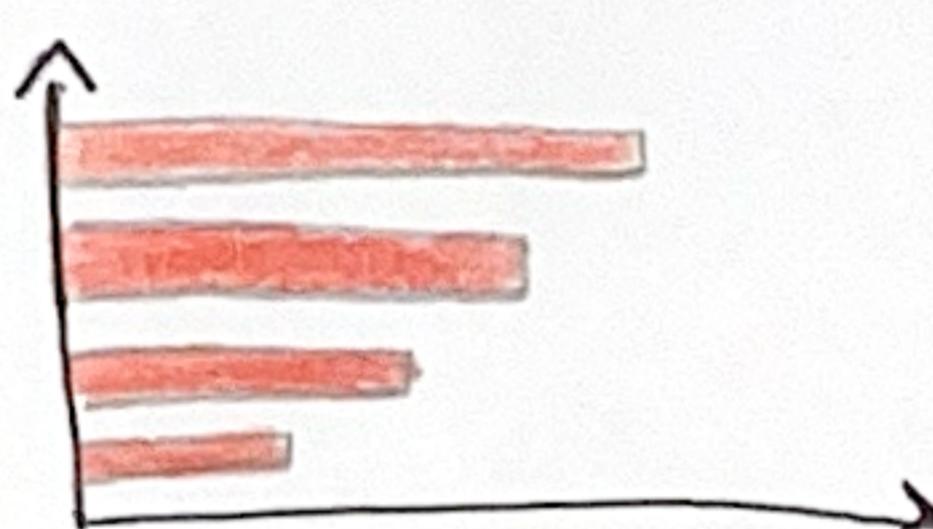
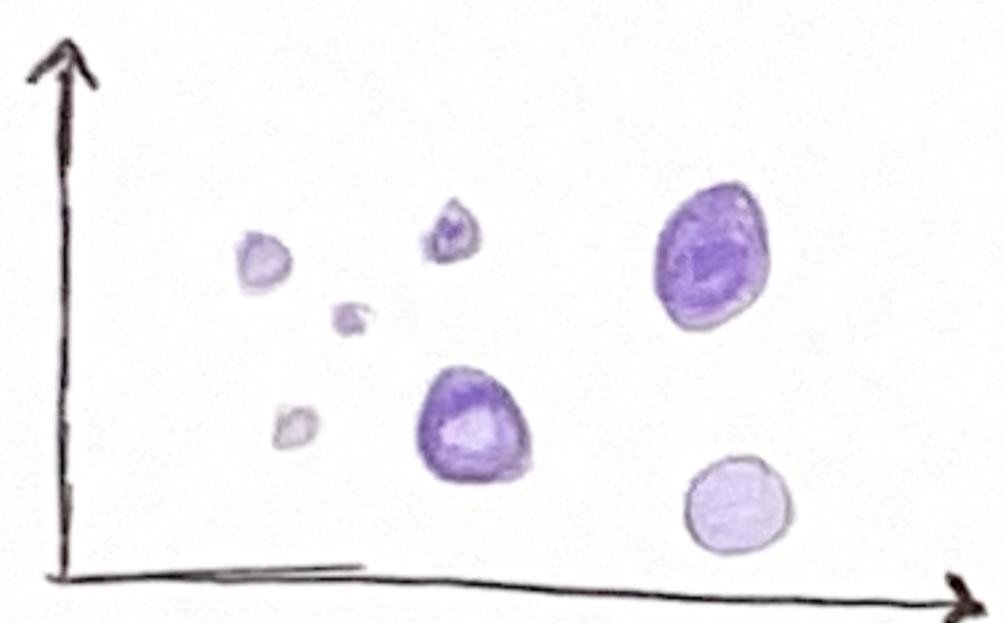
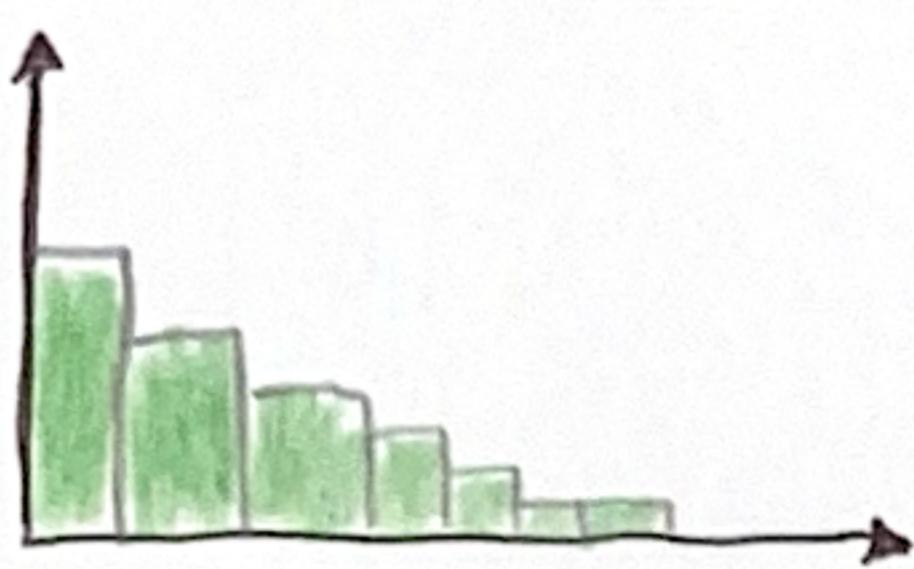
AYOUT

TITLE



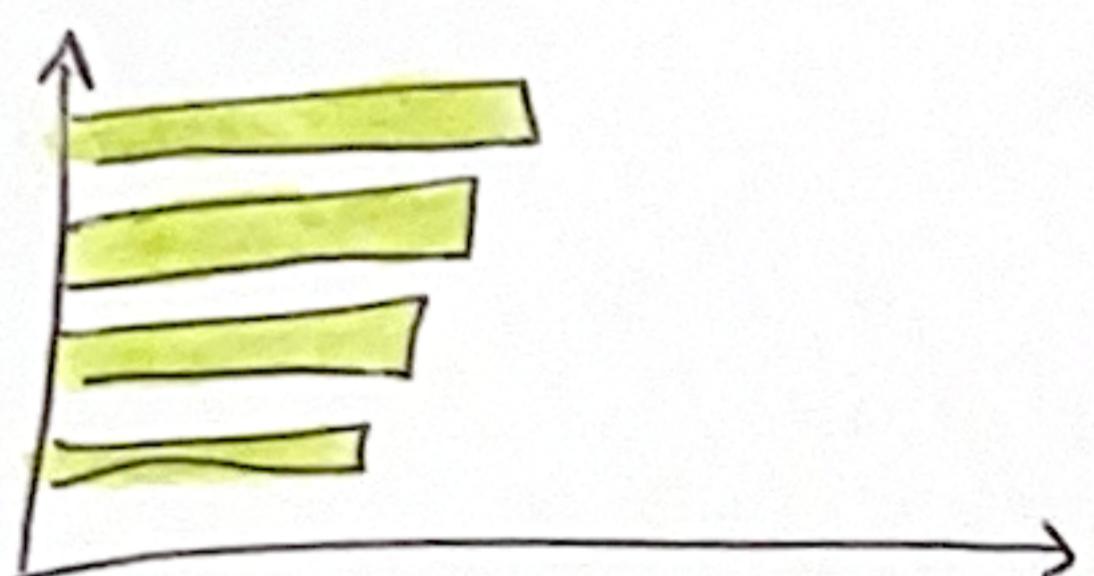
Year

2012

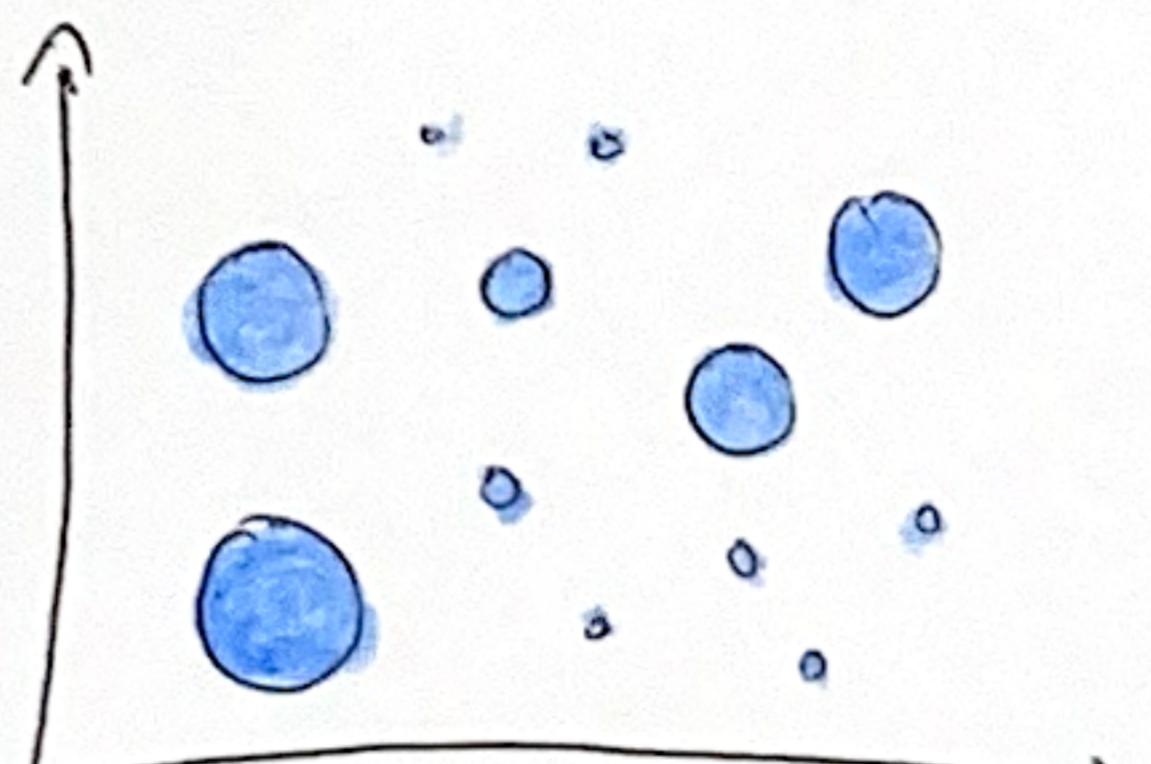


OCUS

Top countries by impact
shows both by
- deaths
- damage
accumulated over the years;



Magnitude vs
Fatalities
on a log scale



economic damage
per year in USD

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SHEET: 4

OPERATIONS

- Year filter for chlorophth map, and for line chart.
- ToolTip - will be shown when hovering over any chart.
- add annotations
- Min magnitude for the chlorophth graph

6 ————— 7

DISCUSSIONS

PROS:

- clear layout of visualization
- interactive features

CONS:

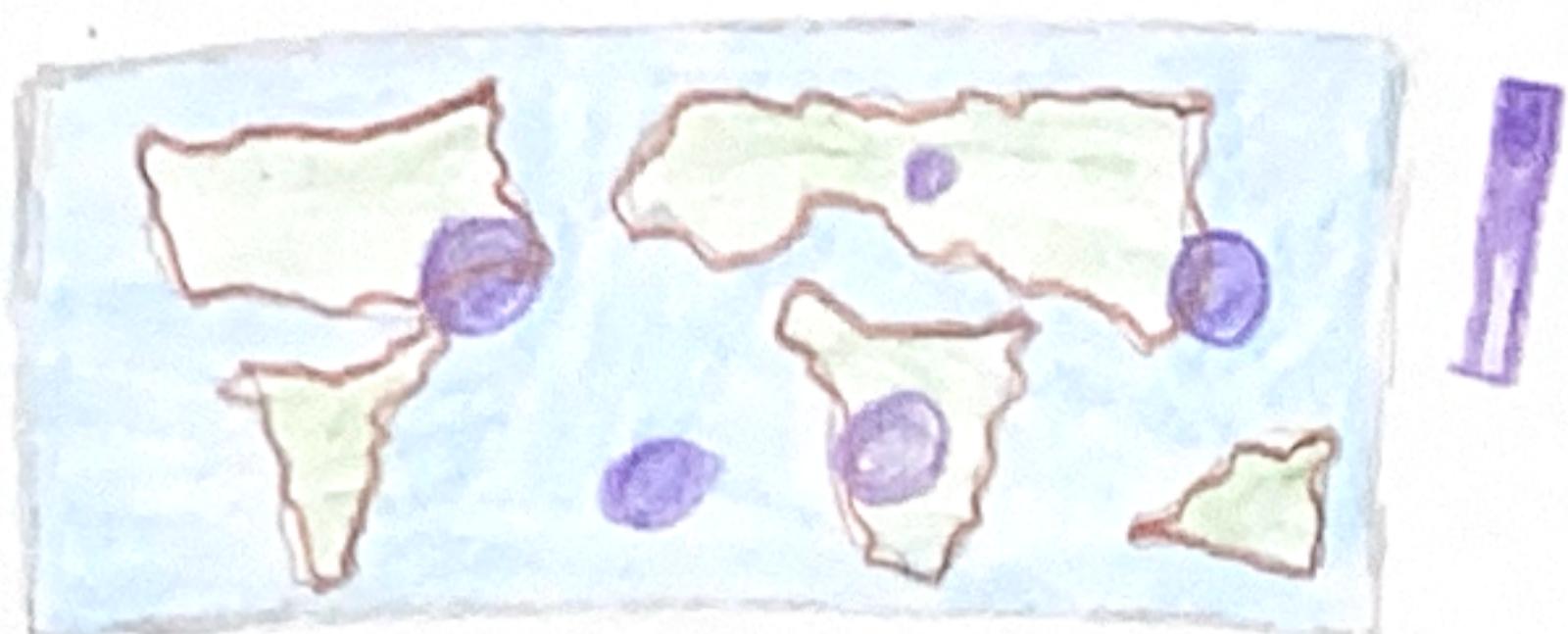
- No text description provided so will be hard for users to interpret.

LAYOUT

GLOBAL EARTHQUAKES

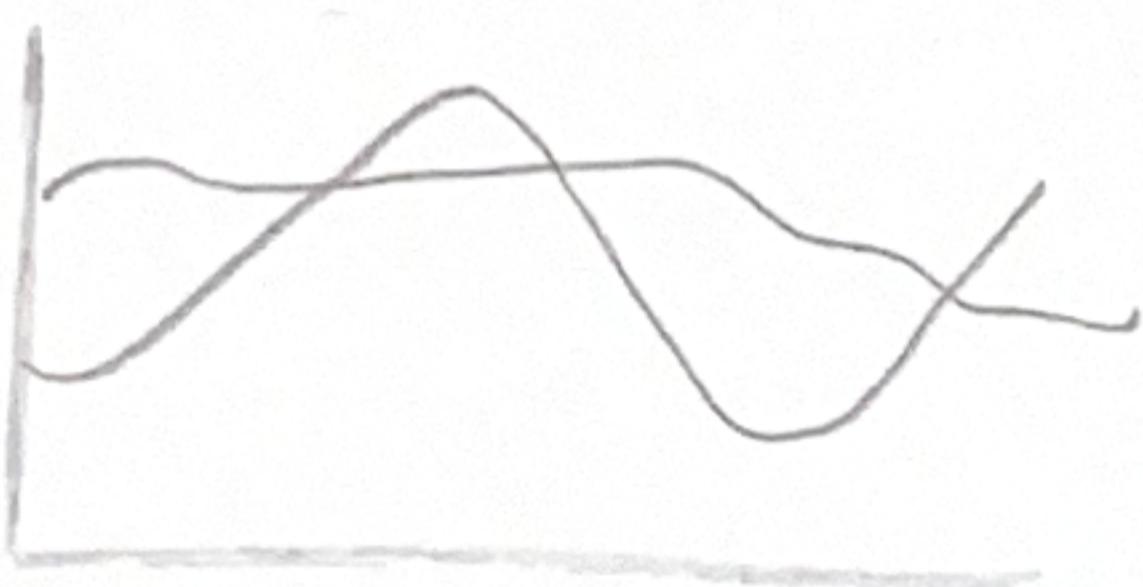
subtitle text

LOCATION OF EARTHQUAKE



Year filter — 2011
Min Magnitude — 6

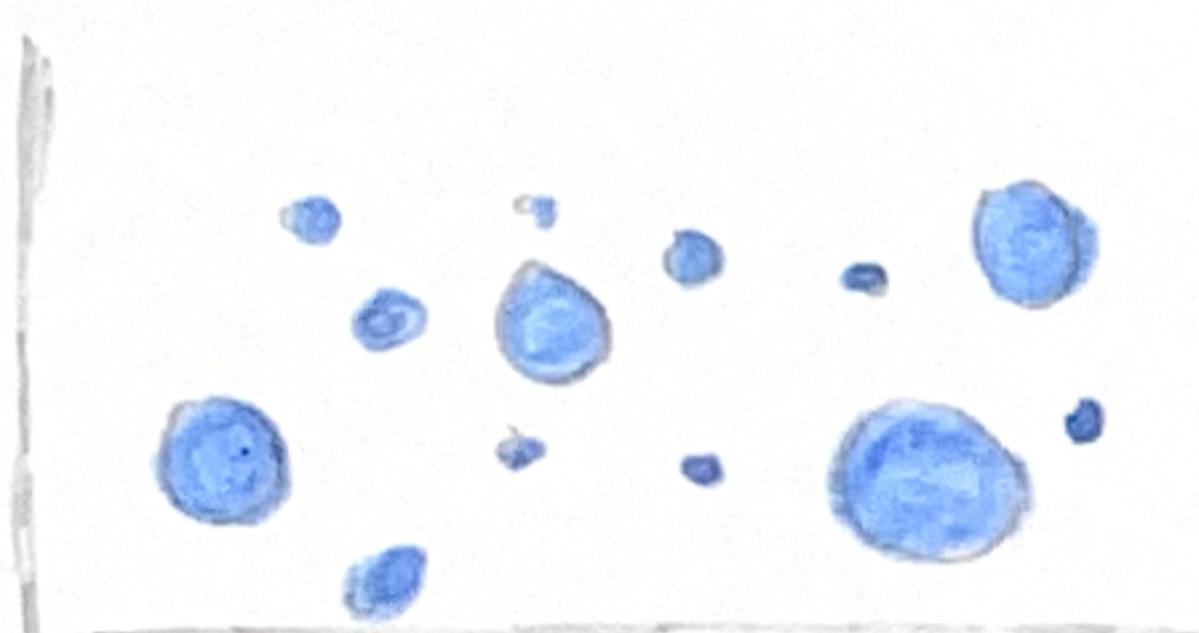
QUAKES PER YEAR



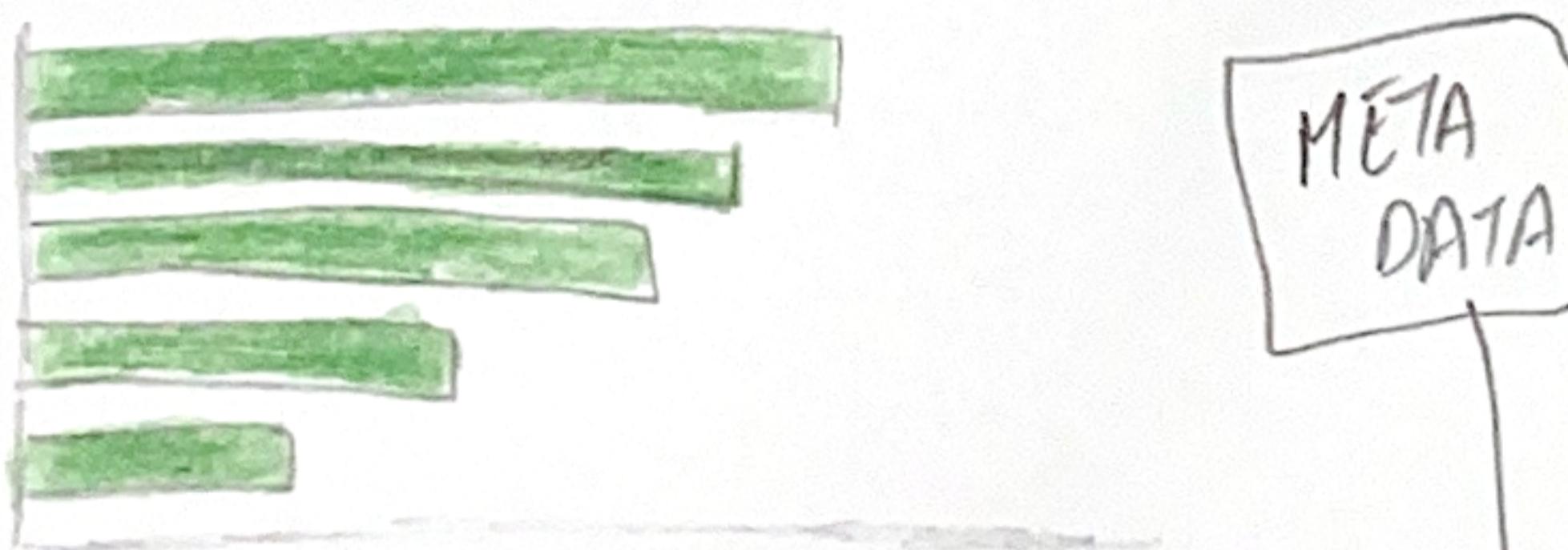
MAGNITUDE DISTRIBUTION



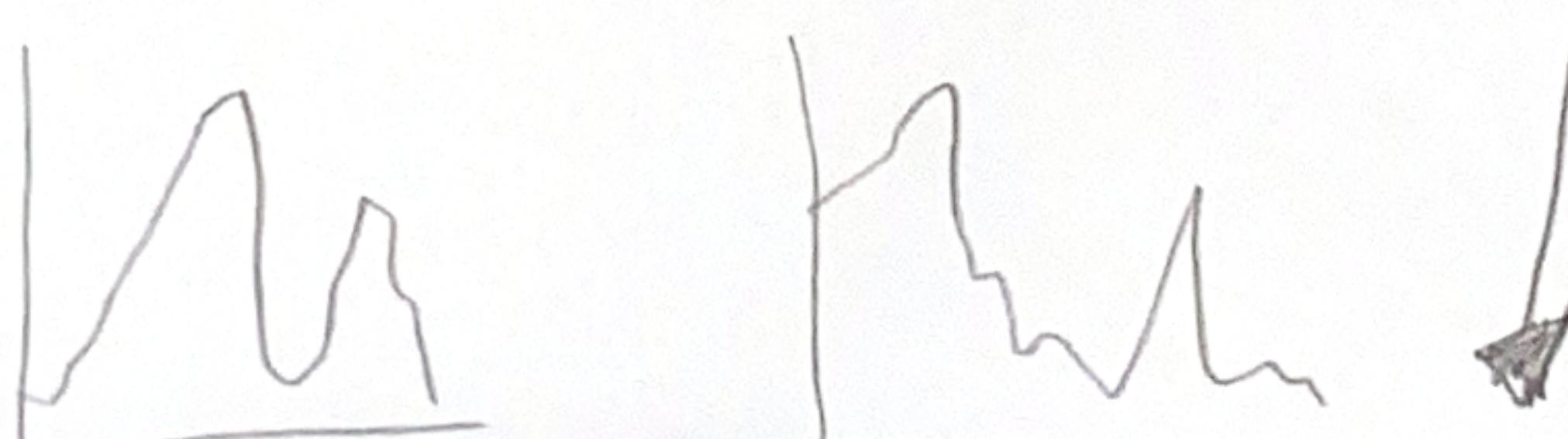
MAGNITUDE VS FATALITIES



TOP COUNTRIES BY IMPACT



YEARLY IMPACT TRENDS



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SHEET: 5

FOCUS

- each chart is separated into different subsections for better clarity.
- equal focus to every graph, but map will be main.

OPERATIONS

- Year & Min. magnitude filter for choropleth map
- deaths/damage dropdown for "TOP COUNTRIES BY IMPACT" chart
- Tooltip for every chart shown when hovering over it.

DETAILS

DATASET:

- USGS earthquake catalog
- NOAA significant earthquake database
- TOPOJSON File for map

DEPENDENCIES:

- JS, CSS for styles, HTML
- Github

EXTRAS:

Dataset cleaning required ≈ 1 day

TIME TO BUILD: 1 week / 10 days