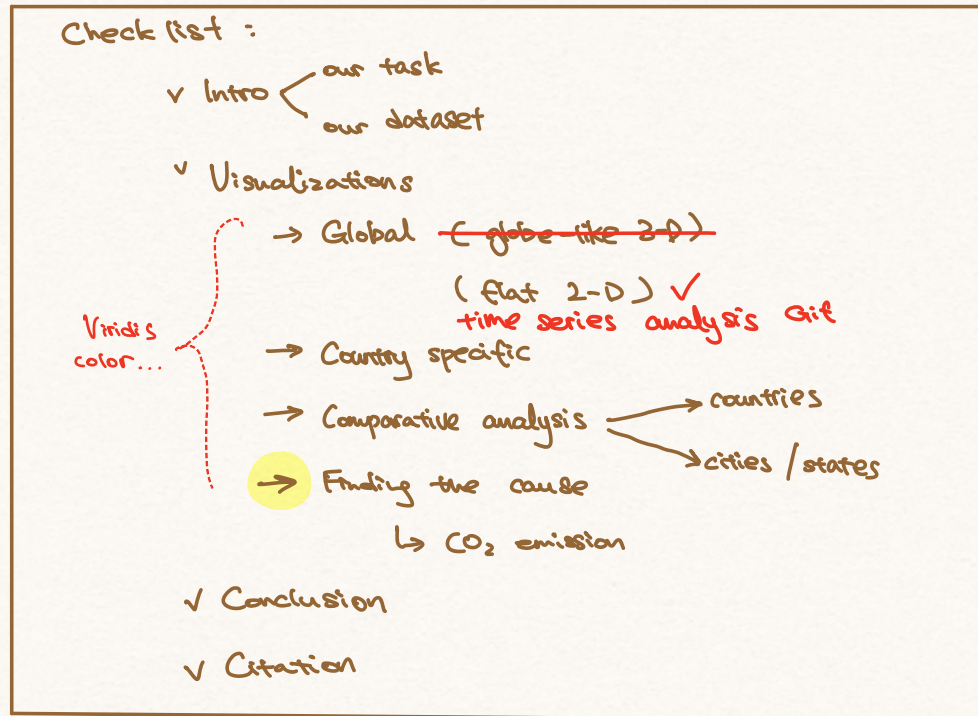


Title: Changes in global temperature

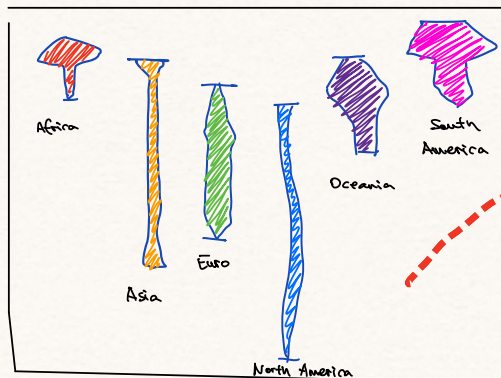
members: Tian Chen. Lucas Lu. Jialin Wu



INTRODUCTION:

our task is to analyze global temp change ...

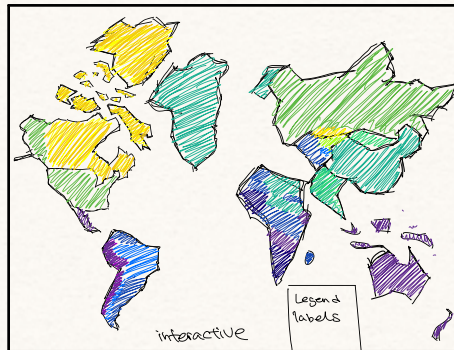
our dataset contains time period 1743 ~ 2013 ...



Idea: make continent violin plot to have a general view of average temperature

VISUALISATION:

Global Map :



Global map 1 :

- Interactive plot ...



Global map 2 :

✓ time series analysis

✓ gif ?

time : yearly change

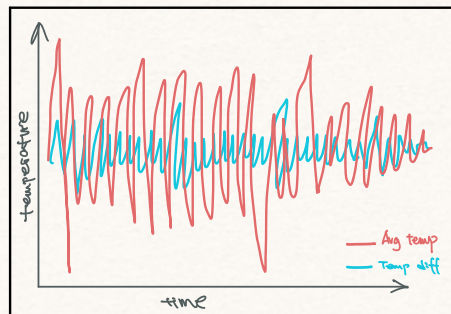
Country Specific :

✓ Line plots

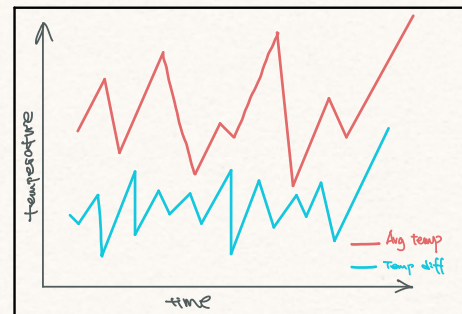
✓ Subset data

USA
Russia
Singapore

monthly temperature
& yearly



monthly



yearly

Compare Countries :

how to compare

China & the United States

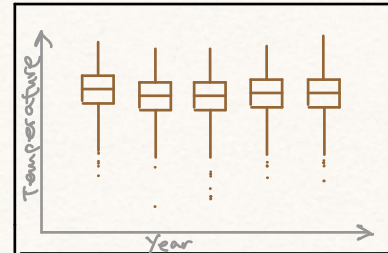
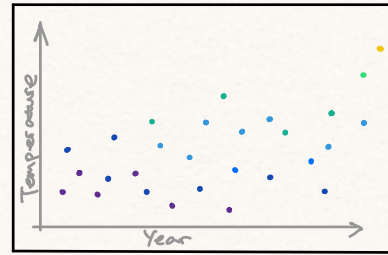
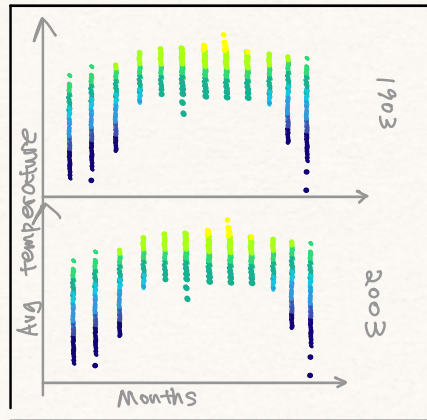
For both two countries: visualize the following.

For boxplot : using 40 yrs temperature
↳ select a base year per 5 years.

✓ dot plot ?

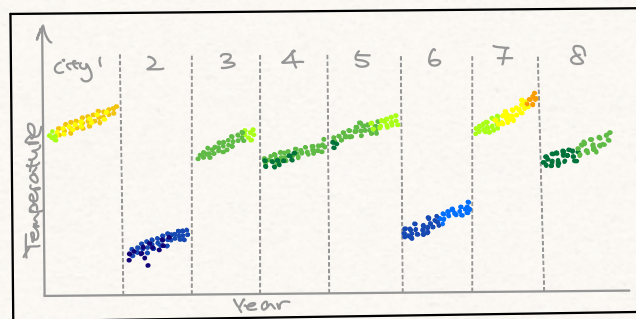
~~✓ line graph ?~~

✓ box plot ?



Compare cities / states

- Compare ^{average temperature change} cities / states within each country
- Select cities / states from diff location in the perspective country.



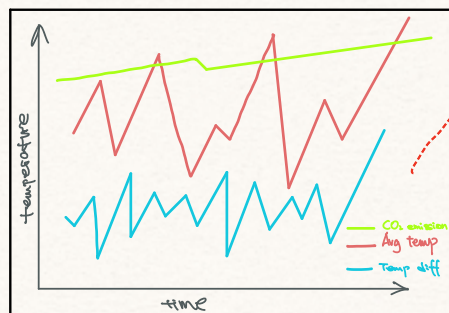
For both two countries: visualize the 8 representative cities / states

Finding the cause (CO₂ emission ?)

- Using selected 3 countries:

Russia # China # Singapore

check out to see whether
CO₂ emission plays a vital role
in temperature change ...



Not really significant
to conclude

CONCLUSIONS:

- ✓ temperature ↑ over time
- ✓ Why ↑
 - ↳ possible answer : CO₂ emission ?
whether significant?
- ✓ Important findings , etc.

CITATION:

- 2 kaggle datasets
 - Map of temperatures and analysis of global warming
 - Trends of global CO₂ emission