## Report

Information Visualization

Assignment 2

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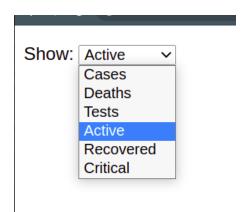
20172018

## • Features of your application

- A map of the world based on the covid cases like active, infected, deaths, tests, recovered, tests with a clear layout.



- It also has filter button where we can look for specific cases like active, recovered etc.

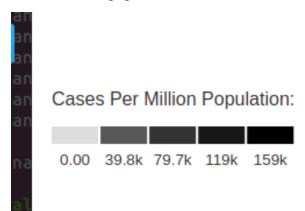


- Map is colored with colors from white to black based on the number of cases and there is ranges. Ranges are automatically changed based on the number of cases in each section.
- 1. In active cases color ranges in thousand per million population

## Active Per Million Population:



2. All active cases for each country and the ranges of colors with following cases per million population.



3. Number of tested people in each country and color ranges.

## Tests Per Million Population:

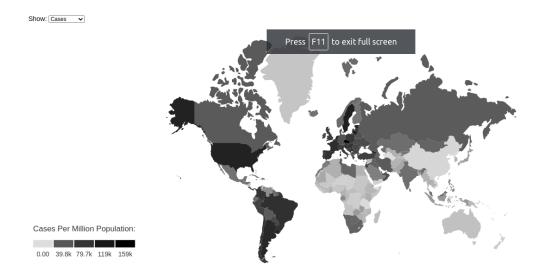
0.00 2.81M 5.62M 8.43M 11.2M

As shown on the picture, ranges of color automatically change based on cases we chose(active, tests, deaths) and their ranges.

- Design rationale why you choose the particular visual encodings, interactions, and animation techniques
  - As we learned in IV class for large data sets it is hard and would look bad if check each country test cases. Since all the countries exist in world map, we can easily color it by the numbers of cases and effectively show and deliver our message to users.
  - Why I chose map and not other charts like Bar, Line etc.? The reason is there are around 200 countries and no one going to check for each country's case. Let's image I am from South Korea then I need to find South Korea's case from all countries and check active, recovered, tested, death cases. It is overly complicated and not compatible with most of the countries.
  - By using map chart, I can show effectively show each country's all cases, deaths, active, recovered, critical and test cases. We have 6 arguments for 200 countries and there will be 1,200 data points. It is large but using map it can be easily shown.

• Observation of data using your system

It is easy to observe the data by using my user interface. First, let's check the number of all cases of all countries.



As we can see the countries with black color have cases more than 159,000. And those are USA, Brazil, Sweden, Czechia. If want to look for specific country, we can click on the map, and it shows the number of chosen cases and make that county's map red.

Let's check the number of deaths of all countries. By choosing deaths in the filter, it shows the countries with the specific ranges.



As we can see, if we click on specific country, it makes that country red and shows the number of death cases.

• Overview image of your application

I recorded my screen showed general overview.

Please, check this link

https://youtu.be/3dj2utoEdxw

• An explanation to run your code (for any installation, create requirement.txt) as an appendix Details are written in requirements.txt in src folder.