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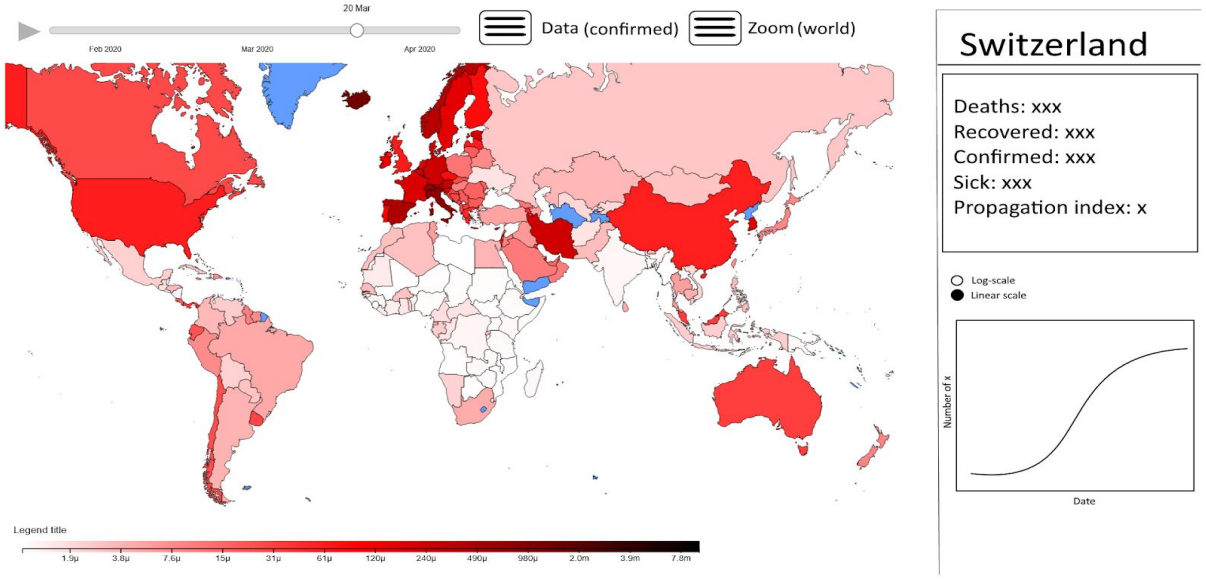
Milestone 2

Sketches:



Here's the general idea of the visualization. The main part is the world map and on the right additional information will show up when the user clicks on a country (here Switzerland). On the top of the map, the time silder and the play button, along with two menus to change the displayed data and the zoom (world or a continent).

Tools:

Apart from d3, no specific tool will be needed for our visualizations. We'll need other little libraries on top of d3, for now we have topojson and simple-slider. It's possible that we'll need other libraries of that kind. Other than that, we'll use d3.

Pieces to implement:

Animated world map: This will consist of the basis of the visualization, a time-varying map display per country informations about the coronavirus. The time can be controlled either directly using a slider or it can be set to a "live" mode so that it evolves on its own.

Possibility to zoom on each continent: To be able to focus our attention to some part of the world.

Choice in the data displayed: At first, the map would display the proportion of infected people in the country. The user will be able to change that using options displayed on the upper right corner. It will permit to choose between the proportion of infected people, the proportion of dead people relative to the country's population or relative to the number of infected people for example.

Direct interaction with the countries: The user can choose the country of interest. By clicking on the country, he/she will get with informations about it: name of the country, demographic informations, number of infected people, rate of infection, etc.

Graph of the current period for the chosen country: Further than the simple informations when choosing a country, a graph will be displayed on the right of the map. This will show the evolution of the country of interest at the given time for a certain period.

Extra ideas:

Can select multiple countries: Having a plot showing the current state of the selected country is good but it would be way better to be able to select multiple of them (say up the 5) to be able to compare their evolutions over time. So by clicking on countries, it would add their data to the plot on the right. We could then remove the countries from the plot the adjust to our needs.

Add the informations about countries' policies: Those informations are not so easy to get and will require some time to find. So we choose to focus on displaying the evolution of several measures over time and the ability for the user to specify theirs needs (zoom, country selection). Still it would be great to have the data of the different important measures per country: isolation, shutdowns of stores, public gathering interdiction. We could show that as an evolving list or directly on the graph of countries on the right. This would allow to easily see the impact of the measures if any.

More choice in the available data: Enlarge the measures calculated and available to the user. For the plot on the right, add the possibility of showing the world or a continent. For the data shown on the world map, add the rate of infection for example.

Improve the useability and interaction for the users: make the site adapt when the size of the browser's window change, improve the general layout and look (make country flash when it has a critical moment, show to the user that he/she can click on a country). If info of the lockdown is available, show it visually on the map. Animate the right graph and add the possibility to choose the limits of the x axis on the graph (two weeks or entire period for example).

Project prototype

The prototype of the site is the basis of the sketch shown at the beginning of this report. It is available here: https://com-480-data-visualization.github.io/com-480-project-corona-cocos/. For now we have the world map, it already has the information of the countries it is not a simple image of the world. We show the proportion of sick people in each country using the scale shown below, the scale goes from 1.9 infected per million people to 7.8 infected per thousand (7.8 milli). We can zoom to desired continent using the buttons, choose the data displayed, control the current time using the time slider and "let it play" using the play button and see the world evolve. There's also already the ability to click on a country to have informations about it (along with a graph) on the right.