PV251 VISUALIZATION

COVID-19 Healthy Diet and Extra Factors

https://vis-covid19-diet-app.herokuapp.com/

Introduction

I visualized COVID-19 dataset, however in hopefully a little different way as usual. I have not focused on vaccination, testing and other necessary precautions. I wanted to enable users to explore dietary trends in different countries and their potential impact on Covid mortality, although it is improbable that there will be a visible correlation I think it is still useful for playing with data and to show for example correlation between protein source and life expectancy (independent from COVID).

Controls

1. Choropleth map data are shown when hovering. Selecting on the right panel creates the coloring of the choropleth map. Choropleth map is clickable
2. Time series are not clickable, however they are updated given the country selected from the choropleth map.
3. The right scatter plot is shown when we are in “Global” mode without a specific country, where users can see scatter plots between chosen indicators in the dropdown list. When the user is in “Country specific” mode, the pie chart of dietary composition is shown given the specified diet component from the dropdown list. Second dropdown list is not available in “country specific” mode.

Mistakes

1. Using the same graph for global and country specific data, I couldn't dynamically change labels. And the result is, they are cluttered and they are creating occlusion.
2. Layout is not ideal, it is mostly chaotic, such are my web development skills.
3. I had to aggregate and filter a huge amount of data and "indicators", the process was mostly subjective without any idea why I want to show male_smokers in the world but not obesity or undernourishment.
4. Reset button is quite messy.
5. I realized too late The Time Series graph showing total deaths and new cases is irrelevant to what I wanted to show.
6. I realized too late Bootstrap goes well with Dash.
7. The control is not that intuitive.

What I learned

1. I have immediately realized that the color palette is as crucial as it was presented in lectures. I have chosen a non-rainbow color. The next criterion was that minimal values should not end in white color, because then it can be easily mistaken for missing data. Therefore I chose two color palettes and the missing data are white/gray.
2. I learned that "Dash" is an amazing super easy framework that works perfectly with library "plotly". Thank you for that. I will certainly use it more. Until now I was mainly using "seaborn".
3. Positioning html divs and graphs exactly as I want is almost impossible and there is a trade-off between time you spent and detailed position you achieve. Sometimes those X pixels are not worth that time.