CP 321 – Data Visualization

Project

Tools/Software Requirement

- An IDE for writing HTML and JavaScript Code
- You need to use D3.js for writing your code to generate visualizations. Do not use any other library for creating visualizations.
- You cannot use visual design tools for creating the webpages.
- This assignment may require some D3/JavaScript concepts that are not covered in the class. Students are expected to research those topics on their own and use them to complete the assignment. Self-learning will be a goal for all the assignments and the project in this course.
- The project must include Choropleths.

Dataset:

There are two dataset provided for the project. Both the datasets contain Covid data. Both the datasets have the same structure. One dataset has information about North America and the other has information about the South America.

Dataset 1*:
https://www.kaggle.com/datasets/anandhuh/covid-weekly-trends-in-north-america

Dataset 2*:
https://www.kaggle.com/datasets/anandhuh/covid-weekly-trends-south-america

**The data is contributed by Anandhu H (https://www.kaggle.com/anandhuh)*

The datasets contains data about the Covid cases in North America and South America from March 13 to March 20, 2022. Both the dataset contains the following attributes:

1. Country/Other
2. Cases in the last 7 days
3. Cases in the preceding 7 days
4. Weekly Case % Change
5. Cases in the last 7 days/1M pop
6. Deaths in the last 7 days
7. Deaths in the preceding 7 days
8. Weekly Death % Change
9. Deaths in the last 7 days/1M pop
10. Population

You can make minor changes to the dataset without changing its structure. It means you cannot add any new column to the dataset but you can combine both the datasets into one file or correct any missing values.

Task:
Create a visualization or a set of visualization to meet the requirements given below. It is mandatory to use Choropleth map.

1. User can switch the view to look at **[2]**
   a. North and the South America combined
   b. North America only.
   c. South America only

   It is fine if a little part of the other continent is visible in part b and c above. The goal is to focus on one continent.
   The following requirements work for each of the three views mentioned above. **[1]**

2. Show the absolute cases during **[2]**
   a. current week
   b. previous week
3. Show the countries where the number of cases increased / reduced compared to the previous week. **[1]**
4. Show the top 5 and bottom 5 countries with lowest cases per 1 million population. **[2]**
5. Show all the attributes of a user selected country. Some attributes may be inherently different like "Cases in the last 7 days" and "Cases in the last 7 days/1M pop". It may not be feasible to show them together in a graph like bar plot. You are not restricted to use just one visualization in this point or to use Choropleth maps. The goal is to depict the data accurately, without any misrepresentation. **[3]**
6. Your project is high on usability and has a look and feel of finished product. **[1]**

Submission Details

1. Name your HTML file: index.html.
2. Your project should be ready to execute without any modifications. **[1]**
3. Place your project in a folder: FIRSTNAME_STUDENTNUMBER_P
4. Compress the folder into a zip file. Make sure that your folder is appropriately named (See step 3 above) before creating the zip file. Do not rename the zip file after creating it. **[1]**
5. Upload the zip file in the appropriate dropbox on MLS.
6. Check dropbox for due date.