## **DSAA 5024 Data Exploration and Visualization**

## **Assignment 3**

Posting date: 11 Oct. 2022

Due date: 11:59 PM (Beijing time) on Monday, 17 Oct. 2022.

## Colormap

- Data: full data.csv (latest found data be in can https://github.com/owid/covid-19-data/tree/master/public/data/jhu) describes the number of COVID-19 new, total, and weekly cases and deaths, per country/region. Each row represents daily updates, and each row contains 10 columns: date, location, new cases, new deaths, total deaths, weekly\_cases, weekly\_deaths, total cases, bi weekly cases, biweekly deaths.
- Task: This assignment is a follow-up for Assignment 2. You can extend your code for the previous assignment.
  - Question
    - 1. What is the data attribute type for *new\_cases* attribute? What colormap type (categorical, sequential, diverging) would you choose to encode *new\_cases*? (20 points)
    - 2. What is the data attribute type for *location* attribute? What colormap type (categorical, sequential, diverging) would you choose to encode *location*? (20 points)
  - Coding: Create a scatter plot (<a href="https://en.wikipedia.org/wiki/Scatter">https://en.wikipedia.org/wiki/Scatter</a> plot) to visualize total\_cases and total\_deaths on the latest day as in the data.
    - Choose an appropriate colormap and assign colors to the points in the scatterplot you have created based on new\_cases. (20 points)
    - 2. Choose an appropriate colormap and assign colors to the points in the scatterplot you have created based on *location*. (20 points)

3. Coding 2 follow-up: With colors assigned to *location*, adjust the point size based on *new\_cases*. You can refer to the video of *Hans Rosling* when developing the visualizations. (20 points)

## **TURNIN** instructions:

- You can code using either html and d3.js, or Tableau, or others. Your code should be executable, and you are required to include a README file to describe how to run your code.
- Zip your code and report in a single file, named as A3\_studnet ID\_name.zip.