# Learning Objectives:

- Get D3.js going for yourself.
- Create a basic data visualization, showing location-based information.
- Create a colormap to represent different amounts of a reaction.
- Find a way to represent data across states, so that the relative "badness" of the COVID pandemic in each state of the US can be displayed. This involves some ingenuity on your part.

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Learn to harvest data from multiple CSV files, and combine it into one database.

#### You are Given:

- Dr. Kinsman and his previous capstone student, Mugdah, wrote some code here. It is provided as a good starting point for you.
- You will be given a set of \*.csv files that describe the recent numbers for the COVID pandemic in the United States.
- This was captured on Nov. 1<sup>st</sup>, after Oct. 31<sup>st</sup>, 2021.

#### To Do:

- A. Find a way to indicate "badness" of a state. A nominal way would be the ratio of the number of cases in the last month, compared to Dec 15<sup>th</sup> to January 15<sup>th</sup> of last year. Or, it could be across all states.
- B. You have to figure out how to create a \*.csv file that contains a number for each state. This might be a relative ratio, or a slope, or something, you decide.
- C. Get the code working so that when it returns the correct answer, it works correctly. The code has been munged so that needs to be fixed.
- D. When you have it working, show an example of a call to your code, with your request. Your code should print out at least the weather prediction for today and tomorrow.

## (continued)

### Hand In:

- 1. Your corrected code. (2)
- 2. An example output from your program. (1)
- 3. Describe how you computed "badness"? (2)
- 4. Describe your colormap. Did you modify an existing one, or invent your own? (2)
- 5. Write up what you learned. What fixes did you need to make to get the code working? What did Dr. Kinsman break in the python code that kept it from working correctly? What changes did you need to make? What did you learn overall? (3)
- 6. Make a directory with your name on it, named LAB\_02\_Requests\_\_YourName
- 7. Put your write-up in the directory.
- 8. Put your corrected code in the directory. (But not your API key.)
- 9. Put your resulting \*.csv file in the directory.
- 10. Zip up the entire directory and hand it in the dropbox.

# DO NOT HAND IN:

- Do not hand in a copy of the D3.js object. I have that already.
- Do not return to me the \*.csv files I gave you.
  I have that already.