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CIS 399 - Data Visualization
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Green indicates the features have been implemented
Yellow indicates the features have been implemented, but not as planned
Red indicates the features have not been implemented.

***These criterion are from my initial project proposal***

**Must Haves**

1. One view which is a map of the United States that is color coded based on the amount of cases each state has.
    a. There will be a date-slider that the user can drag to see the number of cases on a given date
    b. There will also be a “Total Cases”/”Total Deaths” counter that is updated with the map by the slider
2. Another view which is a line chart, with a line for cases and deaths that shows how each respective datapoint changed over time
    a. There is a dropdown menu where the user can use to change the state being graphed
    b. The X-axis will be dates and the Y-axis will be numerical

**Optional Features**

1. A “play button” which will automatically progress through the dates and update the map
2. The user can select multiple states to be displayed on the line chart to better compare them
3. Users can click on a state and be shown information pertaining to the number of cases/deaths the state has and the fatality rate of the disease in the state

**Explanation of Unplanned Implementations and Needed Improvements**

- Must Have #2
    - I could not graph paths/lines without removing the lines of the axes, due to this I decided that I would simply plot circles. I tried plotting circles for both the cases and deaths, but it led to a lot of complications. I then attempted to size the circles based on the number of deaths at the time, but couldn't find a way to successfully implement this feature
- Optional Feature #3
    - This feature is not fully implemented, but by hovering the cursor over a state users can see the the state’s name and their number of cases at the given time
- Needed Improvements

- Add a legend to provide further insight as to what the colors on the map are representing
- Find a way to plot deaths on to the scatter plot
- To allow users to easily compare how different states were affected, implement a small multiple view of the scatter plot