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Data608 Spring 2023

Final Project

**Data Source:**

NY Times COVID-19 published data on cases & deaths: <https://raw.githubusercontent.com/nytimes/covid-19-data/master/us-counties.csv>

**Steps and results:**

Importing the data directly from github, with the fips field as a string rather than numeric in order to plot on the geoson import, I created a copy of the dataset in order to perform data cleansing/tidying. I converted the date field to a pd.datetime in order to then determine the year (note – I initially did it by unique date, but the slider became too messy and slowed the app).

I then calculated the death rate as a percentage of total deaths over total covid-19 cases. Within the Dash app, I created a slider with the years as the marks and the callback filtered based on the year selected by the user. The map is colored in a way that the yellows show the highest death rates and the dark blues the least. This was done so the counties with higher death rates “pop” out at the user. As you progress from 2020 to 2022, you’ll see the dark blues become more dense, signifying a slowdown in the covid-19 death rates, which is in line with news reporting.

I faced a challenge in deploying via Heroku in order to improve the performance of the app, but in all, it does work. I would look to improve upon this. Screenshots below of each year:

A map of the united states

Description automatically generated

A map of the united states

Description automatically generated with medium confidence

A map of the united states

Description automatically generated with medium confidence

**Resources:**

<https://plotly.com/python/choropleth-maps/>

<https://community.sisense.com/t5/knowledge/plotly-choropleth-with-slider-map-charts-over-time/ta-p/9387>

<https://www.gabegaz.com/handson/charts_with_year_slider/>