Functional design

Background

- *A choropleth of the United States that shows the overall monthly positive cases across the US and line graphs that show the daily new positive cases changes with mandates.*

Who uses the system?

- *Policymakers who want to implement new preventive measures.*
- *Individuals who want to observe data in a visually appealing way.*

Data sources

*- COVID 19 cases counts at state level*

*Coronavirus (Covid-19) Data from CDC website.*

*https://data.cdc.gov/Case-Surveillance/United-States-COVID-19-Cases-and-Deaths-by-State-o/9mfq-cb36*

*- Dates of preventive mandates in each state*

*COVID-19 State and County Policy Orders held by HealthData.gov*

*https://healthdata.gov/dataset/covid-19-state-and-county-policy-orders/resource/8049ae6e-3e72-4fb4-a3b6-0fc8c85b6517#{}*

What is the objective?

- *see the effectiveness of mandates on a state-by-state basis.*
- *easily see the number of COVID 19 cases/deaths using choropleth on national scale*

What are the use cases? What kind of user interaction scenarios do we need to support?

- *View COVID cases or deaths over time on a Choropleth of the United States*
- *User will select COVID cases or deaths using radio buttons*
- *A slider will allow users to view cases or deaths over time across the United States*
- *Zooming in and out of the map*

Describe use cases (list of possible actions)

What information does the user provide?

*The user provides no information*

What responses does the system provide?

*The system responses are*

1. *Color changes representing COVID infection densities for each state as user slides time series slider in Dash*

2. *Line graphs showing COVID counts vs. time, with mandate implementation showing up as a vertical line. This graph will be static and show the entire time series covered*