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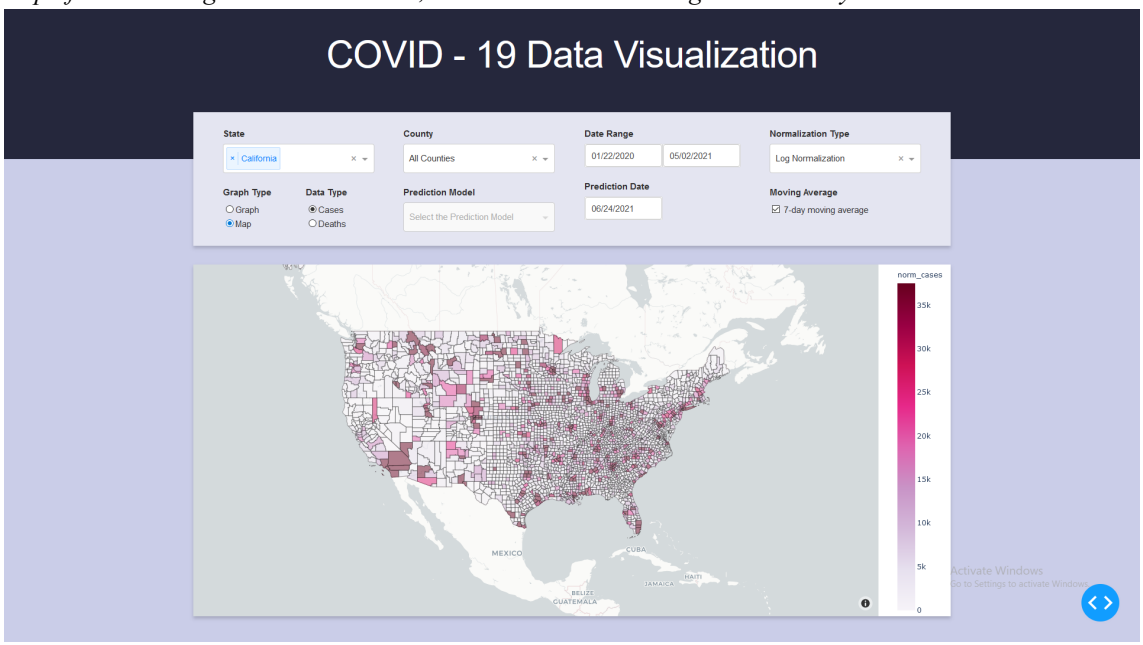
CSC 405

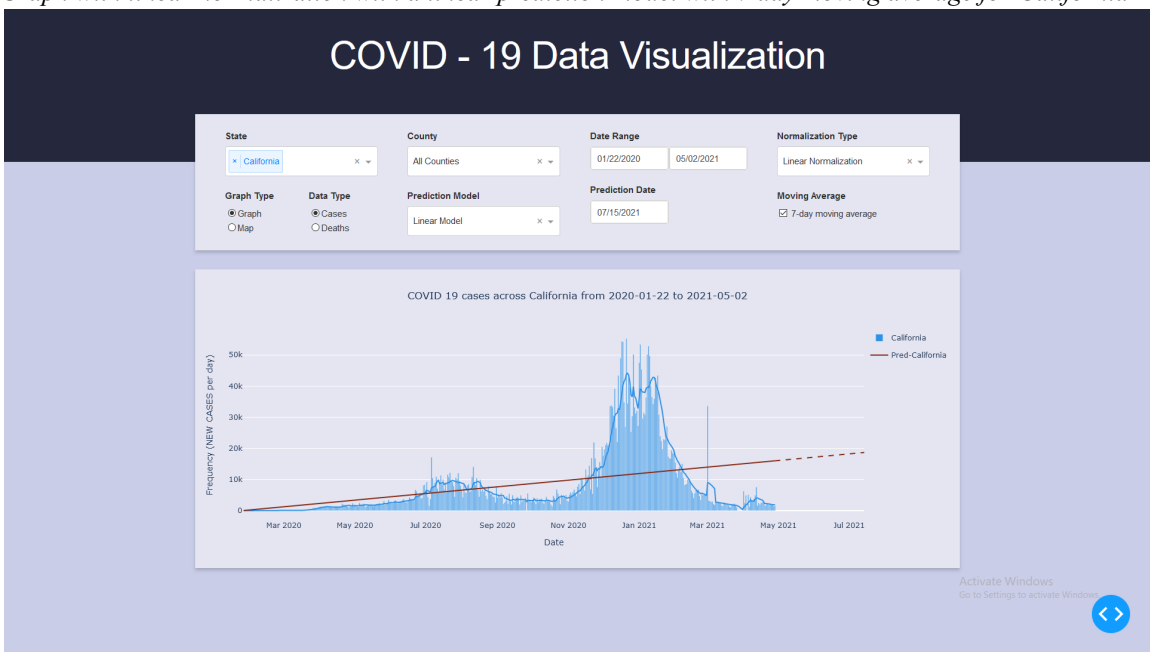
Stage IV Report

In the final stage of the data science project a dashboard was created to easily visualize and access COVID-19 data. The dashboard has several options and settings for the user to interact with to dynamically change the graph or map being displayed, allowing users to see trends and serviety of COVID-19 deaths or cases. The user can select one or more states to compare between on a graph, if only one state is selected, the user can specify a county to view graphical data on. Next the user can select a date frame, between which dates the data is based on and displayed on. The dashboard then has options to transform the data or predict based on the data. The data can be transformed using either linear or log normalization at the users discretion, this allows more insight into the data, as the graph will be more compact so differences can be more clearly seen. From there the user then has an option to predict cases or deaths based on the current data, both nonlinear and linear prediction models are available to the user, the predictions appear as a dotted line that is added on the original graph. The user in addition has a option for a seven day moving average which creates a line on the original graph showing this average. That is a summary of the dashboard, the interface was also made to be simple and straightforward, with all options clearly labeled, the color scheme chosen to make the dashboard more appealing to the user. With that being said, below are screenshots of the dashboard in use with captions explaining what is happening, there are two graph examples and one map example, that summarized most of the functionally in three figures.

Map of cases through the United States, with dark colors showing more severity



Graph with linear normalization with a linear prediction model with 7 day moving average for California



Graph with log normalization with 7 day moving average for Amador County, California