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CAP 5300 Project: Preliminary Planning

1. Mention the variable that you plan to use as your response variable of interest in part (2) of "Presentation_Expectations.pdf".

The team's response variable of interest is *recovered*. This is the total number of people that are identified as recovered from COVID-19. States provide very disparate definitions on what constitutes a "recovered" COVID-19 case.

2. Mention the variable that you plan to use as your categorical explanatory variable of interest in part (3) of "Presentation_Expectations.pdf".

The team's categorical explanatory variable of interest is *State*.

3. What variables will you use for the two-sample test in part (4) of "Presentation_Expectations.pdf"? It's OK if those are the same as your answers to 1 and 2.

The variables we will use for the two-sample test are *recovered* and *date*. In order to use the date as a categorical variable, we will be grouping variables by month. This test will help to show if there is a significant difference between the months of COVID recoveries.

4. Which of the tasks outlined in part (5) of "Presentation_Expectations.pdf" do you plan on performing? Describe it.

The team will perform the first outlined task. That is, we use simple linear regressions or multiple linear regression with various explanatory variables from the dataset and our response variable of *recovered*. We will evaluate the quality of fit for each and find the explanatory variable(s) that best predict the response, *recovered*. We plan to perform correlation analysis on all of the variables and choose the ones with the highest correlation to the *recovered* variable to analyse further.

5. How do you plan on distributing the workload?
E.g. "Member 1 will be working on parts 1 − 2, member 2 on parts 3 − 4, member 3 on part 5. Or "Members 1 & 2 will work on data question parts 1 − 3, while member 3 will work on parts 4 − 5.

The team plans to work in conjunction for most of the project, with members heading up different sections. Miles will head up part 5, Julian will head up parts 3 and 4, and Steven will head up parts 1 and 2.