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CSC 405

StageII - report

For the team task i was responsible for the last bullet point, that was to identify the peak week of the cases and deaths in the US and other countries. Then try to do background research to see what the reasoning for the peaks can be (holidays, vacations, travel, etc). The counties selected were the United States, Pakistan, Brazil, Bangladesh, Nigeria, and Indonesia. The peak weeks of cases and deaths for most of the countries were due to holidays and a lot were due to New Years, both the Gergoiran and the Chinese New Years were seen around peaks. Some other reasons were Eid holidays which showed up in a few different countries, and other country specific holidays and events like the Braizlian Carnival and the Paksitani festival of the lights.

For my individual task, like stage I, I used data for Texas, I separated the data for the state and added a week variable utilizing the present data variable. I then took the sum of cases and deaths using the weekly variable, so now i had cases and deaths by week. I generated weekly statistics on cases and deaths for the entire state, use that, then I did the same for three other states to compare to, i choose Florida, California and North Carolina. I then plotted daily trends in Texas for the top five counties to see peaks in cases and deaths. I then generated a poisson distribution for Texas and the three selected states. Finally I looked at the correction between hospital beds and covid cases, I found countries with less available hospital beds and ventilators saw more deaths overall.