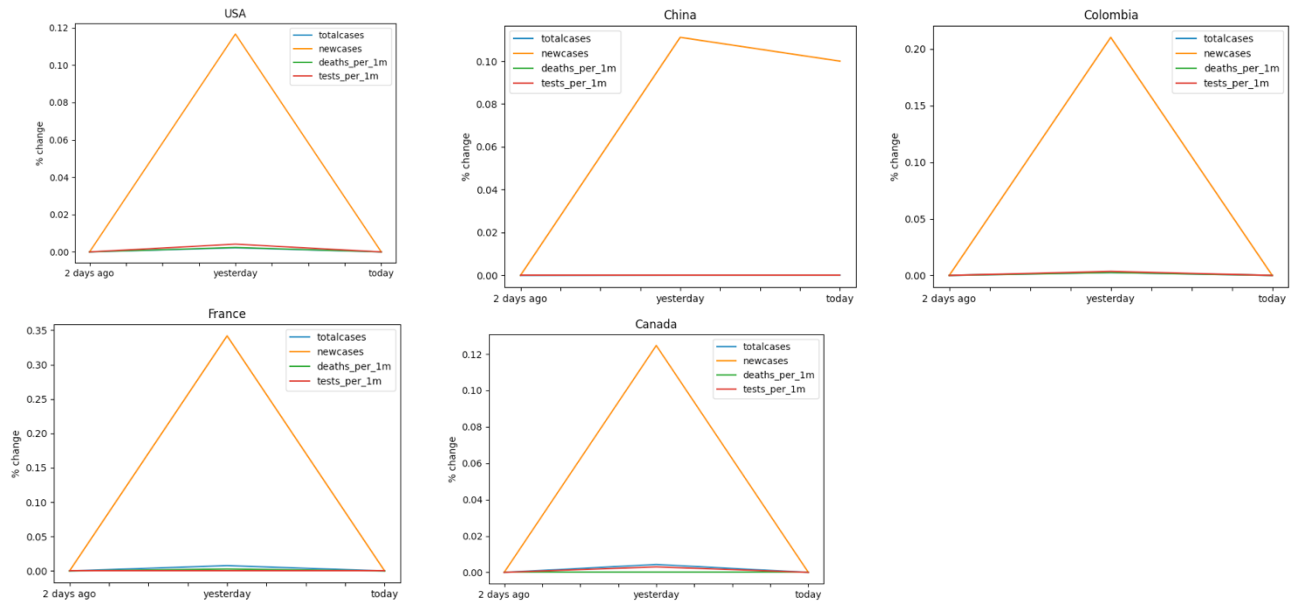# Data Analysis Report
## Nael Louis & Sergio Segrera

## 1.3 Percentage change analysis

This analysis shows the percentage difference of different COVID information for different countries. With these charts we can see that the percentage of new cases increased and then stayed the same for all of them except China. This could be an issue of the data itself as the new case numbers are updated at different times. The percentage change of total cases, deaths per 1 million and tests per 1 million also increased but the percentage of change is so small that it is not visible unless inspected using matplotlib.

These charts would be more useful if we had a longer log of information. Having only 3 days of data can't really show the tendance of the evolution of COVID. If we had more data, these charts could help us see if a country was doing better against another because it deals in percentages and not absolute numbers. We could easily compare countries to one another.

1.4 Bar plots
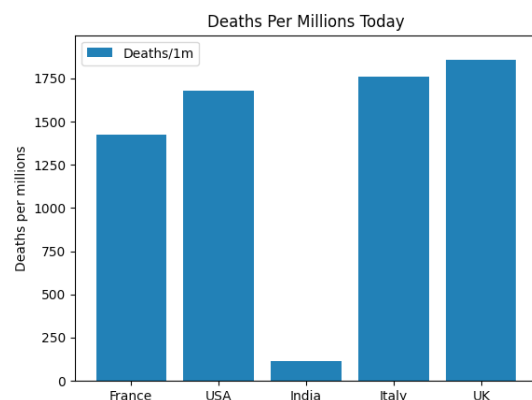
This chart shows the number of deaths per million for today for different countries. We can note that India has a very low number of deaths per 1 million and the UK has a high number of deaths per million.
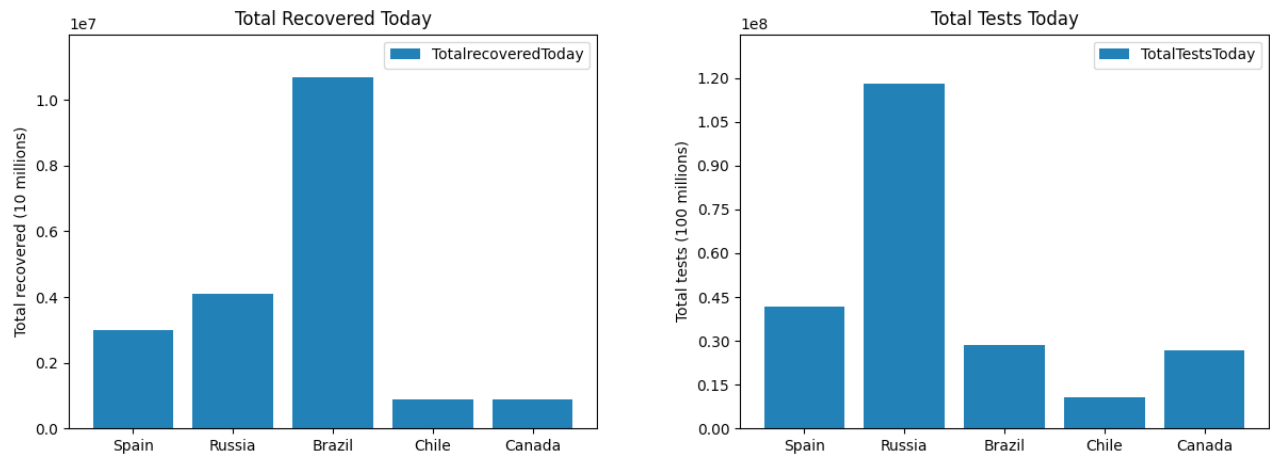
These charts show the total recovery date and total test amounts as of today. We can see that Brazil has the highest number of recoveries and that Russia has the highest number of tests done.

In my opinion these charts are not that useful because it doesn't help us compare the different countries and how they are doing combating COVID. These charts don't take in count the difference in total population. A more useful chart would be one where we could compare total recoveries per 1 million and total tests per 1 million for each country. These numbers would be proportional to each other.

P.S. Numbers in the parenthesis for the 2 last graphs are the units. In total recovery today 1.0 = 10 millions and in total test today 1.0 = 100 millions

Conclusion

We can't easily say that some countries are "better" than others. Having only 3 days of information is not enough to get a full picture of how the country is performing against COVID. If we had a longer log of information we could picture if the country had an uptrend or downtrend in cases.

If we had more dates, we could also per example create a line chart that shows at what wave of the pandemic the country is currently at. This would be nice experiment in data science.