Our submission to Shiny Contest 2020 is triggered by COVID-19 affecting daily lives globally, we aimed develop this app to visualise the trends and make them available to everyone.

**Objective**

This app was developed to make the data and key visualisations of COVID-19 trends available to everyone and also provide a platform for further detailed analysis of the trends.

**Methodology**

The data is sourced from the code developed by [Tim Churches (UNSW)](https://rviews.rstudio.com/2020/03/05/covid-19-epidemiology-with-r/) which extracts data from [Johns Hopkins University](https://systems.jhu.edu/research/public-health/ncov/) . In addition, we sourced data about country and province/state population from Wikipedia.

This application differs from other COVID-19 applications by focusing on number of days since the first cases report from each selected country instead of calendar dates. Using this application, countries can be compared easily based on their actual and per capita performance as the Y-axis scale is logged.

In addition, the application allows linear regression and smoothing patterns for selected countries, and compare the growth rate with a fixed growth rate.

**Main Packages**

We used *shiny* and *shinyWidgets* for the mainframe of the application, used *tidyverse*, and *lubridate* to prepare data, and applied *scales*, *ggrepel* to improve the readability of visualisations.

**Limitations**

Data source may contain information that we could not explain. For example, Japan had a minor drop in their cumulative trend between 2020-01-22 and 2020-01-23. Also, the number of cases is highly driven by the testing practices across countries so we focused on confirmed cases at the moment, however death and recovery trends are also added.

**Contribution**

We aware that teams at the World Bank and Red Cross, and few other organisations are following the app updates to inform their COVID-19 impact analysis.

**Acknowledgements**

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