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Midterm Project

## **Deliverable 1**

For this midterm project, I want to work on the relationship between wealth and corona virus deaths. It seems to me that the regions that are short access to vaccination tend to have a higher death rates and COVID infection rates and the main reason for this shortage is from the economic situation of the nation. I have found three data sets that I will use for this project about GDP growth, world's covid cases and deaths, and vaccination rate in some country. In these three data sets provide the GDP growth in 2015, the number of people receiving the first, second and boosted shots in different countries, and the COVID cases, COVID death in 2020 and 2021. One problem I encountered during this process was that I was not able to find the public data of GDP growth in the recent. Furthermore, there are data sets that project the GDP growth of countries around the world up to 2030 but I believe the effect corona virus has on the world's economy growth is substantial. Thus, I decided to stick to 2015's data. I also found some other data sets but they either mainly focus on one country only or they will not contain the nations' population or the death rate for comparison. However, in these three data sets arise a problem, such that contain unnecessary to answer my question. I am planning to write about 7 functions, including:

`def clean_data(data):` to process and clean data so that I can work on it

def convert\_to\_DoL(data): to convert 1 processed data to DoL

def convert\_to\_LoL(data): to convert 1 processed data to LoL

def convert\_to\_DataFrame (data): to convert the data structures to pandas DataFrames

def comparison\_vaccination (data): to show the crelationship in COVID-infected cases and death cases between nations which have high access to vaccination and that have low vaccination rate.

def comparison\_gdp (data): to show the relationship between nations with high gdp and their access to vaccination.

def main (): to coordinate above functions and thus, conclude if there is a relationship between COVID cases, deaths and GDP and if vaccination is the cause.