COVID-19 Cases and Deaths Data

Introduction :

In light of the emergency situation that the whole world is going through due to the spread of the Coronavirus, there is increasing talk in the scientific and technical community about the role of data analysis and the role of machine learning and artificial intelligence algorithms in helping to predict the future of humanity and how epidemics will spread in the world. Data analysis using Python is one of the important tools that many scientists and researchers rely.

Motivation :

The objective of this project is to provide an analysis of data on the number of coronavirus cases and deaths worldwide since the outbreak of the virus.

Question/need:

1- What is the daily rate of infections and deaths worldwide since the outbreak of the virus?
2- What is the average daily number of injuries and deaths by country?
3- What is the total monthly injuries and deaths in the world?
4- What is the total number of injuries and deaths per month according to each country?
5- Who are the top 5 countries in the number of deaths and injuries since the beginning of the virus outbreak?
6- What is the time series for the number of deaths and injuries?

Data Description :

Reference : Kaggle Your Machine Learning and Data Science Website here.

Field Name	Description
country	designates the Country in which the the row's data was observed.
continent	designates the Continent of the observed country.
total_confirmed	designates the total number of confirmed cases in the observed country.
total_deaths	designates the total number of confirmed deaths in the observed country.
total_recovered	designates the total number of confirmed recoveries in the observed country.
active_cases	designates the number of active cases in the observed country.

serious_or_critical	designates the estimated number of cases in serious or critical conditions in the observed country
total_cases_per_1m_population	designates the number of total cases per 1 million population in the observed country.
total_deaths_per_1m_population	designates the number of total deaths per 1 million population in the observed country.
total_tests	designates the number of total tests done in the observed country
total_tests_per_1m_population	designates the number of total test done per 1 million population in the observed country
population	designates the population count in the observed country.

Tools :

- Python in Jupyter notebook
- Numpy and Pandas for data manipulation
- Matplotlib, Seaborn and plotly for plotting