COVID 19 – Mortality trends data analysis project

Steps involved in Data Analysis

1. **Define research questions:**

What are the key drivers [Age, hospital beds, poverty, vaccination, population] of covid 19 mortality rate or which factors are most strongly related to mortality rate (exploring through correlation matrix)

How vaccination rate and mortality rates evolve overtime with each other

1. **Data Wrangling (Data Munging/ Data Pre-Processing) and merging**– It is a process of preparing raw data for further analysis.  
   It has 3 steps:  
   a. Data Collection: Our world in data

b. Data Assessing

c. Data Cleaning

3. **Exploratory data analysis:** It is about visualizing data to understand it’s main features, uncovering patterns and discovering how different parts of the data are connected.

**Univariate:** country-level summaries (mean, median, IQR of mortality rates).

**Bivariate:** correlation heatmap; scatterplots of key drivers vs. mortality.

**Time-Series:** line charts with 7-day rolling averages for mortality and vaccination coverage—overlay or facet by continent.

4. **Interpreting the analysis:**   
 1. Did I answer my research questions 2. Were there any limitations

5. **Visualizing the results:** Tableau

1. **Data Wrangling**

Data collected from “Our World in Data”. Next to assess the data, I will apply some functions to understand the structure of data, and it’s type