This document combines a problem statement and a design thinking approach for addressing covid vaccine analysis:

Topic:

Covid vaccine analysis.

Aim:

The aim of this project is to analyze the data in detail on vaccinated people and fully vaccinated people by country in 2021-2022

Introduction:

Since the start of the COVID-19 outbreak, WHO has worked with countries and areas in Different regions on public health measures to slow or stop the spread of the virus.Safe and effective vaccines are an important tool, in combination with other measures, to protect people against COVID-19, save lives and reduce widescale social disruption.The main objective of this project to analyze Covid – 19 Vaccination data and find out some important insights.

Problem Statement:

In this project, we find out in Different Countries how many people are Vaccinated or fully Vaccinated in 2021 and 2022 and also find out how many people in different countries have completed Daily Vaccinations, Total Vaccination per hundred, People Vaccination per hundred, and Daily vaccinations per Million.

Design Approach:

Data collection Methodology:

*In the Country, Vaccination data set the first column is that Country in country column presents different countries.

*In the iso code column containing the iso code for the country. And In the data set contain a date for Vaccination.

. *Another column is total Vaccination, People Vaccination, People fully Vaccination, Daily Vaccinated raw, Daily Vaccinations, Total Vaccinations per hundred, people Vaccination per

hundred, People fully Vaccinated per Hundred, and Daily Vaccination per million in all columns Show how many people are Vaccinated in different criteria.

* The first step Is cleaning the data. In data cleaning I cleaned the data with the transform data option present in Power BI because the dataset was not cleaned and included some missing values, so with the help of the duplicates function in Power BI, I cleaned the data and replace the null values with 0 and then started working on it.

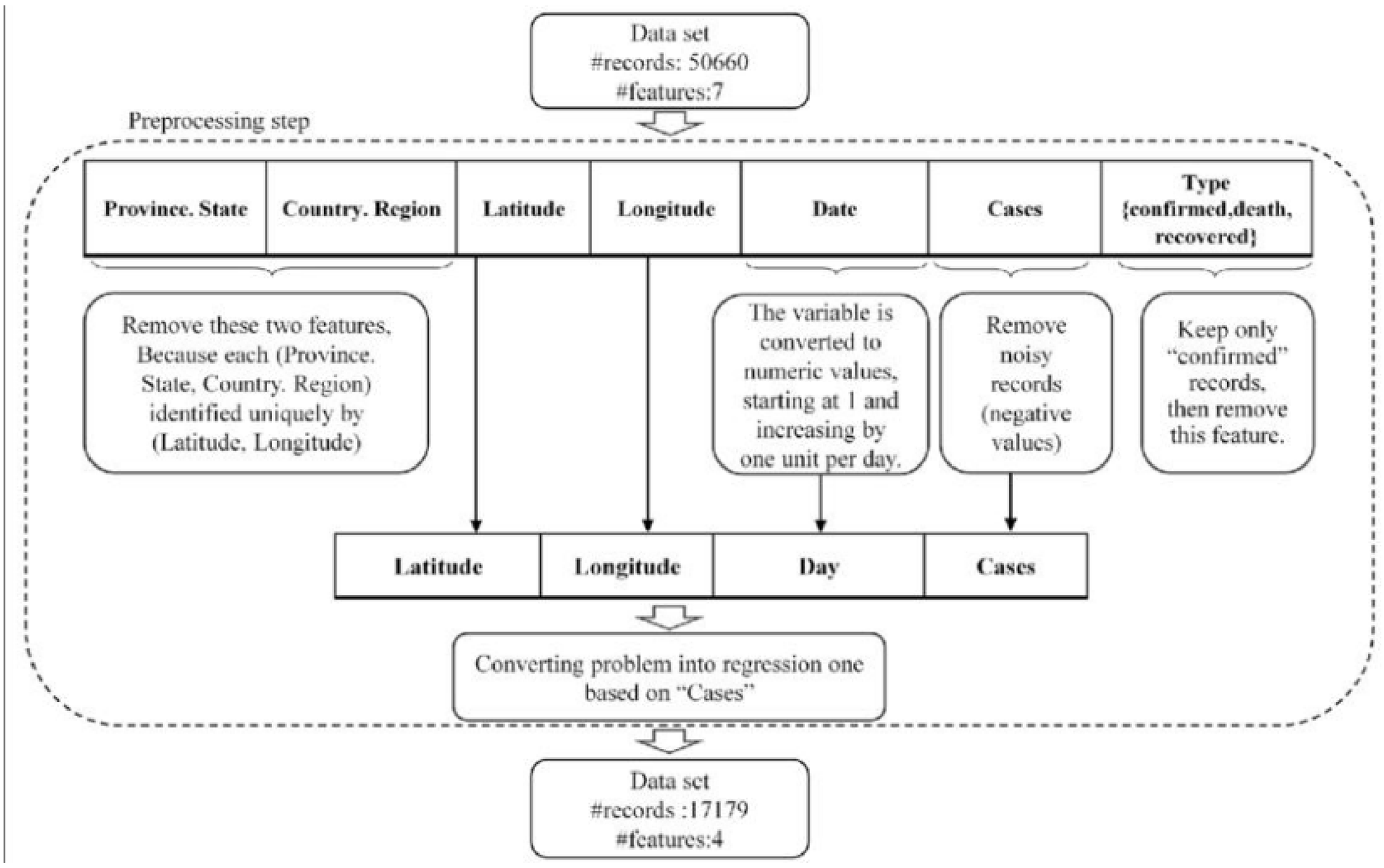
*After Data cleaning performs the Data interpretation step. In Data interpretation found some important information.

*The data set was almost clean and completed.

*Replace the Null values with 0

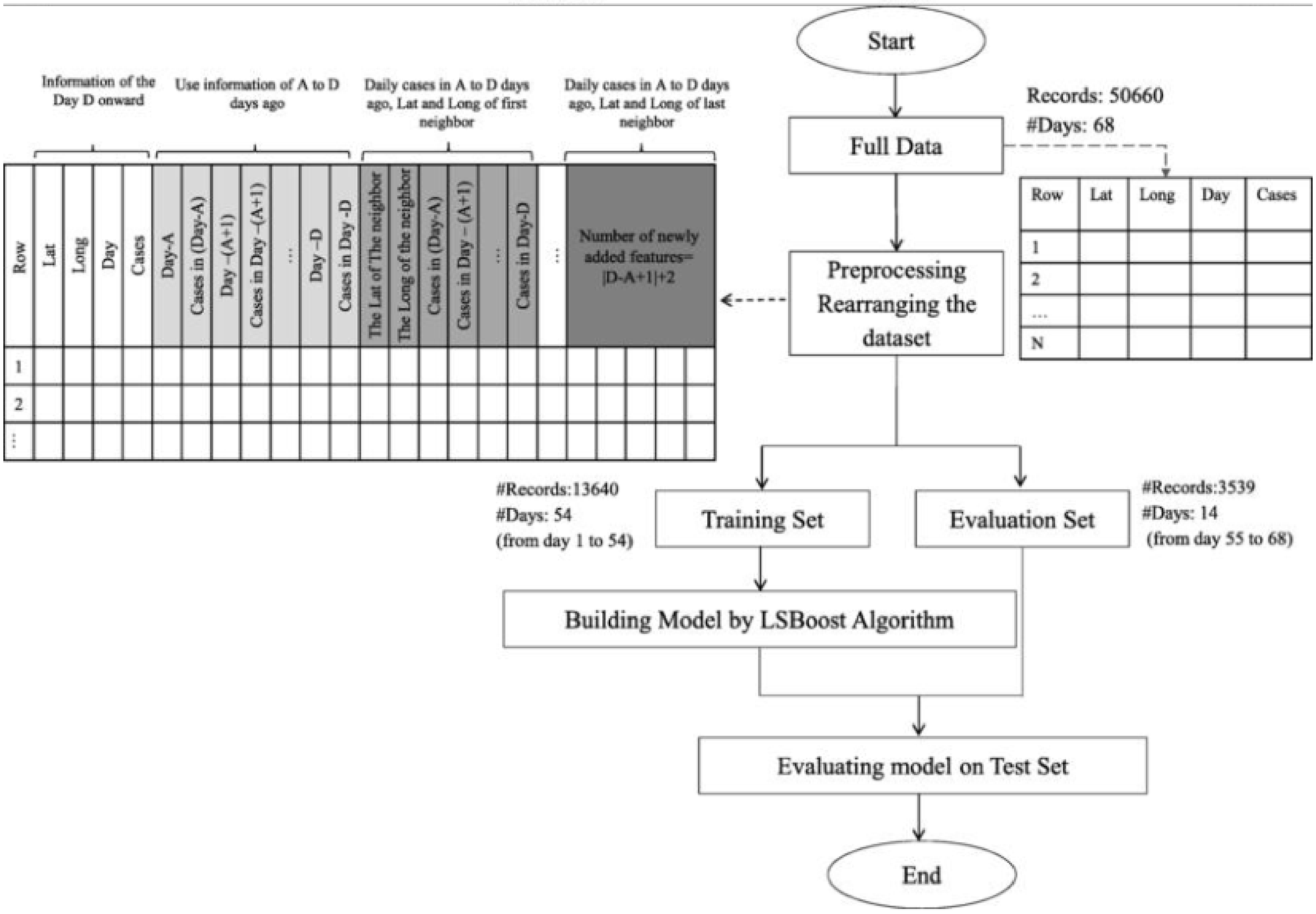
*There is a total of 8513 rows and 15 columns is present.

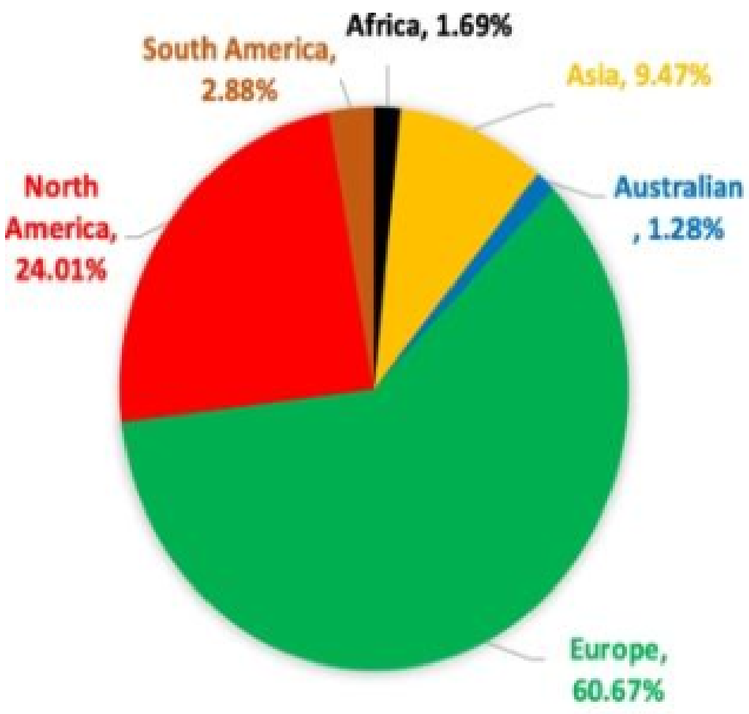
Data processing:



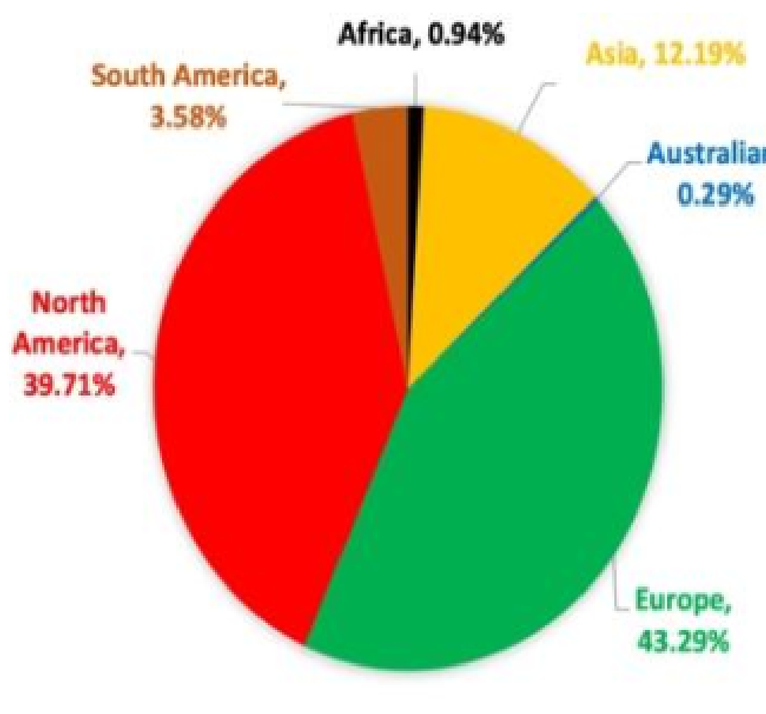
Date | Across all 252 geographic regions | Percent error

Predicted | Actual





a) Predicted incidence rate



b) Actual Incidence rate

Exploratory Data Analysis:

The current COVID-19 vaccines available differ in various characteristics such as level of efficacy for prevention of symptomatic disease, administration doses, manufacturing platforms, and effectiveness against virus variants [7]. Vaccine efficacies ranging from 50 to 95% have been reported [8]. It is unclear whether news headlines reporting certain COVID-19 vaccines offering greater than 90% effectiveness against COVID-19 while other vaccines having results of just over 50% effectiveness would influence a person favouring a certain vaccine over another.

In regards to administration doses, some of the COVID-19 vaccines will require two doses, while others just require one dose. The diverse manufacturing platforms of the COVID-19 vaccines also pose a challenge in vaccine choice. The public may lack confidence in vaccines developed using the messenger RNA (mRNA) technology over the traditional inactivated virus and recombinant protein platforms. The COVID-19 vaccines are being developed and produced by different manufacturers around the world. The country of manufacture of the COVID-19 vaccine may also be associated with hesitancy [9]. Distrust in vaccines from a specific country-of-origin has been reported [10,11,12]. The unprecedented speed of development and the rapid rollout of COVID-19 has also led some to believe, without evidence, that this is a result of skipping essential steps or being politically driven, leading to distrust in vaccines [11, 13,14,15].

Statistical analysis;

From the above Visualization find some interesting points that are mentioned below

*China is the number 1 Total Vaccinated people are present

*The Dataset is available for 2021 and 2022.

*The Total of 223 Countries participated in Vaccination.

*IN 2021 Total Vaccination is 60.79% completed.

*In 2022 Total Vaccination is 39.2% is completed.

*China, India, the United States, Brazil, Indonesia, Germany, United States, Turkey, France, and England There are the top 10 countries is completed the full Vaccinations.

Visualization:

In visualization, I took the help of Power BI Desktop software to make graphs and charts here some

Relevant graphs and charts are attached

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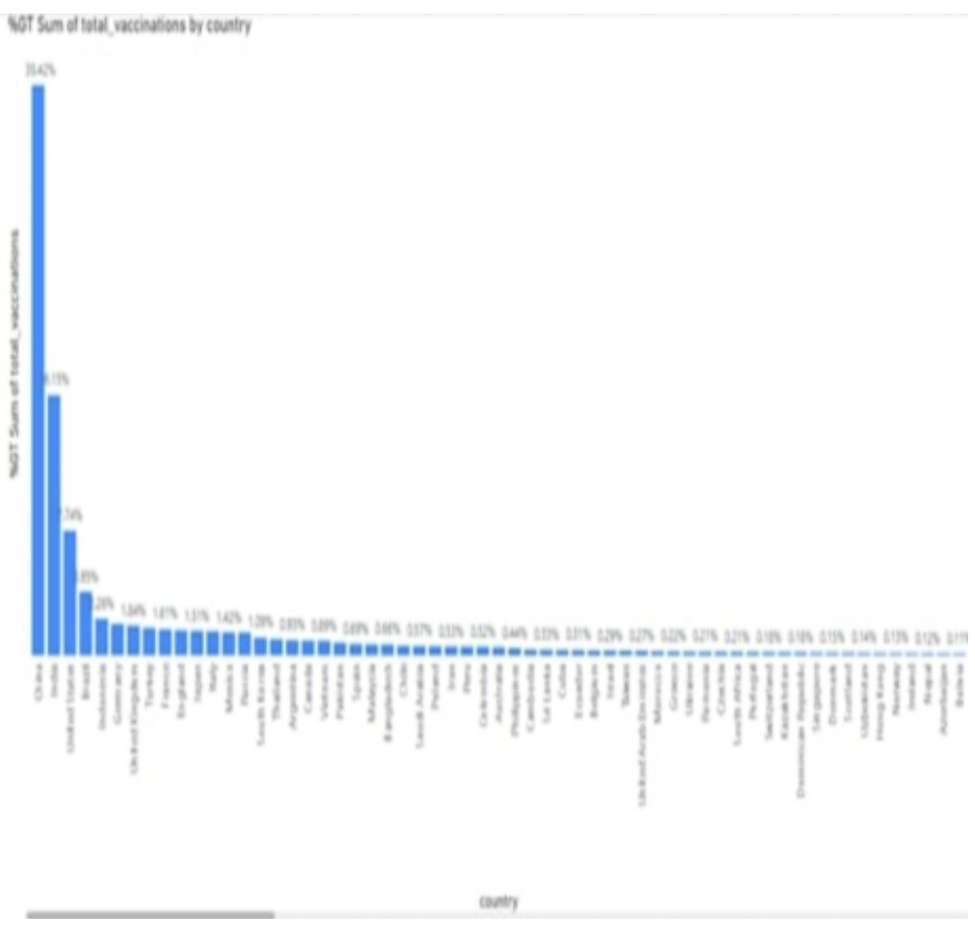
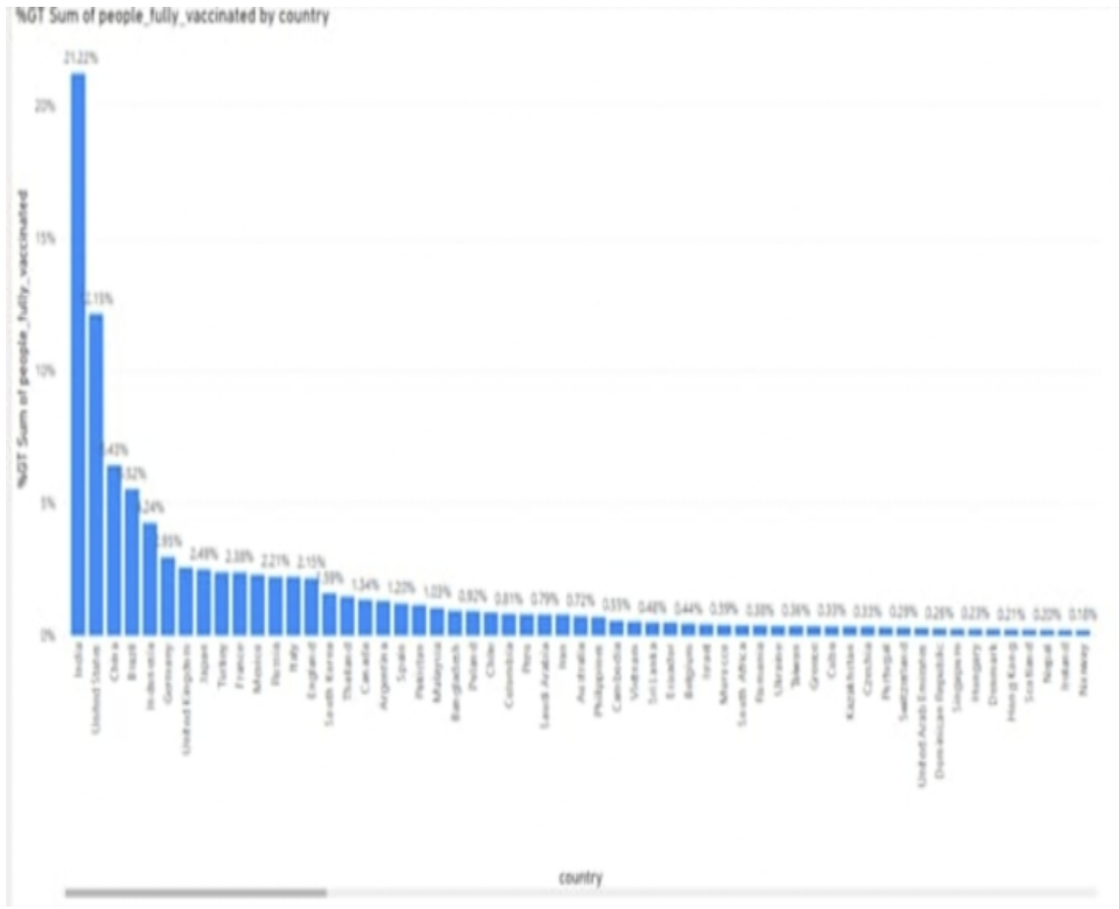
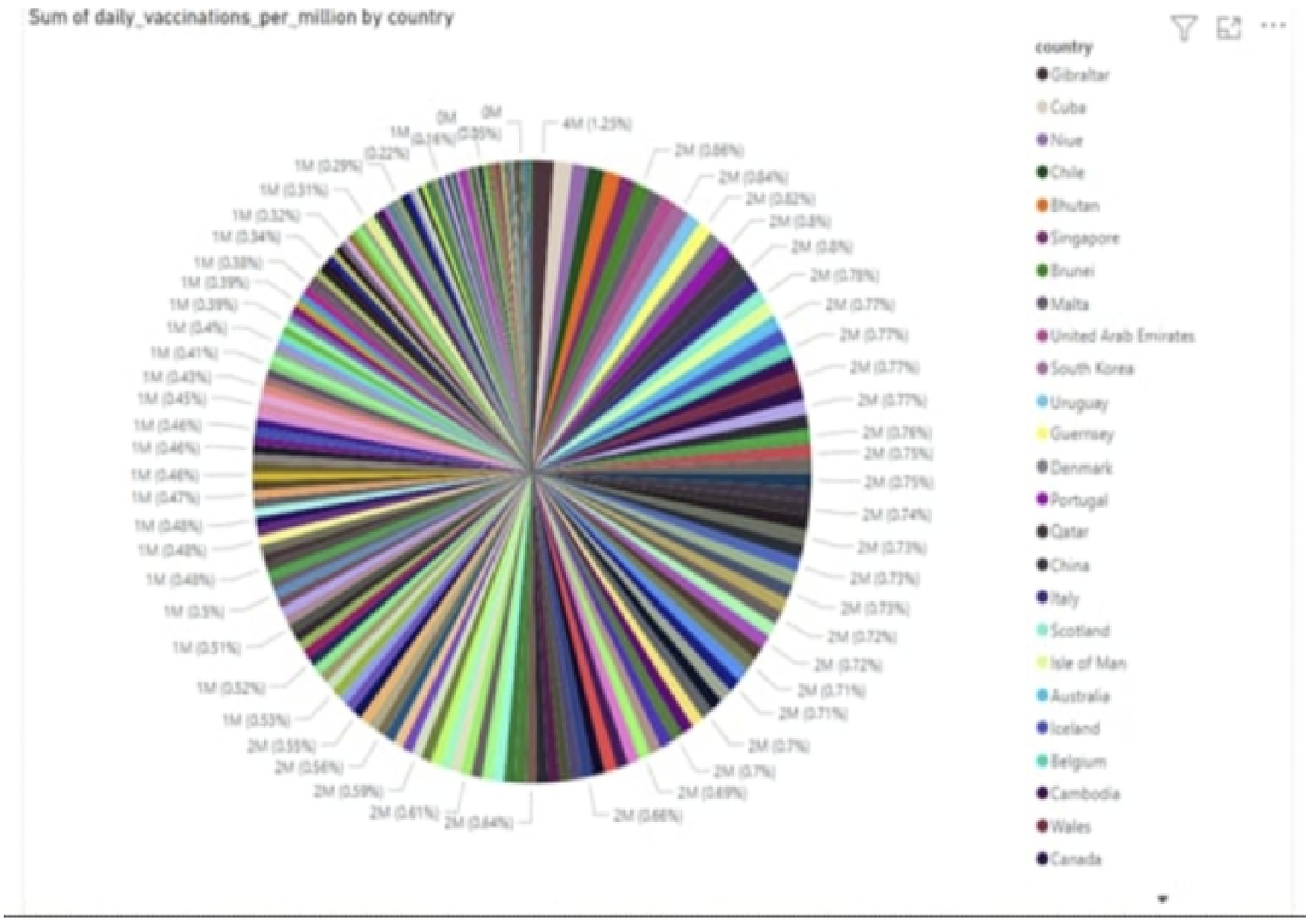
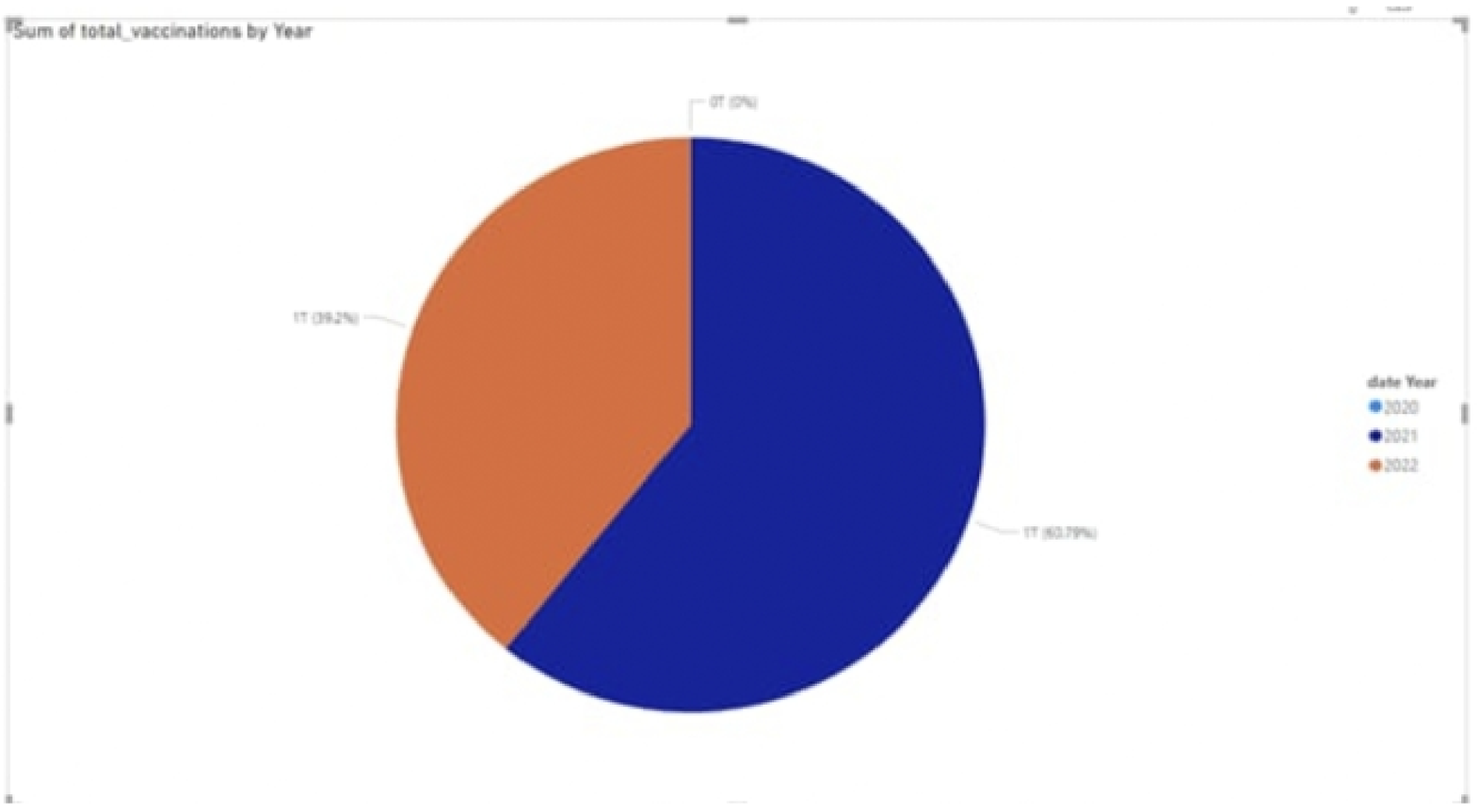
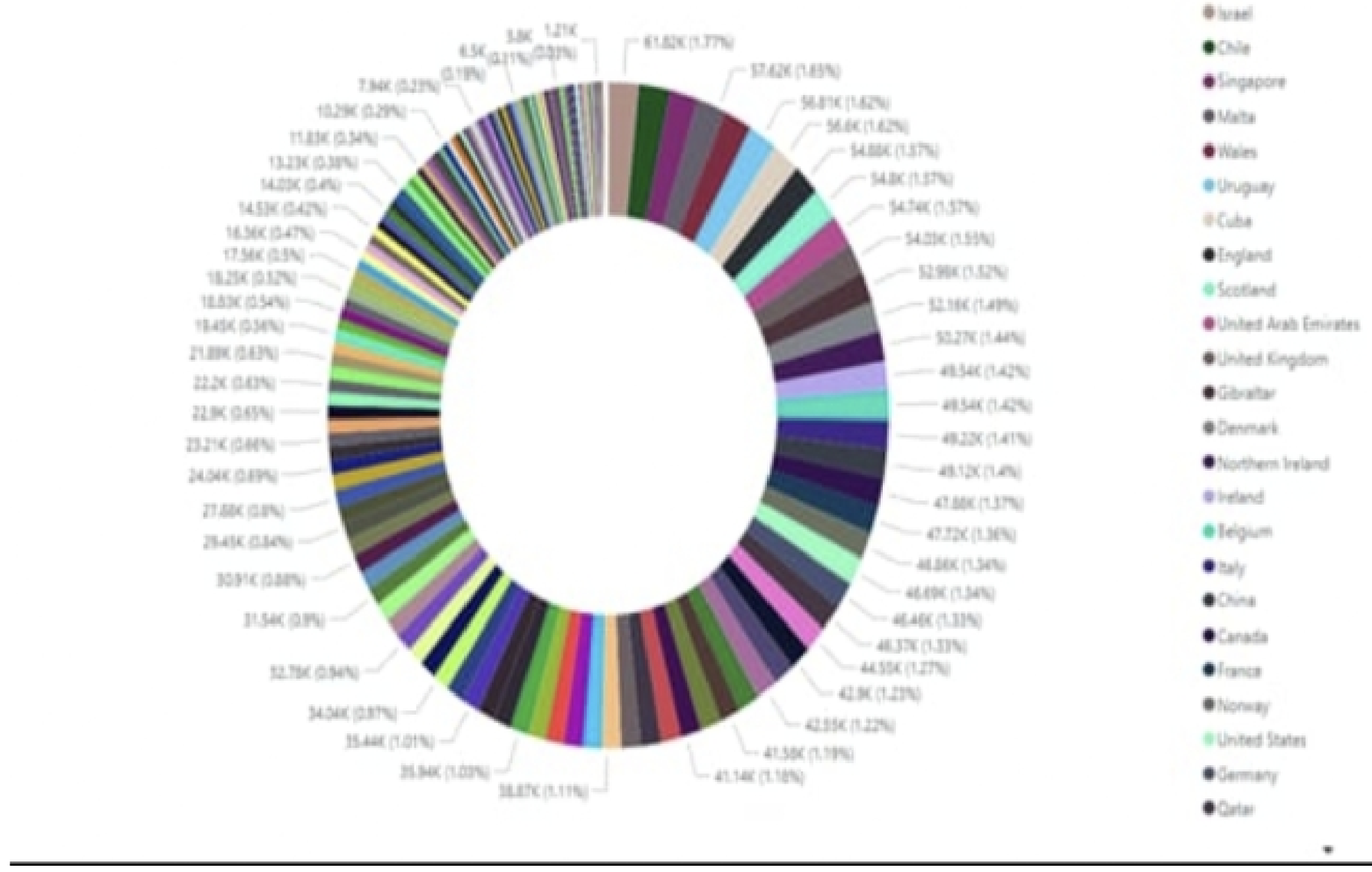




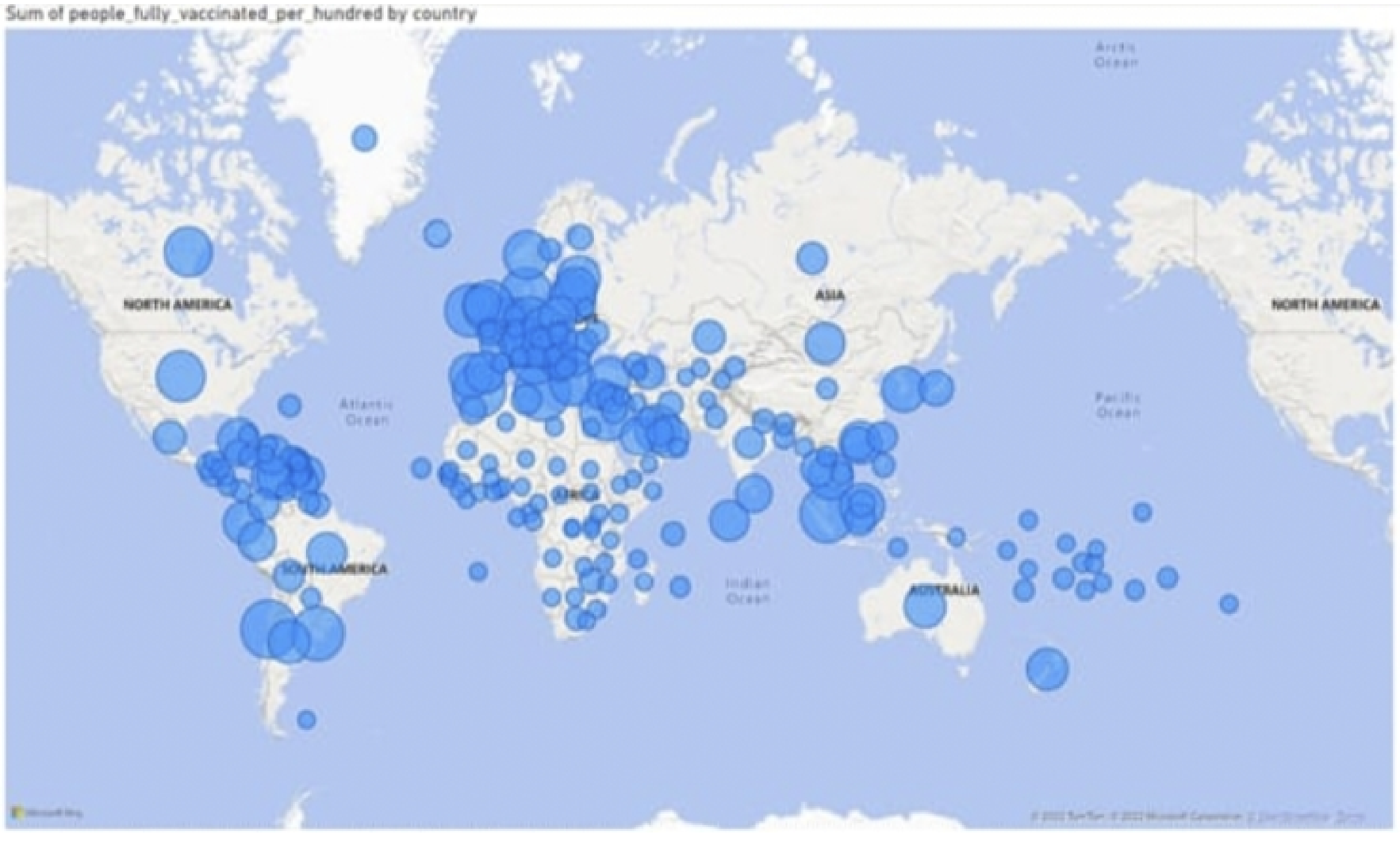

Sum of daily_vaccinations_per_million by country
country
Gibraltar
Cuba
Niue
Chile
Bhutan
Singapore
Brunei
Malta
United Arab Emirates
South Korea
Uruguay
Guernsey
Denmark
Portugal
Qatar
China
Italy
Scotland
Isle of Man
Australia
Iceland
Belgium
Cambodia
Wales
Canada

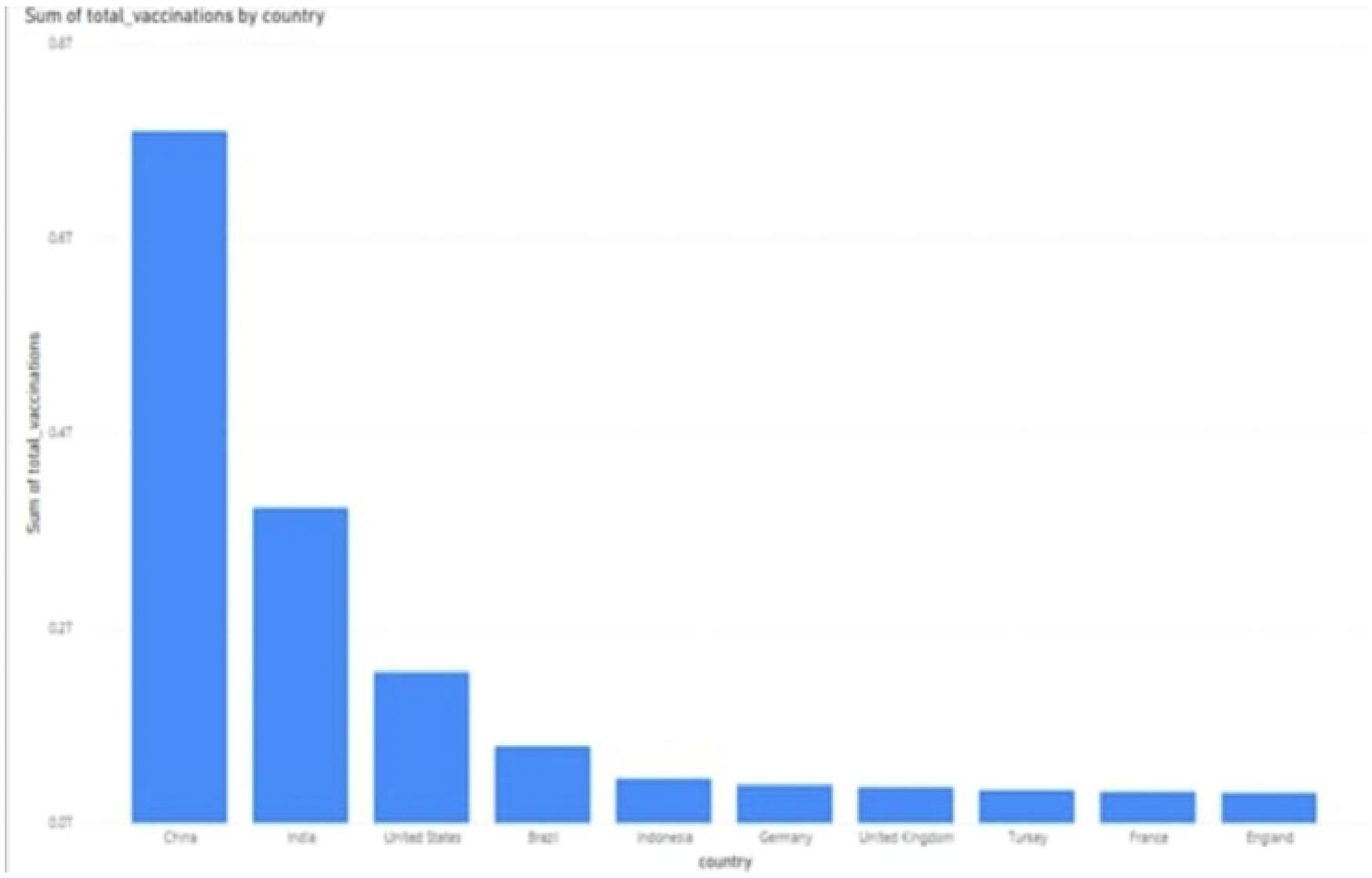

Sum of total_vaccinations by Year
0T (0%)
1T (39.2%)
1T (60.79%)
date Year
2020
2021
2022

Sum of total_vaccinations_per_hundred by country



Sum of people_fully_vaccinated_per_hundred by country





Insights:

In conclusion, we can take a look at the final Dashboard for further Analysis.

We can see the top 10 Sources

Recommendations:

*We can analyze the data of the overall world.

*Like this dataset, we can perform operations with various categories, city-wise, or Region wise.

*We can analyze the data with the proper format

Conclusion:

In Conclusion, we can take look at the Dashboard for further Analysis.

*In China and India in these two countries, most people are Vaccinated.

*In 2021 60.79% of people are fully Vaccinated and in 2020 only 39.2 % of people are fully Vaccinated.

*China, India, the United States, Brazil, Indonesia, Germany, the United States, Turkey, France, and England There are the top 10 countries is completed the full Vaccinations.

This document combines a problem statement related to covid vaccine analysis with the application of design thinking principles to propose an innovative solution. It provides a structured and comprehensive approach to tackling the problem of covid-19.