Practice Exercise: Introduction to Power BI

The following is a post-class exercise for practicing Power BI functionalities.

Note: This is neither a graded assessment nor has any time restraints for completion.

Case Study Number & Title	2. Analyzing the COVID-19 World Vaccination Progress data for observing and drawing inferences on vaccination statuses around the world.
Background Information	Country-level vaccination data between 2020 to 2022 (March).
Problem Statement/ Business objectives	Analyze the vaccination data to discern the trends and explore using Power BI to extract relevant insights.
Data, Information for case analysis	Data is provided as a CSV file. Below is the source and attribute information. Source link: https://www.kaggle.com/datasets/gpreda/covid-world-vaccination-progress?select=country_vaccinations_by_manufacturer.csv Data Description **Country-** this is the country for which the vaccination information is provided; Country ISO Code - ISO code for the country **Date -** date for the data entry; for some of the dates we have only the daily vaccinations, for others, only the (cumulative) total **Total number of vaccinations -** this is the absolute number of total immunizations in the country **Total number of people vaccinated -** a person, depending on the immunization scheme, will receive one or more (typically 2) vaccines; at a certain moment, the number of vaccination might be larger than the number of people **Total number of people fully vaccinated -** this is the number of people that received the entire set of immunization according to the immunization scheme (typically 2); at a certain moment in time, there might be a certain number of people that received one vaccine and another number (smaller) of people that received all vaccines in the scheme **Daily vaccinations (raw) -** for a certain data entry, the number of vaccination for that date/country **Daily vaccinations -** for a certain data entry, the number of vaccination for that date/country

	Total vaccinations per hundred - ratio (in percent) between vaccination number and total population up to the date in the country **Total number of people vaccinated per hundred -** ratio (in percent) between population immunized and total population up to the date in the country **Total number of people fully vaccinated per hundred -** ratio (in percent) between population fully immunized and total population up to the date in the country **Number of vaccinations per day -** number of daily vaccination for that day and country **Daily vaccinations per million -** ratio (in ppm) between vaccination number and total population for the current date in the country **Vaccines used in the country -** total number of vaccines used in the country (up to date) **Source name -** source of the information (national authority, international organization, local organization etc.) **Source website -** website of the source of information
Questions	1. Create three Card visuals that display the Total Vaccinations, People Vaccinated and People Fully Vaccinated in the country of India. Add a slicer for Date choosing to display only Year and Month information. 2. Create a Clustered Column Chart to display the top 10 countries with the highest number of fully vaccinated people in the year 2021. 3. Create a Grayscale Map that displays bubbles whose size indicates the total vaccinations for all the countries. 4. Create a Clustered Bar Chart to display the Top 10 countries with the highest number of daily vaccinations. Add a slicer for Date choosing to display only the Year and Month. What do you observe in the years 2020 and 2021? 5. What sort of Trend do you observe in India for people who are fully vaccinated?
Solution	A solution workbook is provided with the dataset
Deliverables for Solution and Rubric	Non-graded assessment
Key Takeaways/ Results	Analyzing data using Power BI and deriving meaningful insights, which aids in decision-making.