

README: COVID-19 Data Analysis using Power BI

Project Title: COVID-19 Global Data Analysis using Power BI

Objective

To analyze and visualize the global impact of the COVID-19 pandemic using Power BI, based on key metrics such as total cases, deaths, vaccinations, and continent-wise trends.

Dataset Used

- **Source:** [Our World in Data](#)
- **File Format:** .csv or .xlsx
- **Key Columns:**
 - location (country/region name)
 - date
 - total_cases
 - new_cases
 - total_deaths
 - new_deaths
 - people_vaccinated
 - people_fully_vaccinated
 - continent

Tools & Technologies

- **Power BI Desktop**
- **DAX** (for calculated columns & measures)
- Basic filtering, slicers, visuals

Visualizations Created

Visual Type	Description
Bar Chart	Top 10 countries by total cases
Line Chart	New cases trend over time
Donut Chart	Total cases by continent
Card	KPIs – Total Cases, Total Deaths, Death Rate
Table	Country-wise summary (cases, deaths)
Slicer	Filter data by country/continent

Measures Used (DAX)

```
-- Death Rate (%)  
[Death Rate (%)] = DIVIDE(SUM('owid-covid-data'[total_deaths]),  
SUM('owid-covid-data'[total_cases])) * 100
```

Filters/Slicers

- **Country/Location** slicer
- **Continent** slicer
- **Time Period** filter (Year/Month)

Insights Observed

- Most cases were reported in high-income countries.
- Global new cases peaked in mid-2021.
- Death rate varies significantly across continents.
- Vaccination rates are higher in Europe & North America.

Conclusion

Power BI helps us understand the large-scale impact of COVID-19 visually and interactively. With slicers and filters, we can drill down into specific countries or time periods.

How to Use the Report

1. Download Power BI Desktop.
2. Load the COVID dataset via **Get Data > Excel**.
3. Use visualizations like **Bar Chart**, **Line Graph**, and **Card** from the right panel.
4. Add slicers for interactivity.
5. Create DAX measures for custom metrics like death rate.