COVID\_19 Data Analysis Project:

**Objective:**

The COVID-19 Data Analysis Project aims to provide a comprehensive understanding of the pandemic's impact through detailed data examination and visualization. By analyzing COVID-19 related datasets, the project seeks to uncover trends, patterns, and insights that can inform public health strategies, support decision-making, and enhance preparedness for future health crises.

**Background:**

The COVID-19 pandemic has had a profound effect on global health, economies, and societies. With vast amounts of data available from various sources—such as case counts, vaccination rates, and mortality statistics—the need for a structured approach to analyze this data has become critical. This project focuses on leveraging these datasets to provide actionable insights.

Problem Statement:

**Problem:**

Despite the availability of extensive COVID-19 datasets, many stakeholders struggle to extract actionable insights due to the data's complexity and volume. Specifically, there is a need to:

1. **Identify and Analyze Trends:** Determine key trends in COVID-19 case counts, mortality rates, and recovery rates over time and across different regions to understand the progression and severity of the pandemic.
2. **Assess Vaccination Impact:** Evaluate the effectiveness of vaccination campaigns by analyzing vaccination coverage and its correlation with case and mortality rates.
3. **Understand Socio-Economic Impacts:** Measure the pandemic's impact on various socio-economic factors, including healthcare systems, economies, and public behavior, to better understand its broader effects.
4. **Forecast Future Trends:** Develop predictive models to forecast future COVID-19 cases, vaccination progress, and potential outbreak hotspots to enhance preparedness and response strategies.

The Questions to be asked based on this analysis are:

1. What was the total number of confirmed cases and deaths in the world?
2. Which countries had the highest number of confirmed cases and Deaths across the world?
3. At what rate did COVID-19 spread across all the continents in the world?
4. How did Covid-19 affect countries based on population.
5. 5. How did Covid-19 spread trend from 2020 to 2023?