

# Google Data Studio Visualization and Analysis for COVID-19 Dataset

## Overview

Google Data Studio is a powerful tool used to create insightful and interactive dashboards and reports. In our analysis, we utilized this tool to visualize and analyze COVID-19 data for the year 2020.

### 1. Geo Graph: Confirmed Cases by Country

A geographical representation showing the distribution of confirmed COVID-19 cases across countries.

### 2. Bar Chart: Active Cases of Top 10 Countries

A bar chart illustrating the number of active COVID-19 cases in the top 10 affected countries.

### 3. Pie Chart: Recovery Rate by WHO Region

A pie chart presenting the recovery rate of COVID-19 cases categorized by WHO regions.

### 4. Line Chart: Average Confirmed Cases per Day

To analyze the average confirmed COVID-19 cases per day, we calculated the average using the formula:

$$\text{Average Confirmed Cases per Day} = \text{SUM}(\text{Confirmed}) / \text{COUNT\_DISTINCT}(\text{Date})$$

### 5. Horizontal Bar Chart: Mortality Rate by Countries (Top 10)

We calculated the mortality rate for each country using the formula:

$$\text{Mortality Rate} = \text{SUM}(\text{Deaths}) / \text{SUM}(\text{Confirmed})$$

## **6. Bubble Chart: Relationship between Confirmed, Recovered, and Active Cases**

A bubble chart illustrating the relationship between confirmed cases (bubble size), recovered cases (x-axis), and active cases (y-axis).

## **Conclusion**

Google Data Studio proved to be an invaluable tool for visualizing and analyzing the COVID-19 dataset. The visualizations provided meaningful insights into the spread and impact of the virus, aiding in a comprehensive understanding of the global pandemic.