

# PROJECT REPORT: COVID-19 DATA ANALYSIS

## 1. Introduction

In this work, we aim to analyse COVID-19 data to gain insights into the spread of the virus and associated mortality. Our study uses IBM Cognos and focuses on comparing the standard deviation and accuracy of COVID-19 cases and associated deaths. Our findings will help us understand trends, changes and potential relationships.

## 2. Data creation

The COVID-19 dataset was uploaded to IBM Cognos, and data cleaning was performed to check for missing values or outliers. The dataset includes information on cases and deaths.

## 3. Data visualization

### ❖ Comparison of mean values

Bar charts were generated to compare the number of associated cases and associated deaths in different groups (e.g. region, etc.).

### ❖ Standard deviation comparison

Box plots were used to visualize the distribution of cases and deaths, highlighting medians, quartiles, and potential extremes.

### ❖ Long-term trends

The graph was used to track trends in incidence and mortality over time, allowing us to track the evolution of the epidemic.

### ❖ Communication analysis

Scatter plots were constructed to examine possible relationships between population size and mortality. Correlation coefficients were calculated to quantify these relationships.

## 4. Research and analysis Trends

We observed significant variability in COVID-19 cases and deaths across regions. These changes may be due to factors such as demographics, health care, and public health policies. Correlation: Our study shows a strong positive association between population size and associated mortality. As cases rise, so do deaths. This relationship underscores the importance of timely preventive and therapeutic interventions.

## 5. Conclusions

The project data analysis using IBM Cognos provided valuable insights into the COVID-19 epidemic. Trends and changes were identified, providing potential areas for targeted intervention. Correlational analysis emphasizes the importance of proactive measures to reduce the spread of the virus and save lives.

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## DATA VISUALIZATION AND ANALYSIS

- Number of associated cases by countries and territories.



- Number of associated deaths by countries and territories.

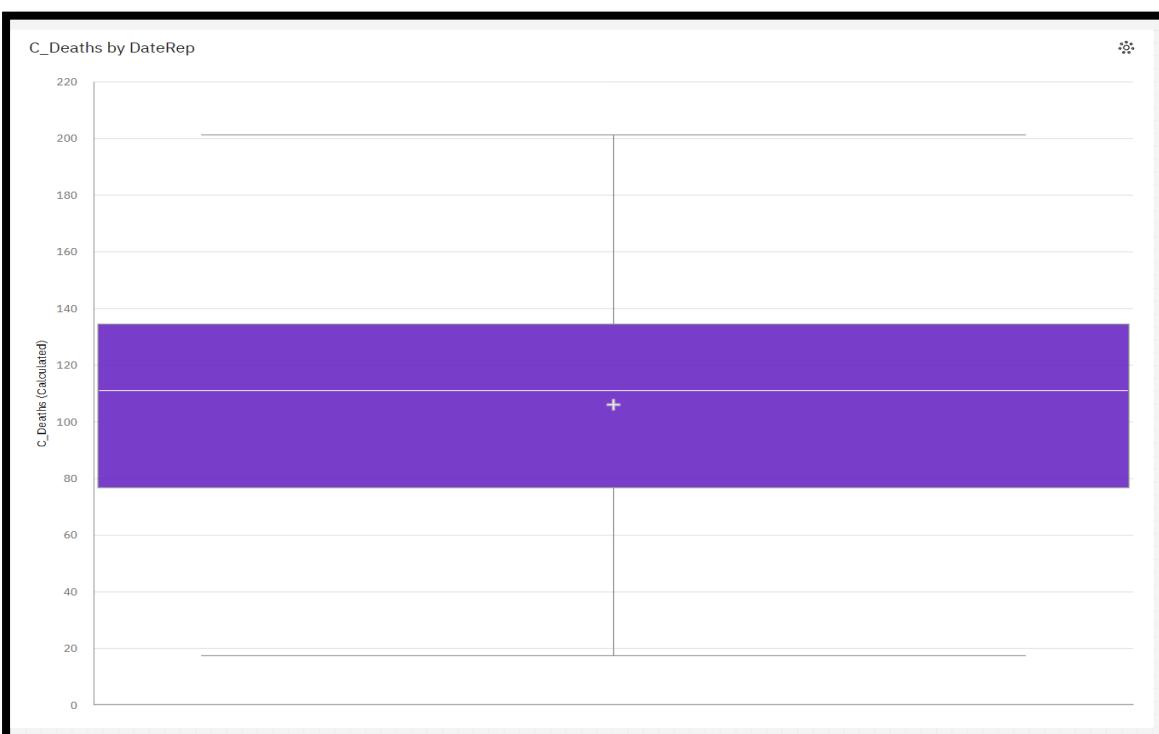


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- Standard Deviation for distributed cases by date.



- Standard Deviation for distributed deaths by date.



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- Relationship of cases and deaths over dates.

