

## **PROJECT TITLE**

**Analyzing COVID-19 Cases and Deaths Data using IBM Cognos**

## **TEAM MEMBERS**

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## **PHASE 4**

### **INTRODUCTION**

In this report, we delve into the exploration and analysis of COVID-19-related data from March, April, and May 2021. Specifically, we focus on examining deaths and their causes in different countries during these three crucial months using various visualizations.

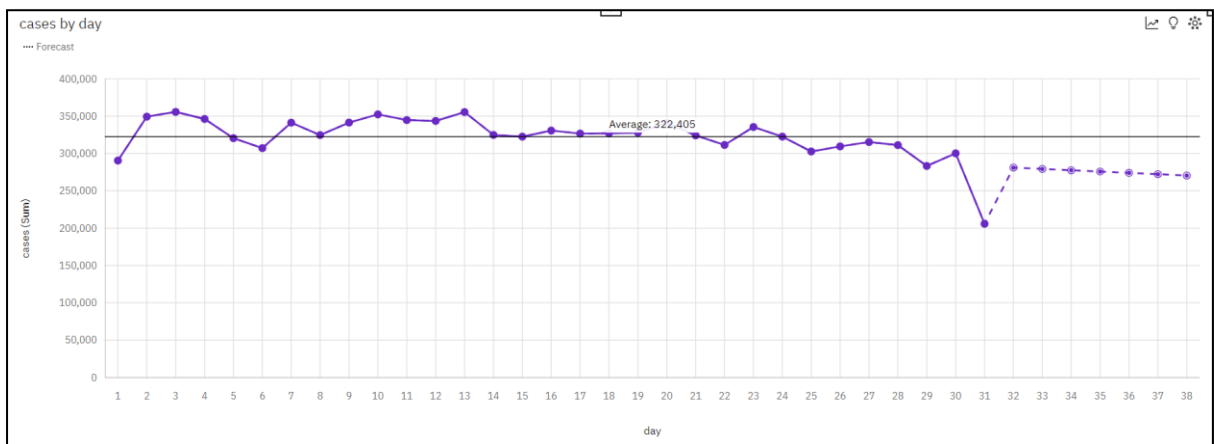
This analysis is made possible through the utilization of IBM Cognos Analytics, a powerful business intelligence and data visualization tool. IBM Cognos Analytics empowers users to transform raw data into meaningful insights through a wide range of visualization techniques. It enables data-driven decision-making, offering a comprehensive suite of tools for data exploration, reporting.

## **STEPS INVOLVED:**

1. **Data Import:** The first step in data analysis with Cognos Analytics is importing pre-processed data. This tool supports various data sources, allowing to seamlessly connect to covid dataset.
2. **Data Preparation:** Cognos Analytics provides data preparation capabilities that help clean, transform, and structure data for analysis. This ensures data accuracy and reliability.
3. **Data Exploration:** Once the data is ready, we can explore it using different charts, graphs, and tables. The tool offers a wide range of visualization options, including bar charts, pie charts, line charts, heat maps, and more.
4. **Dashboard Creation:** One of the most powerful features of Cognos Analytics is the ability to create interactive dashboards. Dashboards allow to combine multiple visualizations and key metrics into a single view, making it easy to spot trends and insights.
5. **Interactivity:** Visualizations in Cognos Analytics are highly interactive. Filtering , drilling down, and drilling through data to explore specific aspects or gain deeper insights.

## VISUALIZATIONS:

### Line graph of cases vs days:



The value of **cases** at the last observed time point **31** is unusual. This may indicate incomplete data or a recent event that might require investigation.



**cases** has an unusually low value at time point **31**.



Over all **days**, the sum of **cases** is nearly **10.0 million**.



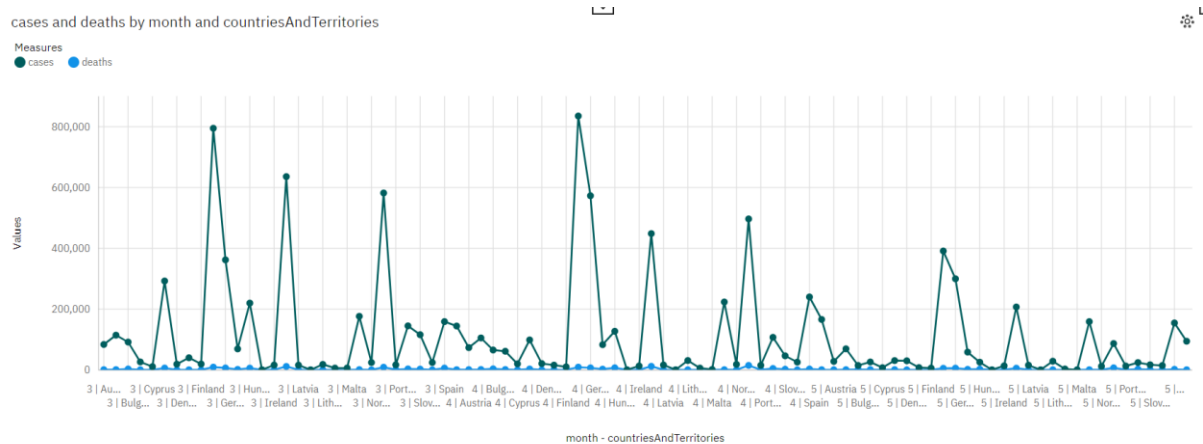
**cases** ranges from almost **206 thousand**, when **day** is **31**, to nearly **356 thousand**, when **day** is **3**.



For **cases**, the most significant values of **day** are **3**, **13**, **10**, **2**, and **4**, whose respective **cases** values add up to nearly **1.8 million**, or **17.6 %** of the total.



## Line graph of cases and deaths vs countries and Territories:



**month 3** has the highest total **cases** due to **countriesAndTerritories France**.



**cases** is unusually high when **month - countriesAndTerritories** is **4|France** and **3|France**.



It is projected that by **2021-06-19**, **France** will exceed **Germany** in **cases** by **over 14 thousand**.



It is projected that by **2021-06-19**, **3** will exceed **4** in **cases** by **nearly 251 thousand**.



**countriesAndTerritories France** has the highest **cases** at **over 2.0 million**, out of which **month 4** contributed the most at **over 835 thousand**.

## Spiral graph of deaths Vs countries and Territories:

deaths by countriesAndTerritories colored by month

month  
3 4 5



**deaths** is most unusual when **countriesAndTerritories** is **Slovakia** and **Italy**.



**deaths** is unusually low when **month** is **5**.



**France** has a **deaths** of **897** for **dateRep 2021-03-27**.



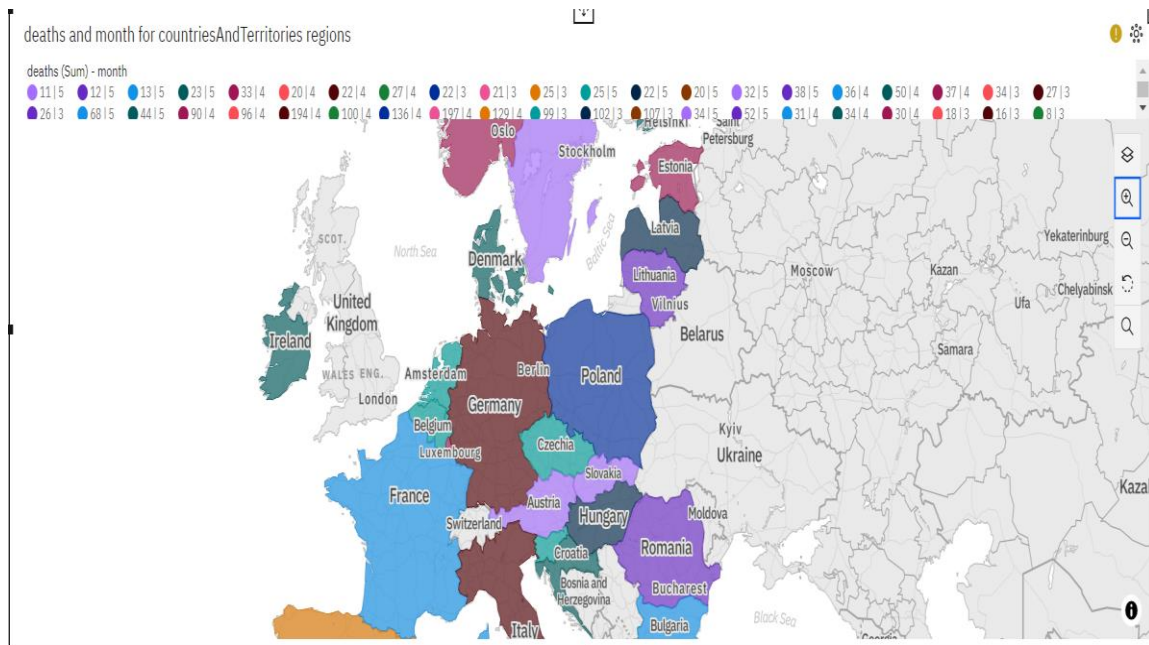
**2021-04-10 dateRep** accounted for **3%** of **Italy deaths** compared to **1%** for **France**.



**4 month** accounted for **41%** of **Italy deaths** compared to **39%** for **France**.



## Maps of deaths and month Vs countries and Territories:



### Suggested insights (2) ⓘ

**deaths 343** has the highest **Total cases** but is ranked **#107** in **Unaggregated countriesAndTerritories**.

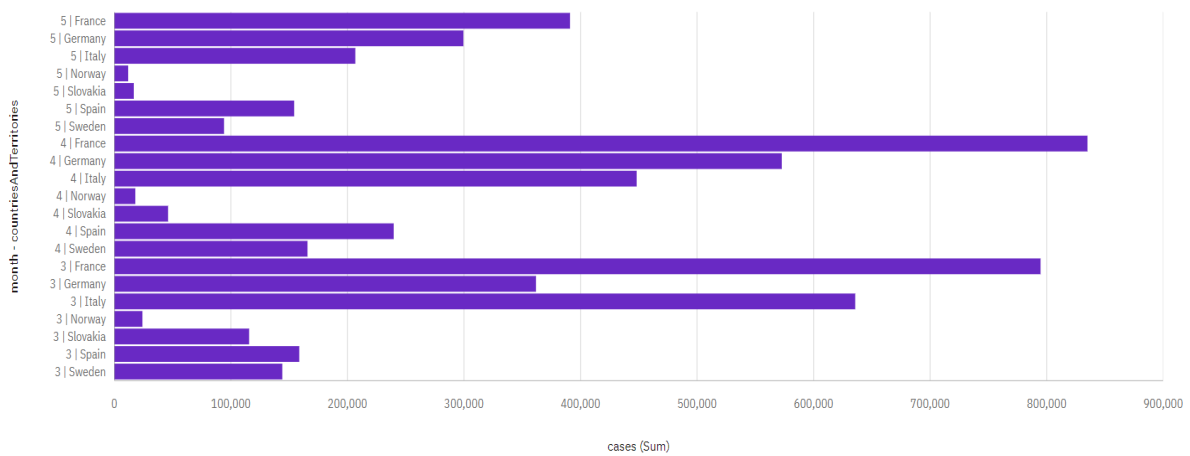


**deaths 0** has the highest **Unaggregated countriesAndTerritories** but is ranked **#10** in **Total cases**.



## Bar graph of cases Vs month and Countries and Territories:

cases by month and countriesAndTerritories



**month 4** has the highest total **cases** due to **countriesAndTerritories France**.



**cases** is unusually high when **month - countriesAndTerritories** is **4|France** and **3|France**.



It is projected that by **2021-06-19**, **France** will exceed **Germany** in **cases** by over **14 thousand**.

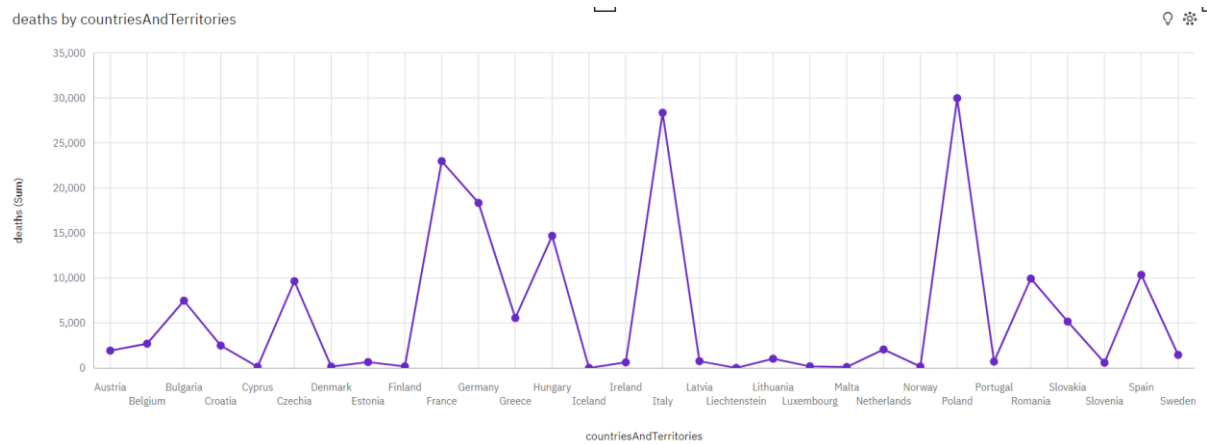


It is projected that by **2021-06-19**, **3** will exceed **4** in **cases** by almost **122 thousand**.



**countriesAndTerritories France** has the highest **cases** at over **2.0 million**, out of which **month 4** contributed the most at over **835 thousand**.

## Line graph of deaths Vs Countries and Territories:



**deaths** is unusually high when **countriesAndTerritories** is **Poland, Italy** and **France**.



It is projected that by **2021-06-19**, **Germany** will exceed **Poland** in **deaths** by **45**.



From **2021-03-27** to **2021-03-28**, **France's deaths** dropped by **79%**.



Across all values of **countriesAndTerritories**, the sum of **deaths** is over **178 thousand**.



**deaths** ranges from **1**, when **countriesAndTerritories** is **Iceland**, to almost **30 thousand**, when **countriesAndTerritories** is **Poland**.

