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:

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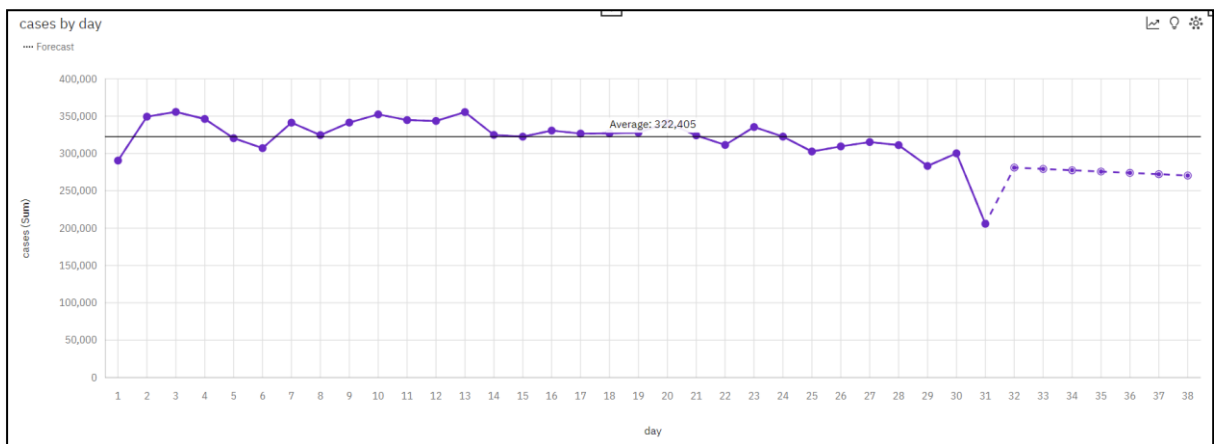
The value of **cases** at the last observed time point **31** is unusual. This may indicate incomplete data or a recent event that might require investigation.

☆

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:

cases and deaths by month and countriesAndTerritories

Measures
● cases ● deaths

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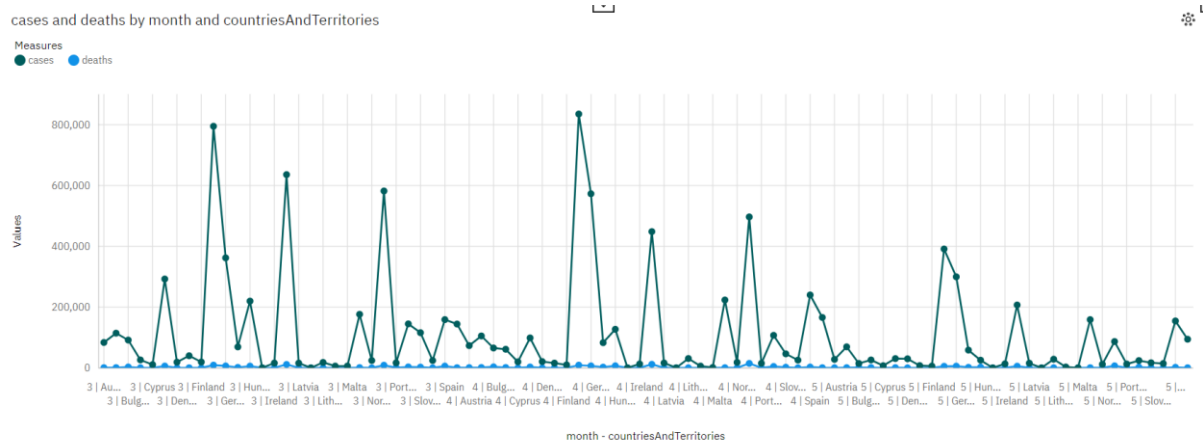
month 3 has the highest total **cases** due to **countriesAndTerritories France**.

☆

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
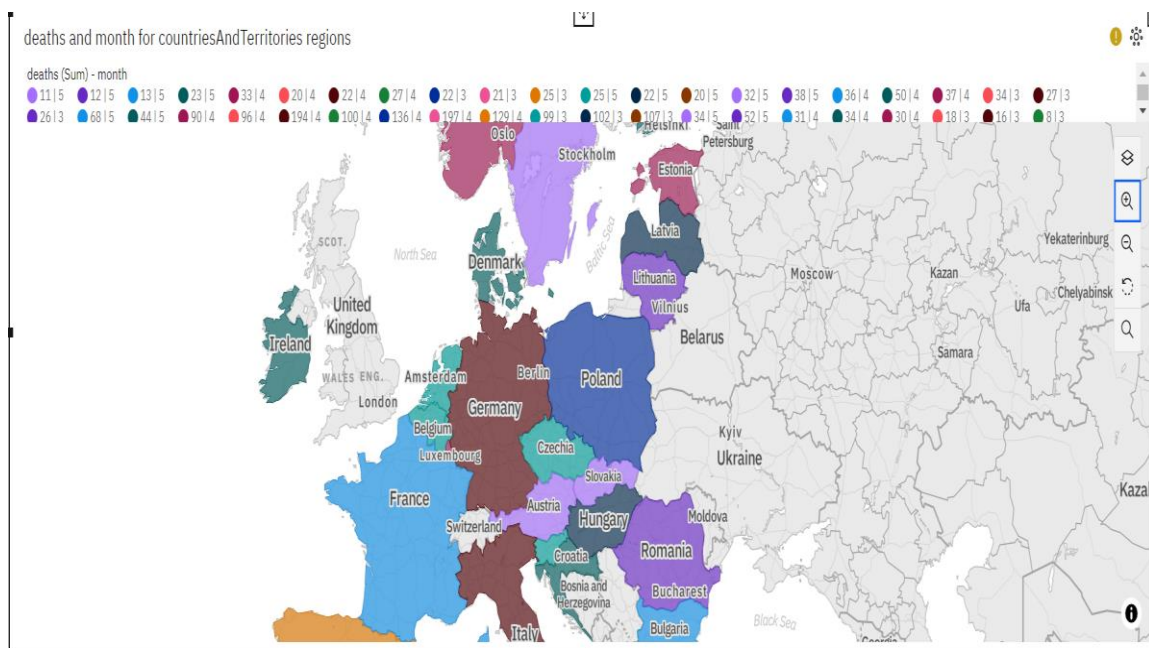5.

☆

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) ⓘ

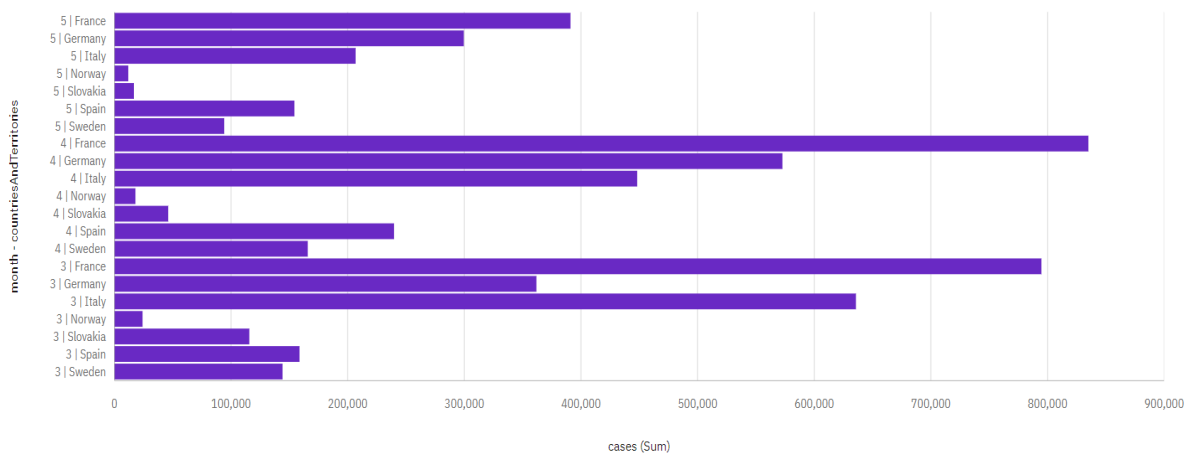**deaths 343** has the highest **Total cases** but is ranked #**107** in **Unaggregated countriesAndTerritories**.

☆

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**.
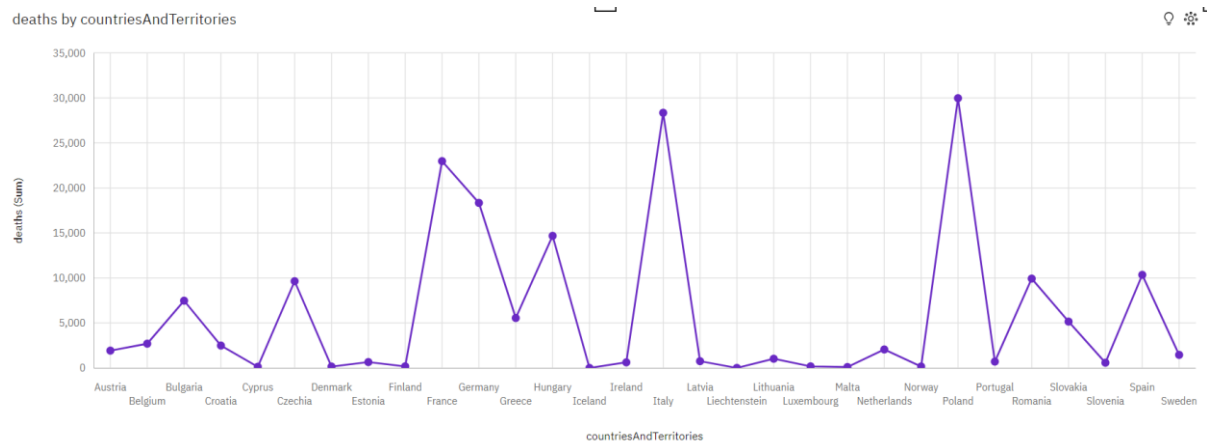
☆

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 by countriesAndTerritories

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**.