**Project Definition and Design Thinking**

**Document**

Project Definition:

Project Title: Analyzing COVID-19 Cases and Deaths Data using IBM Cognos

Project Objective: To compare and contrast the mean values and standard deviations of COVID-19 cases and associated deaths per day and by country in the EU/EEA.

Design Thinking:

# Analysis Objectives:

Comparison Objectives: Define the specific objectives for the analysis, which include: Comparing mean values of daily COVID-19 cases across EU/EEA countries.

Contrasting mean values of daily COVID-19 deaths across EU/EEA countries. Analyzing standard deviations of daily COVID-19 cases and deaths for each country. Identifying trends and variations in COVID-19 data.

# Data Collection:

Data Source: Obtain the provided data file containing COVID-19 cases and deaths information per day and by country in the EU/EEA.

Ensure the data is up-to-date and reliable from trusted sources.

Data Preprocessing: Clean and preprocess the data as necessary, addressing missing values and inconsistencies.

# Visualization Strategy:

Tools: Utilize IBM Cognos for data visualization.

Ensure access to the required software and data.

Chart Types: Plan to create informative charts and graphs for visualization, including:

Line charts for trends in daily cases and deaths. Bar charts for country-wise comparisons.

Box plots for displaying standard deviations.

Interactive Dashboards: Consider creating interactive dashboards to enable users to explore the data and insights.

**Insights Generation:**

Data Exploration: Explore the data to identify potential insights and trends.

Look for spikes in cases or deaths. Investigate correlations between variables.

Hypothesis Testing: Perform statistical tests, if applicable, to validate findings.

Narrative: Present insights in a clear and concise manner, highlighting key takeaways and observations.

Use visuals to support the narrative.

Recommendations: Suggest any actions or further analysis based on the insights gained.

**Conclusion :**

This document outlines the problem definition and design thinking for the COVID-19 data analysis project. It provides a structured approach to achieving the project's objectives and deriving meaningful insights from the data.