Phase 1: Problem Definition and Design Thinking

Problem Definition:

The project involves analyzing COVID-19 cases and deaths data using IBM Cognos. The objective is to compare and contrast the mean values and standard deviations of cases and associated deaths per day. This project is to develop a comprehensive and interactive dashboard using IBM Cognos that provides insights into the COVID-19 pandemic. The dashboard will be designed to cater to various stakeholders, including healthcare professionals, policymakers, and the general public.

Design Thinking:

1. Data Collection Strategy:

To collect data, we can use APIs provided by various sources such as the World Health Organization (WHO), the Centers for Disease Control and Prevention (CDC), and the John Hopkins University (JHU). These APIs provide access to real-time data on confirmed cases, deaths, and recoveries.

2. Visualization Strategy:

To visualize the data, we can use various chart types and maps provided by IBM Cognos. For example, we can create line charts to display trends in confirmed cases, deaths, and recoveries over time. We can also create bar charts to compare the number of cases, deaths, and recoveries among different countries or regions. Additionally, we can create heat maps to visualize the severity of the pandemic in different locations.

3. Predictive Model:

To predict future trends in COVID-19 cases, deaths, and recoveries, we can use machine learning algorithms such as linear regression, support vector machines, or neural networks. These algorithms can be trained on historical data to make predictions based on patterns and trends observed in the past.

4. Analysis Objective:

The primary objective of this analysis is to provide insights into the progression of the COVID-19 pandemic. By visualizing the data and incorporating predictive models, we can help stakeholders understand the current state of the pandemic and make informed decisions about public health interventions.