

PROJECT TITLE: COVID-19 ANALYSIS USING COGNOS

PROBLEM STATEMENT:

The project aims to analyze COVID-19 cases and deaths data within the European Union (EU) and European Economic Area (EEA) using IBM Cognos. The primary objective is to conduct a detailed comparison and contrast of the mean values and standard deviations of daily COVID-19 cases and associated deaths across different countries within the EU/EEA.

Objective: Develop an interactive, real-time dashboard using IBM Cognos that not only analyzes historical COVID-19 data but also predicts future trends, allowing for proactive decision-making to combat the pandemic in the EU/EEA region.

Steps to Implement the Idea:

Step 1: Data Integration and Automation

- Collect real-time COVID-19 data sources, including testing, cases, deaths, and vaccinations, and integrate them into a centralized database.
- Set up an automated data pipeline to ensure the dashboard always has the latest data.

Step 2: Predictive Modeling

- Implement advanced predictive modeling using machine learning algorithms to forecast COVID-19 trends for each EU/EEA country.
- Consider factors such as vaccination rates, seasonality, and emerging variants to make accurate predictions.

Step 3: Real-Time Data Processing

- Continuously process and update the predictive models as new data arrives.
- Utilize streaming technology to handle real-time data influx, ensuring the dashboard remains up to date.

Step 4: Interactive Dashboard Development

- Design and develop an interactive and user-friendly dashboard using IBM Cognos, featuring real-time data visualization.
- Include charts, maps, and trend graphs to display historical and predicted data.
- Incorporate filters and drill-down options for users to explore data for specific countries or regions.

Step 5: Alerting System

- Implement an alerting system within the dashboard that notifies users and relevant authorities when unusual or critical trends are detected.
- Alerts could be based on thresholds defined for case surges or deviations from predictions.

Step 6: User Training and Access

- Provide training sessions for end-users, including healthcare professionals, policymakers, and the public, to effectively use the dashboard.
- Establish secure access control and user authentication to ensure data integrity and privacy.

Step 7: Public Access and Communication

- Make a simplified version of the dashboard accessible to the general public, offering COVID-19 updates and predictions in an easy-to-understand format.
- Create a public communication plan to ensure the dashboard is widely used and trusted.

Step 8: Continuous Improvement and Feedback Loop

- Establish a feedback loop with users to gather input and enhance the dashboard's features and accuracy.
- Continuously update the predictive models as more data becomes available.

Step 9: Policy Integration

- Collaborate with public health authorities to integrate the dashboard's insights into COVID-19 response strategies and policy adjustments.

Step 10: Documentation and Assessment

- Document the entire process, including data sources, predictive models, dashboard design, and user manuals.
- Conduct regular assessments to evaluate the dashboard's impact on proactive decision-making and the management of the pandemic in the EU/EEA region.

Conclusion: By implementing this real-time predictive analytics dashboard, we aim to empower stakeholders with actionable insights, enabling them to make timely and informed decisions to mitigate the impact of COVID-19. The project will not only provide valuable data analysis but also offer a proactive approach to managing the pandemic effectively in the EU/EEA.