Video Script

Powerpoint: Kevin

Part C: Create a 5-7-minute video presentation to demonstrate the aim of the project and their findings.

NOTE: Script is roughly 700-1000 words

The students need to explain the following:  
1- the aim of the work (project)

**[Video 1] JO:** The COVID-19 pandemic was a highly transformative period, with governments worldwide adopting diverse public health measures to combat the outbreak. With some time elapsed, the effect of these strategies and influence of alternative contextual variables should be analysed in order to improve future responses to global outbreaks. Therefore, the aim of this project is to provide insight on the interaction and disparities between COVID-19 case numbers, mortality and vaccination rates for different countries. In doing so, health organisations such as [**INSERT REFERENCE FROM INTRODUCTION**] will be more effective in handling future global health pandemics.

2- Research Questions

**[Video 2] TYSON:** To address this exploratory aim, four distinct research questions were formulated, these included:

* Describing the interaction between COVID-19 testing, vaccination rates and mortality rates over time.
* Identification of the countries that have experienced the greatest disparities in relation to the impact of COVID-19 and the global vaccination response.
* Discovery of the associations between COVID-19 vaccination rates and mortality cases when considering socio-economic factors. And finally,
* Discussing the implications of these findings for public health policies to mitigate the impact of future health pandemics.

3- Data exploratory and the reason for choosing the datasets

**[Video 3] KEVIN:** Three open-source datasets available in Kaggle were utilised for this project. These datasets contained information pertaining to the case numbers, mortality rates and vaccination uptake among different countries, as well as, some contextual information related to socioeconomic status.

4- plots: explanation of the plots and how related to the research question, and their importance to the research questions and organization (Business)

Each person should address their question here, keep it to 100ish words max:

**[Video 4]** Q1. FAITH: Analysing time series trends of COVID-19 testing, vaccination rates, and mortality rates provides valuable insights into the progression of the pandemic.

The time series trends of COVID-19 testing, vaccination rates, and mortality rates are interconnected and can have significant implications for public health strategies. Increased testing allows for early detection and isolation of cases, which can help control the spread of the virus and reduce mortality rates.

Higher vaccination rates contribute to lower mortality rates by reducing the severity of illness in those who contract the virus. Vaccinated individuals are less likely to require hospitalisation or experience severe complications, hence the decrease in COVID-19-related deaths.

The overall trend is typically a decrease in mortality rates over time as vaccination rates increase, testing capacity improves, and healthcare systems adapt to the challenges posed by the virus. However, the impact of new variants, vaccine hesitancy, and other factors can influence the trajectory of these trends.

**[Video 5]** Q2. NAHID

**[Video 6] Q3. TYSON:** Next, associations between mortality and vaccination rates considering three different measures of socio-economic status were investigated as socioeconomic status is considered a key indicator of physical health.

Initially, it was found that ‘high-income’ countries observed the greatest number of cases and deaths relative to lower-income groups. However, this relationship was directly correlated to the number of COVID-19 tests, with countries of lower income testing far less frequently than those identified as high income. Therefore, it can be assumed that a significant number of deaths among lower-income countries related to COVID-19 went unreported. As expected, faster rates of vaccination uptake were observed for countries from higher income status which can be attributed to their increased accessibility to health care.

Interestingly, a positive correlation was identified between COVID-19-related deaths and a country's health expenditure as a proportion of GDP. While this finding defies conventional wisdom, the effectiveness of public health measures in reducing the spread and fatality of COVID-19 go beyond financial investment. Lastly, the education component of socioeconomic status was examined, with higher rates of GDP spent on education positively correlating to vaccination uptake.

**[Video 7]** Q4. JO:

5- how to combine the results from the datasets and plot to deliver one storytelling **[Video 8]** KEVIN and JO:

6- Limitation and Future Work.

**[Video 9]** KEVIN and JO: