1. **Project Title**: The “EriTufJohMik’ Project re Mental Health Trends in Technology
2. **Team Members**: Erica Hoshino

Tuflika Putri

John Nasiakos

Mike Murphy

1. **Project Description**:

The project uses John Hopkins University Covid-19 datasets and related datasets to determine the statistical significance of the relationship between being vaccinated or unvaccinated and the mortality from Covid\_19.

The project tries to answer the following questions.

1. **Research Questions**:
2. What is the relationship between “unvaccinated” Covid patients versus “vaccinated” Covid patients for the following categories in selected countries?
   1. Covid vaccination rates per country
   2. Total Covid cases
   3. Total Covid hospitalisations
   4. Total covid cases recovered
   5. Total Covid deaths
   6. Mortality rates - per 100,000 population
   7. Mortality rates – case / fatality ratio
3. What countries / areas will be most impacted?
4. What countries / areas will be least impacted?
5. Optional - What will be the impact of the spread of Covid-19 for mental health trends?

Need to source datasets for this (ABS, Oz health / government departments et al)

1. **Hypotheses**:

The alternative hypothesis (Ha) is that there is a significant correlation between vaccination status (vaccinated or unvaccinated) and death for Covid patients.

The null hypothesis (H0) is that there is not a significant correlation between vaccination status (vaccinated or unvaccinated) and death for Covid patients.

1. **Visualisations / Analysis**:

Proposed visualisations are:

1. Pie chart vaccinated vs unvaccinated Erika
   1. Bar chart vaccination rates per country Erika
   2. Bar chart total Covid cases per country Erika
   3. Bar chart total Covid hospitalisations per country (if possible) John
   4. Bar chart total covid cases recovered per country John
   5. Bar chart total Covid deaths per country John
   6. Bar chart total mortality rates - per 100,000 population Mike
   7. Bar chart total mortality rates - case / fatality ratio Mike

Correlation and regression analysis follows proposed visualisations. Mike / All

1. **Project Datasets**:

The datasets for the project can be found at the following links.

“JHU – Time Series Daily Reports”

<https://raw.githubusercontent.com/CSSEGISandData/COVID-19/master/csse_covid_19_data/csse_covid_19_time_series/time_series_covid19_confirmed_global.csv>

“JHU – Daily Reports”

<https://github.com/CSSEGISandData/COVID-19/tree/master/csse_covid_19_data/csse_covid_19_daily_reports>

JHU link on how to use their data – accesses cases, vaccinations, and testing data

<https://coronavirus.jhu.edu/about/how-to-use-our-data>

“World population data”

<https://www.worldometers.info/world-population/population-by-country/>

“Vaccination rates per country”

<https://ourworldindata.org/covid-vaccinations?country=AUS>

1. **References / Acknowledgements**:

Include any references here B Chen et al