**Group: The Outsiders**

**Project Title: Exploring the COVID-19 Pandemic**

**Team Members**

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4. Adna
5. Kantai Melau

**Project Description**

The outbreak of COVID-19 globally came unexpectedly with far-reaching consequences. The ‘normal’ as we knew changed drastically in a short period of time. As such, it is important to examine the trends that exist in the pandemic. This is in terms of the spread globally and the response to the vaccine when it was available. The effectiveness and availability of the vaccines in various parts of the world would also be interesting to find out. Projecting the number of infections in future periods of time will also be helpful in preparation to contain the pandemic. This would particularly be useful to the WHO to understand the trends and plan for the future.

**Research Questions to Answer**

1. What are the global trends of the pandemic? (Infections per continent, per country, deaths per continent, per country, vaccinations per continent, per country)
2. Summary statistics of the infection rates.
3. What is the correlation between vaccinations and the number of infections?
4. How do the different vaccines compare in effectiveness and spread of usage?
5. Heatmap to show the spread of covid i.e. where cases have spiked and where they are few.
6. Plot a scatter and linear model for year versus total infections and use it to project 2022 infections.
7. Is there a relation between weather patterns and the spread of the virus?

**Datasets to be Used**

1. [**https://covid19.who.int/data**](https://covid19.who.int/data)
2. [**https://www.kaggle.com/datasets/imdevskp/corona-virus-report?select=country\_wise\_latest.csv**](https://www.kaggle.com/datasets/imdevskp/corona-virus-report?select=country_wise_latest.csv)
3. [**https://www.kaggle.com/datasets/allen-institute-for-ai/CORD-19-research-challenge**](https://www.kaggle.com/datasets/allen-institute-for-ai/CORD-19-research-challenge)

**Distribution of Tasks**

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| **Name** | **Task** |
| Nnamdi Okoroji | **Q1, Q6** |
| Calum Knight | **Q2, Q7** |
| Mihai Flore | **Q3** |
| Adna | **Data frames, Q4** |
| Kantai Melau | **Q5, Presentation** |