**Project 1 proposal**

**Team number:** 2

**Members:** Namita, Pooja, Sam, Ishaan

**Project title: *Measuring the impacts of COVID-19 on Australia***

**Project description (broad)**

* Brief overview of your project (3 - 4 sentences). Provide an overview of the project scope and broadly define the research questions.

***Measuring the impacts of COVID-19 on Australia on the following areas***

* ***Employment,***
* ***People / Health***
* ***International Trade***
* ***Business/ Industries***

***We are exploring employment, health/ people , international trade and business/ industry impacts on Australia due to the coronavirus (COVID-19).***

* Extract COVID-19 Australia data available
  + Create/ Import COVID19 dataset to Dataframes
* Prepare extracted data for the analysis
  + Cleaning data (if required) by dropping columns
  + Aggregating rows
* Analyse the above data for impacts of COVID-19 on a number of key areas (mentioned above)
* Calculate a good measure for analysis.
  + Merge/ Join datasets
  + Find/ calculate key and relevant statistics and correlations among our data
* Visualise our analysis results
* Conclude/ Present Hypothesis based on above analysis

**Research question to answer (specific)**

* What do you plan to show with your data analysis?
  + Analysis of the impact of covid on a number of areas
    - **Unemployment - Ishaan**
      * By industry
      * By youth unemployed
      * By state
    - **Health & Mental Health - Sam**
      * What age groups are more affected?
      * What general demographics?
      * Effects on provision of health services
    - **International trade - Pooja**
    - **Business/ Industries - Namita**
      * Changes in revenue
      * Business impacts by Industry
      * Nature of business impacts
* What research questions do you plan to answer? That is, what are your hypotheses? What do you expect to see as a result of your analysis?
  + **Unemployment** - white collar workers have lost their jobs the most in Australia- are we in a recession or not
  + **Mental Health** has deteriorated during Covid vs pre-Covid
  + **International Trade** - Challenges and opportunities in the management of Australia’s international trade relationships , Australian export industry impacted the most as an impact of pandemic, Effect of Covid on Australian import industry, Impact of Covid on Australian GDP
  + **Industries/ Small Businesses** - To explore the impact of COVID-19 on theAustralian businesses.
    - First, what were the changes to Revenue due the economic disruptions resulting from COVID-19?
    - Second, which industries were most affected?
    - Third, what were the nature of impacts on different industries?

**Datasets required**

What data sets will you access?   
ABS - https://www.abs.gov.au/statistics

[Our World in Data](https://ourworldindata.org/)

* How will you access the data? (e.g. via an API or downloading the data)  
  Both API and CSV data sets
* What format will the data be in? CSV
* What problems might arise given your choices above?

Insufficient Information/ Data for limited period

* Is your data sufficiently large? Yes
* Is your data messy or relatively clean? Relatively Clean

**Rough breakdown of tasks**

* Who will be doing what?

***Measuring the impacts of COVID-19 on Australia on the following areas***

* ***Repository/ Coding standards - Namita + All***
* ***Initial Data Analysis - Ishaan + All***
* ***Code Reviews - Sam + All***
* ***Presentation - Pooja + All***
* ***Employment - Isshan***
* ***People / Health - Sam***
* ***International Trade - Pooja***
* ***Business/ Industries - Namita***
* What tasks can you divide between team members?

International Trade: [**https://www.mla.com.au/prices-markets/market-news/2020/march-exports-begin-to-show-impact-of-covid-19/**](https://www.mla.com.au/prices-markets/market-news/2020/march-exports-begin-to-show-impact-of-covid-19/)

[**https://www.abs.gov.au/statistics/economy/international-trade/international-trade-goods-and-services-australia/latest-release**](https://www.abs.gov.au/statistics/economy/international-trade/international-trade-goods-and-services-australia/latest-release)

[**https://www.pwc.com.au/publications/australia-matters/economic-consequences-coronavirus-COVID-19-pandemic.pdf**](https://www.pwc.com.au/publications/australia-matters/economic-consequences-coronavirus-COVID-19-pandemic.pdf)