**README**

CA2 Gavin Davis sba22311

*\*This file contains a description of the uploaded documents for completion of CA2*

**Notebook 1-** **CA2\_Notebook\_1\_GavinDavis\_sba22311**

Contains EDA, data preparation for the generation of a machine learning model which could predict milk production in Ireland using a number of different dairy production features collected from multiple datasets. This the body of work completed to meet the criteria for the machine learning for data analytics module in CA2.

**Notebook 2-** **CA2\_Notebook\_2\_GavinDavis\_sba22311**

Contains the EDA, data preparation and statistics required for generations of interactive visualisations such as choropleth maps of Europes milk production, along with an interactive dashboard for stakeholders to query milk production of the years 1970 to 2021. This notebook along with the others is the body of work generated to meet the criteria for the data visualisation and preparation for data analytics module in CA2.

**Notebook 3-** **CA2\_Notebook\_3\_GavinDavis\_sba22311**

Predominantly focused on a statistical evaluation and interactive visualisations to compare and contrast Ireland and Germanys Milk production on a monthly and yearly basis. Several statistical methods are used including descriptive statistics, confidences intervals and one/two sample T tests, this is the main body of work generated to meet the criteria for the statistics for data analytics portion of CA2.

**Notebook 4-** **CA2\_Notebook\_4\_TwitterAPI\_GavinDavis\_sba22311**

Contains code required for the generation of Twitter API using a twitter developer account to perform sentiment analysis for CA2. This work is predominantly related to the requirement in the machine learning section of CA2 to perform sentiment analysis on an area of agriculture of interest and generate a machine learning model for predicting sentiment.

All notebooks include aspects of each module whether it be statistics and data visualisation required for machine learning and to gain a deeper understanding of the data used for each section.