MSA Assessment Introduction

This is an individual assessment where you will be ranked against your peers. The MSA team has set a minimum standard that we require all students to *pass but we will be* expecting to see work well above and beyond the minimum specifications (as per industry standards).

General Outline

This assignment requires students to formulate a business problem and solve it using data extraction, data analysis and sentiments prediction. Additionally, students will also have to complete a Kaggle challenge in sentiment analysis. The purpose of the assignment is to encourage students to develop the skills required to apply their analytical skills to real world business problems and to communicate their findings to a general audience.

(Note: Students are free to use their preferred software/platform to complete the assignment)

Example

In the video tutorials, the underlying business case is that a particular motor vehicle company wishes to investigate the popularity of Tesla cars recently. The motor company plans to use the results of the investigation to inform future business decisions. We approached the problem by analysing sentiments of posts in the Tesla subreddit.

Basic Requirements
● State the business problem for which you will be providing a solution. Explain any assumption you have made.
● Set up a project on Azure Notebooks (https://notebooks.azure.com/) or on a local Jupyter notebook.
● Extract relevant data using either web scraping techniques or by calling an API (you can use Reddit or another data source).
● Perform data cleaning and exploration.
● Perform sentiment analysis using either the Vader or TextBlob package.
● Participate in the Kaggle Challenge and achieve a score of over 50%.
● Complete the Agile Software Development module

Note:
1. Your Jupyter notebooks should contain brief explanations of your thought processes for each step.

Advanced Requirements (Complete as least 1, and as many as possible)

● The use of web scraping to gather data.

● Using the model trained from Kaggle, apply it to the sentiment analysis for your business case while also using one of the prebuilt packages. Compare and comment on differences in the predictions between your trained model and the prebuilt package.

● Achieve a Kaggle score of 64% or higher.

Submission Format

You will be required to complete two specific submission tasks

1) Upload assignment files onto your GitHub account. You will need to submit to us the link to your GitHub. The files you need are:

● A notebook for solving your business case. This should include code for web scraping or API call as required.

● A notebook for training the classifier for the Kaggle challenge

● If you chose to use Azure notebooks, then post the link to the Azure notebook in the README.md file in your GitHub repository and make sure the Azure notebook is set to public.

2) Present to the MSA team in-person at the assessment centre:

a. Presentations are 15-minute slots

b. 7 minutes of presentation. You should do a structured presentation using the given slide deck or your own (20%)

c. 7 minutes of Q&A from the MSA team, we will be assessing your technical ability in-depth (40%)

d. We will be assessing you holistically. We will be evaluating the depth of your understanding of your solution, and its application in the real world. Your presentation and soft skills will also be assessed.

Academic Integrity

The MSA Programme strictly enforces academic integrity and students that do not uphold academic integrity will not be allowed to proceed within the programme. Any work you submit should be your work and differentiated from others if you have collaborated or troubleshooted with other parties. This includes any sample solutions and tutorials we provide. Please clarify with us at xiaobin.lin@studentambassadors.com if you have questions.

MSA Certificate

If you pass phase 2, you will be able to request a certificate from the MSA Team verifying your completion of the MSA Program.

Work Placement information

Work placement opportunities are available in the Auckland region across our partners. We ask employers to pay a minimum compensation of $2,000. Many employers will pay full wages. If there are more students who have passed phase 2 than the number of placements, priorities will be given to students who have shown in-depth knowledge and dedication through the submission and the presentation.

Deadline: 8AM 18th September 2020

Submission Form: https://tinyurl.com/y5zdh47g

Book interview here: https://tinyurl.com/y6rmp9da

Have a question?
Ask on the Discord Server or Facebook group