CRICOS Provider No. 00103D | RTO Code 4909

## ITECH7407 – Real Time Analytics, Semester 2 2020

# Assessment Task – Data Analytics Assignment

## Overview

For this assessment task, you will work in a group to analyse a selected data set, and provide recommendations to the leadership of the company based on your findings.

## Timelines and Expectations

Percentage Value of Task: **20%**

Due: **Week 11**

Minimum time expectation: **25 hrs**

## Learning Outcomes Assessed

The following course learning outcomes are assessed by completing this assessment task:

S1. Integrate data warehouse and business intelligence techniques when using big data.

S2. Create flexible analytical models based on real time data, and use connectivity interfaces and tools for reporting purposes.

S3. Use real time performance analysis techniques to monitor data, and identify shifts or events occurring in data, as a basis for organisational decision making.

S4. Use real time mobile tracking techniques to utilise mobile-specific usage data.

K3. Communicate the key drivers for big data in terms of efficiency, productivity, revenue and profitability to global organisations.

K4. Identify and describe types of big data, and analyse its differences from other types of data.

A1. Communicate security, compliance, auditing and protection of real time big data systems.

A2. Adopt problem solving and decision making strategies, to communicate solutions to organisational problems with key stakeholders, based on analysis of big data, in real time settings.

## Assessment Details

This is a business analytics project aimed at generating innovative analytics solutions for a Company. The objective is to analyse the given datasets from a relevant firm’s perspective in terms of implications and strategies which the chosen company could adopt to improve its functions, resources and processes efficiently and effectively.

You are expected to work in a group to find a dataset with minimum of 10,000 rows from publicly available sources. You also need to hypothetically identify a company (chosen company) who could get benefits from the analysis of the dataset. You are expected to discuss the selected dataset with your tutor in labs by Week 7. Below is a list of open data sources:

1. World Bank Open Data

2. WHO (World Health Organization) — Open data repository

3. Google Public Data Explorer

4. Registry of Open Data on AWS (RODA)

5. European Union Open Data Portal

6. FiveThirtyEight

7. U.S. Census Bureau

8. Data.gov

9. UNICEF Dataset

10. DBpedia

11. freeCodeCamp Open Data

12. Australian Govt Data

Your group is to complete the following tasks:

Task 1- Background information

Write a description of the selected dataset and project, and its importance for your chosen company. Information must be appropriately referenced. [1 Page]

Task 2 – Perform Data Mining on data view

Upload the selected dataset on SAP Predictive Analysis. For your dataset, perform the relevant data analysis tasks on data uploaded using data mining techniques such as classification/association/time series/clustering and identify the BI reporting solution and/or dashboards you need to develop for the operational manager of the chosen company. [2-3 Pages]

Task 3 – Research

Justify why you chose the BI reporting solution/dashboards/data mining technique in Task 3 and why those data sets attributes are present and laid out in the fashion you proposed (feel free to include all other relevant justifications).

Note: To ensure that you discuss this task properly, you must include visual samples of the reports you produce (i.e. the screenshots of the BI report/dashboard must be presented and explained in the written report; use ‘Snipping tool’), and also include any assumptions that you may have made about the analysis from Task 3. [1-2 Pages]

Task 4 – Recommendations for CEO

The CEO of the chosen company would like to improve their operations. Based on your BI analysis and the insights gained from your “Dataset” in the lights of analysis performed in previous tasks, make some logical recommendations to the CEO, and justify why/how your proposal could assist in achieving operational/strategic objectives with the help of appropriate references from peer-reviewed sources. [2-3 Pages].

Task 5 – Cover letter

Write a cover letter to the CEO of the chosen firm with the important data insights and recommendations to achieve operational/strategic objectives [1 page]

Other Tasks –

Please refer to the marking scheme at the end of the assignment for other tasks and expectations.

## Submission

You will also submit a 9-10 pages report (about 3000 words) not counting cover page, references and Appendix) of this project. At least 5 references in your report must be from peer-reviewed sources. Include any and all sources of information including any person(s) you interviewed for this project.

Please note that all references must adhere to APA 7th style. See <https://federation.edu.au/library/student-resources/fedcite/content/apa-7th-ed./using-apa-7th-ed./introduction> for details on how to format a report and how to cite references. Make sure your follow a formal report structure with cover page, introduction, use of headings, subheadings, conclusion sand reference section.

Submit to the drop box on Moodle.

## Marking Criteria / Rubric

Refer to the attached marking guide.