Learning Objective Assessed:

This assignment assesses Learning Objectives 1, 2, 3 and 4.

Forming a group and rules:

You can do this assignment individually or in a group.

If you want to do this assignment in a group consider the following issues:

* Feel free to make groups with students in the same tutorial class or other tutorial classes.
* You need to form a group and give the names of students in your group to your tutor no later than end of week 4.
* Each member of group should contribute equally in the assignment.
* At the first page of your report you need to include a statement showing the contribution of each member of the group. If any of the group member is not contributing you can make an appointment with me or your tutor to resolve the issue and it may results in reducing the mark of the students who are not active in doing this group assignment. Keep minutes and agreements on dividing the tasks between the group members, If there is a dispute in your group I use the minutes to decide to share the marks. Otherwise all students in a group will the get same mark.

Length:

Number of words should be written in the first page of assignment. Table or Figure is counted as 50 words + the number of words in its caption. The words in summary report are counted but the words in the table of content are not counted. Violation of the word limits will be panelised.

* + If you do the assignment individuality word limit is 2000 words.
  + For a group of 2 student the would limit would be 2000-3000.
  + For a group of 3 students would limit would be 3000-3500 words.

Submission Format:

Submit both Excel file (analysis) and your word file (report). We only mark your word file, therefore, make sure you copy all required information such as tables and plots that you created from your Excel file to the word file. However, if you don't submit your Excel file your assignment won't be marked.

Important Note:

1. You cannot submit more than once as it is a Turnitin submission. Only one group member must submit but all group member should sign the coversheet.
2. Download the coversheet from here [Cover-Sheet.doc](https://rmit.instructure.com/courses/108595/files/29937830/download?wrap=1)[Download Cover-Sheet.doc](https://rmit.instructure.com/courses/108595/files/29937830/download?download_frd=1)

Suggestive Datasets:

To do this assignment you need to have access to some data sets. There are two scenarios: having access to corporate data or using public data.

* Scenario I (company data): You can get access to corporate data by conducting some online search. Alternatively you if  have some connections in a company let us say you used to work in that company you can ask the related office to provide you with some data.
* Scenario II (public data): Some useful web-pages to access public data are provided below:
* [https://www.ers.usda.gov/data-products/food-environment-atlas/data-access-and-documentation-downloads/Links to an external site.](https://www.ers.usda.gov/data-products/food-environment-atlas/data-access-and-documentation-downloads/)
* [https://finances.worldbank.org/Loans-and-Credits/IBRD-Statement-Of-Loans-Historical-Data/zucq-nrc3Links to an external site.](https://finances.worldbank.org/Loans-and-Credits/IBRD-Statement-Of-Loans-Historical-Data/zucq-nrc3)
* [https://www.imf.org/en/DataLinks to an external site.](https://www.imf.org/en/Data)
* [https://finances.worldbank.orgLinks to an external site.](https://finances.worldbank.org/)
* [https://finances.worldbank.org/Loans-and-Credits/IBRD-Statement-Of-Loans-Historical-Data/zucq-nrc3Links to an external site.](https://finances.worldbank.org/Loans-and-Credits/IBRD-Statement-Of-Loans-Historical-Data/zucq-nrc3).  (select export to download data in csv format)
* [https://finances.worldbank.org/Other/Historical-IFC-Financial-Clients-Reach-Data/9wav-a9jmLinks to an external site.](https://finances.worldbank.org/Other/Historical-IFC-Financial-Clients-Reach-Data/9wav-a9jm)  (select export to download data in csv format)
* [http://data.europa.eu/euodp/en/data/dataset/european-structural-investment-funds-esif-2014-2020-achievementsLinks to an external site.](http://data.europa.eu/euodp/en/data/dataset/european-structural-investment-funds-esif-2014-2020-achievements)
* [http://data.europa.eu/euodp/en/data/dataset/honey-bee-seasonal-mortality-2012-2014-epilobee-analysisLinks to an external site.](http://data.europa.eu/euodp/en/data/dataset/honey-bee-seasonal-mortality-2012-2014-epilobee-analysis)
* [https://healthdata.gov/search/type/dataset?query=csvLinks to an external site.](https://healthdata.gov/search/type/dataset?query=csv)
* data.gov
* [http://www.abs.gov.au/ (Links to an external site.)](http://www.abs.gov.au/)
* [http://data.gov.au/ (Links to an external site.)](http://data.gov.au/)
* [https://www.data.vic.gov.au/ (Links to an external site.)](https://www.data.vic.gov.au/)
* [http://www.aihw.gov.au/ (Links to an external site.)](http://www.aihw.gov.au/)

Assignment 2 briefs:

There are seven different component in this assignment. Every component is considered as a criterion including:

1. Statement of Collaboration
2. Company Information
3. Problem Identification
4. Literature Review
5. Data Collection
6. Analyses and Discussion
7. Recommendations
8. There is also an overall presentaion and its details explained in the below table.

Expectations regarding every criterion is presented in the following table. Every criterion in the following table should be a title in your report including details satisfying information provided in the table.

|  |  |  |
| --- | --- | --- |
| **Weight** | **Criterion** | **Details** |
| **5** | Statement of collaboration | If you do this assignment alone under this section please identify assignment is conducted individually.  If you do this assignment in a group every group member should give a score to the other group member. This score can be an integer number between 1 to 5. 1 is the lowest possible score. 5 is the highest possible score. You cannot score yourself. The final score of every group member is the average of the scores he/she received from other group members. Next to every score a minimum of one and a maximum of three sentences should be presented justifying the reason behind scoring. The example below shows a hypothetical statement of collaboration for a group encompassing three members.   |  |  |  | | --- | --- | --- | |  | Score | Comment | | Member 2 to Member 1 | 5 | Member 1 always answered my emails on-time  and provided me with enough information to do my part. | | Member 3 to Member 1 | 2 | I and member 1 had two different appointments but he/she did not appear in the meetings. | | Final score of member 1 | (5+2)/2=3.5 |  |   This table identifies the score of member 1. Similar table should be used to identify the score of member 2 and number 3. |
| **2 marks** | Company Information | For conducting this assignment you need to have access to some data set. You either get your data from a corporate website or you get some open source (free) data from different websites, for example government website. The aim of this section is to familiarize the reader with the context of your report.   * If you get your data from a corporate website present a detailed background information of the company including size, business type, areas of operations, competitors etc. * If you have collected the data from the websites and you don't know the company information, you can discuss about the potential company or entity. For example, if you have access to some accident data Australian Department of Health can be the company or if you have access to unemployment data Australian people can be considered as an entity. So you can discuss how Australian Department of Health or Australian people are related to your data set and can benefit from your investigations. |
| **2 marks** | Identify the problem | You should investigate the data set and identify a problem in the data set. In this section you should consider the following issues:   * Start this section by presenting your problem statement. It is suggested to present the problem statement with bold font (just to make it easier to be found and distinguished from rest of the text). Problem statement should be clear and comprehensive. * In the following paragraphs the problem statement should be supported by appropriate level of detail which can include: how did you come up with this problem, significance of the problem, and similar issues. * It should be clear how your problem statement is originated from the data set. * The relevance of your problem statement with business analytics methods should be addressed. * You should clarify how did you come up with the problem statement. For example, you can present an argument explaining the procedure of creating different visualization methods which lead to recognizing the problem spot. |
| **5 marks** | Literature review | Here you have to investigate different sources such as scientific articles and conference proceedings to see how other people used business analytic methods to address similar problems. For example, if you are looking at predicting the number of passengers for an airline, you can search in published articles to see how others used analytical methods for doing prediction of number of passengers, how they did the variable selection, whether they used descriptive or predictive or a combination of of analytical methods.   * The relationship between different studies in this literature review section should be clear. * It should be clear how literature of business analytics helped you to design your report. * We do not want to re-create the wheel. It should be identified how your study supplements previews investigations. |
| **2 marks** | Data Collection | You are required to collect real data for the chosen topic. You should use different resources for collecting data: internet, company reports, etc. You should explain the process of your data collection. This could include but not limited to:   * The websites that you used for collecting the data. * If you merged several small data sets to build a data set with appropriate size, explain the details. * If you lunched an application to get access to the data, the details of your application should be here. * How did you deal with missing values in the data set? |
| **13 marks** | Analysis and Discussion | Show all analysis based on the collected data. Here make sure you use the techniques and principles that you learned in our course correctly. You may discuss if your analysis is not used in decision making what would be the consequence (therefore, here you need to show the impact of your analysis). You can apply one or multiple techniques that we had in business analytics course.   * It should be clear how your analysis solves the problem. * Appropriate decision-making pertaining selection of Business Analytic methods is of significant importance. For example, if creating a histogram is appropriate method  for dealing with part of the problem usage of other methods such as bar chart will not be accepted. * You have to decide how you want to combine different business analytic techniques to present your analysis and discussion. This means you can use descriptive analytics, predictive analytics or a combination of them. However, this usage should be justified. |
| **3 marks** | Recommendations | Here you need to provide some recommendations based on your analyses and explain how your analyses can improve the decision making and performance.   * Recommendations should originate from your analysis and discussion. The relationship between analyses, discussion and recommendations should be crystal clear. * It should be clear how recommendations can solve the problem. * Recommendations should be feasible and applicable. There should be enough details explaining how your recommendations are feasible and applicable. |
| **3 marks** | Overall presentation of the assignment | Clarity of presentation and the sequence of the topics, including:  •Correct referencing (not including in word count limitations). Note: referencing is mainly associated with literature review section.  • Executive summary and its clarity  • Quality of writing and explnation  • Table of contents (not including in word count limitations)  • List of figures/tables (not including in word count limitations)  • Page numbering  • Cover sheet (not including in word count limitations) |
|  | | |

Rubric

**Some rubric**

| Some rubric | | |
| --- | --- | --- |
| **Criteria** | **Ratings** | **Pts** |
| This criterion is linked to a learning outcomeCompany Information | |  |  |  | | --- | --- | --- | | **2 Pts**  **Full marks**  The information about the company relevant to the problem discussed in the report has been provided. It is clear what is who is going to benefit from the analyses reported here. The decision making and performance (KPI) required at the company is presented. | **1 Pts**  **Good mark**  The information about the company relevant to the problem are discussed, but could be better motivated. It is almost clear what is who is going to benefit from the analyses reported here. | **0 Pts**  **No marks**  The information about the company provided are irrelevant to the problem discussed in the report. | | 2 pts |
| This criterion is linked to a learning outcomeAnalytical thinking  Description: Problem Definition (#AoL3A Analysis & Problem Solving)  Demonstrates an ability to appraise and define problems in different contexts. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **2 Pts**  **HD**  Demonstrates the ability to construct a clear and insightful problem statement with evidence of relevant contextual factors. | **1.6 Pts**  **H**  Demonstrates the ability to construct a problem statement with evidence of most relevant contextual factors, and problem statement is adequately detailed. | **1.2 Pts**  **C**  Begins to demonstrate the ability to construct a problem statement with evidence of most relevant contextual factors, problem statement needs more detail. | **0.8 Pts**  **P**  Begins to demonstrate a basic ability to construct a problem statement with evidence of most relevant contextual factors, but the problem statement is superficial. | **0 Pts**  **F**  Does not construct a problem statement or problem statement is incorrect in the specific context. | | 2 pts |
| This criterion is linked to a learning outcomeConstable perspective (Literature review )  Description: Solutioning (#AoL3B Analysis & Problem Solving) | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **5 Pts**  **Full marks**  Proposes one or more solutions/hypotheses that indicates a deep comprehension of the problem. Provide a sophisticated explanation and evaluation. | **4 Pts**  **D**  Proposes one or more solutions/hypotheses that indicates comprehension of the problem and provides a detailed explanation and evaluation. | **3 Pts**  **C**  Proposes one or more solutions/hypotheses that indicates a basic comprehension of the problem. Explanation of solutions is brief and lacks depth. | **2 Pts**  **P**  Proposes a single solution with only a cursory, surface-level explanation. | **0 Pts**  **No marks**  Proposes one or more solutions that are clearly inappropriate to the specific context and/or fails to provide a explanation of the solutions. | | 5 pts |
| This criterion is linked to a learning outcomeData Collection | |  |  |  | | --- | --- | --- | | **2 Pts**  **HD**  The source of data is identified. A brief description is presented regarding the data; for example if two source of data are combined the reason and the result is presented. If an application is launched to access the data the process is briefly explained. If a specific method is used to deal with missing values it is explained. | **1 Pts**  **C**  The source of data is presented. There is no explanation regarding how the data is obtained. | **0 Pts**  **F**  Source of data is not presented. | | 2 pts |
| This criterion is linked to a learning outcomeAnalysis and Discussion | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **13 Pts**  **Full marks**  The problem is solved. Appropriate business analytics technique or techniques are used to solve the problem. Implementation of business analytics technique or techniques are appropriate. The flow of arguments is appropriate. All the presented arguments and analytical techniques are relevant to the problem statement. | **10.11 Pts**  **D**  It is not clear how the problem is solved. Implemented business analytics techniques are relevant to the problem. Implemented business analytics techniques are illustrated in an appropriate way. The flow of arguments is appropriate. All the presented arguments and analytical techniques are relevant to the problem statement. | **7.22 Pts**  **C**  It is not clear how the problem solved. In some cases inappropriate business analytics methods are used or in some cases the presented methods does not help to solve the problem. The utilized business analytics methods are not presented in an appropriate way. | **4.33 Pts**  **P**  It is not clear how the problem is solved. There are few appropriate use of business analytics methods. | **0 Pts**  **No marks**  The problem is not solved. They utilization and illustration of business analytics methods is not relevant and appropriate. | | 13 pts |
| This criterion is linked to a learning outcomeRecommendations | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **3 Pts**  **Full marks**  Recommendations are feasible and practical. Recommendations originate from analysis and discussion. It is explained how recommendations can contribute to the problem-solving process. | **2.25 Pts**  **D**  In some cases the recommendations are not feasible and practical. Recommendations originate from analysis and discussion. It is explained how recommendations can contribute to the problem-solving process. | **1.5 Pts**  **C**  In some cases recommendations are practical and feasible. In some cases recommendations are not linked to the analysis and discussion. | **0.75 Pts**  **P**  Few recommendations are practical and feasible. Few recommendations are linked to the analysis and discussion. | **0 Pts**  **No marks**  Recommendations are impractical. Recommendations are not connected to the discussion. Explanations are insufficient. | | 3 pts |
| This criterion is linked to a learning outcomeCommunication skill (written)  Description: Written Expression (#AoL4C Job Ready)  Demonstrates an ability to effectively exchange information and shape ideas through the written word. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **3 Pts**  **HD**  Meaning is clearly and effectively communicated through consistent and sophisticated use of academic or appropriate style, unambiguous language and correct and appropriate grammar, vocabulary, punctuation and spelling for the intended audience. | **2.5 Pts**  **D**  Meaning is communicated clearly through consistent use of academic style, unambiguous language and correct and appropriate grammar, vocabulary, punctuation and spelling for the intended audience. | **2 Pts**  **D**  Meaning is generally made clear through mostly correct and appropriate formal academic style, grammar, vocabulary, punctuation and spelling for thde intended audience. | **1.5 Pts**  **C**  Meaning is generally made clear through adequate and appropriate formal academic style, grammar, vocabulary, punctuation and spelling for the intended audience; some lapses causing lack of clarity. | **0 Pts**  **No marks**  Meaning is impeded through frequent use of informal language and errors in grammar, vocabulary, punctuation and spelling. Not suitable for the intended audience. | | 3 pts |
| This criterion is linked to a learning outcomeStatement of collaboration  Communication skill (Written) | |  |  | | --- | --- | | **5 Pts**  **Full marks**  Included | **0 Pts**  **No marks**  Not included | | 5 pts |
| Total points: 35 | | |