

UWA Business School



THE UNIVERSITY OF
**WESTERN
AUSTRALIA**

INMT5526: Business Intelligence **Semester 1, 2024: Group Assignment**

Please note and ensure that you read the important information below:

1. This Group Assignment specification is three (3) pages in length. Blue and underlined text throughout it are hyperlinks, which can be clicked for more context;
2. This Group Assignment contributes towards (is weighted at) 30% of your Unit Mark and is due on **28/05/2024 at 23:59PM** Perth time (AWST) – extended past the Unit Outline;
3. This Group Assignment will have late penalties applied to it [per UWA policy](#). If you are unable to submit on time due to circumstances outside of your control, you may wish to [apply for Special Consideration](#) within three (3) days of the due date;
4. This Group Assignment requires the use of SparkPlus to reflect and provide feedback regarding your group members. You will not be awarded a mark over 50% if SparkPlus is not completed;
5. This Group Assignment should be your own (teams') work [per UWA policy](#) and must be submitted to the LMS submission point as well as the Turnitin submission point (linked below it).

By submitting your Group Assignment, it is assumed you agree to the information above. Please continue to read the Assignment Specification on the next page.

Project Brief

Organisations are leveraging value from their own operational data, their customer data and from secondary data (such as web scraping). One such source of data is sales data from e-Commerce platforms, describing information from anywhere in the lifecycle of listings and sales. Your team assignment will make use of such data, which may need to be cleaned for analysis and assessment. No additional modelling will be required.

Each team will have access to a data file containing information of regions surrounding (a subset of) Walmart stores and sales at each store, where the file corresponds to a dataset that takes the form of a list of observations (rows) where each row corresponds to the sale of an individual item. Each dataset consists of one or more variables (columns), which are described at the link [here](#). Some details will be repeated for each day as the relevant data does not change that frequently.

You are welcome to remove erroneous data points from the data set – that is, you are allowed to clean the data – but consider first whether the data is erroneous based upon the description of the data, as in some cases data that appears erroneous may not be so, based on the value of other variables. If you do so, ensure you mention this in the report.

The Task

Your job is to summarise and analyse one or more aspects of the dataset and prepare an analytical report aimed at determining the factors that influence the sales at each store, alongside exploring the various factors within the file, using only the dataset(s) supplied for the assessment. It is up to you to identify a question you may wish to answer from the dataset(s) and then use the data to answer the question. You may wish to explore the data or data dictionary (on Kaggle) to do so.

The new learning in this assessment is to apply your knowledge of data analysis and creation of business intelligence dashboards (through the application of a data workflow) to answer the above question. You should apply analysis techniques using the techniques taught within the unit (either from the SQL section or the Power BI section) for Power BI Desktop.

Notes to the Project

You should utilise Power BI Desktop to achieve the above; no other tools should be used unless you have received written permission from the Unit Coordinator to do so. You are welcome to use R script visuals and R code within your dashboard to do so. However, data cleaning should be undertaken using Power BI, where required. You should create a single dashboard, with multiple visuals (including for example, things such as text boxes and slicers), to communicate the above.

You should create a short written report to communicate the above analysis. Please see the marking criteria below for what components should feature in your report. You should upload your Power BI dashboard alongside your report, however you must include screenshots as part of your report appendix (and in the report itself where appropriate).

Any questions that you have regarding the assignment should be directed to the Unit Coordinator via email in the first instance. These will be posted on LMS when there are relevant learnings to other groups. However, you are encouraged to first read the assignment specification and attempt to solve any issues you encounter first – proof of this may be asked for if questions are asked, but otherwise questions will be gladly answered as soon as practicable.

Your report should be approximately 3000 words or 10 pages in length. This is only a recommendation to ensure that your report is not too concise or lacking detail or conversely, too verbose. Penalties will not be directly applied for length but it may impact your ability to meet the marking criteria to a high level depending on the length of your report. Course materials do not need to be referenced.

Your report should be submitted in the PDF format to the Turnitin submission portal before the due date and time by one of your team members only. The Power BI dashboard should be submitted separately to the non-Turnitin submission portal.

The SparkPlus portal will open between 25/05/2024 at 00:01AM and 31/05/2024 at 23:59PM (Perth time) and without utilising it grading your fellow team members, you can only score a maximum of 50% on this assessment of the total marks available. Hence, you are encouraged to do so.

Marking Criteria

Your assessment will be marked according to the following marking criteria, where partial marks will be allocated for each criteria depending on whether the criteria was not attempted (0%), poorly attempted (approximately 25%), partly attempted (approximately 50%), attempted at the expected level (approximately 75%) or attempted above the expected level (approximately 100%).

Your group mark will be scaled by your Relative Performance Factor (RPF) from SparkPlus to ensure that your teamwork effort and that of your colleagues is reflected.

Criteria	Detail	Marks Available
Report Correctness	The results, information and analysis presented is correct and fully-featured in nature. Insights gained from the data are meaningful and relevant.	8 marks
Report Organisation	The report is structured in an appropriate format (i.e. containing an Introduction, Background, Methods, Results, Conclusion, Appendix sections) with each section flowing to the next section to support an argument being threaded throughout the report.	6 marks
Report Presentation	The report is well formatted, easy to understand and with correct spelling and grammar and professionally presented including the use of appropriate references presented in an appropriate format per the Unit Outline.	4 marks
Dashboard	The Power BI dashboard is structured in a clear and logical manner, utilising the relevant datasets in an appropriate manner. It is also aesthetically consistent in the way it displays data. Appropriate visuals have been used to communicate the data and findings in a way that does not misrepresent the data.	6 marks

End of Group Assignment Specification.