**Faculty of Business and Law**

**Assignment Brief 2018/19**

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| **Unit Title:** Data Analytics |  |
| **Unit Code:** | 5Z5Z1003 | **Core:**  | Level: 5 |
| **Assignment Title:** Data Analytics – Assessment 1  |
| **Unit Leader:** Dr Muhammad A B Fayyaz |
| **Contact Details:** m.fayyaz@mmu.ac.uk; **Room:** 6.28 Business School; **Tel:** (0161 247) 2714 |
| **Submission Date:** See date on Moodle  | **Feedback Return Date:** See date on Moodle |
| **Submission Instructions:** Submit online through Moodle. |
| **Feedback Return Information:** Feedback will be uploaded to Moodle. |
| **Assignment Task**10-minute audio/video presentation   |
| **Unit Learning Outcomes Assessed.** * Apply appropriate data analytics techniques to analyse data.
* Evaluate the results of data analytics techniques for their implications for decision making.
* Effectively present the results of data analytics techniques together with recommendations for decision making.
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| **Business School Programme Learning Outcomes**Through this assignment, you will develop and improve key essential skills of Data Analytics, which will further improve your employability prospects. In particular, the critical thinking, communication and awareness of current Industry 4.0 will significantly boost your chances of employment.* PLO1: Apply critical thinking to practical and theoretical problems
* PLO2: Be effective communicators using a range of media
* PLO4: Demonstrate professional and commercial/corporate awareness
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| **Assignment Details and Instructions:**You applied for a Graduate Technical Analyst role with Tesco, one of the world's largest retailers. They liked your educational background and were impressed by the scores from situational judgement, logical and numeric tests. Thus, you have been invited to showcase your data analytical abilities through a short-recorded video exercise.Tesco has their operating outlets in different regions across the globe, they wish to investigate 3 main regions: UK, Scotland, and Europe. The analysis should help them understand their sales across these regions along with potential factor affecting their Sales, so they could focus more on these specific aspects. You have been asked to provide your analysis and insight into the following areas:1. Your first job as a Business Analyst is to summarise the results (as you see fit).
2. Tesco provided you with a data that contains specific stores with their sizes and Total Sales (including some stores from Europe and Scotland). They want you to investigate, if there is any link between their Store Size and Total Sales. Comment on your findings.
3. Tesco would like to predict their future sales; hence they pulled some data along with some economic variables e.g., GDP, Household expenditure, unemployment, and interest rates & Interest Rate. Perform Regression Analysis (Multiple Regression) to identify the potential driver. Comment on your assumptions or findings.
4. Tesco wish to predict their Sales for their leading stores in Scotland and Europe. They are unsure of which method would be most beneficial. They asked you to keep the last 6 months of 2018 as a "hold-out" period and use different techniques to analyse the most effective way for Forecasting.
5. Finally, Tesco asked you to predict the forecast of 6 months (from October 2018 - APRIL 2019) for the UK store. Comment on your findings.

Key points: * The main aim of the presentation is to summarise the data analysis findings so that the Tesco management team will trust and understand this information and thus base management decisions on the contents of the presentation.
* No further reading or research is needed, only the information provided should be used for the analysis and report.
* Keep you presentation clear and concise.

You have been given a **maximum of 10 minutes to present your findings**. Files should be submitted through Moodle. You are not required to submit your Excel report.**Further Details**Students will be penalised if they copy material or re-use the work of others. Your work must be written/told in your own words. Please refer to the university’s regulations for more details on plagiarism (<http://www.celt.mmu.ac.uk/plagiarism/index.php>).An individual audio/visual recording is to be developed and provided. The recording must be a maximum of 10 minutes in length. 1. There is no optimal number of results or statistics in the report, just be careful with excessive information or overloaded visualisations, which are hard to interpret.
2. Practice delivery and timings before the final recording.
3. Please note that Excel is normally installed on MMU laptops, else you can use MMU Student ID to download Microsoft Office.
4. The audio/visual hand-in just needs to consist of a screen capture recording. You can use any software for recording your screen and you are not obligated to use one specific, however, there are few recommendations for anyone interested. BB Flashback Pro on any MMU PC or download BB Flashback Express for free on your PC (a Mac has QuickTime built-in). There should be no need to edit the video. Please ensure however that your commentary is audible and the video is of sufficient quality to be clear to the viewer.
5. Do not get too technical. Think about your ‘audience’; what will they want to know? What will lose their attention? Your Audience is non-technical senior members of the company.
6. Try to be as professional as possible although your status as an undergraduate student will be taken into account.
7. No research outside the analysis of the data provided is expected. No reference needs to be made to academic literature and no ‘extra’ research about Tesco and its operating environment is required.

**Additional information**The assessment will be introduced during the second week of the course. Students will be taught all the necessary skills required to undertake the assignment during the Lab sessions. Students are advised to attend the Lab Sessions and utilise the drop-in sessions for any additional help.What you MUST do:* Use grammatically correct English.
* Proofread your work
* Attend supporting tutorials.
* Use a logical structure for your presentation.
* You must use your own words, analyses and visualisations.
* You must read the assignment brief!
* Inform the unit leader if you have a personal learning plan and require an extension in due time.

What you must NOT do.* Do not use secondary data or information.
* Leave it to the last minute.

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| **Resources:** See Moodle |
| **Marking Criteria:** See Below**Grading:**Please refer to the Marking Rubric (below). This outlines how your work will be classified and what the determinants are for each band. The Marking Rubric is how your grades will be determined against the marking criteria. The institution utilises a step marking scheme where marks end in a 2, 5, or 8 accordingly.

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| **Mark** | **UG Classification** |
| 95-100% | Outstanding |
| 90% | Very High First |
| 85% | High First |
| 80% | Mid First |
| 75% | Low First |
| 72% | Marginal First |
| 68% | High 2:1 |
| 65% | Mid 2:1 |
| 62% | Low 2:1 |
| 58% | High 2:2 |
| 55% | Mid 2:2 |
| 52% | Low 2:2 |
| 48% | High Third |
| 45% | Mid Third |
| 42% | Low Third |
| 32% - 38% | Marginal Fail |
| 22% - 28% | Clear Fail |
| 2% - 18% | Poor Fail |
| 0% | Non-Submission |

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| **Group Work Guidelines:** N/A |
| **Unit Specification:** See Moodle  |

Assessment Marking Criteria

Please note: In line with faculty guidelines, stepped marking will be employed (i.e., only the trailing digits 2, 5 and 8 will be used).

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| **Assessment descriptor** | **0-19%** | **20-29%** | **30-39%** | **40-49%** | **50-59%** | **60-69%** | **70-85%** | **86-100%** |
| **Identify data types and sources that could aid an organisation.**  | No attempt to inspect and clean the information provided. No Steps Included at all. | Attempts to inspect and clean the information provided are very limited. Wrong Steps Included with wrong information for each step. | Attempts to inspect and clean the information provided are quite limited. Steps Included with wrong information for each step. | Adequate attempt to inspect and clean the information provided. Steps Included but no information for each step is given. | Appropriate inspection and cleaning of the information provided. Steps Included but very vague information is included for each step. | Good levels of inspection and cleaning of the information provided. Limited Steps Included with brief information for each step. | Rigorous levels of inspection and cleaning were provided. Steps Included but very little information is included for each step. | Exemplary levels of inspection and cleaning of the information. Steps Included and detailed Information on each step is provided. |
| **Use Data Analytical skills to Integrate complex and high volumes of information to support an organisations decision-making process.**  | No attempt has been made to analyse the data and develop a clear report. | Data analysis is inappropriate. Excel does not show any usable results.  | Data analysis provides limited information. Excel report is limited or too complex for the intended user.  | Data analysis provides adequate information. Excel report has basic results. But appropriate techniques are not used.  | Data analysis provides an appropriate amount of information. Excel report has appropriate results with limited visualisation.  | Data analysis provides a good amount of information. Excel report included some key statistics and visualisation specific for its intended use. | Data analysis provides an excellent amount of information. Excel report has excellent levels of visualisation and statistics specific for the intended use. | Levels of data analysis and Excel reports are expected from early-career analytics professionals. |
| **Communicate effectively, both orally and in writing, in a form appropriate to the audience.** | Fail to demonstrate an understanding of the subject matter. The communication and presentation slides are not coherent. No arguments are used to validate the results effectively. | Very Limited demonstration of the subject matter. The communication and presentation slides are not coherent. Limited arguments are used to validate the results. | Limited demonstration of the subject matter. The communication and presentation slides are somewhat coherent. Limited arguments are used to validate the results. | Limited demonstration of the subject matter. Some slides were coherent with the communication. Some good arguments are used to validate the results. | Good demonstration of the subject matter. The communication and presentation slides are coherent. Some arguments used to validate the results were very good. | Very Good demonstration of the subject matter. The communication and presentation slides are coherent. Arguments presented to validate the results are very good. | Excellent demonstration of the subject matter. The communication and presentation slides are coherent. Excellent arguments were presented to validate the results. | Authoritative demonstration of the subject matter. The communication and presentation slides are coherent. Excellent arguments were presented to validate the results. |
| **Professional presentation and supporting material** **PLO4** | Presentation is very difficult to understand, not visually engaging with obvious grammatical errors. No valid visualisations are used to support the argument.  | Presentation is very difficult to understand, not visually engaging with obvious grammatical errors. Limited visualisations are used to support the argument. | Presentation is difficult to understand, not visually engaging with some grammatical errors. Some visualisations are used to support the argument. | Presentation is not visually engaging with few grammatical errors. Some visualisations are used to support the argument. | Presentation slides are visually engaging with few grammatical errors. Good visualisations are used to support the argument. | Presentation is easy to understand, slides are visually engaging with few grammatical errors. Good visualisations are used to support the argument. | Excellent Presentation slides, visually engaging with no grammatical errors. Excellent visualisations are used to support the argument. | Levels of professionalism are indicated in the presentation slides, which are expected from early-career business managers. |