



**ANL201**  
**Data Visualisation for Business**

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**Group-based Assignment**  
**January 2024 Presentation**

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## GROUP-BASED ASSIGNMENT (GBA)

This assignment is worth 20% of the final mark for ANL201 Data Visualisation for Business.

The cut-off date for this assignment is **14 March 2024, 2355hrs.**

This is a group-based assignment. You should form a group of **4 members** from your seminar group. Each group is required to upload a single report via your respective seminar group site in Canvas. Please elect a group leader. The responsibility of the group leader is to upload the report on behalf of the group. Those submitting individually will be given a 10 marks deduction.

It is important for each group member to contribute substantially to the final submitted work. This is a group-based assignment. You should form a group of **4 members** from your seminar group. Each group is required to upload a single report via your respective seminar group site in Canvas. Please elect a group leader. The responsibility of the group leader is to upload the report on behalf of the group. Those submitting individually will be given a 10 marks deduction.

It is important for each group member to contribute substantially to the final submitted work. All group members are equally responsible for the entire submitted assignment. If you feel that the work distribution is inequitable to either yourself or your group mates, please highlight this to your instructor as soon as possible. Your instructor will then investigate and decide on any action that needs to be taken. It is not necessary for all group members to be awarded the same mark.

Up to 25 marks of penalties will be imposed for inappropriate or poor paraphrasing. For serious cases, they will be investigated by the examination department. More information on effective paraphrasing strategies can be found on <https://academicguides.waldenu.edu/writingcenter/evidence/paraphrase/effective>.

If your course involves programming, you are urged to read the following articles as well: [https://wiki.cs.astate.edu/index.php/Plagiarism\\_in\\_a\\_Programming\\_Context](https://wiki.cs.astate.edu/index.php/Plagiarism_in_a_Programming_Context)

<https://www.turnitin.com/blog/plagiarism-and-programming-how-to-code-without-plagiarizing-2>

### Note to Students:

Compose your report using Microsoft Office Word, and save either as .doc or **.docx (preferred)**.

You are to include the following particulars in your submission: Course Code, Title of the GBA, SUSS PI No., Your Name, and Submission Date.

For this GBA, it is mandatory that questions are not divided among group members. Each member must independently address and work on a question before engaging in group discussions of the question. In the event of a peer evaluation, each member is expected to submit their own original answers along with justifications for their individual contributions.

All peer evaluation requests must be submitted to the school at least three working days before the GBA due date. Late requests will not be considered.

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#### Use of Generative AI Tools (Allowed)

The use of generative AI tools is allowed for this assignment.

- You are expected to provide proper attribution if you use generative AI tools while completing the assignment, including appropriate and discipline-specific citation, a table detailing the name of the AI tool used, the approach to using the tool (e.g. what prompts were used), the full output provided by the tool, and which part of the output was adapted for the assignment;
  - To take note of section 3, paragraph 3.2 and section 5.2, paragraph 2A.1 (Viva Voce) of the Student Handbook;
  - The University has the right to exercise the viva voce option to determine the authorship of a student's submission should there be reasonable grounds to suspect that the submission may not be fully the student's own work.
  - For more details on academic integrity and guidance on responsible use of generative AI tools in assignments, please refer to the TLC website for more details;
  - The University will continue to review the use of generative AI tools based on feedback and in light of developments in AI and related technologies.
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## Question 1

Choose an organisation for the group as the context for your answers in this assignment; address the following questions:

You may refer to the corporate website of the organisation chosen.

- (a) For the organisation of your choice, suggest *two (2)* strategic objectives for each of the four Balanced Scorecard perspectives (financial, customer, internal business process and learning & growth). Identify the corresponding measure and target for each of the strategic objectives. Please give the answer in tabular format as illustrated below. (Maximum word count: 200 words)

Balanced scorecard perspective	Strategic objective	Measure	Target

(16 marks)

- (b) Use Tableau to plot a visualisation chart for each of the measures suggested in part (a) (total 8 charts) and provide a screenshot of each chart with a meaningful title. Discuss why each chart is appropriate for its corresponding measure and a conclusion drawn in 4-5 lines below each respective screenshot of the chart. (Maximum word count: 500 words)

You will need to create your own datasets using the information on corporate website as a starting point, but you can also obtain relevant data from other online sources (if available).

(40 marks)

## Question 2

With reference to the dataset < Development indicators\_country\_GBA.xlsx> given, answer the below questions:

- (a) Examine the data and identify the data type (nominal, ordinal, interval and ratio) for each variable. Calculate the number of observations and provide useful summary statistics (i.e., mean, median, mode) for each variable. Tabulate your answer as per the format given below (use Microsoft Excel):

Variable	Data type	Number of observations	Summary statistics
XX	XX	XX	Mean Median Mode
XX	XX	XX	Mean Median Mode

(8 marks)

- (b) Identify the data quality issues and use an appropriate treatment method for each issue identified. Prepare the data for visualisation using Microsoft Excel. Provide a screenshot highlighting each data quality issue and a screenshot of the treated data after the corresponding data treatment. (Maximum word count: 250 words)

(16 marks)

Your group shall submit original work. Do not copy any content of your submission from any source (regardless of public or private). The GBA submission should not exceed 1200 words. The word count does not include references, cover page and figure/chart/table titles.

**20 marks will be allocated to the professional presentation and writing of your GBA report;** e.g., covering the following aspects,

- Organisation
- Communication of ideas
- Grammar
- Citation and reference

Make sure the different questions and parts are clearly labelled in your report. Your report should be self-contained with all relevant Tableau and MS Excel screenshots.

(20 marks)

---- END OF ASSIGNMENT ----