

**FIT1006 Business Information Analysis**  
**Semester 1, 2021**  
**Assignment: Statistical Analysis and Report Writing**

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<b>Due Date:</b>	Thursday 1 <sup>st</sup> April 2021 11:55pm
<b>Value:</b>	20% of final Assessment
<b>Assignment Type:</b>	Individual
<b>Mode of submission:</b>	<u>Online</u> on Moodle

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**Introduction**

The purpose of this assignment is to give you some experience of using descriptive statistical methods to analyse and compare several groups of data, and to write your results in a fluent readable report.

**What you are required to do**

Working individually, you are required to analyse the returns from several groups of investment types. Assume that each observation represents the value of an investment after one year *based on an original investment of \$1000*. Your data will be generated randomly, and you will be required to analyse the performance of between 4 and 8 different groups. You are not required to use financial modelling or accounting techniques; just assume that you are just required to analyse the one-year performance of each group and recommend the best investment type based on evidence from the data.

Compare the groups of data using a variety of descriptive statistical techniques covered in lectures and to write a report containing your findings along with an interpretation of your results. Some relevant points are:

- Each student will use a different data set. Each student will generate their own data using the Windows application 'StudentData2021.exe'. Download the program from Moodle; enter your student number as the key to generate your data. The first column of the data indicates the investment group and the second column represents the value of an investment.  
(Note: If you are a Mac user or, for some reason you're not able to download your data set, please reach out to any of the teaching team immediately.)
- Perform a descriptive data analysis and calculate statistics using any preferred technique, i.e., you may calculate statistics by hand, or by using SYSTAT or Excel.
- When writing about the data, you should comment on the shape of the distribution of each group, key statistics, unusual observations and anything else that is relevant. You should also comment on the significance of your observations about the data.

- You will need to display the statistical summary as a suitable table in the body of your report. You may also wish to include histograms and boxplots etc. in your report. These need to be correctly drawn, labelled and captioned.
- It is expected that you will write your assignment with a word processor, using appropriate formatting and referencing. Tables and graphs need to be correctly captioned and referred to in the text. You are expected to quote two or three references in your report.
- You must recommend which investment option is best and back up that recommendation with evidence from the data.
- You will be assessed on your written expression as well as your understanding of descriptive statistical methods.
- All submission must be in the form of a word document and saved as: <<Lastname\_Student ID>>.docx (or .pdf), where << Lastname\_StudentID >> is your last name and student ID.
- You should upload your submission under the “FIT1006 Written Assignment” submission link on Moodle
- You should be aware of the Faculty of Information Technology’s policy on cheating and plagiarism. See the Unit Information Guide for details.

**Your assignment should be written in the following format:**

- 1 **Title Page:** Clearly showing the title of the report, your name, student number, tutor’s name and tutorial time.
- 2 **Body of report:** A two or three page written report that will include any relevant tables and graphs. (This is the section that you would expect a reader to concentrate on, and thus it must be written in an easy to read, flowing style). Do not show calculations in this section.
- 3 **References:** You should quote references using the Harvard (Author, date) style, or any other commonly used style – for example the APA (American Psychological Association) 7<sup>th</sup> Edition.
- 4 **Figures and Tables:** Figures and tables need to be captioned to explain to the reader what information they contain. Tables are captioned above and figures are captioned below by convention. Your figure or table should appear in the report as close as is convenient to the point at which you will refer to it. You can refer to the figure or table by name.
- 5 **Appendix:** You should use this section to show any relevant calculations or tables that were not appropriate or too long, to include in the body of the report. You may wish to show some graphs and tables that you have discussed in your analysis here. Do not list data.
- 6 **Presentation:** Your assignment should not exceed 6 A4 pages (not including appendices).

You can refer to the following link for IT report structure:

<https://www.monash.edu/rlo/assignment-samples/information-technology/it-report-structure>

**Assessment Criteria will include:**

- The quality of your analysis and correctness of your results
- The quality of your graphics and tables, especially how effectively they describe and summarize the data, their neatness, consistency and design.
- The quality of your argument for which investment is best/worst etc. If no investment is best then explain why that is the case.
- The visual quality of your assignment overall. That is headings, typeface, layout, integration of graphics and tables into the text. Consider the visual appeal of the document as a whole. Remember that before anyone even reads a word of what you've written they will have judged your work by its appearance.
- For more specific components, please refer to Page 4.

**Plagiarism declaration:**

The moment you upload your assignment on Moodle, you are required to accept the Student Statement (which includes a declaration that you have not plagiarised during the preparation of your assignment solution). You are required to ACCEPT the Student Statement; otherwise, you won't be able to submit your assignment electronically and your assignment will NOT be assessed.

**Late Submission:**

1. Submission must be made by the due date. For each day, or part thereof, an assessment task is overdue, a late penalty of 10% of the available total marks applies up to a maximum of seven days. Assessment tasks submitted more than seven days after the due date will receive a mark of zero for that task and may not receive feedback.
2. If you believe that your assignment will be delayed because of circumstances beyond your control such as illness, you should apply for an extension prior to the due date. Extensions and other individual alterations to the assessment regime will only be considered using the Faculty Special Consideration Policy. Students should carefully read the [Special Consideration website](#), especially the details about what formal documentation is required.

## FIT1006 Assignment 1 Marking Criteria

Each of the following components is worth 2 marks each.

Correct Data / Correct Calculations?
Are appropriate statistics used?
Use of mean / median SD / IQR justified? Outliers detected and their effect interpreted?
Differences in centres and spreads between groups described?
Distributions described and shown clearly in histogram / boxplot etc.?
Are results interpreted overall / Best option recommended with justification?
Overall Presentation / Report Format / Appendix / References?
Are tables graphs correctly formatted / labelled / referenced? Graphs scaled and calibrated appropriately?
Overall Readability: Paragraphs, Sentences, Spelling?
Quality of the explanation. Use of correct statistical terminology?

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