Title [1, p. 19]

First name, Last name (Student ID)  
IFN703/4 Assessment 3

# Executive Summary [1, Ch. 3]

This is a template for IFN703/4 Assessment 1, a *“*Written project report providing a detailed description of the project and its outcomes.*”*

You should use the style and format of this template to present your own content.  
Do *not* insert any material before the Title (above), i.e., *no cover page*.

In general, your report should conform to the Consulting/Management Report style set out by Silyn-Roberts [1, Ch. 8] (note that this reference is available from the QUT library) including:

* a **Title** [1, p. 19]
* an **Executive Summary** whose purpose is
  + *“To provide a document in miniature that may be read instead of the longer document. The* Executive Summary *is directed at managerial readers who may not read the whole report and who may not have the appropriate technical knowledge.*
  + *To explain your work in terms understandable by the non-expert reader.”* [1, Ch. 3]
* an **Introduction** whose purpose is
  + *“To allow readers to understand the background of the study without needing to consult the literature themselves*
  + *…to state the main objective of the work described in your paper*
  + *To provide a context for the later discussion of the results*
  + *To define specialist terms used in the paper”* [1, p. 28]
* a **Literature Review** [1, Ch. 4]. This could include review of methods as well as the topic domain. The purpose of this Literature Review is
  + *“To show that you have a good understanding of the background of your topic of research or investigation”* by
  + Giving *“a coherent account of the various areas of research relevant to your topic.”*
  + Showing *“that you know who has done relevant work, by citing published work at the appropriate points in the text.”*
  + Providing *“a summary of available techniques and materials.”*
  + Giving *“an analysis and commentary that makes it clear that you understand the issue.”*
* the body of the report, structured under a series of headings appropriate to your topic, in which you should present your
  + **Approach**: what you have done and how you have done it, with a clear rationale.
  + **Findings**: what you have discovered.
  + **Reflection**: what you have learned in the process, including conclusions and recommendations to guide anyone continuing your work
* **References** [1, Ch. 15], [2]
  + Please use IEEE style referencing
  + We strongly encourage using bibliography management software (e.g., [Zotero](https://www.zotero.org/) [3]) to automate citation and bibliography generation.
* **Appendix 1: Supplementary Information**
  + This is where you document the work that you have presented in the report so that all key results, tables and figures are easily reproducible by another data analyst

# More guidance for your project final report

This purpose of your final report is

* To provide a detailed description of the project and its outcomes
* To meaningfully convey your approach and findings to your client/collaborator/partner
* To enable another data analyst to build on the work that you have done.

*“Design your [report] with both specialists and non-specialists in mind”* [1, p. 78]

* *"Embedding your detail within a framework of cleverly designed headings, subheadings and listed points will make it much more easily accessible to all your assessors, both specialist and non-specialist.*
* *It is a much greater achievement to be able to design a readily navigable document with a clear logical pathway – the red thread – through it, than to bombard your assessors with solid detail"*

## Use of Microsoft Word styles

Part of the aim of this template is to give you practice at conforming to a specified document style, as we must often do in presenting work for publication.

**Please use, but do not change the styles of this template in your report**. They are deliberately plain.

If you do not know what Microsoft Word® styles are, or how to use them, please visit <https://support.office.com/en-us/article/Style-basics-in-Word-d382f84d-5c38-4444-98a5-9cbb6ede1ba4>.

## Length of report

Your report should be as long as you think you need to successfully introduce this topic, review relevant prior work, present your approach and findings. It is important that your report has a logical flow of ideas, i.e., tells a meaningful "story". You should strike an effective balance between detail and meaning... and the reader's attention span. Our guess is that this will involve around 5-10 pages of text *excluding* references, appendices, figures and tables—data analysis usually involves informative figures and graphics and these can lead to a lengthier report.

## Use of figures and tables

Figures and tables should be integrated into your report to help communicate key points effectively. You must make a judicious trade-off between the space that figures and tables consume and the information they convey, remembering that a critical part of your role is to *make sense of data*.

In the body of your report, use figures and tables to present a logical flow of ideas and tell a meaningful story; if you need to provide more detailed information for the record, consider putting those figures or tables in an Appendix along with information describing the purpose of those figures and tables—don’t just paste figures and tables into an Appendix without context.

Microsoft Word® is good at many things. Unfortunately, placing figures and tables is not one of them. Our advice is to place figures and tables after you are satisfied with the text.

Follow Silyn-Roberts’ [1] guidelines on Illustrations for figures (p.44) and tables (p.47). All figures and tables should be captioned using Word’s captioning (see <https://support.office.com/en-us/article/Add-captions-in-Word-82fa82a4-f0f3-438f-a422-34bb5cef9c81>) like this:

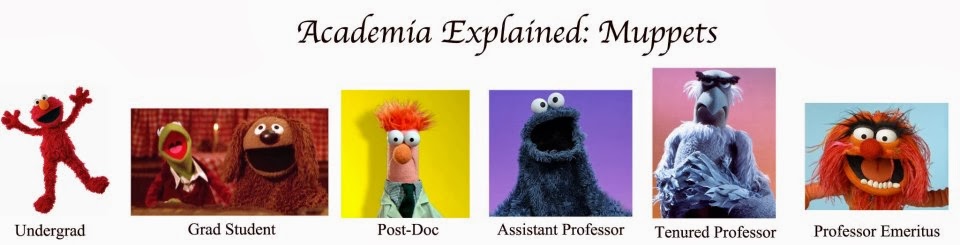


Figure 1. Academics come in all shapes and sizes; however, they are generally not as funny as Muppets.

|  |  |  |
| --- | --- | --- |
| Academic Level | Title | Analogous Muppet |
| A | Associate Lecturer | Robin (Kermit’s nephew) |
| B | Lecturer | Scooter |
| C | Senior Lecturer | Fozzie Bear |
| D | Assistant Professor | Cookie Monster |
| E | Professor | Sam the Eagle |

Table 1. Existing academic-Muppet analogues (Levels D and E) plus conjectured analogues (Levels A-C) for the Australian academic system.

## Use of bulleted lists

Bulleted lists should use the basic Word style as follows:

* First level item
  + Second level item
* First level item.

## Use of numbered lists

Numbered lists should use the basic Word style as follows:

1. First level item
   1. Second level item

## Headers and footers

Please replace the existing page header with the title of your report, or a shortened version thereof.

Please do not change the page footer.

## How to help readers navigate their way through your document

Silyn-Roberts [1, p. 11] has useful advice on this topic, suggesting that the document and its sections start and end with information that is brief, focused and concise.

# References

[1] H. Silyn-Roberts, *Writing for science and engineering: papers, presentations, and reports*, Second edition. Amsterdam: Elsevier, 2013.

[2] ‘QUT cite|write - QUT cite’. http://www.citewrite.qut.edu.au/cite/ (accessed Jun. 20, 2016).

[3] Various authors, *Zotero*. Roy Rosenzweig Center for History and New Media, 2020.

[4] ‘Reproducible Research Literate Programming: Explore a working knitr document’. https://datacarpentry.org/rr-literate-programming/03-explore-knitr/ (accessed May 18, 2020).

# Appendix 1: Supplementary Information

This is where you document the work that you have presented in the report so that all key results, tables and figures are easily reproducible by another data analyst.

* Write this in a way that helps you communicate your analysis and thinking to others... including your future self
* This can be informal, but still has to make sense to others
* The idea here is to ensure reproducibility of your work
* Ideally, someone else should be empowered to continue what you have started with this supplementary information

*“Reading code is often difficult, even if you are the programmer. Literate programming is an approach to writing code that combines plain English interspersed with code to help explain the why and how behind the code.”* [4]

R and python provide great support for literate programming via Rmarkdown and Jupyter Notebook.

Currently, GUI-based tools like Excel and Tableau do not support reproducible research to the same extent as R or python. If your have used these kinds of tools in your project, we suggest that you approach this supplementary information section as a way to document the critical elements of your solution for other analysts to use. This could involve screenshots, formulae and written description of your workflow.