On Writing a Final Year Project

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L-Università ta' Malta

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(a) Authenticity of Long Essay/Dissertation

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Signature of Student Name of Student (in Caps)

_____

Date

08.02.2018

Abstract:

Here is a one page summary of the project. The emphasis should be on motivation, challenge, solution proposed and results. It should give the reader an opportunity to assess in a few seconds whether it is of interest to him or her.

It is worthwhile remembering that this is not a murder mystery, so tell the reader what you have achieved without forcing him or her to read through the rest of the report before they can understand the results of the project.

This abstract should not exceed one page, and does not count towards the page limit.

Acknowledgements:

I would like to thank Muxxu, my hamster, for his continuous support and for keeping me company throughout this past year. Thanks must also go to my cat for refraining from eating Muxxu. Finally, my supervisors were also occasionally helpful.

Contents

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1 Introduction

Please allow me to introduce myself. I am Smith, John Smith. I have worked on my final year project until it drove me crazy, driving my supervisors crazy in the process. This report is the fruit of that craziness, which I hope I can share with you. Luckily I had Muxxu my hamster to keep me company. I hope you have a soulmate too.

Note: John is indeed crazy. Do not introduce yourself here, but motivate your work, introduce your project results, and present an outline of the document. Study the introduction of a good paper or two and emulate their style.

2 Structure Guidelines

Think of your report as the telling of a story. There is no fixed structure your report has to adhere to, but there are some parts of the story which will invariably manifest themselves in the report. Below is a list of typical parts which may or may not be as seperate chapters within the dissertation report:

Abstract: The abstract should act as a stand-alone (very) brief description of the whole story: The context, the solution, how effective it was found to be. There is no better way to learn how to write an abstract than by carefully reading the abstracts of good papers. This is usually the last part of the report to be written.

Introduction: This is one of the few parts in this list which you can never do without as a separate section. Motivate the problem which your research has been addressing, and introduce the problem, your solution, the encountered challenges and informally present the results. At the end of the section, one usually explains the structure of the rest of the document.

Background: For the reader to understand your work, he or she will have to understand a number of technical techniques or results. This is where they go. For example, if you use LSA, you should explain what LSA is. Do not include unnecessary things just to show that you read a paper here. Using the same example, you should not explain other static analysis or compiler optimisation techniques not relevant to your approach.

Literature Review: While the background gave the reader the tools to understand your work, this section explains results from other papers, relating them together and with your work. This section should include an review of the state-of-the-art (similar systems) in the area that you are working on. Such systems can include commercial systems, but more importantly systems described in published literature. You should provide a critical analysis (highlighting strengths and weaknesses) of the existing systems. There is nothing more frustrating than finding a list of paragraphs each describing a different paper without synthesising how the techniques are linked, and how their approach is complementary or different from yours.

Implementation: The purpose of this section is to give the reader a clear picture of your solution (i.e. the system/artifact/project/work that has been created in the FYP)

and **why** it has been created in the way chosen. Design choices should be justified (e.g. by discussing the implications of different design choices and then giving reasons for making the choices made). Justifications are based on your personal experiences as well as on results/observations mentioned in literature. It is crucial that where different design or solution options were available, you discuss them and why you went for that particular solution in this section. Ideally you start this section with an overview of the entire system and how the different components fit into the general solution. Then, you describe each component in more detail. Remember that your report is not system documentation — you need not give details about any programs you have written (unless they are directly relevant to your project). The description should be at the algorithm level, and it can also describe any problems that may have arisen during implementation. This section gives you the opportunity to show where that time has gone.

Evaluation: A final year project is not a programming challenge, but a scientific endeavour. It is crucial that you evaluate your results, whether it is a qualitative discussion, an empirical study or a formal analysis. Ideally, you start this system with a brief description of your evaluation methodology, and why did you choose such methodology (on the basis of how other similar systems were evaluated in literature, etc). In this section you will need to demonstrate whether the system works as intended (or not), and provide a comprehensible summary of the results obtained. If a complete evaluation was not possible or feasible, you should describe an ideal evaluation scenario, and how the evaluation performed fits into this ideal‘ scenario. You must also critically evaluate the system in the light of these results obtained, describing its strengths and weaknesses.

Conclusions: Finally, present your conclusions[1]. This is similar to the introduction, except that now you have the luxury that you can assume that the reader has read the whole report, and you may thus present your conclusions in a more technical way. Your conclusion chapter should also include a **Future Work** section. Whether by the end of the project all the original aims and objectives have been completed or not, there is always scope for future work. Also the ideas will have grown during the course of the project beyond what you could have hoped to do in the time available. The Future Work section is for expressing these unrealised ideas. It is a way of

[1]And note the plural, unless you have reached just one conclusion.

Table 1: Suggested page limits for each chapter

Chapter	**No. of Pages**
Introduction	3
Background	3
Literature Review	7
Methodology	10
Evaluation	8
Conclusion	2

recording 'I have thought about this'.

Bibliography: Relevant work you referred to in your report should be listed here. The aim of the information in the bibliography is to enable the reader to uniquely identify the source if one were to be left locked up in a library without internet access. Just a paper title and list of authors will get you nowhere, so make sure you identify all the relevant information, such as the conference or journal where a paper was published, or the publisher of a book. Using **BibTeX** helps by giving you a list of fields to fill in, and by creating a bibliography using a standard style.

Given the 35-page limit, Table **??** below provides an indication of suggested lengths for the different sections. Remember that each project is different, and thus, the distribution of pages across the different chapters may vary accordingly.

3 Style Guidelines

Here are some style guidelines which you should follow when writing your report:

1. The *recommended* length of the dissertation is report is 35 pages inclusive of figures, tables and bibliography but not the title page, the long abstract, table of contents and the lists of figures and tables (if included). However, make sure you do not exceed 40 pages. Any material beyond the first 40 pages will not be taken into account by the examiners, so make sure you stick to this limit. Trying to win space by changing margins, font size, line spacing, etc. is not allowed and may result in failing the project.

2. You may cite papers by using the LaTeX `\cite{aaa}` command, to obtain [1]. Citing multiple papers may be done using a single `\cite{aaa,bbb}` command to produce a reference like [1, 2].

3. Always capitalise references to concrete sections, tables and figures — see, for example, Section 1, Table 2 and Figure 1.

4. Capitalise all words in sections and subsections except for articles, prepositions and conjunctions. If you do not know the difference between a preposition and a proposition, I suggest you look the terms up in a grammar book.

Table 2: Note that table captions go above the table

Name	**Age**	**Smithsonian factor**
John	21	1.2
Johnny	53	1.8
Jon	35	1.3

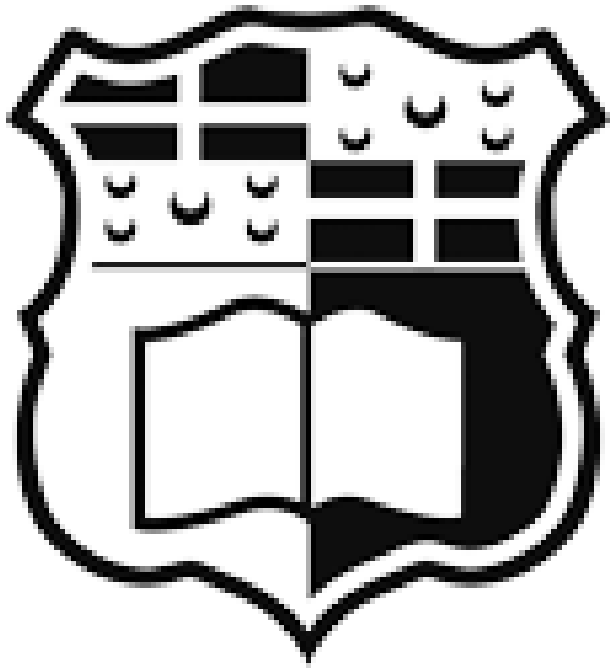

Figure 1: Figure captions go below

4 Conclusions

There is not much to conclude here.

References

[1] Johns Mith. The psychology of following references in papers. *BDN Computing Surveys*, 28(4):196–199, 1996.

[2] Jo N. Smeete. *Bibliographies I Have Known*. Ringer Publishers, 2007.