

Department of Computer Science

BSc (Hons) Computer Science (with Option if appropriate)

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The concise and insightful title for the project to which this dissertation pertains

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A report submitted in partial fulfilment of the requirements for the degree of Bachelor of Science

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Abstract

This document is a template for the dissertation. It includes some guidance to help you write about your project. Use the styles that have been setup (Heading 1, Heading 2, Appendix 1, Appendix 2). If you do this, the table of contents can be automatically generated.

You are very welcome to adjust the styles, and change the template to suit your work. You can have different can have different headings, chapters, titles and structure

The abstract should contain a high level description of the project. You should cover:

- Overview of the Problem
- Approach
- Summary of the contribution and outcomes

Try to keep the abstract short, and certainly not more than about 300 words.

Acknowledgements

This page is where you have the opportunity to give thanks to anyone, or anything that inspired or helped you with your project.

I certify that the work presented in the dissertation is my own unless referenced.
Signature: Your signature
Date:

Total words:

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Introduction

Provide a brief introduction to your project, providing some background which allows you to clearly present the problem that you are seeking to address in your dissertation. This section should prepare the reader for the Aims and Objectives which come next.

You may draw on some of your background study as evidence, but you should leave the full background discussion to chapter 2.

I have titled each chapter with a generic heading, but you might want to tailor them to your specific dissertation.

1.1 Aims and Objectives

Here you should clearly define the overarching aim for your project. Usually, for a final year project, you will have a single aim.

You should then list, the necessary and complete set of objectives that you will need to achieve in order to satisfy the aim:

- 1. Undertake a relevant background study to identify existing work in the area, and to identify appropriate techniques which can be adopted to produce a solution in this project.
- 2. Identify an approach which, when executed, will give rise to results from which rigorous conclusions can be drawn.
- 3. Design and implement some software, or undertake a simulation, or business modeling exercise, or conduct some other kind of appropriate activity which will give rise to the results desired.
- 4. Tailor the generic objectives to make them relevant for your specific project. Generic aims and objectives will lead to low-grading, generic project.
- 5. Evaluate the results using an appropriate framework, or set of success criteria which are clearly related to the problem and stated aim.

1.2 Project Approach

Describe how the project will be undertaken. Remember that the way in which you conduct your project will dictate the nature of the results that you produce, and

the corresponding conclusions you can draw from them. This is why it is important that your reader understands how you are going about your project from an early stage, so they can understand how to interpret your results.

1.3 Dissertation Outline

Traditionally, dissertations tend to contain a description of each chapter:

Chapter 2, discusses the background for my project, and identifies some key techniques that can be adopted during the development of the proposed solution. Chapter 3 explains how the project will be undertaken . . . etc., etc.

This approach is acceptable, however it can make quite bland reading. You might like to consider drawing a flow-chart of your project, showing how information such as background data, questionnaire data, results of studies, running computer programs, or undertaking user studies act as input to, or output from your chapters. You can also indicate how each chapter relates to your objectives. This kind of diagram can help to add clarity for your reader, and can help you to get your head round the structure of your project.

Don't forget to always add references [1].

Background

2.1 Section Title

In the background, you will produce a critical summary of your background literature [3, 2]. Please do not just describe the background material that you find, reference, by reference. Once you have absorbed your background material, try and write about your problem, describing any conflicting schools of thought, existing solutions, shortcomings of existing approaches, etc., and reference your sources accordingly. Let your writing be supported by your literature. Do not let the literature guide the structure of your writing.

2.2 Section Title



Figure 2.1: An example graph

2.3 Section Title

Some text here....

2.3.1 SubSection Title

In Latex, there are different ways to construct a table. See some examples here: https://www.overleaf.com/learn/latex/tables or https://texblog.org/2017/02/06/proper-tables-with-latex/

Table 2.1: A table without vertical lines.

	Treatment A	Treatment B
John Smith	1	2
Jane Doe	_	3
Mary Johnson	4	5

Chapter 3 Methodology (Or Approach)

In research circles, this chapter would often be called the methodology. Basically, it is the chapter in which you describe how you are going to go about your project in order to achieve your Aims and Objectives. Are you going to gather requirements in a certain way, build some software, and measure the results of experiments? Are you going to develop simulation models which you will test with a set of expert users, or compare to existing data sets? Will you produce a mock-up of a system and test it with a number of users to ensure that the results are statistically significant.

Whatever you do that is relevant for your project, you need to convince your reader that the approach you are taking will give rise to a set of results that are unbiased, and from which you can draw objective conclusions.

Design (Or What you did Part One)

These middle chapters are the places for you to write what you have done in more detail. This might mean the design, implement, test elements of a software project. It might mean the model, evaluate re-model phases of some kind of business modeling or simulation modeling project. It might be the data capture, requirements gathering, system design and mock-up test stages of an IS project trying to evaluate the feasibility of a software system to solve a particular problem.

You need to divide the material up amongst these middle chapters in a way that will make sense to your reader.

Implementation (Or What you did Part Two)

These middle chapters are the places for you to write what you have done in more detail. This might mean the design, implement, test elements of a software project. It might mean the model, evaluate re-model phases of some kind of business modeling or simulation modeling project. It might be the data capture, requirements gathering, system design and mock-up test stages of an IS project trying to evaluate the feasibility of a software system to solve a particular problem.

You need to divide the material up amongst these middle chapters in a way that will make sense to your reader.

Testing and Evaluation

This is where you will present your results and provide an evaluation of your solution against the problem. Try and structure your results in a meaningful way. Try and help the reader. Do not just take some numbers, load them into a statistics package such as SPSS and then present every statistical analysis technique in the known world. Use appropriate methods for analysing, presenting and summarising your data.

Conclusion

This is where you draw your final conclusions. You have presented your findings or data, now summarise how you have met each objective, and draw a conclusion as to whether you have met your overall aim. You should provide some justification for this. There are three possibilities here:

- 1. You have completely met your aim, and solved your problem (unlikely)
- 2. Your results show that your solution does not solve the problem at all (unlikely)
- 3. You conclude that your solution addresses your problem to some extent, but that there are weaknesses in the approach in other regards (most likely)

In each case, you will have produced a valid result, and each of these is equally valuable when it comes to grading your work.

What is less valuable is drawing the conclusion that you have solved all the problems with only weak justification.

7.1 Future Work

You should find that when you reach the end of your project, it will be defined more by what you haven't had time to do, than what you have managed to do. If you engage properly with the process, you will continually raise questions, and spin-off projects which it would be interesting to explore, but which you simply did not have time to pursue while focusing on the primary aim of your FYP. This is your place to write about these areas as inspiration for future students.

Appendix A

Personal Reflection

This compulsory appendix should contain a personal reflection on your project. It should contain two sections:

A.1 Reflection on Project

In this section, you should reflect on the project you have undertaken, and consider, with you specific knowledge of the topic area, studies that you undertook, and problems you encountered, how you might have undertaken it differently.

A.2 Personal Reflection

In this section, you should consider more personally how you might have worked differently to deliver an improved project if you had your time again.

Appendix B

Appendices

B.1 More relevant material

The remaining appendices can contain relevant material which is not essential to be included in the main body of the dissertation, but which may be useful to support your dissertation.

- Examples of relevant material might include:
- Example questionnaires
- More detailed designs
- Relevant results which didn't fit in the main body

Examples of material that should not go into an appendix:

- A dump of all your code
- Transcripts of all your interviews

Remember, that the appendices should be there in case the reader wants to refer to them. They will not be read as part of the dissertation story, so do not just use them to put essential material because you ran out of room. Also, do not be tempted to pad out your dissertation to the full 60 pages just by adding lots of unnecessary material to the appendices.

Any supplementary materials can be uploaded electronically with your submission.

Appendix C Ethics approval

Add your ethics letter here!!!

Bibliography

- [1] Albert Einstein. "Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]". In: Annalen der Physik 322.10 (1905), pp. 891–921. DOI: http://dx.doi.org/10.1002/andp.19053221004.
- [3] Donald Knuth. *Knuth: Computers and Typesetting.* 1984. URL: http://www-cs-faculty.stanford.edu/~uno/abcde.html.