B.Sc. (Hons) in Software Development

Ollscoil Teicneolaíochta an Atlantaigh

Atlantic Technological University

YOUR PROJECT TITLE

By
YOUR NAME

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Minor Dissertation

Department of Computer Science & Applied Physics,
School of Science & Computing,
Atlantic Technological University (ATU), Galway.

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Chapter 1

Introduction

This chapter should provide a clear context for your project and set out its objectives. You can cite references from the bibliography using IEEE format, such as Claude Shannon [1] and John Von Neumann *et al* [2]. Use Google Scholar's BibTex export function to get a LaTeXformatted citation to copy and paste into the *references.bib* document.

Chapter 2

Methodology

Describe the way you went about your project. Was your approach to the problem valid? You need to discuss both your software development methodology and your research methodology.

Chapter 3

Technology Review

This chapter is the literature review part of the dissertation and should be tightly coupled to the context and objective from the introduction. A thorough Technology Review proves that you researched what you were doing!

Chapter 4

System Design

Provide a detailed explanation of the overall system architecture [3], i.e. the HOW of the project. Use UML, system architecture diagrams, screenshots, code snippets and algorithms to illustrate your design.

4.1 Working with Images

You can embed an image in a LaTeXdocument using the technique shown below. System diagrams and images with a small numbers of colours (100s, not 1000s) should be stored in PNG format. Although LaTeXdoesn't care where you place your images, it is good practice to place them in a single sensible directory and apply some sort of hierarchy to them, e.g. the path images/chapter1 might contain all of the images for Chapter 1 of your dissertation.

Figure 4.1: System Architecture.

Image 4.1 can be referenced with the label given to the image, i.e. **\ref{image:sysArchitecture}**. Note that LaTeXwill place the image wherever it deems fit. Don't bother trying to change where a table or figure is placed until your document is ready for final layout.

Chapter 5

System Evaluation

Evaluate your project against the objectives set out in the introduction. This chapter should present results if applicable and discuss the strengths and weaknesses of your system. This is a clear opportunity for you to demonstrate your critical thinking in relation to the project.

5.1 Working with Tables

Table 5.1 can be referenced with the label given to the table, i.e. **\ref{table:HexToBin}**. Note that LaTeXwill place the table wherever it deems fit. Don't bother trying to change where a table or figure is placed until your document is ready for final layout.

Hexadecimal to Binary					
Hex	Binary 2	Hex	Binary	Hex	Binary
1	00000001	B	00001011	15	00010101
2	00000010	C	00001100	16	00010110
3	00000011	D	00001101	17	00010111
4	00000100	E	00001110	18	00011000
5	00000101	F	00001111	19	00011001
6	00000110	10	00010000	1A	00011010
7	00000111	11	00010001	1B	00011011
8	00001000	12	00010010	1C	00011100
9	00001001	13	00010011	1D	00011101
A	00001010	14	00010100	1E	00011110

Table 5.1: Conversion from Hexadecimal to Binary

Chapter 6

Conclusion

Briefly summarise your context and objectives. Remind the reader about the overall rationale and goals of the project. Highlight your findings from the System Evaluation chapter.

Bibliography

[1] Claude Elwood Shannon. A mathematical theory of communication. *The Bell system technical journal*, 27(3):379–423, 1948.

[2] John Von Neumann and Oskar Morgenstern. Theory of games and economic behavior. In *Theory of games and economic behavior*. Princeton university press, 2007.

[3] Jianhua Lin. Divergence measures based on the shannon entropy. *IEEE Transactions on Information theory*, 37(1):145–151, 1991.