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# CS958 PROJECT

## COURSEWORK ASSIGNMENT

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... WORDS

DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF MASTER OF SCIENCE SOFTWARE DEVELOPMENT AT THE  
UNIVERSITY OF STRATHCLYDE

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## ABSTRACT

INDEX TERMS:

## DECLARATION & INFORMATION

This dissertation is submitted in partial fulfilment of the requirements for the degree of Master of Science Software Development at the University of Strathclyde. It accords with the University’s regulations for the programme as detailed in the University Calendar.

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This document’s presentation reflects the use of L<sup>A</sup>T<sub>E</sub>X typesetting (Figure B7), using Computer Modern Unicode (Figure B8) (I haven’t reached my GNU Troff phase yet). This escapes the inane formatting requirements of my institution. References are presented using B<sup>I</sup>B<sup>T</sup>E<sub>X</sub>, favouring *oblique* over *italic*, in-line with Donald E. Knuth’s preference (Knuth, 2020). The process is executed in command line using Vim, which is a very powerful editor that has many commands, too many to explain in a tutor such as this. For maximum optical pleasure, the use of M $\mu$ PDF is vigorously advised with [-I]. Navigate this document using h( $\leftarrow$ ), j( $\downarrow$ ), k( $\uparrow$ ), l( $\rightarrow$ ), ensuring that the Caps-Lock, Super-Key ‘mod’, or any other command key is not depressed. Note that the Oxford Serial Comma is favoured throughout this text. This study’s sentence structure focuses on pragmatics and syntax, disregarding bloated filler content. Arguments are coherent, logical, definitive and straight-to-the-point. Nugatory theory is ignored. If you are curious about any of the mathematical, operational, logical, etc., symbols or notation used in this report, a comprehensive L<sup>A</sup>T<sub>E</sub>X-syntax-based symbolist will be available from my [website library](#) from approximately summer 2021.

The word count of this piece reflects relevant content from titles, heading classes 1, 2 and 3, paragraphs, footnotes, tables (excluding [results] tables 4.7, 5.10  $\rightarrow$  5.20), table titles, figures, and figure titles in *Chapters 1  $\rightarrow$  6*. Word count excludes any pre/succeeding content from *Abstract*, *Declaration & Information*, *Acknowledgements*, *Table of Contents*, *Appendices*, and *Bibliography*.

I declare that this document embodies the results of my own work and that it has been composed by myself. Following normal academic conventions, I have made due acknowledgement of the work of others.

Signed:

Date:

## ACKNOWLEDGEMENTS

I would like to thank my dissertation supervisor, Dr Devraj Basu, for his approach with regards belief that students must be self-disciplined, organised, structured and punctual to their own degree. This closely relates to my own personally practiced work ethic and philosophy of the ASAP standard.

I would like to give credit for the computational aspect of this study to one of my biggest inspirations, John “The Tzar” Kelly. He inspired my love for everything bare-bones computational, from simple arrays (of hope), through Hyperthreading-enabled, all the way to x86 Assembly. I would also like to accredit Luke Smith for the foundation of my knowledge of Bram Moolenaar’s Vim and L<sup>A</sup>T<sub>E</sub>X. This study’s presentation would not have optimal without Smith (2015).

This piece would not have been as efficient without the aid of the only acceptable Linux distribution, ‘distro’ if you will, Arch Linux. I would like to thank Judd Vinet for his eye-opening and life-altering contribution to the development and computer-system enthusiast community. ‘The Arch Principal’ is certainly out in high force. Finally, for making use of this software mechanically efficient, I would like to thank IBM for the creation of the ThinkPad T23, X30, T42, R50e, T60, X60, X200, X220 and T420 neoVimPads, the UltraDock, and the 1987 Model M *Catastrophically Buckling Compression Column Switch and Actuator* typehorse (US369 9296A, 1972). For your convenience, one of my [blog posts](#) can satisfy your interest in this.

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Overview no longer gives an overview of user stats on routes, it now breaks down the routes.

Type of route: hillwalk, mountaineer, climb

Route difficulty: distance, elevation gain, max elevation, N munros, N munro tops, N corbetts, N corbett tops, written description

Route option ratings: ice climb (based on gullies, equipment), possibility of fell run (based on type, terrain, difficulty, equipment)

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Restricted to Glen Coe and Glen Etive

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A MICHAEL MANN PRODUCTION  
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DOLBY STEREO™IN SELECTED THEATRES

## APPENDICES

Testing questionnaires, test cards (exp. result etc.), heuristic evaluation of system

### APPENDIX 1: EXISTING FIGURES

FIGURE A1:

(Draper, Paudyal, 1999)

FIGURE A2:

(Draper, Paudyal, 1999)

### APPENDIX 2: FOUNDATIONAL MATERIAL

AUTHOR'S NOTE

*The following content is manufactured by myself in aid of basic understanding of the background to contexts, data and methods present within this study. It is presented as teaching material, in a format I would output if in such position.*

FIGURE B1: LINGUISTICS OF ‘L<sup>A</sup>T<sub>E</sub>X’

L<sup>A</sup>T<sub>E</sub>X (or LaTeX, even latex (Donald E. Knuth’s more recent installment of T<sub>E</sub>X)) is usually pronounced /la:tɛk/ (‘lah’) or /leɪtɛk/ (‘lei’/‘lay’) in English (that is, not with the /ks/ pronunciation English speakers normally associate with X, but with a /k/). The characters T, E, X in the name come from capital Greek letters tau, epsilon, and chi, as the name of T<sub>E</sub>X derives from the Greek: τεχνη (skill, art, technique, precision); for this reason, Donald E. Knuth promotes a pronunciation of /tɛk/ (tekh) (that is, with a voiceless velar fricative as in Modern Greek, similar to the last sound of the German word “Bach”, the Spanish “j” sound, or as “ch” in a Scottish ‘loch’).

Serif	Sans Serif	Monospaced
CMU Serif Roman	CMU Sans Serif	CMU Concrete
<b>CMU Serif Bold</b>	<b>CMU Sans Serif Bold</b>	
<i>CMU Serif Italic</i>		<i>CMU Concrete Italic</i>
<i>CMU Serif Oblique</i>	<i>CMU Sans Serif Oblique</i>	<i>CMU Concrete Oblique</i>
CMU SERIF SMALL CAPS		CMU CONCRETE SMALL CAPS
<i>In the presence of traditionalists, a suitable alternative to Donald E. Knuth's Computer Modern Unicode font family may be considered: Andale Mono.</i>		

FIGURE B2: DON. KNUTH’S COMPUTER MODERN UNICODE (CMU) FONT FAMILY

FIGURE B3: WHY MY PRE-TITLE’S RIGHT AND YOU’RE WRONG

I have received numerous comments which anyone would regard naïve and under-educated regarding my pre-title of this study: *AG436 Dissertation Coursework Assignment*. The argument originates in the ‘Coursework Assignment’ portion. People argue that a dissertation ‘is not’/‘does not have’ an assignment. Not only is this poor characteristic recognition, it is semantically wrong. *AG436: Dissertation* is a class just like any other. However under this class, there are no lectures, no tutorials and therefore no exams as there is no [taught] content. Do not confuse this with the class ‘having no content’ though. AG436’s content is apparent through literature of the student’s choice. Therefore, it is possible for a ‘coursework assignment’ to be based on this. Hence, any further comments are null.

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