

WORKSHEET 4: LATEX TYPESETTING

Version 2.0
Computing
COMP110

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Introduction

This worksheet gives you practice at typesetting documents in LaTeX. You will be using LaTeX to typeset much of your written work during your studies, beginning with your Research Journal assignment for this module. LaTeX has a steeper learning curve than WYSIWYG systems such as Microsoft Word, but when used properly can produce much more professional-looking documents, as well as easing the task of managing complex documents with many cross-references and large bibliographies.

This worksheet tasks you with reproducing a given reference document using LaTeX. The document in question is based on the paper “Semi-automated Level Design via Auto-Playtesting for Handheld Casual Game Creation”, which was written by research staff in the Games Academy at Falmouth University in 2016 and was published in the IEEE Conference on Computational Intelligence in Games (CIG) that year.

To complete this worksheet:

- Fork** the base project for this worksheet, via Overleaf or GitHub
- Examine** the reference document included in the repository
- Edit** the LaTeX source code provided as a template, to produce a document similar in content and layout to the reference document

Submission instructions

Begin by **forking** the base repository for this worksheet, either on Overleaf or on GitHub. Please see LearningSpace for a link to the repository. You will find the following files:

- **reference.pdf**: the reference document
- **content.md**: a Markdown file containing the text of the reference document, for you to copy and paste
- **images**: a folder containing all the images used in the reference document
- **worksheet.bib**: a BibTeX file, from which the bibliography can be generated
- **worksheet.tex**: a template LaTeX document for you to edit

Edit **worksheet.tex** to produce a document similar in content and layout to **reference.pdf**. You may also add other files to the repository as required, for example if you decide to split the document into multiple .tex files.

The **content.md** file contains the text of the paper formatted in Markdown. Pay particular attention to the following notation:

- Section headings are underlined with `====`, and subsection headings with `----`
- Text which should be *emphasised with italics* is surrounded by single asterisks, `*like this*`



The TeX typesetting system, on which LaTeX is based, was originally developed by Donald Knuth to typeset his seminal series of textbooks, *The Art of Computer Programming*.

- Text which should be **emboldened** is surrounded by double asterisks, ****like this****
- Bulleted lists are formatted with an asterisk * at the beginning of each line
- Some mathematical notation is already formatted in LaTeX, and is surrounded by \$ symbols
- *****REF***** denotes a cross-reference to a section, figure or table within the document, and *****CITE***** denotes a citation to a source from the bibliography. You will need to check the **reference.pdf** file to find out what these references and citations should point to.
- Images are omitted from the Markdown file; you will need to include the appropriate images at the correct points in the document, referring to **reference.pdf** and the images in the **images** folder

Note that you are **not** required to replicate the layout of the reference document exactly — minor differences are fine, and improvements will earn you higher marks. However you should not alter the content of the document itself. Note also that the text of the document is provided for you to copy and paste — please do not waste time re-typing the text.

Once you have finished, post a **link** to your project in the formative submission area on LearningSpace.

Marking Rubric

To **pass** this assignment (achieve 40% or more), you must submit a reasonable attempt at the worksheet by the formative deadline stated on LearningSpace.

Criterion	Weight	Near Pass	Adequate	Competent	Very Good	Excellent	Outstanding
Basic competency threshold	30%	A reasonable attempt at the worksheet was not submitted by the formative deadline. Breach of academic integrity.					
Text presentation	20%	Document is corrupted or incomplete.	There are obvious errors in text formatting, e.g. incorrect paragraph breaks. Boldface, italics etc are missing. Section headings are missing, or are hard-coded using non-standard markup.	There are no obvious errors in text formatting. Boldface, italics etc are used somewhat correctly. Section headings are used somewhat correctly.	There are no obvious errors in text formatting. Boldface, italics etc are used mostly correctly. Section headings are used mostly correctly. Mathematical notation is used in some places.	Text formatting matches the standard of the reference document. Boldface, italics etc are used correctly. Section headings are used correctly. Mathematical notation is used where appropriate.	Text presentation exceeds the standard of the reference document. Boldface, italics etc are used correctly. Section headings are used correctly. Mathematical notation is used where appropriate.
Cross-referencing and citing	15%	Cross-references are entirely missing. Citations are entirely missing. The bibliography is missing.	Cross-references are incorrect, or are hard-coded using non-standard markup. Citations are incorrect, or are hard-coded using non-standard markup. The bibliography is present but has errors.	Cross-references are somewhat correct. Citations are somewhat correct. The bibliography is present and somewhat correct.	Cross-references are mostly correct. Citations are mostly correct. The bibliography is present and mostly correct.	Cross-references are correct. Citations are correct. The bibliography is present and correct.	Cross-references are correct. Citations are correct. The bibliography is present, correct, and formatted to a higher standard than the reference document.
Figures and tables	15%	One or more figures or tables are missing.	Figures are present but are poorly formatted in terms of positioning and sizing. The table is present but poorly formatted.	Positioning and sizing of figures and tables is good. The table is formatted reasonably well.	Positioning and sizing of figures and tables is very good. The table is formatted well.	Positioning and sizing of figures and tables is excellent. The table is formatted to the same standard as the reference document.	Positioning and sizing of figures and tables is outstanding. The table is formatted to a higher standard than the reference document.
Source code formatting	20%	Source code is missing or compiles with errors.	Source code compiles without errors. Source code is structured and formatted poorly. Identifier names for labels etc are poorly chosen.	Source code compiles without errors. Source code is structured and formatted reasonably well. Identifier names for labels etc are reasonably appropriate.	Source code compiles without errors and with only minor warnings. Source code is structured and formatted well. Identifier names for labels etc are appropriate.	Source code compiles without errors or warnings (except for underfull/overfull box warnings). Source code is structured and formatted well, with appropriate use of multiple files. Identifier names for labels etc are descriptive.	Source code compiles without errors or warnings (except for underfull/overfull box warnings). Source code is structured and formatted extremely well, with appropriate use of multiple files. Identifier names for labels etc are very descriptive.