University of Hertfordshire UH

An Investigation into the themes of 'The Importance of being Earnest'

UNIVERSITY OF HERTFORDSHIRE
School of Physics, Engineering and Computer Science

Joe Bloggs : SRN 12345678
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Course: MSc Project : Adv Computing
7COM1039 : Final Project Report
Student Name: Joe Bloggs
Student Number: SRN 12345678
Supervised by (if known): Joe Madge

Abstract

The abstract should be a statement up to half a page in length describing the subject matter of the project report and the main findings and conclusions presented in the report. A reader should be able to decide what the report is about by reading this alone.

Acknowledgements

Delete if you don't have any acknowledgements to make.

Contents

1 Introduction to the project

This chapter should introduce the project. Say what the project was about, such as what are the research questions you were attempting to address, give some brief background informa-

tion (sufficient to 'set the scene') and list the objectives you were trying to achieve by doing the project. These should be based on what you said in your project plan, but they may have changed since the plan was submitted; any changes should be explained later in the report, probably in the overall evaluation of the work.

This chapter should also introduce the report. Give a very brief statement of how your report is structured, including what is in each chapter (and the most important appendices), just to help the reader gain an idea of how you have presented your work.

You should be aware from the outset that FPR and your explanation of your work is the primary evidence used in the assessment - and it is this assessment of your abilities to conduct and deliver a project that is key. You should assume that your audience has the level of knowledge of a good Masters' student who has taken the same modules as you. Keep this in mind when writing about background technical information and do not present large amounts of material that such a reader would already know, or that could be read in a standard textbook. Reference the textbook in your bibliography and keep the information you present specific to the project work that you have done. Any software product, model, or artefact that you may have produced during your project is not the focus of the assessment. The project module is about assessing your abilities as a student in your discipline area.

1.1 Report Presentation

The report should be prepared as follows:

- Approximately 10,000 words in length.
- The bibliography and appendices are not included in the word length.
- Do not use the cover sheet (So NO assignment briefing sheet).
- The same font should be used throughout. We would prefer you to use 12-point Times, though any reasonable alternative (such as Arial) will be accepted, (except for mathematical formulae, where you may use whichever font is most appropriate, and program code examples, where you should use a `non-proportional font such as Courier`). For ease of on-screen reading this template uses 11pt, which is acceptable for this submission.
- The handbook states: "Lines should be single-spaced, with between 1/2 a line and a whole line of extra space after each paragraph. " However, for ease of on-screen reading this template uses 1.5 spacing, which is acceptable to submit.
- Margins: at least 20 mm left and right; 25 mm top and bottom.
- Pages should be numbered in one continuous sequence.

2 Collection of main chapters / sections

Contained below are excerpts from the MSc Handbook for illustration, please also consult the handbook to ensure that you see the content in its entirety. The chapter / section heading included below are also for illustration so create your own report structre and use section headings appropriate for your research project.

How to present these will depend largely on the subject of the project, but here are a few points of advice:

(a) You may assume that your readership has the level of knowledge of a good Masters' student who has taken the same modules as you. Bear this in mind when writing about background technical information and do not present large amounts of material that such a reader would already know or that could be read in a standard textbook. Simply reference the textbook in your bibliography and keep the information you present specific to your own work. Explain how any background material you present has been used in your project.

(b) The main chapters of your report are where you describe your achievements. Instead of just listing the tasks that you carried out diary-style, in the order you did them, it is better to organize the chapters/sections around topics.

(c) In these chapters/sections, you should tell the reader what you have done, why you did it, what results you obtained, what you think you have achieved (including the problems you have overcome), how you calculated the commercial risk for your project and how you managed it, and how you went about evaluating your work (criteria applied, tests performed, and so on). Be sure to present the results of your project work properly.

(d) It is important to present in the written report information about your work that will not be conveyed at the demonstration. As an example, depending on the nature of your project and the way you approached your work, this might include:

2.1 Method

Discussion of methods that were considered and the reasons for choosing one method over another;

2.2 Software tools

Use of software tools (what inputs you supplied, how you configured them, what outputs were produced);

2.3 Results

Presentation and discussion of results, for instance of a program which was progressively refined or extended;

3 Discussion and evaluation

The extent to which you demonstrate the ability to reflect upon your work is very important.

3.1 Findings

In this chapter, you should summarise your main findings/results and evaluate what you have achieved and how you went about it. You may find it more convenient to include an evaluation of your work in the chapters where it is presented and summarise that evaluation here.

3.2 Self-evaluation

What is crucial is to have a critical self-evaluation of the extent to which you have achieved the things you set out to do. Assess the extent to which you met your objectives. You will not be penalised for acknowledging that you failed to achieve everything you set out to do, and especially not the more advanced things, but you certainly would be criticised if you gave the impression of not having noticed that you had failed to meet an objective.

3.3 Project management

You should have a short section on management of the project (usually one to two pages), including how you planned to allocate time at the start of the year and how it worked out in practice. Additionally, you should demonstrate you have considered the commercial and economic context of your project.

4 Other details from MSc Project Handbook

4.1 Bibliography

After the final chapter, and before any appendices, list any sources (books, journals, web pages etc.) that you cite in your report. You should also list any sources that you have used, even if not cited directly. Use the Harvard system for your in-text citations, and for your references, producing one list, ordered by author surname (whether the material is drawn from books, journals, forums or blogs, or is a piece of software).

- A guide to the Harvard referencing system is provided at `http://www.studynet.herts.ac.uk/ptl/common/LIS.nsf/lis/busharvard`.
- This template is setup to use a Harvard style referencing system, `https://www.overleaf.com/learn/latex/Questions/Which_BibTeX_Styles_are_Available_on_Overleaf%3F`.
- The University provides an online "Library SkillUP" tutorial on citing sources and referencing that you should work through. It is available at `http://www.studynet.herts.ac.uk/ptl/common/LIS.nsf/lis/citing_menu`

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4.2 Appendices

The appendices to your report provide supporting evidence of the quality and quantity of the work you have done. Your appendices should contain any specifications, design documents, survey forms and results, screen shots, and other documentation produced as part of your project. Without this supporting evidence, it is possible that the markers will take the view that you have not done everything you claim to have done.

However, the appendices are only there to back up the claims made in your report. Markers can only be expected to look at those parts of the appendices you draw their attention to in the main body of the report. They are not obliged to read the appendices in detail, though they may do so. If you think it is important to draw the markers' attention to a document, or a part of a document, tell them where to find (don't just say "the code for this is in appendix 3", give a page number, and/or other information that makes it clear how to find it; better still, include the relevant fragment of the code in the body of your report). i.e. Do not dump

screenshots or figures in an appendix, add explanatory text in the appendix, detail what it is by using captions for figures and tables. Refer to it in the main content as follows: Appendix A contains an example of dummy text based on fake latin words. This also creates a hyperlink to the appendix in the pdf file.

Do not include copies of any web pages that you have referred to, unless it is necessary for the reader to see them to make your point: just put the citation details in your bibliography.

Samples of the work that is presented in the appendices may (and probably should) be included in the body of your report to illuminate a point or for discussion purposes.

Any program code written by you must be presented in the appendices, how to do this with this template is included in Appendix B. But do not include code that is machine generated, or that comes from a different author, unless it is necessary for the reader to understand the work you have done. If you do include code that you did not write yourself, it is your responsibility to make clear which parts of the program are your own and which parts are not. If you present automatically generated code, or the code of another programmer, as if it were your own, you may be accused of plagiarism.

References

Sutton, R. S. and Barto, A. G. (2018), *Reinforcement Learning: An Introduction*, 2nd edn, MIT Press (Bradford Book), Cambridge MA.
URL: *http://incompleteideas.net/book/bookdraft2018jan1.pdf*

A Appendix: Dummy text

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B Appendix: Sample source code

This demonstrates how to include source code in your apendix. There are several ways of doing this, which one you use depends on the situation. You can include verbatim text inline, e.g. This report is typeset using `LaTeX`. This won't work for anything beyond a few words, i.e. no line-breaks, `but handles file_names` with underscores very well.

Another way, which works for multiple lines is to use typewriter text `\texttt` as follows:
`multiple lines`
`but no special characters`

If you want to use syntax highlighting, then you need something more sophisticated: the `listings` package, explained here `https://www.overleaf.com/learn/latex/Code_listing#Using_listings_to_highlight_code`. You can change the size of the code font in the style definition.

```
    import numpy as np

    def incmatrix(genl1,genl2):
        m = len(genl1)
        n = len(genl2)
        M = None #to become the incidence matrix
        VT = np.zeros((n*m,1), int)  #dummy variable

        #compute the bitwise xor matrix
        M1 = bitxormatrix(genl1)
        M2 = np.triu(bitxormatrix(genl2),1)

        for i in range(m-1):
            for j in range(i+1, m):
                [r,c] = np.where(M2 == M1[i,j])
                for k in range(len(r)):
                    VT[(i)*n + r[k]] = 1;

                    if M is None:
                        M = np.copy(VT)
                    else:
                        M = np.concatenate((M, VT), 1)

                    VT = np.zeros((n*m,1), int)

        return M

```

C Appendix: Sample figure

This appendix demonstrates how to include a figure with a caption, label and reference. See `https://www.overleaf.com/learn/latex/Inserting_Images#Captioning.2C_labelling_and_referencing`. The caption should explain what is presented in the figure. As always, link the figure into the main body of text as follows: Figure 1 shows a modern poster of Oscar Wilde's "Ìmportance of Being Earnest".

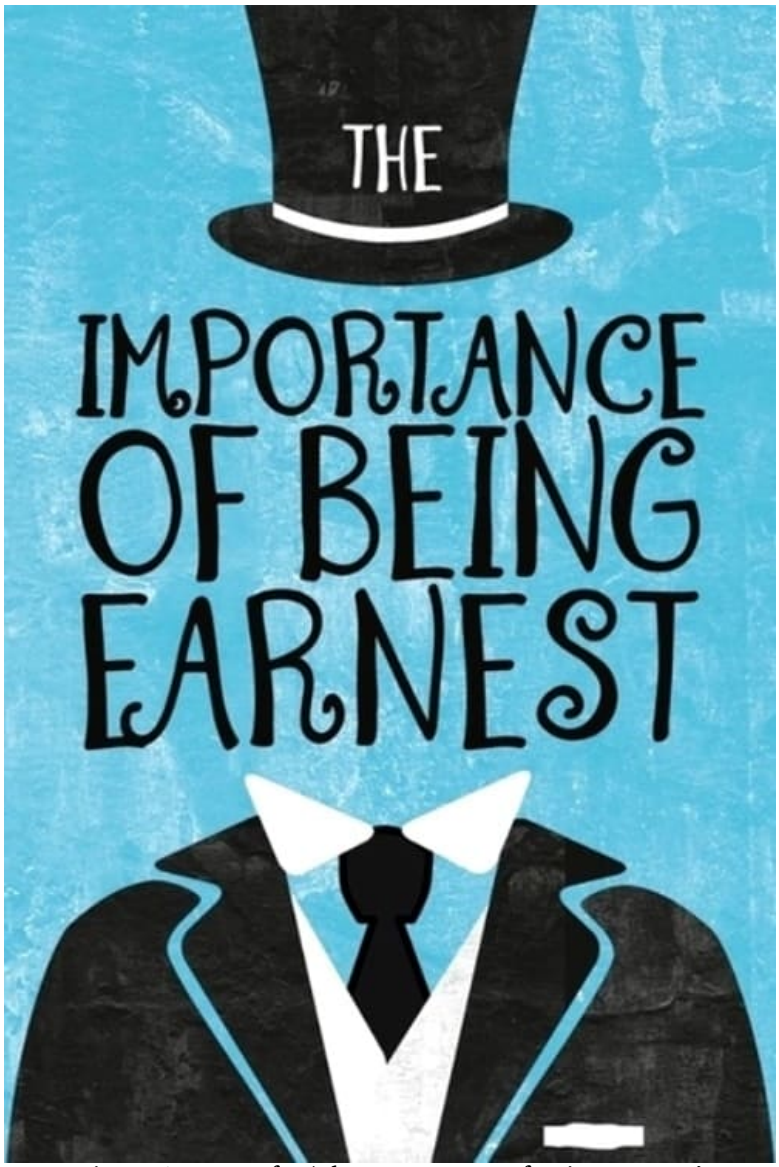

Figure 1: Poster for 'The Importance of Being Earnest'