6COSC023W

Computer Science Final Project

Final Year Project (FYP) - Report

Project Title

Student: first and last name (student number)

Supervisor: first and last name

Degree: BSc (Hons) XXX

This report is submitted in partial fulfillment of the requirements for the

BSc (Hons) Computer Science degree

BEng Software Engineering degree

School of Computer Science & Engineering

University of Westminster

Date

Document Scope

The purpose of this document is to describe and reflect on the processes that took place in developing the Final Project. Discuss any ethical issues associated with your project and describe the methodology that was adopted to develop its design, implementation and testing.

All chapter word counts in this document are approximate and are not intended to be prescriptive.

All sections in orange (like this one) must be deleted and removed before submitting the report.

Declaration

This report has been prepared based on my own work. Where other published and unpublished source materials have been used, these have been acknowledged in references.

Word Count: The final word count
Student Name: Your full name
Date of Submission: Submission date

This is an important section!
Add the updated word count (do not count words in the Acknowledgments, Table of Contents, Table of Figures, Table of Tables, References, Bibliography and Appendix). Add your name and the date of submission.

Abstract

500 words

Summarise here the problem statement and the project aim(s). Provide a brief description of the methodology followed, the main results, your conclusions, and observations.

Acknowledgements

Thank those who helped you build your project and supported you during its development if you wish to hear.

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Word should automatically populate and update pages, if you follow the instructions available here.

List of Figures

Provide a list of figures, linking figure numbers to page numbers. If you can, hyperlink the page numbers/figures. If you have no figures in your document, please remove this page.

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Provide a list of tables (if any), linking table numbers to page numbers. If you can, hyperlink the page numbers/tables. If you have no tables in your document, please remove this page.

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1. Introduction

Introduce the project, include the problem statement, project aim(s) and objectives.

1.1 Problem statement

500 words

Give some background on the problem you intend to solve and the need for the software/application. Use references to support your statements, when possible, illustrations, diagrams, and figures, if needed.

1.2 Aims and Objectives

300 words

The aim(s) describe, in a few sentences, the overarching purpose(s)/intention(s) of the software/application. What is the point of developing the software/application, what you wish to achieve?

Objectives describe with some detail the individual steps you will take to fulfil the project aim(s).

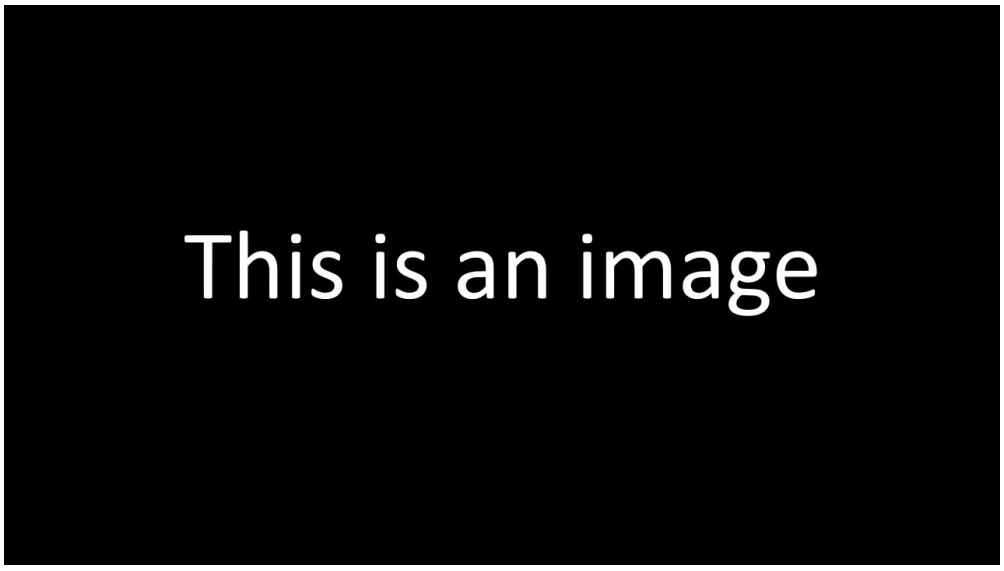

Figure 1. Add a caption explaining the image here.

2. Background

Include a literature survey on the topic, discuss existing similar or relevant applications to yours and the result of a review of tools and techniques that are used to tackle projects similar to yours.

2.1 Literature survey

800 words

Describe the initial results of a literature survey on a selected research topic or application area related to your project subject. Use relevant books, published research articles as well as Internet content for the purpose. Make use of in-text references to indicate your sources.

2.2 Review of projects / applications

800 words

Describe your background research on existing projects/software/applications, tools/frameworks/methods/algorithms/techniques relevant to your project and their advantages and disadvantages. Use illustrations, diagrams, and screenshots for the purpose.

You may produce a Table of Features in this section, comparing the main features of the above projects/software/applications and the one you developed.

A comparison table may also be provided to distinguish the key characteristics of features/methods/algorithms/techniques relevant to your project.

2.3 Review of tools, frameworks and techniques

800 words

Describe the results of a survey on relevant tools/frameworks that can be used to develop applications such as the one you built for your project, such

as programming languages and environments and libraries. List their advantages and disadvantages. Use illustrations, diagrams, and screenshots for the purpose.

3. Legal, social, sustainability and ethical issues

500 words

Consider any legal, ethical, social, professional, sustainability and security issues associated with your research and the software/application you are building and/or the data you are collecting/analysing.

4. Methodology

1000 Words

Describe the life cycle stages of the project, methodology, and development techniques you followed in the design and implementation of your project.

As examples: Gantt chart for life cycle, Waterfall or Agile for development methodology. Use an appropriate methodology for the project and list the key steps and milestones.

Discuss the implementation of your project and your consideration for UX, UI. Describe your testing methodology and give adequate examples, e.g., unit testing for typical client-server applications, white box for algorithmic and mission critical code etc. Discuss why your chosen methodology is suitable for the project.

Please note that even if you are using Agile methodology, you will still need to provide a high-level waterfall plan with key milestones, with any agile iterations also detailed in this report.

	Category 1	Category 2	Category 3
Item 1			
Item 2			
Item 3			

Table 1. Add caption here.

5. Design

Describe your final software structure using diagrams where necessary.

1200 Words

Discuss in some detail (if relevant) issues relating to:

- *User Interface*
- *Infrastructure*
- *Functionality*
- *Algorithm development*
- *Content creation*
- *Other*

Discuss how those address the project requirements.

Use appropriate design methods for your project and extend your design to include implementation details that were not included in your Project Specification Design and Prototype (PSPD) report. e.g. make use of UML such as class diagrams, sequence/activity/state diagrams for complex algorithms and workflows, use UI design methodology and heuristics for predominately UX based projects. If you intend to develop an app/software/dashboard, you may have to use/create ERD, flowcharting, storyboarding, prototyping. It is up to you to use the appropriate design that best describes your implementation.

6. Tools and implementation

6.1 Tools

500 words

Describe the tools (programming environments & languages, frameworks, and libraries,) you used for the development of your application. Justify your choices with references to your use cases or list of requirements.

State existing skills development and any new skills you employed for building your project.

6.2 Implementation

2500 words

Explain implementation of main code by use case. Include pseudocode or snippets of any novel code. Highlight any code that is adopted/adapted and give the original sources. Make references to your design documentation where appropriate.

7. Testing

Create sufficient test cases to determine that the applications satisfy the requirements and works correctly.

7.1 Test coverage

800 words

Discuss black box and/or white box testing against the requirements. Include specific test cases labelled by the relevant requirements.

7.2 Test methodology

800 words

Describe how the output was tested and why. Discuss how you obtained and used feedback, using expert or/and non-expert users.

8. Conclusions and reflections

1000 words

Provide critical reflections on ALL aspects of the project lifecycle. Include conclusions on the resulting application, research, and findings. Reflect on each aspect of your project life cycle. Critically evaluate how effectively your results meet your stated objectives. Reflect on strengths and weaknesses of your implementation, discuss the acquisition of any new knowledge and skills and consider further work.

9. References

Include a list of cited in your text items (books, papers, websites, etc.). Use Harvard style for the purpose, or any other preferred standard referencing style.

10. Bibliography

Include here a list of general reading items (books, papers, websites, etc.). List the items in alphabetical order, using Harvard style to describe them.

Appendix I

Provide additional material, if appropriate, in separate appendices.

Use one Appendix to provide a link to an on-line video demo of the project.

Do not include the entire code in print as an appendix.