

The Department of Computer Science

# CIS4509

Advanced Professional Practice Level 7

CW 1 – Report & Build

2023/2024

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| Coursework 1 Report & Build |

Weighting: 40%

Draft hand-in date: tbc

Final submission date: 29th of April

Feedback Date: 29th of May

Learning Outcomes Assessed:

1. Demonstrate an in-depth systematic approach towards the analysis of requirements for the design, production and commercialisation of a project's deliverables, reflecting relevant laws & and ethics.

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| Introduction |

This assignment is the first part of the overall assessment for CIS4509 and is, therefore, compulsory. You will be working to produce an artefact and report. Read this document carefully and make sure that you are clear about what you must do, and what you have to hand in, before you attempt the assignment.

This assessment aims to allow you to engage in a full-scale project and identify your employability skills while working in a team.

This module will enable students to engage in practising employment skills in relation to their specific programme of study. Specific subject content is an integral part of this module and by undertaking it, students will develop and employ a range of skills, for example, research and analysis, teamwork, critical thinking, problem-solving and reflection.

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| Background |

According to the BCS (2020:12), students need to acquire knowledge and understanding of the management techniques which may be used to achieve objectives within a computing context. Therefore, the emphasis of this module is to introduce students to the importance of a range of professional and reflective practices. The practical sessions, in this module, are designed to encourage students to "maintain standards of competence, conduct and ethical practice" (BCS, 2020:4) whilst helping students develop the skills required for the development, use and maintenance of computer-based systems relevant to their chosen degree pathway.

Each student will be required to join a group to complete a piece of work that will involve the whole team.

MAX number in a team is 4.

In the assignment, you are expected to be an active team member and contribute to the team during the creation of an artefact and report. **YOU CAN BE EXCLUDED FROM A GROUP**

Choose the topic that aligns with your degree title.

**MSc Computing Students**: Students should read the information for the task that is available on the VLE and gather further information from the EHU website and through an interview with a Tutor. This piece of software will form part of a Management Information System to track the number, dates and times of Personal Tutor meetings and the topics discussed with students or referrals made to the university's central services.

**MSc Cyber Security Students:** Develop a graphical password scheme for applications designed for children that has the following properties: 1) entertaining and helping children log in effectively, 2) resistant to some degree to guessing, exhaustive, and shoulder surfing attacks.

**MSc Data Science & AI: MSc Data Science & AI:** Read the description of the Aspect-based Sentiment Analysis task, and develop a piece of software that can provide a sentiment polarity prediction given an entity (E), an attribute (A) and an Opinion Target Expression (OTE).

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| Initial Planning |

Students should form a team in the first two weeks of the module and set ground rules before following the system development life to the creation of an artefact and report.

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| What you should submit |

A report along with an artefact created by the team. Within the report, there should be a Team contribution table and peer review documentation.

1. An introduction to your chosen topic.
2. Status of your chosen topic.
3. A clear indication of how the system development life cycle has been applied.
4. Critical evaluation of the choices made.
5. Your reflection and understanding of the constraints inherent in all projects (Cost, Risk, Commercialisation, legislation.)
6. Artifact

The amount of the words in the report is approximately 2000. (Not including appendices or tables)

Overall, the report structure is suggested as follows:

1. Title Page
2. Group Roles & Contribution Table. *(Use the contents of week1,and your weekly task tables)*
3. Table of Contents
4. Introduction- Explain the problem that is being addressed and the contents of the report. *(Use the contents of Week 3)*
5. Risk and Project Management decisions- Explain the choices made to ensure the project is successful and meets the brief and deadlines*. (Use the contents of Week 4,5)*
6. Stages of the systems development life cycle – Explain the actions and findings within each phase of the cycle. *(Use the contents of Week2, 5,6,7)* **See further guidance.**
7. Bringing a product to market *(use the contents of weeks 8,9,10)*
8. Summary
9. References
10. Appendices, (Project Management Charts, Modelling, Minutes of team meetings, Peer Review documents)
11. Artifact- a video demonstration

**Further guidance for Section 6;**

Team to choose a suitable development life cycle and justify the choice.

For each stage of their model a clear description of how each stage was implemented and a clear identification of the outcomes of the stage.

For Example.

*Planning/Analyse Phase – there should be a short Review of Literature/documentation and data gathering resulting in a list of functional and nonfunctional requirements.*

*Design Phase – describe and justify the modelling technique - produce models of the system Model of the system/problem.*

A paragraph is required for each stage of the development life cycle stages justifying the choices made with academic references and showing a clear output from that stage.

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| What will be assessed? |

The Report and artefact will be assessed by applying the learning outcome. The relevant criteria are shown in the table below.

Additionally, your report should be well formatted and organised as suggested below:

* Your implementation of a development life cycle
* Evidence of project management to completion covering al aspects of the task
* The information from your research to justify your choices
* Organizes information logically under appropriate headings
* Correct citation of references
* Appropriate use of academic English language

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| Submission Guidelines |

Your documentation and a copy of each completed task should be submitted in *electronic format* through the University VLE, Blackboard. A drop box will be set up near the deadline to allow you to submit them both. Remember that you should leave enough time to upload your work, and if there any lots of other students doing the same thing then you should prepare for this eventuality.

If you have any questions/queries, please contact

**Draft Submission:**

This policy sets out guidelines on feedback to plans and drafts of assignments before final submission.

1. Students will be able to submit **one** plan (1 side of A4) or one draft of no more than 40% or a maximum of 1000 words or equivalent, whichever is the least, of their work for feedback.

2. The focus of feedback on the plan should be around the structure and context of the assessment.

3. The focus of the feedback on the draft should be on the academic level (Level 4,5,6 or 7 as appropriate) attained by the student through demonstration of analysis.

4. Feedback **will not** include any indication of likely outcomes, including either a grade or mark.

5. Feedback may be verbal and/or written, as appropriate, and may occur via face-to-face tutorials (groups), emails or online tutorials. Generic feedback to groups may be used where appropriate.

6. Where students have identified learning needs, appropriate specific guidance from the Inclusion Team for the individual student will be discussed and appropriate arrangements made in accordance with these.

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| **Learning Outcome**  **Assessed** | **Mark  (0 – 29)** | **Mark  (30 – 39)** | **Mark  (40 – 49)** | **Mark  (50 – 59)** | **Mark  (60 – 69)** | **Mark  (70 -84)** | **Mark  (85 – 100)** |
| **Grade:**  **Fail** | **Grade:**  **Narrow fail** | **Grade:**  **Pass** | **Grade:**  **Good** | **Grade:  Very Good** | **Grade:  Excellent** | **Grade:  Outstanding** |
| **LO1**  1. Demonstrate an in-depth systematic approach towards the analysis of requirements for the design, production and commercialisation of a project's deliverables, reflecting relevant laws & and ethics. | The work shows nothing of merit or value, or an inadequate understanding of key areas of knowledge.  No evidence of reading The report and artefact are not complete or not submitted. | The work shows little understanding but some awareness of some of the key areas of knowledge in the development life cycle however there is little application of recognised tools and techniques evidenced in the submitted report or artefact.  Little is evidence of reading around the subject with very little evidence of a systematic approach. | The work shows a fair understanding and awareness of some key areas of the development lifecycle with reference to how the artefact may be commercialised considering some financial, legal and social issues. It demonstrates the completion of a project.    There is little evidence of how the group worked as a team in the project management sections of the report. The are a few risks identified but the risk table is incomplete. There is evidence of a systematic approach but with little depth to the work.  There is a report and a partially working significant artefact.  There is evidence of reading around some of the subjects in the module but with only a cursory mention of laws and ethics. | The work shows a fair understanding and awareness of all the key areas of the development lifecycle and shows a systematic approach, supplemented with suitable appendices and diagrams/tables.  The work references how the artefact may be commercialised considering up-to-date legal and social issues. It demonstrates a completed project and a working artefact.  It’s clear how the work was distributed systematically and evenly which is evidenced in the report, through contribution tables and project management documentation. Risks have been identified. It demonstrates a completed report and a working artefact that aligns with the early chapters of the report (Analysis/Requirements) and considers some minor ethical and social issues related to the artefact  There is evidence of reading, indicated by a consistent use of supportive underpinning throughout the report. | The work shows a clear understanding and awareness of all the key areas of the development lifecycle supplemented with suitable appendices and diagrams/tables/models. and shows an in-depth systematic approach.  There is clear work allocation to completion that is, systematic and evenly spread amongst the group which is evidenced in the report, through a detailed contribution table and project management documentation. Risks have been identified and there are some mitigations described. The work justifies the choices the team made with reference to academic text.  The work references how the artefact may be commercialised considering, financial, legal, and social issues. It demonstrates a completed report and a working artefact, that reflect a substantial piece of work.  There is evidence of extensive reading, indicated by a consistent use of supportive underpinning throughout the report from a variety of sources. | It demonstrates the completeness of all requirements to an excellent standard, the teams have worked as a group of professionals and show an in-depth systematic approach.  The work shows clear understanding and awareness of all the key areas of the development lifecycle supplemented with suitable appendices and diagrams. A professionally approached is evidenced through the minutes of team meetings and the distribution of work. The work justifies the choices the team made with reference to academic text, this is evidenced in the report. There is a systematic approach evidenced through detailed contribution tables and project management modelling documentation and the choices made have been justified. The is a clear set of risk management and mitigation tables. The work references how the artefact may be commercialised considering up-to-date, financial, legal, and social issues. It demonstrates a completed project and a working artefact that has clearly been built to fulfil the design brief outlines in the early chapters of the report. | The work is of professional standard and is complete. It shows an outstanding understanding and awareness of all key areas of the project development. The work has drawn on elements not taught in the module.  Work is innovative and creative and there is evidence of extensive reading, indicated by a consistent use of supportive underpinning throughout the report.  The report and artefact have been professionally produced with a full list of appendices highlighting the systematic nature of the work delivered. |
| **Spelling, Punctuation and Grammar**  ((QAA Annex D: Transferable Skills - ability to communicate information/academic writing and language) (5%) | Frequent significant errors in spelling, punctuation, and grammar severely affect the meaning / comprehension of scientific arguments and reasoning.  Little, no or very repetitive use of relevant technical terminology.  Very poor sentence and paragraph structure which seriously affects the clarity of the discussion. | Some significant errors in spelling, punctuation, and grammar affecting the meaning / comprehension of scientific arguments and reasoning.  Limited or repetitive use of relevant technical terminology.  Poor sentence and paragraph structure which affects the clarity of the discussion. | Reoccurring errors in spelling, punctuation, and grammar that may affect the meaning / comprehension of scientific arguments and reasoning.  Some appropriate vocabulary incorporating some technical terminology is present.  Sentence and paragraph structures are partially correct and contain appropriate syntax aiding the clarity of the discussion. | Errors in spelling, punctuation and grammar that do not affect meaning / comprehension of scientific arguments and reasoning and are not recurring.  A variety of appropriate vocabulary incorporating some relevant technical terminology is present and generally effective.  Sentence and paragraph structures are partially correct and contain appropriate syntax and relevant vocabulary, aiding the understanding of the discussion. | Only very minor and not recurring errors in spelling, and punctuation that do not affect meaning / comprehension of scientific arguments and reasoning and are not recurring.  Effective and accurate use of a variety of appropriate vocabulary, incorporating adequate and accurately used technical terminology.  Correct sentence and paragraph structures that contain appropriate syntax and relevant vocabulary, aiding the understanding of the discussion. | No or negligible errors in spelling, punctuation, and grammar.  Effective and accurate use of a variety of appropriate vocabulary, incorporating adequate and accurately used technical terminology.  Correct sentence and paragraph structures that contain appropriate syntax and relevant vocabulary, aiding the understanding of the discussion.  Adopts a professional and academic writing style and conventions, with each paragraph following the [*SEED*](http://eshare.edgehill.ac.uk/7165/1/Paragraph%20Structure%20%28SEED%29.pdf) structure. | No errors in spelling, punctuation, and grammar.  Highly effective and accurate use of a variety of appropriate vocabulary, incorporating adequate and accurately used technical terminology.  Consistent use of correct sentence and paragraph structures that contain appropriate syntax and relevant vocabulary, aiding the understanding of the discussion.  Adopts a professional and academic writing style and conventions, with each paragraph following the [*SEED*](http://eshare.edgehill.ac.uk/7165/1/Paragraph%20Structure%20%28SEED%29.pdf) structure. |