Computer Science and Creative Technologies

Coursework or Assessment Specification

Module Details

Module Code	UFCFFF-30-3
Module Title	Software Development Project
Module Leader	Steve Battle
Module Tutors	
Year	2022-23
Component/Element Number	A / PROJ1
Total number of assessments for this module	2
Weighting	50%
Total Assignment Time	250 hours
Element Description	Project Report

Dates

Date issued to students	18/10/22
Date to be returned to students	23/05/23
Submission Date	25/04/23
Submission Place	Blackboard
Submission Time	14.00
Submission Notes	Your report should be submitted to Blackboard as a Word document.

Feedback

Feedback provision will be	Formative feedback will be provided by your supervisor. Summative feedback via Blackboard.

Contents

Section 1: Overview of Assessment

This assignment assesses the following module learning outcomes:

- Investigate a topic from their award area at a deeper level than is covered in other modules.
- Research academic and commercial papers and use the knowledge and information gained from the research to inform a development project.
- Research academic and commercial papers and use the knowledge and information gained from the research to inform a development project.
- Solve a real-life problem, synthesising and critically evaluating information from multiple sources in the search for this solution.
- Follow a development lifecycle from an initial idea through to the realisation of a software artefact.
- Identify and apply tools and methodologies appropriate to a particular problem.
- Use configuration management and version control tools and release management frameworks effectively, and apply sound change management processes properly and effectively when modifying software designs and deliverables.
- Communicate both the nature of the artefact developed and the process by which it was produced.

This is an **individual** assignment worth ***50%*** of the overall mark for the module. Broadly speaking, the assignment requires you to identify a suitable topic, conduct relevant research, and then document the software development process. The assignment is described in more detail in section 2, below.

Working on this assignment will help you to treat material critically and to demonstrate your understanding of the material relevant to your award.

Guidance about the project development process is covered in a short lecture series at the start of the academic year covering topics such as Choosing a project and researching the project idea, Moving from research to requirements, Configuration and release management and version control, Quality planning and assurance, and Writing up the project.

Section 2: Task Specification

The project is an individual piece of work, exploring an idea from conception through to realisation. The topic of the project should be agreed with your supervisor. Suitable topics may stem from staff, the student, the student's employer or other outside organisations. The topic must lend itself to research followed by a software development process based on the research.

The research component will include the identification of a suitable topic and subsequent investigation from books, papers and other sources. Requirements should be derived from the research. Software development will include the identification of suitable tools and methodologies to use, giving full and careful attention to the issues of quality and risk.

You will be expected to demonstrate that you understand the importance of version control as it applies to software and systems; have defined suitable configuration management

processes for use throughout the product development lifecycle in storing software deliverables and controlling and tracking changes to your software; have used configuration management and version control tools and release management frameworks and applied sound change management processes properly and effectively when modifying your software designs and deliverables.

Whatever the subject you will be expected to treat material critically and to demonstrate your understanding of the relevance of the material both to your award to the project topic. You will also be expected to reflect on the tools and methodologies used and, at the project completion, comment on their suitability.

Section 3: Deliverables

Your individual software development project report (6000 words) should link to additional material in the form of software and documentation as appropriate. You should use UWE/Harvard referencing. Your report should be submitted to Blackboard as a **Word or pdf** document. For guidance, a sample outline will be provided in the Assignments area of Blackboard, and you may adapt this to suit your own project.

In submitting this assignment you are making a declaration that it is your own work and has not (either in whole or part) been submitted towards the award of any other qualification either at UWE or elsewhere. To reassure yourself please refresh your knowledge of what constitutes as plagiarism and how to avoid it, check this link:
https://www1.uwe.ac.uk/students/studysupport/studyskills/readingandwriting/plagiarism.aspx

Section 4: Marking Criteria

The report will be assessed on the following criteria:

Criterion	Weight %
Extent, level and relevance of research.	20%
Requirements analysis.	20%
Identification and application of an appropriate development / design methodology.	20%
Choice and application of technology to implementation.	10%
Evidence of self-management and critical reflection on the project content and process.	10%
Clarity of exposition within the report.	20%
TOTAL	**100%**

Section 5: Feedback mechanisms

You will be assigned a supervisor who will meet with you to discuss progress and to give guidance on planning and managing the work. They will give you formative feedback on your project report.

Section 6: Marking Criteria

Criterion out of 10% (or 20%)	0-3 (or 0-6)	4-7 (or 7-14)	8-10 (or 15-20)
Overall Descriptor	Basic	Satisfactory	Good
Extent, level and relevance of research (20%)	Poorly researched with little or no evidence of references to academic or commercial publications.	Solid background research with references, but weak on critical evaluation.	Demonstrates understanding of the relevance of the source material. Synthesising and critically evaluating information from multiple sources.
Requirements analysis (20%).	Functional requirements presented with little or no justification.	Clear set of functional requirements, with use-cases but scant evidence of user scenarios driving the whole shebang.	Clear set of requirements derived from research. Good user scenarios and well-defined use-cases identified used to derive functional requirements systematically.
Identification and application of an appropriate development / design methodology (20%).	Weak or poorly justified methodology.	Reasonable methodological approach with specific good practices identified, but lacking end-to-end traceability. Version controlled.	Good set of relevant research and development methodology tools and techniques identified, and evidence of adherence to them. Documentary evidence of design and implementation. Thorough testing with traceability back to requirements. Good version control and configuration management used throughout the development lifecycle.
Choice and application of technology to implementation (10%).	No appreciation of the choices available, diving straight into a 'solution'.	Good narrative description of the choices available but not providing any kind of analysis.	Clear exposition of the technology options available and the risks involved. Clear justification of choices made e.g. Pugh Matrix or capability case/case studies.
Evidence of self-management and critical reflection on the project content and process (10%).	Little evidence of reflection.	Reflective, but with no attempt to pass on lessons learned.	Insightful and critical reflection on the development process, including lessons learned.
Clarity of exposition within the report (20%).	The ideas have not been clearly explained.	Tells a good story but perhaps lacking enough relevant (UML) diagrams.	Clear elucidation of an idea in a way that is meaningful to other students and academics. Communicates both the nature of the artefact developed and the process by which it was produced. UML diagrams used where necessary. UWE Harvard referencing used throughout.