

# CM22007 – Software Engineering

## Deliverable 1 (part A): Project Proposal Specification

Mr Neil Langmead and Dr John Benardis

<b>Set:</b> Friday 03/10/2025 (week 1) <b>Due:</b> Friday 07/11/2025 (week 6), 8 pm
<b>Percentage of overall unit mark:</b> 25%
<b>Submission Location:</b> Group submission via Moodle <b>Submission Components:</b> Report <b>Files:</b> PDF named 'Group # - Project Proposal'
<b>Anonymous Marking:</b> No
<b>Generative AI Assessment Categorisation:</b> Type B [ <a href="#">guidance</a> ]

## 1 Overview

For CM22007 your overall group project involves the proposal, specification, design, implementation, testing, and evaluation of a novel interactive system that meets potentially changing stakeholder/customer needs. This deliverable focuses on the description of the initial problem domain, the identification of possible challenges to address, the proposal of a system that would address one or more of these challenges, as well as the approach you plan to take in order to achieve your overall goals.

## 2 Deliverable

The deliverable is a group report, written in teams of 7-9. It must have between 2000 – 4000 words including figure captions – this is a hard limit (appendices are not to be used to extend this limit etc.). Tables of content, figures, diagrams, and references do not count towards the word limit. It must use the ACM Primary Article Template which is a single-column format (use Word or LaTeX for editing; submission must be PDF):

<https://www.acm.org/publications/taps/word-template-workflow>

You should remove the CCS Concepts, Additional Keywords and Phrases, as well as the ACM Reference format sections.

In addition to the report, the group must also submit a Group Contribution Form (see below) which does not count towards the word limit.

**Structure:** The following structure is mandatory. The report is worth 25% of the overall unit mark and it will be marked according to the criteria below. Every point listed below

must be adequately and concisely covered. The marks listed below sum up to 100%.

### **Introduction and background – about 2-3 pages<sup>1</sup>**

- Describe the chosen problem domain (from education, well-being, sustainability, hobbies, local businesses, and charities - you can select one or combine them).
- Describe a set of challenges that you have identified in the domain raising both technical and societal issues.
- Showcase your motivation for the project (i.e. for choosing the specific domain and challenge).
- Showcase what makes the project novel.

### **Stakeholders and their goals – about 1-2 pages**

- Describe your primary stakeholder/customer (i.e. those affected by the challenge(s) identified)
- Describe your secondary and any other stakeholders.
- Describe the context of the stakeholders and their needs (as well as the reason behind them).
- Describe the desired overall experience/goal(s) of the stakeholders

2

### **Project goals and the proposed system – about 2-3 pages**

- Clearly state the stakeholder/customer problem you have chosen to address.
- Briefly introduce your proposed novel interactive system as a solution to one or more challenges identified.
- In implementation-free terms<sup>3</sup> report the user benefit(s) that will be provided by the system.
- Describe how the benefit(s) will support the overall desired experience/goal(s) of the stakeholders.
- Describe your stakeholder/customer-centric measures of success.<sup>4</sup>
- Describe the potential negative impacts of the proposed system (considering legal, ethical, and professional implications).

---

<sup>1</sup> The suggested “about x pages” is for guidance only, not mandatory.

<sup>2</sup> For the two sections above you would need to show knowledge and understanding of past and current work in the subject area. This could be done by reviewing the literature, reviewing systems that have similar goals, and even having preliminary engagement with stakeholders in the problem domain.

<sup>3</sup> Without saying anything about how the system works or how to implement it.

<sup>4</sup> How will you know whether the customer got their desired benefits?

### **Project management and the team – about 2-3 pages<sup>5</sup>.**

- Describe the steps you would need to take to achieve your project goals.
- Describe the software development process that you will use and justify your choice.
- Describe the project management systems, platforms, programming languages, tools, libraries, etc. to be used and offer a rationale for your choices.
- Describe your plans for testing your proposed system and your plans for evaluating the adequacy of your test strategy.
- Describe your plans for distribution and coordination of work within your team.
  - o How will you meet as a team? How often?
  - o What do you plan to accomplish during the meetings?
  - o What are the backgrounds of the team members?
  - o What are the planned roles for the team members during this project?

### **Constraints and risks – about 1 page**

- Describe any potential legal, ethical, professional, social, or policy constraints.
- Describe potential risks that might arise and your plans to mitigate them.

### **References – (does not contribute to the word count)**

- Include a bibliography of the academic papers, articles, websites, and other media you used to provide support and rigour in your report.
- For citations and references you must use the ACM format:  
<https://www.acm.org/publications/authors/reference-formatting>

Please notice that the ACM citation format is not explicitly covered by the library website on referencing (see below). If you request the assistance of a librarian, please mention that you are using the ACM format.

---

<sup>5</sup> Consider starting a Change Log to track any changes to the project as described in this Proposal. For each entry in the Log, include 4 things: the date, description, motivation, and implications of the change.

The marking criteria for the deliverable are as follows:

Criteria	Percentage of overall deliverable mark
Introduction and background	25%
Stakeholders and their goals	15%
Project goals and the proposed system	25%
Project management and the team	25%
Constraints and Risks	10%
References and General	-10% max loss
Template non-adherence	up to -2%
Structure non-adherence	up to -2%
Citation style non-adherence	up to -2%
Poor presentation	up to -2%
Non-coherent writing style	up to -2%

### 3 Group Contribution Form

In addition to your report, please submit a separate PDF with a Group Contribution Form as described in a separate document “CM22007 - Group Contributions and the Group Contribution Form (GCF)”.

### 4 Academic Integrity

Your work will be checked to ensure that you have not plagiarised. For more information about the plagiarism policy at the University see:

<https://library.bath.ac.uk/referencing/plagiarism>.

Remember that published work that you refer to in your report should be clearly referenced in your text and listed in a bibliography section given at the end of your report. For more information see: <https://library.bath.ac.uk/referencing/new-to-referencing>.

There is currently much debate about the use of Generative AI Large Language Model (LLM) tools such as ChatGPT in Higher Education and how these impact assessments and academic integrity.

AI tools can be useful to support you in your project, for example, to help inspire ideas and find information quickly. However, AI systems do not possess true comprehension or reasoning abilities. They generate responses by identifying patterns in their training data, not through deep understanding. So, while they may seem intelligent, they cannot replace human critical thinking and analysis which are assessable elements in your reports. If you are thinking about using AI tools in this report, there are some important things to think about before you do.

What **not** to do:

- Have them write full assignments for you. It is unethical and it prevents you from developing core academic skills.
- Copy directly from the tools' output. Passing off AI content as your own is a breach of academic integrity: <https://www.bath.ac.uk/corporate-information/academic-integrity-statement/> states that by submitting your coursework, among other things, you confirm that “*You have not presented content created by generative AI tools (such as Large Language Models like ChatGPT) as though it were your own work*”.

What to do:

- Use them to brainstorm ideas.
- Summarise content.
- Get different perspectives.
- Stimulate discussion.

Always **maintain a critical mindset**:

- Does the response make sense?
- Is it well reasoned and supported?
- Always verify the output! This hones your critical thinking abilities.
- Review citations and references carefully as some of them are fake or irrelevant. Validate key points by reading the original work and confirming or rejecting the generative AI synthesis of information.

## 5 Feedback and Getting Help

**Formative feedback** on your work will be offered throughout the duration of the coursework:

- During your tutorials the tutors will be available to answer questions and offer guidance. Please note that tutors will not be able to make decisions on behalf of your group about the course of the project. They are there to discuss your ideas and offer advice.
- Use Moodle forums to post general questions or questions specific to your group's project. The unit teaching team will respond to these as well as your peers. This way we will create a repository of knowledge that will be available to all.

You will receive **summative feedback** on your work within 3 semester weeks of the submission deadline. The feedback will discuss your performance based on the criteria for marking, including what you did well and how specific sections could have been improved.

## 6 FAQs

- Q. Can I request an extension and who can help me with this?  
A. Yes. Requests for extensions should be made to the Director of Studies. Lecturers and tutors cannot approve extensions. Please make sure you are familiar with the department's coursework deadline extension policy.
  
- Q. I had uploaded the incorrect file can I please send the correct file now/after the deadline?  
A. It is your responsibility to check that you correctly submit your work. Once you have submitted to Moodle, you should download your submission and **check it**. Your case will be reviewed by your Director of Studies, but a favourable resolution cannot be guaranteed.