

Cardiff School of Computer Science and Informatics

Coursework Assessment Pro-forma

Module Code: CM1301

Module Title: Principles, Tools, and Techniques for Secure Software Engineering

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Assessment Title: Individual Portfolio Part III

Assessment Number: 3

Date Set: Autumn Week 12

Submission Date and Time: Friday of Spring Week 12 at 9:30am

Return Date: 4 weeks after submission date

If coursework is submitted late (and where there are no extenuating circumstances):

- 1 If the assessment is submitted no later than 24 hours after the deadline, the mark for the assessment will be capped at the minimum pass mark.
- 2 If the assessment is submitted more than 24 hours after the deadline, a mark of 0 will be given for the assessment.

Your submission must include the official Coursework Submission Cover sheet, which can be found here:

<https://docs.cs.cf.ac.uk/downloads/coursework/Coversheet.pdf>

Submission Instructions

Table 1 shows the files and formats expected for submission of your portfolio.

Table 1: Files for submission

Description		Type	Name
Cover sheet	Compulsory	One PDF (.pdf) file	[student number]-cover-sheet.pdf
Portfolio	Compulsory	One Word file (.doc or .docx)	[student number]-portfolio.(doc or docx)

This assignment is graded as either a **PASS** or a **FAIL**. Please note there is a strict **1-page limit for non-appendix content, and font should be Calibri size 11**. If including appendices your document **must not exceed 2 A4 pages in length**. You will be assigned a feedback provider for this coursework in week 5. See Learning Central for details.

Any deviation from the submission instructions above (including the number and types of files submitted, and the page length of the document submitted) may result in a mark of FAIL for the assessment. Staff reserve the right to invite students to a meeting to discuss coursework submissions.

Assignment

Your assignment takes the form of a **structured portfolio**, where you must choose and write about **AT LEAST ONE** topic covered throughout the module up to this coursework assignment's submission deadline. **NB: You may not write about the same topic as you did in Individual Portfolio Part I or Individual Portfolio Part II.** The purpose of this assignment is for you to demonstrate what you've learned during the teaching activities, reflecting on your initial understanding of topics including, but not limited to, user requirements, modularity, code reliability, and risk assessments. You should engage in self-reflection of how the exposure to the class material changed your initial understanding. The portfolio is split into **two** sections and the content is semi structured: in Section 1 you must write on your chosen topic in the style of a diary/blog, discussing specific material we covered in class. In Section 2 you must do independent research and write about your chosen topic discussing specific material **not** covered in class with respect to your chosen topic **OR** a different topic. Details on each section are as follows:

Section 1: What you've learned

Reflection on the Material Covered During Class

In this section you must write a diary/blog style entry of what you learned with respect to your chosen topic. This must include a discussion of material covered in activities, complete with concise descriptions of **AT LEAST ONE** task you completed and how it contributed to your learning, for example, watching a video explanation of project management helped you understand how to integrate scrum into your own software development, or completing coding exercises helped you understand Python and Javascript syntax.

When writing your portfolio, you should write on your selected topic in a self-contained, fashion. You are encouraged to draw from both academic and professional industries material, spanning text and audio-visual formats, while showcasing your broad grasp of the module learning material.

There is no right or wrong way to approach the learning portfolio. If you follow the instructions, you have creative freedom in terms of which content you choose to include in your work. For example, you may choose to include sketches, brief literature surveys, code examples, and discussions regarding teaching material and topics covered in the module which demonstrate your understanding.

Section 2: What you researched independently

Synthesizing new avenues for practice and development

In this section, you will write about what you researched independently. You may write about *the same topic* in Section 1 **OR** *choose another topic* (e.g., principles, tools, techniques, etc.) of software engineering not covered in class, for example, declarative programming and functional languages such as F# and Erlang, or a current trend in software engineering, for example, cloud computing. If you write about the same topic as Section 1, you **must** focus

your discussion on material **not** covered in class. If you write about a different topic, you should introduce your topic and describe why it is important. To complete this section, **you will need to have at least one source** on your chosen topic, and you must address the following:

Introduction of your interest

Discuss what you researched and learned about in more detail in relation to your chosen topic. For example, on the topic of UML you may discuss an open-source software tool for creating UML diagrams and briefly explain how it works, what language it is coded in, and its software architecture. Your introduction need not be extensive: one paragraph is enough. Be sure to make use of your academic source and of your learning artefact to introduce your subject.

Learning Artefact

Provide **at least one** research article/professional whitepaper **OR** audio-visual reference that demonstrates you completed independent research i.e., the artefact is **not** covered in the lecture material. If providing more than one you can use the same or different types of reference. If you find a video that is helpful, simply insert a link to the video hosted online and provide detailed guidelines on which parts of the video to watch e.g., start and end times of the video.

Importance

To argue the importance of your topic, this section of your portfolio must have the following components:

- Source(s): for example, you may use the same source(s) that you used in your introduction or additional sources to explain the importance of the topic you are writing about.
- Your perspective: make use of your learning artefact to explain the relevance of your topic.

Template document

A template document is provided. Please see learning central for details and a link to download the template. **You must use this template as the basis for your portfolio submission.** In addition to the template, to help keep you on the right path when writing, here are some suggestions to keep in mind:

- Writing style: long sentences with complex prose should be avoided.
- Bullet points are acceptable but should not be overused. Apply them appropriately in moderation.
- Be sure to review the guidance on academic referencing. Details are available on the COMSC-SCHOOL organization on learning central.

- Stick to the topic: it is easy to lose track and start writing about nonrelated or tangentially related concepts when discussing your work. Keep on point and maintain the focus of your writing on what you have done and what you have learned.
 - Active voice: Write in an active tone, in the first person. Avoid sentences like “A literature review was completed covering...” and instead use “I completed a literature review covering...”.
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Learning Outcomes Assessed

All learning outcomes specified in the module description are assessed in this assignment. These should be available for reference on learning central.

Criteria for assessment

As stated previously, this assignment is graded as either a **PASS** or a **FAIL**. Portfolios which meet the following criteria may receive a **PASS** mark:

Section 1: What you’ve learned

- Clearly demonstrates your participation in module activities, and how they shaped your learning and understanding of developing quality software.
- References your own work. Activities completed in groups should be discussed from your perspective, detailing how/what you contributed to the team effort.
- Contains enough detail when describing tasks e.g., what the task was, how you managed to complete it, and what the outcomes were, and show evidence of the completed tasks.

Section 2: What you would like to learn more about

- Includes appropriate and sufficient discussion that demonstrates your independent research on your chosen topic.

Feedback and suggestion for future learning

Feedback on the submission will be returned from your feedback provider by the return date specified. Note that you must only contact your designated feedback provider for feedback. Any requests made to a member of the teaching team who is not your designated provider will be ignored. Feedback from this assignment will be useful for the following modules: CM2101 Human Computer Interaction, CM2209 Enterprise Architecture and Implementation, CM2107 Systems Modelling, CM2305 Group Project, and CM3203 Individual Project.