ACP CW2 Specifications (Essay)

12.03.2025

As you implemented CW2 many decisions were made based on specifications and often your own consideration and thoughts.

The essay is now the place where you should:

1. Reason and reflect why you chose the specific implementation for the specific tasks
2. How would you test such an environment in and during development?
3. What challenges do you see running this service in terms of load, stability and scaling?
4. Where would you see improvements for your code?

This is going to be rather tough as you have much to cover, plenty of considerations to do, in a concise manner, with a hard upper limit set to 1,400 words[1]. As a rough guide, you should aim for a total of between 1,100 and 1,400 words.

Writing such a work requires (among other things):

- Reasoning and reflection – so less what you did, but why and why not, what influenced you, where did you struggle (and overcame the problem), ...
- References, pros & cons, discourse, etc.
- A proper formatting which improves the readability of the document (take academic papers from e.g. IEEE as an example)
- Readability, which includes full sentences, introductions, conclusions, bridging sentences, ... (in general, give it a nice flow for the reader)

Please focus on the core questions asked and do not delve (unless needed and reasoned) into common topics like “why microservices”, “what are unit tests”, etc.

[1] https://askus.staffs.ac.uk/academicskills/faq/252665#:~:text=Generally%20speaking%2C%20the%20word%20count,or%20tables%20or%20figures%20themselves)

Neither are you supposed to write a documentation for your work delivered (this can be done in the code). You will have to find the right balance between mentioning your work and general concepts / considerations. You should not discuss your implementation one item after the other, but give overarching considerations, insights and views.

You will be scored (a total of 25 points max) on the following sections with the mentioned sub-grades (and intermediate grades as well):

- (6) Readability, Structure, Presentation
  - *Poor (1), Fair (3), Very Good (6)*

- (10) Technical relevance and correctness
  - *Poor (1), Fair (4), Very Good (10)*

- (9) Completeness (coverage), Explanation and reasoning
  - *Poor (1), Fair (4), Very Good (9)*

Should you exceed the word count 15% of your final mark will be deducted for each 100 words over the limit (so, for e.g. 1,510 words in total you would receive a penalty of 15% of the total mark gained, for 1,610 words, 30%, etc.).

This might seem drastic, yet we must simply make sure that you get to a conclusion and a marker must read your submission as well.

The grading is intentionally kept simple to improve marking and elaboration of marks.

Poor:	Something has been done in the section, yet not enough
Fair:	Moderate average, nothing too special, yet quality work
Very good:	A very good amount of work was done, and the results are corresponding