

Lecture 8: Quality attributes 1. I4.0 QAs

Purpose and motivation

The purpose of this lecture is to discuss quality attributes relevant for the I4.0 domain (and the exam assignment). We will also continue the discussion on empirical studies in software architecture.

Furthermore we will continue the work with the exercises.

Before Class

- Read the literature
- Review the exercises from last lecture and prepare to ask any questions you may have

Reading

Read the following before class:

- Software Architecture in Practice[1, ch. 4, 5]
- Applying the Levels of Conceptual Interoperability Model in Support of Integratability, Interoperability, and Composability for System-of-Systems Engineering[3]
- Applying empirical software engineering to software architecture: challenges and lessons learned[2]

(Find the material at the [library](#), on itslearning, or in online databases.

In class

Lecture

1. Follow-up on last week's exercise
2. Quality Attributes 1. I4.0 QAs
3. Exercises

Exercises

1. Peer review of the design and execution of your software experiment

References

- [1] L. Bass et al. *Software Architecture in Practice, 4th Edition*. SEI series in software engineering. Addison-Wesley Professional, 2021. ISBN: 9780136885979. URL: <https://books.google.dk/books?id=BWpuzgEACAAJ>.
- [2] Davide Falessi et al. “Applying empirical software engineering to software architecture: challenges and lessons learned”. In: *Empirical Software Engineering* 15.3 (2010), pp. 250–276. DOI: [10.1007/s10664-009-9121-0](https://doi.org/10.1007/s10664-009-9121-0). URL: <https://doi.org/10.1007/s10664-009-9121-0>.
- [3] Andreas Tolk, Saikou Diallo, and Charles Turnitsa. “Applying the Levels of Conceptual Interoperability Model in Support of Integratability, Interoperability, and Composability for System-of-Systems Engineering”. English. In: *Journal of systemics, cybernetics and informatics* 5.5 (2007), pp. 65–74.