

Lecture 10: Software architecture patterns 3

Purpose and motivation

The purpose of this lecture is to discuss how software architecture, which is typically thought to be a slow evolving "up-front" activity aligns with more modern agile processes.

The lecture will also continue the discussion on empirical studies in software architecture through your presentations of your experiments (design, measurements, operation, results).

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:

- Agile software architecture: aligning agile processes and software architectures[1, Ch. 8]
- A systematic mapping study on the combination of software architecture and agile development[2]

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

In class

Lecture

1. Presentation of your experiments
2. Software Architecture and Agility
3. Exercises

Exercises

1. Work on the assignment on agile software architecture
2. Work on your exam assignment

References

- [1] Muhammad Ali Babar, Alan W. Brown, and Ivan Mistrík. *Agile software architecture: aligning agile processes and software architectures*. English. 1st ed. Amsterdam: Morgan Kaufmann, 2014;2013; ISBN: 0124078850;9780124078857;0124077722;9780124077720;
- [2] Chen Yang, Peng Liang, and Paris Avgeriou. “A systematic mapping study on the combination of software architecture and agile development”. In: *Journal of Systems and Software* 111 (2016), pp. 157–184. ISSN: 0164-1212. DOI: <https://doi.org/10.1016/j.jss.2015.09.028>. URL: <https://www.sciencedirect.com/science/article/pii/S0164121215002125>.