W3WI_110.2 - Distributed Systems

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Version:	1.0 (WWI23SCB)

Core Topics

- Terminology, concepts, architectures, requirements profiles and architecture models for distributed systems
- Design and implementation approaches
- Comparison of different middleware concepts
- Synchronous and asynchronous communication, remote method calls
- Asynchronous communication and messaging systems
- Security aspects in distributed systems

Previous Knowledge

- Who is familiar with Java?
- Who is familiar with Python?
- Who is familiar with JavaScript/Typescript?
- Who knows what a RESTful API is?
- Who has ever logged in to a server via SSH?
- Who has ever done any administration of a Linux server?
- Who is familiar with Unix/Linux/Mac OS command line tools?
- Who has done any development outside of university projects?

Examination - Portfolio

2 Parts

01 Presentations - max. 15 points

02 Programming Exercise - max. 35 points

Attention!

Students who present together should not be in the same team for the programming exercise.

Presentations - General Conditions

- The presentations should deal in particular with the core content of the lecture and *be of a conceptual nature*.

  This means that, after briefly presenting the overall purpose of the framework/technology/protocol, the architecture/the details must be presented. That is, how errors are dealt with, which services are offered, which guarantees/security aspects are implemented, how scalability is achieved, etc.

  No promotional presentations!

- Presentations should be in English.

- The speakers should not rotate several times during the presentation. I.e. the first speaker presents first, then the second, and so on. This is necessary for the grading.

Attention!
The presentations are to be uploaded to Moodle the evening before the agreed date.

Presentations - Available Topics

Will be announced in the next lecture!