

# W3WI\_110.2 - Distributed Systems

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# 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

## Background

- the module has 55 lecture hours
  - the lecture Distributed Systems has 22 lecture hours
- ⇒ Distributed Systems will contribute up to **50** points to the final grade for the module. (Please, don't do the math.)

## 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!