

# Java Testing Training Agenda

- **Introduction into software testing**
  - Strategies for using software tests
  - Architectural principles of testable software
- **Unit test with JUnit 5**
  - Usage of the JUnit 5 framework
  - Development of own extensions for JUnit 5
- **Extensions for the efficient development of software tests**
  - Usage of extended assert frameworks with Hamcrest, AssertJ or Truth Matcher
  - Usage of mock frameworks like e.g. Mockito
- **Integration tests and continuous integration**
  - Integration testing for REST based server API
  - Build server integration
  - Continuous integration of software while using Git, Github and Pull requests
- **Ensure and improve software quality**
  - Usage of refactoring tools to optimize and update the code base
  - Integration of code checkers like Checkstyle into the daily workflow
  - Tips and tricks and best practices of software testing