

# Testing JavaScript applications

Course code: JS\_TEST

The course is taught for JavaScript programmers who want to create and run automated tests. During the course, you will learn to write tests for different kinds of JS applications, including classic DHTML, React and Angular applications, using various support libraries such as Mocha, Chai, Karma, Jasmin and Jest. You will learn to use mocking and dependency injection, test React and Angular applications and use Integration and End-to-End testing.

## What we will teach you

- Use supporting libraries for testing (Mocha, Chai, Karma, Jasmin and Jest)
- Use mocking and dependency injection
- Test React and Angular applications
- Use both Integration and End-to-End testing

## For whom the course is intended:

- JavaScript programmers who want to create and run automated tests

## Required entry skills

- The course assumes basic knowledge of JavaScript version ES5 and ES6 at the INTJS and JS\_ES6 course level

## Teaching methods

- Expert interpretation with practical examples, exercises on computers.

## Studying materials

- Online presentation of discussed material and exercises.

## Course outline

Why and how to test

- Types of testing (unit, integration, e2e)
- Testing methods (classical, TDD/BDD)
- Specifics for dynamic languages

Tests of independent functions

- Anatomy of a test (Arrange-Act-Assert)
- Test execution
- Dependence of the tests on the development environment
- Mocha, Chai, Jest, Jasmin, Karma testing support libraries

Unit isolation in independent tests

- Manual mocking and dependency injection
- Mocking using support libraries

Integration testing

End to end testing

- Test scenarios
- Puppeteer

Testing React applications

Testing Angular applications

Considerations for testing priorities

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