

Course : Maven, managing the project lifecycle

Practical course - 2d - 14h00 - Ref. MAV

Price : 1960 CHF E.T.

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Maven has become the standard for project lifecycle management. It is an aggregation of tools, best practices and structuring elements. This course will help you master its configuration and understand its central role in a Java continuous integration approach.

Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Structuring a project around Maven
- ✓ Managing dependencies and repositories
- ✓ Generate a project site
- ✓ Generate customized reports
- ✓ Setting up continuous integration with Jenkins

Intended audience

Developers, architects, technical project managers.

Prerequisites

Basic knowledge of Java and JEE.

Course schedule

1 Presentation

- More than just a Build tool. The Maven world: source manager, automated tests, documentation...

PARTICIPANTS

Developers, architects, technical project managers.

PREREQUISITES

Basic knowledge of Java and JEE.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.

Participants also complete a placement test before and after the course to measure the skills they've developed.

TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.

- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

2 Setting up a first Maven project

- Installing Maven. The POM (Project Object Model).
- Local and remote repositories.
- What is a Maven plug-in? What is a goal?
- Standard Maven project structure. Lifecycle control: installation, compilation, deployment...
- Notions of archetype, group, artifact, version, assemblies.
- Breaking down a project into modules.
- Inheritance between POM files, the super-POM.

Exercise

Installation of Maven and creation of a first Maven project.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

3 Dependencies

- Notion of dependency and transitive dependency.
- Declaration of dependencies in the POM.
- How do you resolve a conflict of dependencies?

Exercise

Setting simple and transitive dependencies.

4 The repositories

- Default repository limits. Declaration of multiple repositories. Priority management.
- Repository management tools (Nexus, Artifactory, etc.).

Exercise

Migrate an unstructured project to Maven. Setting up dependencies and repositories.

5 Common use

- Core plug-ins: compile, deploy, install...
- Plug-ins for generating JEE applications...
- Versions. Snapshots. Profiles.
- Maven and teamwork. CVS SVN.
- Integration of Maven with IDEs (Eclipse...).
- Documentation generation.

Exercise

Configuration of the complete project lifecycle.

6 Generating a Maven site

- The site plug-in. Site descriptor. Site layout.
- Default skins, custom skin creation.

Exercise

Generate a customized site.

7 Maven reports

- Generate test reports.
- Checkstyle, changelog, changes.

Exercise

Generate customized reports.

8 Continuous integration

- Definition. Best practices. Introduction to Jenkins as a Build and Continuous Integration server. Configuration.

Exercise

Set up Jenkins.

Dates and locations

REMOTE CLASS

2026: 9 Mar., 28 May, 15 Oct., 10 Dec.