Publication date : 02/06/2025

Course : Jenkins, administration

Practical course - 2d - 14h00 - Ref. JKA
Price : 1670 € E.T.

Jenkins est un composant essentiel de la chaîne d'intégration continue et de la chaîne de déploiement continu. Cette formation permettra aux administrateurs systèmes d'installer et de configurer Jenkins dans leur entreprise pour mettre à disposition cet outil aux équipes de développement.

Teaching objectives

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

- Understand the principles of continuous integration
- Setting up a Jenkins cluster
- Choosing, installing and configuring useful Jenkins plug-ins
- Updating, backing up and restoring Jenkins

Intended audience

System administrators, developers.

Prerequisites

Savoir utiliser un shell Unix et connaître les commandes de base de Linux.

Practical details

Hands-on work

Alternating theory and practical work.

Course schedule

1 Continuous integration

- Definition and principles of continuous integration.
- Notions of software engineering.
- The software production chain.

Hands-on work

Draw a diagram of a typical software production line.

PARTICIPANTS

System administrators, developers.

PREREQUISITES

Savoir utiliser un shell Unix et connaître les commandes de base de Linux.

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.

2 Jenkins installation

- Install and start Jenkins for the first time.
- General Jenkins configuration.
- Plug-in installation.

Hands-on work
Install Jenkins on a virtual machine or Docker container.

3 Authentication and authorization

- Link to LDAP directory.
- Define user groups.
- Role creation.

Hands-on work
Create a Lightweight Directory Access Protocol (LDAP) user and test authentication in Jenkins.

4 Installing agents in the Jenkins cluster

- SSH key exchange.
- Strategy for distributing tools among agents.
- Cluster sizing.
- Disk space shared between instances.

Hands-on work
Configure a Jenkins agent on a remote machine using SSH.

5 Pipeline pooling

- Shared pipeline libraries.
- Library structure.
- Groovy pipeline syntax.
- Unit testing of libraries.

Hands-on work
Create a Groovy pipeline library containing reusable functions (for example, a function to send a Slack notification).

6 Backup strategy

- Anatomy of the $JENKINS_HOME directory.
- Choice of backup strategy.
- Definition of a disaster recovery plan for Jenkins.

Hands-on work
Set up a cron job to regularly back up the $JENKINS_HOME directory.

7 Git hosting plug-ins

- Automatic discovery of the GitLab or BitBucket tree structure.
- Setting up Build-on-push with GitLab or BitBucket.
- Creation/update of JIRA tickets during builds.

Hands-on work
Configure Jenkins to create or update JIRA tickets based on build results.

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.

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.

Dates and locations

REMOTE CLASS
2026 : 11 June, 24 Sep., 30 Nov.

PARIS LA DÉFENSE
2026 : 4 June, 17 Sep., 23 Nov.