

# Ansible: Automating Server Management

Hands-on course of 2 days - 14h

Ref.: SIB - Price 2024: CHF1 820 (excl. taxes)

## EDUCATIONAL OBJECTIVES

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

Understand the structure of Ansible (roles, tasks, playbooks, modules, etc.)

Install and configure Ansible

Use and create playbooks to manage infrastructure

## THE PROGRAMME

last updated: 07/2021

### 1) Positioning of Ansible

- Ansible and DevOps.
- Devops & IaC (Infrastructure as Code), the source code of the infrastructure.
- The tools Puppet, Chef, Saltstack, etc. Ansible.
- How Ansible works.
- Architecture: inventory, modules, playbooks, tasks, roles.

### 2) Installation and configuration

- Installing and getting started with the tool.
- The basic commands of Ansible.
- Node configuration: ssh keys, sudo privilege escalation.
- The configuration file.
- The inventory: creation and use.

*Hands-on work* : Installing Ansible and configuring several client nodes, creating inventory and using the main commands.

### 3) Ad Hoc orders

- Parallelism and Shell commands.
- File transfers.
- Packages with yum, apt.
- Users and groups.
- Services.

*Hands-on work* : Use of different Ad hoc commands in parallel on multiple nodes.

### 4) Playbooks

- Introduction to playbooks.
- Definition of tasks, plays.
- Yaml syntax.
- Variables, modules and tasks.
- Executing a playbook.
- Testing a playbook in a dry-run.
- Step-by-step execution, skipping tasks.
- Managing errors.

*Hands-on work* : Writing a simple playbook composed of several tasks.

### 5) Writing modular code

- Notifications and Handlers.

#### 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.

#### 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.

- Roles and includes. Tags.
- Community modules.
- Ansible-galaxy: Share your code.

*Hands-on work* : Explore the Ansible galaxy, downloading and using modules, adding tags to a playbook.

## 6) Advanced commands

- Vault: data encryption.
- Lookups.
- Developing your own modules, debugging a module, plug-ins.
- Creating your own filters.

## 7)

- Writing a playbook
- Variables. Templates and filters.
- Control structures: conditions, loops and blocks.
- Prompts. Facts.
- Writing playbooks.

*Write a complete playbook for deploying an Apache service on multiple nodes.*

# DATES

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REMOTE CLASS

2024 : 26 Sep, 16 Dec