Sign up

SaltStack training

3 days (21 hours)

Presentation

SaltStack (Salt) is a tool that forms part of the DevOps chain, providing a means of deploying and managing IT infrastructure.

On the one hand, it's a configuration management tool (Configuration Management System). It enables you to maintain a server farm in a given state. Collecting information, monitoring resources, orchestrating operations and issuing remote commands on multiple nodes all facilitate administration. On the other hand, it's also an infrastructure deployment tool. It can be used to deploy and secure servers in a public or private cloud, as well as on hypervisors at a corporate site.

Salt is fast, flexible, scalable and highly available. Its architecture enables the centralized management of tens or even hundreds of thousands of servers deployed in various data centers. What sets it apart is its ability to detect and correct any anomalies detected in the park itself, via an event management system. It's a secure tool built on well-known technologies.

Salt comes in two versions: an Open Source version (licensed under Apache 2.0 and supported by a large community) and an Enterprise version (for a fee). This training will be limited to the Open Source version. The Enterprise version adds a number of features to the Open Source version, including a graphical user interface. Saltstack is in the process of being acquired by VMWare to ensure its continuity and development.

This SaltStack training course will introduce you to the latest version of the tool, SaltStack 3007.

Objectives

- Product presentation and architecture
- Installation and use to execute commands on a computer system
- Write SaltStack reports to manage and configure the IS

Target audience

- Administrators, developers, architects and production engineers.

Prerequisites

- Basic knowledge of Linux

Technical requirements

- Have the latest 3 versions of Salt installed

SaltStack training program

Introduction

- The world of DevOps
- Overview of existing tools

Software presentation

- General
- Simplified architecture
- Communications
- Authentication keys
- Practical work: Installation and start-up
- Declarative - Imperative

The modules

- General
- Performance / status
- Command-line operation

The runners

- General
- TP: First steps

Jobs

- General

Salt states

- General
- SLS files
- YAML
- The SaltTree
- The top file
- The Highstate
- Practical work: Salt states (YAML)
- The Jinja
- TP: Practice of Salt states (Le Jinja)

Grain

- General

The pillars

- General
- Practical work on grains and pillars

Targeting minions

- General
- By name
- By list
- By group
- Per grain
- By pillar
- By CIDR
- By composite criteria

A step further in status management

- Inclusion / Exclusion
- File distribution
- Execution order
- Environments
- Useful commands
- Formulas
- Practical work: Targeting, environments, formulas

Configuration essentials

- The master
- The minion

Salt-mine

- General
- Practical work: Salt pencil

Salt-masterless

- General
- Example

Salt-agentless (Salt-SSH)

- General
- Roster file
- Saltfile
- Configuration

The scheduler

- General
- Via Salt states
- Via execution modules
- Practical work: Scheduler practice

Infrastructure automation

- Event bus
- Beacons
- Reactors
- Practical work on beacons/reactors

Orchestration

- General
- Examples
- Practical work: Orchestration practice

Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.