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Sign up

Vagrant Training: Agile Management of your Dev Environments

2 days (14 hours)

Presentation

Our Vagrant training course will enable you to create and manage virtual development environments in a reproducible way. You'll learn how to use the software to create development environments and provision virtual machines.

Our Vagrant training course will give you the skills you need to create, manage and provision virtual development environments in a reproducible way.

In this course, you'll learn how to use Vagrant to automate development tasks in flexible, collaborative environments through interactive sessions and practical exercises, where you'll be immersed in real-life use cases.

This course will be run on Vagrant [version 2.3](#), the latest release.

Objectives

- Understanding key Vagrant concepts
- Configure and customize a development environment using Vagrant
- Create and manage multi-machine environments

Target audience

- Developers
- DevOps engineers

Prerequisites

Basic knowledge of operating systems and command lines.

Vagrant training program

Introduction to Vagrant

- What is Vagrant?
- Why use Vagrant?
- Key concepts: virtual machine, Vagrantfile, provisioning, provider
- Installing Vagrant
- The main Vagrant commands: init, up, ssh, halt, destroy

Basic configuration

- Creating a Vagrant project
- Vagrantfile configuration
- Virtualization vendor selection
- Operating system specification
- Network management

Virtual machine management

- Creating a virtual machine with Vagrant
- Virtual machine lifecycle management: startup, shutdown, destruction
- System resource management: CPU, memory, disk
- Connecting to the virtual machine using SSH
- File sharing between host and virtual machine

Provisioning

- Manual provisioning with shell scripts
- Use of integrated provisioners such as Shell, Ansible, Puppet, Chef
- Run provisioning scripts at different times
- Setting provisioning variables
- Managing provisioning errors

Plugin management

- What is a Vagrant plugin?
- Installing and updating plugins
- Use of popular plugins: vagrant-vbguest, vagrant-cachier, vagrant-hostmanager
- Creating custom Vagrant plugins
- Managing dependencies between plugins

Management of multi-machine environments

- Configuring multi-machine environments with Vagrant
- Interactions between virtual machines
- Configuring private and public networks
- Resource sharing between virtual machines
- Virtual machine-specific provisioning

Advanced use

- Virtual machine snapshot management
- Configuring advanced Vagrantfile parameters
- Use of customized boxes
- Integration with configuration management tools: Ansible, Puppet, Chef
- Using Vagrant with cloud providers

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.

