

## Workshop Ansible Fundamentals

A este valor acresce IVA à taxa legal.

- **Formato do curso:** Live training
- **Localidade:** Live Training
- **Data:** 12 Jul. 2021 a 13 Jul. 2021
- **Preço:** 935€
- **Horário:** Laboral - das 9h00 às 17h00
- **Duração:** 14 horas

The Ansible Fundamentals course is intended for students just starting out with Ansible. This first course in the series is designed to get you up and running with the basics of Ansible quickly and to lay a foundation for building upon.

The online training for beginners starts with installing and configuring Ansible itself, an overview of the YAML language, then we discuss what a play and playbooks are.

Some key Ansible features and modules will be explained and demonstrated with use cases in the practice labs.

**Esta formação é ministrada em Inglês.**

Em parceria com a entidade acreditada:



### Destinatários

- DevOps engineers
- Linux system administrators
- Release engineers
- Infrastructure automation engineers
- Systems design engineers

## Pré-requisitos

- Basic Linux administration skills (user management, working with the command line, file permissions, etc.)
  - Nice to have: A basic knowledge of YAML will help with understanding Ansible file structure – however, this is not mandatory (the basics of YAML will be presented during the training)
- 

## Programa

### Introduction to Ansible

- What is Ansible?
- Ansible in DevOps World
- What Ansible Automates
- A short comparison of Ansible, Chef, Puppet and SaltStack
- Ansible History
- Installing Ansible

Hands-on Lab: Installing Ansible on the control node

### Running Ad Hoc Commands

- Ansible Architecture
- Automation Engine
- Ansible Configuration File overview
- Ansible command syntax explained
- Authenticating Ansible Connections

Hands-on Lab: Testing Ansible connection to remote servers using password and key-based authentication methods by running Ad-Hoc commands.

### Host Inventories

- Using a dedicated user
- Configuring key-based authentication walkthrough
- Working with static host inventories

Hands-on Lab: Performing a full setup of our hosts (create a dedicated user, authenticate the user with key-based authentication, give sudo permissions, static host inventory, set the “default” inventory, test “ansible” command) in order to be prepared for managing with Ansible playbooks.

### YAML Overview. Basic Playbooks

- YAML overview
- Modules, Tasks, Plays, Playbooks
- General Playbook Structure
- Commonly used Modules (Service, Copy, Debug, File, Git, User, etc.)
- Task Results (OK vs changed vs failed)

- Validating the Result
- Writing Idempotent Tasks

Hands-on Labs:

- Learn how to write and use Ansible Playbooks. Use Ansible to prepare hosts for Ansible
- Commonly used modules: User and group modules, file module, copy module, lineinfile module
- Raw vs Command vs Shell
- Task results: OK vs Changed vs Failed

### **Basic Ansible Playbooks, Loops and Conditions**

- What are Facts
- Fact Gathering
- Turn off fact gathering
- Custom facts
- Variable definition
- What are Loops
- Using Conditions
- Multiple Conditions
- Combining Loops and Conditions

Hands-on Labs:

- Reading and using Ansible facts. Facts vs variables. Loops and conditions
- Installing a webserver using Ansible

### **Ansible Modules Deep Dive. Writing Idempotent Playbooks.**

- An in-depth approach to modules
- Idempotent playbooks

Hands-on Lab: Ansible Modules Deep Dive

### **Facts. Variables. Templates**

- Templates Basics
- Template Module with examples
- Filters
- Checking a Template

Hands-on Labs:

- Using Jinja2 templates in Ansible in order to apply custom modifications.
- Using Jinja filters (number, IP address, hashing, random, shuffle, list filters)
- Configuring web servers using Ansible

### **Ansible Vault. Roles. First Steps to Building Reusable Playbooks**

- Ansible Vault with encrypted files
- Using Playbooks with Vault
- Managing Vault Files
- Roles. Organizing Ansible Contents
- Directory Layout best practices
- Role Structure, Variables and Location

#### Hands-on Labs:

- Learn how to use Ansible Vault and how to manage sensitive data like passwords or keys in encrypted files.
- Understand Ansible roles. Create a role for configuring a reverse proxy / load balancer for our web servers.