

Ansible Workshop

Automation and orchestration are becoming key factors in successful network deployment and operations. Ansible is an important tool that uses a declarative mechanism and often is used as part of DevOps. In this workshop, you will learn the Ansible components and use Ansible to automate the deployment, configuration and updates of Ansible targets such as virtual machines. The workshop provides a hands-on opportunity to build playbooks and their dependencies. In addition, the workshop enables the use of several Ansible features including the use of Ansible vault, rolling updates, variables, redirection, custom modules, and plugins.

Intended Audience

A hands-on in-depth technical training to personnel involved in design, engineering, operations and monitoring of networks.

Objectives

After completing this course, the student will be able to:

- List ansible features
- Explain the benefits of the main Ansible component
- Demonstrate building and enhancing playbooks
- Construct Ansible playbooks using various modules
- Perform various Ansible CLI commands
- Apply different features such as vault, plugins, etc.
- Summarize the value of Ansible in DevOps
- Demonstrate playbook re-usability

What You Can Expect

- Prerequisite: Basic Linux operating system skills are recommended
- Required Equipment: Laptop/desktop with Internet connectivity
- Expert-Led Live Duration: 21 HOUR

Outline

1. Ansible Overview

- 1.1 Introduction to Ansible
- 1.2 Ansible applications in NFV clouds
- 1.3 Ansible and other DevOps tools

Exercise: Lab setup

2. Ansible Environment

- 2.1 Introduction to YAML templates
- 2.2 Ansible environment
- 2.3 Ansible CLI

Exercise: Using Ansible CLI

3. Ansible Playbook

- 3.1 Playbook structure
- 3.2 Ansible modules
- 3.3 Inventories, roles, handlers, etc.

Exercise: Building a playbook

4. Ansible Playbook Extensions

- 4.1 Variables, variable arrays, and lookup
- 4.2 Facts and custom facts
- 4.3 Variable substitutions
- 4.4 Host variable extraction

Exercise: Extend the playbook

5. Ansible Interactions

- 5.1 Applying scopes and precedence
- 5.2 Various Ansible modules

Exercise: Extend the playbook to use different modules

6. Further Ansible Automation

- 6.1 Assertions
- 6.2 Redirection
- 6.3 Output formatting for readability

Exercise: Extend playbook with further automation

7. Additional Ansible Features

- 7.1 Ansible vault
- 7.2 Rolling updates
- 7.3 Failure percentage
- 7.4 Ansible Galaxy

Exercise: Update playbook to use features of interest