

Module Title : DO407 - Automation with Ansible
Duration : 4 days

Overview

Through hands-on labs, students will learn to automate system administration tasks on managed hosts with Ansible, learn how to write Ansible playbooks to standardize task execution, centrally manage playbooks and schedule recurring execution through a web interface with Ansible Tower. Students will also learn to manage encryption for Ansible with Ansible Vault, deploy Ansible Tower and use it to manage systems, and use Ansible in a DevOps environment with Vagrant.

Course Content Summary

- Install and troubleshoot Ansible on central nodes and managed hosts
- Use Ansible to run ad-hoc commands and playbooks to automate tasks
- Write effective Ansible playbooks
- Protect encrypted data needed for tasks with Ansible Vault
- Use Ansible Tower to more easily manage enterprise Ansible deployments
- Work with Ansible in conjunction with Vagrant in a DevOps environment

Audience

System and cloud administrators who need to automate cloud provisioning, configuration management, application deployment, intra-service orchestration, and other IT needs.

Prerequisites

- Have a Red Hat Certified System Administrator (RHCSA) certification or equivalent experience.

Outline

Course introduction

Introduce and review the course.

Introduce Ansible

Describe the terminology and architecture of Ansible.

Deploy Ansible

Install Ansible and run ad hoc commands.

Implement playbooks

Write Ansible plays and execute a playbook.

Manage variables and inclusions

Describe variable scope and precedence, manage variables and facts in a play, and manage inclusions.

Implement task control

Manage task control, handlers, and tags in Ansible playbooks.

Implement Jinja2 templates

Implement a Jinja2 template.

Implement roles

Create and manage roles.

Configure complex playbooks

Configure connection types, delegations, and parallelism.

Implement Ansible Vault

Manage encryption with Ansible Vault.

Troubleshoot Ansible

Troubleshoot the Ansible control machine and managed nodes.

Implement Ansible Tower

Implement Ansible Tower.

Implement Ansible in a DevOps environment

Implement Ansible in a DevOps environment using Vagrant.

Comprehensive review

Review tasks from the Automation with Ansible course.

Recommended Next Exam or Course

[Red Hat Certificate of Expertise in Ansible Automation \(EX407\) exam](#)

The performance-based Red Hat Certificate of Expertise in Ansible Automation (EX407) exam tests your ability to use Ansible to automate the configuration of systems and applications.

Impact of this training

Impact on the organization

This course is intended to develop the skills needed to implement Ansible in an operations or cloud computing environment. These skills are suitable for organizations seeking to gain cost savings and operational efficiency by implementing the DevOps methodology with Ansible.

Red Hat has created this course in a way intended to benefit our customers, but each company and infrastructure is unique, and actual results or benefits may vary.

Impact on the individual

As a result of attending this course, students should be able to implement Ansible for the purpose of automation, configuration, and management in a DevOps environment.

Students should be able to demonstrate the following skills:

- Use Ansible to automate system administration tasks on managed hosts.
- Write Ansible Playbooks to standardize task executions.
- Manage playbook execution centrally, using Ansible Tower.