

Red Hat System Administration III: Linux Automation with Ansible

Learn via: **Classroom**

Duration: **4 Days**

Overview

Red Hat System Administration III: Linux Automation (RH294) is designed for Linux® system administrators and developers who need to automate provisioning, configuration, application deployment, and orchestration. You will learn how to install and configure Ansible® on a management workstation; prepare managed hosts for automation; write Ansible Playbooks to automate tasks; and run playbooks to ensure servers are correctly deployed and configured.

This course is based on Red Hat® Enterprise Linux 8 and Red Hat® Ansible Engine 2.8.

Target Audience

This course is geared toward Linux system administrators, DevOps engineers, infrastructure automation engineers, and systems design engineers who are responsible for these tasks:

- Automating configuration management
- Ensuring consistent and repeatable application deployment
- Provisioning and deployment of development, testing, and production servers
- Integrating with DevOps continuous integration/continuous delivery workflows

Content summary

- Install Ansible / Red Hat Ansible Engine on control nodes.
- Create and update inventories of managed hosts and manage connections to them.
- Automate administration tasks with Ansible Playbooks and ad hoc commands.
- Write effective playbooks at scale.
- Protect sensitive data used by Ansible with Ansible Vault.
- Reuse code and simplify playbook development with Ansible roles.

Prerequisites

Pass the Red Hat Certified System Administrator (RHCSA) exam (EX200), or demonstrate equivalent Red Hat Enterprise Linux knowledge and experience.

What You Will Learn

- Install and configure Ansible or Red Hat Ansible Engine on a control node.
- Create and manage inventories of managed hosts, as well as prepare them for Ansible automation.
- Run individual ad hoc automation tasks from the command line.
- Write Ansible Playbooks to consistently automate multiple tasks and apply them to managed hosts.
- Parameterize playbooks using variables and facts, and protect sensitive data with Ansible Vault.
- Write and reuse existing Ansible roles to simplify playbook creation and reuse code.
- Automate common Red Hat Enterprise Linux system administration tasks using Ansible.

As a result of attending this course, you should be able to use Ansible for the purpose of automation, configuration, and management.

Impact on the organization

IT automation is key to managing large numbers of systems and applications efficiently and consistently at scale. This course develops the skills needed to efficiently operate and more easily scale the organization's dynamic IT infrastructure, accelerate application time to value, and rapidly adapt and implement needed innovation through DevOps practices.

Outline

Introduce Ansible

Describe Ansible concepts and install Red Hat Ansible Engine.

Deploy Ansible

Configure Ansible to manage hosts and run ad hoc Ansible commands.

Implement playbooks

Write a simple Ansible Playbook and run it to automate tasks on multiple managed hosts.

Manage variables and facts

Write playbooks that use variables to simplify management of the playbook and facts to reference information about managed hosts.

Implement task control

Manage task control, handlers, and task errors in Ansible Playbooks.

Deploy files to managed hosts

Deploy, manage, and adjust files on hosts managed by Ansible.

Manage large projects

Write playbooks that are optimized for larger, more complex projects.

Simplify playbooks with roles

Use Ansible roles to develop playbooks more quickly and to reuse Ansible code.

Troubleshoot Ansible

Troubleshoot playbooks and managed hosts.

Automate Linux administration tasks

Automate common Linux system administration tasks with Ansible.