

RH294 Red Hat Enterprise Linux Automation with Ansible

Course Summary

Description

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.

Objectives

At the end of this course, students will be able to:

- 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

Topics

- Introduce Ansible
- Describe Ansible concepts and install Red Hat Ansible Engine.
- Configure Ansible to manage hosts and run ad hoc Ansible commands.
- Write a simple Ansible Playbook and run it to automate tasks on multiple managed hosts.
- Write playbooks that use variables to simplify management of the playbook and facts to reference information about managed hosts.
- Manage task control, handlers, and task errors in Ansible Playbooks.
- Deploy, manage, and adjust files on hosts managed by Ansible.
- Write playbooks that are optimized for larger, more complex projects.
- Use Ansible roles to develop playbooks more quickly and to reuse Ansible code.
- Troubleshoot playbooks and managed hosts.
- Automate common Linux system administration tasks with Ansible.

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

Prerequisites

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

Duration

Four days

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Course Outline

- I. Introduce Ansible*
- II. Describe Ansible concepts and install Red Hat Ansible Engine.*
 - A. Deploy Ansible
- III. Configure Ansible to manage hosts and run ad hoc Ansible commands.*
 - A. Implement playbooks
- IV. Write a simple Ansible Playbook and run it to automate tasks on multiple managed hosts.*
 - A. Manage variables and facts
- V. Write playbooks that use variables to simplify management of the playbook and facts to reference information about managed hosts.*
 - A. Implement task control
- VI. Manage task control, handlers, and task errors in Ansible Playbooks.*
 - A. Deploy files to managed hosts
- VII. Deploy, manage, and adjust files on hosts managed by Ansible.*
 - A. Manage large projects
- VIII. Write playbooks that are optimized for larger, more complex projects.*
 - A. Simplify playbooks with roles
- IX. Use Ansible roles to develop playbooks more quickly and to reuse Ansible code.*
 - A. Troubleshoot Ansible
- X. Troubleshoot playbooks and managed hosts.*
 - A. Automate Linux administration tasks
- XI. Automate common Linux system administration tasks with Ansible.*