

Red Hat Enterprise Linux Automation with Ansible

Course Duration: 40 Hours

Course Code : RH294

1. Course Overview

The **Red Hat Enterprise Linux Automation with Ansible (RH294)** course teaches system administrators how to automate Linux administration tasks using **Red Hat Ansible Automation Platform**. Participants will learn to write Ansible playbooks, manage automation workflows, and deploy Ansible across multiple systems. The course emphasizes practical, hands-on labs that demonstrate how to use Ansible for configuration management, software deployment, system updates, and task automation in a Red Hat Enterprise Linux environment.

This course also helps prepare learners for the **Red Hat Certified Engineer (RHCE) exam (EX294)**.

2. What You'll Learn

- Install and configure **Red Hat Ansible Automation Platform**.
- Create and run Ansible playbooks for Linux system administration.
- Automate user and group management, security policies, and services.
- Configure Ansible inventories to manage hosts.
- Use roles, variables, and templates for efficient automation.
- Implement Ansible for configuration management and application deployment.
- Troubleshoot and optimize Ansible workflows.

3. Target Audience

- Linux system administrators and engineers.
- IT professionals seeking **RHCE certification**.
- DevOps engineers looking to automate infrastructure.
- Professionals responsible for scaling and automating RHEL environments.

4. Pre-Requisites

- Red Hat Certified System Administrator (RHCSA) certification or equivalent knowledge.
- Familiarity with Linux command-line and administration tasks.

5. Course Content

Module 1: Introducing Ansible Automation

- Overview of Ansible and automation concepts
- Installing Ansible and running ad hoc commands

Module 2: Writing Ansible Playbooks

- Structure of YAML files
- Writing and executing simple playbooks

Module 3: Managing Variables and Facts

- Defining and using variables
- Gathering and applying facts in playbooks

Module 4: Implementing Task Control

- Using conditionals, loops, and handlers
- Structuring plays for efficiency

Module 5: Deploying Files with Templates

- Jinja2 templates
- Dynamic configuration file deployment

Module 6: Creating Ansible Roles

- Role directory structure
- Reusing automation with roles

Module 7: Managing Inventories

- Static and dynamic inventories
- Grouping hosts and managing variables

Module 8: Automating Linux Administration Tasks

- Managing users, groups, and security
- Configuring services and scheduled tasks

Module 9: Implementing Advanced Ansible Features

- Ansible Galaxy integration
- Encrypting data with Ansible Vault

Module 10: Troubleshooting and Optimizing Ansible

- Debugging playbooks
- Improving performance and scalability

Module 11: Preparing for RHCE Exam (EX294)

- Hands-on practice labs
- Review of exam objectives