RedHat Certified Engineer (RHCE) Prep Course

- 5 days
- Lecture & Labs

Course Overview

This course is designed for experienced Linux administrators who want to pass the Red Hat Certified Engineer (RHCE) exam. It focuses on using Ansible to automate real-world system administration tasks on Red Hat Enterprise Linux systems.

Through hands-on labs and guided lessons, students will learn to automate user management, service configuration, scheduled tasks, security settings, software installation, and more. The course also covers advanced Ansible topics such as roles, collections, error handling, and using Ansible Vault to secure sensitive data.

All content is aligned with the official RHCE (EX294) objectives, ensuring you build the exact skills needed to succeed on the exam. By the end of this course, you'll be ready to automate Linux systems efficiently and confidently pass the RHCE.

Review this course online at https://www.alta3.com/courses/rhce

Who Should Attend

- System administrators preparing for the RHCE certification
- Linux professionals looking to advance their Ansible automation skills
- DevOps engineers working in RHEL-based environments
- IT staff responsible for automating infrastructure and configuration
- RHCSA-certified users ready to take the next step
- Platform engineers supporting hybrid cloud or on-prem infrastructure
- Educators or trainers delivering Red Hat-aligned courses
- Technical leads seeking to standardize automation practices
- Anyone needing structured practice in RHEL system management with Ansible

What You'll Learn

- Prepare for the RHCE exam: Practice real-world scenarios to validate automation skills in a performance-based environment
- Install and configure an Ansible control node: Set up required packages, inventories, and configuration files
- Automate common system administration tasks using Ansible: Manage users, services, packages, and files across multiple systems
- Write and manage Ansible playbooks: Utilize variables, loops, conditionals, and handlers for task automation
- Create and use Ansible roles: Organize playbooks and tasks using roles for modular automation
- Work with Ansible Content Collections: Install and use collections to access related roles, modules, and plugins
- Manage Ansible inventories: Create and manage static and dynamic inventories to define groups of hosts
- Implement task control strategies: Use tags, blocks, and error handling to control task execution

- Secure automation content: Use Ansible Vault to encrypt sensitive data within playbooks
- Use Ansible documentation effectively: Leverage built-in documentation to look up module and command information

Outline

Ansible Overview

- 💬 Lecture: Introduction to Ansible

Ansible Basics

- 💬 Lecture: Introduction to YAML
- 💻 Lecture + Lab: Making an Inventory
- 💻 Lecture + Lab: Running a Playbook
- 💻 Lecture + Lab: ansible.cfg setup
- 💻 Lecture + Lab: Looping Tasks
- 💻 Lecture + Lab: Setting Variables: Part 1
- 💻 Lecture + Lab: Setting Variables: Part 2

Critical Modules and Keywords

- 💻 Lecture + Lab: Ansible Module - copy
- 💻 Lecture + Lab: Ansible Module - file
- 💻 Lecture + Lab: Ansible Module - get_url and uri
- 💬 Lecture: Templating with Jinja
- 💻 Lecture + Lab: Ansible Module - template
- 💻 Lecture + Lab: When Condition
- 💻 Lecture + Lab: Playbook Tags

System Essentials

- 💻 Lecture + Lab: Using Ansible Navigator
- 💻 Lecture + Lab: Ansible Module - dnf
- 💻 Lecture + Lab: Gathering and Using Facts

Advanced Ansible

- 💻 Lecture + Lab: Ansible Handlers and Listeners
- 💻 Lecture + Lab: Ansible Error Handling
- 💻 Lecture + Lab: Ansible Lookup Plugin
- 💻 Lecture + Lab: Ansible Callback Plugins
- 💬 Lecture: Collections, Roles, and Ansible Galaxy
- 💻 Lecture + Lab: Using Collections
- 💻 Lecture + Lab: Using Roles
- 💻 Lecture + Lab: Making Roles
- 💻 Lecture + Lab: Making Collections
- 💻 Lecture + Lab: Ansible Vault

System Configuration

- 💻 Lecture + Lab: Manage and Pin Repositories
- 💻 Lecture + Lab: Editing Files with lineinfile and blockinfile
- 💻 Lecture + Lab: Scheduled Tasks with at
- 💻 Lecture + Lab: Scheduled Tasks with cron

Users and Security

- 💻 Lecture + Lab: Managing Users and Groups
- 💻 Lecture + Lab: User and Group Assignment
- 💻 Lecture + Lab: File Permissions with Ansible
- 💻 Lecture + Lab: SSH Key Management
- 💻 Lecture + Lab: SELinux and Auditd Management

Services and Networking

- 💻 Lecture + Lab: Managing Services
- 💻 Lecture + Lab: Managing Firewall Rules

Storage

- 💻 Lecture + Lab: Configuring Storage Devices

Utilities and Extras

- 💻 Lecture + Lab: Using json_query in Playbooks
- 💻 Lecture + Lab: Ansible Module - archive and unarchive
- 🏆 Challenge: CHALLENGE: Convert Shell Scripts to Playbooks

RHCE Mock Exam Tasks

- 🟤 READ FIRST!
- 💻 Lecture + Lab: Automate Storage Provisioning
- 💻 Lecture + Lab: Automate User Backups
- 💻 Lecture + Lab: Configure Network Interfaces
- 💻 Lecture + Lab: Configure Managed Nodes
- 💻 Lecture + Lab: Convert Shell Script to Playbook
- 💻 Lecture + Lab: Create Users with Ansible
- 💻 Lecture + Lab: Error Handling and Retry Logic
- 💻 Lecture + Lab: Jinja2 Templating
- 💻 Lecture + Lab: Automation Content Navigator Usage
- 💻 Lecture + Lab: Role Creation and Reuse
- 💻 Lecture + Lab: Vault and Secrets Management

Prerequisites

- RHCSA Exam Prep (Crush the EX200)