

Red Hat Ansible Automation (RH294-aligned)

Automate Linux administration with Ansible playbooks, roles and collections you can trust in production.

DURATION

4 days · 32 hours

LEVEL

Intermediate

CURRICULUM

12 modules · 8 labs

DELIVERY

Live online, Onsite,
Corporate

Course overview

Manual administration does not scale. Ansible lets you describe the state of your servers in readable playbooks and apply it consistently to ten machines or ten thousand. This four-day course teaches you to automate common Red Hat Enterprise Linux tasks the way RHCE candidates and production teams do.

Day one sets up the control node, inventory and configuration, then moves to ad hoc commands and your first playbooks. Day two covers variables, facts, secrets with Ansible Vault, task control with loops, conditionals and handlers, and error handling with blocks.

Day three introduces Jinja2 templates, roles and Ansible Content Collections, including using system roles and running playbooks with automation content navigator. Day four applies everything to real administration: packages, services, users, storage, scheduled jobs, firewall rules and SELinux — then finishes with a timed practice set in the style of the EX294 exam.

Every lab runs on a multi-node RHEL environment, so you see playbooks succeed, fail and become idempotent.

This course is aligned to the RH294 curriculum and the Red Hat Certified Engineer (RHCE) exam, EX294. Ace Skills is not a Red Hat training partner and does not use official courseware. EX294 is performance-based; please confirm current objectives on the Red Hat website before booking.

Highlights

- 32 hours of live, trainer-led sessions
- Multi-node RHEL lab for every learner
- Playbooks, variables, templates and handlers
- Roles, collections and automation content navigator
- Hands-on tasks in the style of EX294

What's included

- Multi-node RHEL lab environment
- Ansible Vault and secrets handling
- Templates, roles and collections
- Automation content navigator workflows
- Real RHCSA-style tasks automated end to end
- Timed EX294-style practice set
- Course completion certificate from Ace Skills Consulting

Who this course is for

Who should attend

- Linux system administrators
- RHCSA holders working towards RHCE
- DevOps engineers automating server builds
- Infrastructure engineers standardising configuration

Prerequisites

- RHCSA-level Linux administration skills
- Comfort editing files with vim or nano
- Basic YAML is helpful but not required

Detailed curriculum — 4 days, 32 hours, 12 modules, 8 hands-on labs

Day 1 Ansible Foundations and First Playbooks

8 hours

1.1 Ansible concepts

- Agentless architecture
- Modules and idempotence
- Control node and managed nodes
- Ansible Automation Platform overview

1.2 Setting up

- Installing the control node
- ansible.cfg and privilege escalation
- Static inventories and groups
- SSH key-based access

LAB Build an inventory and configure managed nodes · 40 min

1.3 Ad hoc commands and playbooks

- Ad hoc commands
- Running and checking playbooks
- Playbook structure
- Finding module documentation

LAB Write a playbook to deploy a web server · 50 min

Day 2 Variables, Facts, Secrets and Task Control

8 hours

2.1 Variables and facts

- Variable scope and precedence
- Gathering and using facts
- host_vars and group_vars
- Custom facts

2.2 Ansible Vault

- Encrypting files and strings
- Organising secrets
- Running playbooks with vault passwords

LAB Create users from an encrypted variables file · 40 min

2.3 Task control

- Loops
- Handlers
- Failure and change conditions
- Conditionals
- Blocks, rescue and always

LAB Conditional configuration with handlers and error handling · 50 min

Day 3 Templates, Roles and Collections

8 hours

3.1 Managing files

- File and line modules
- Template loops and conditionals
- Jinja2 templates

LAB Generate configuration files from templates · 40 min

3.2 Roles

- Role structure
- Role dependencies
- Creating roles
- RHEL system roles

LAB Refactor a playbook into roles · 50 min

3.3 Collections and content navigator

- Ansible Content Collections
- Running playbooks with automation content navigator
- Installing collections from a requirements file
- Execution environments overview

Day 4 Automating Administration and Exam Readiness

8 hours

4.1 Automating RHEL tasks

- Software packages and repositories
- Users, groups and sudo
- Scheduled jobs
- Services and boot targets
- Storage: partitions, LVM and file systems
- Firewall and SELinux

LAB Automate a full server build · 75 min

4.2 Troubleshooting

- Verbose output and check mode
- Dynamic inventory overview
- Debugging playbooks

4.3 Exam readiness

- How performance-based exams work
- Timed practice tasks with review
- Time management

LAB Timed EX294-style practice set · 60 min

Skills and tools

Skills you will build

Ansible

Playbooks

Inventories

Ansible Vault

Jinja2 templates

Roles

Content collections

Automation content navigator

RHEL system roles

Linux automation

Tools used in class

Ansible Core

ansible-navigator

Ansible Vault

Red Hat Enterprise Linux

vim

Git

Certification exam

This course is aligned to the exam below and prepares you for it. The exam itself is booked and taken with the vendor.

Exam	Red Hat Certified Engineer (RHCE) exam
Exam code	EX294
Format	Performance-based / lab
Official page	https://www.redhat.com/en/services/certification/rhce

Exam skill areas covered

Exam details are pending verification. Confirm the current exam code, format and fee on the official vendor page before booking.

Frequently asked questions

How does this relate to the RHCE course?

This course concentrates on Ansible as covered in RH294. Our five-day RHCE course covers the same exam with extra time for RHCSA revision and practice.

Do I need RHCSA first?

Red Hat requires RHCSA to be awarded RHCE, and the exam assumes RHCSA-level skills, so we recommend it.

Is the exam hands-on?

Yes. EX294 is performance-based: you complete real automation tasks on live systems.

Is this an official Red Hat course?

No. It is an independent Ace Skills course aligned to RH294; it does not use Red Hat courseware.

Book a batch or talk to an advisor

Course page: aceskillsconsulting.com/course/rh294-red-hat-ansible-automation · Email: info@aceskillsconsulting.com

Chennai office

Guindy, Chennai, Tamil Nadu

Delhi office

B-95, Old Post Office Street, Shakarpur
New Delhi 110092
Office: 98180 12523

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