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Exam Code: EX-294

Course Name: Red Hat Certified Engineer (RHCE) exam

DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	TRAINING UNITS
4 hours	Intermediate	Red Hat	Online	3

Course Description:

The performance-based Red Hat Certified Engineer (RHCE) exam for Red Hat Enterprise Linux 8 (EX-294) tests your knowledge and skill in managing multiple systems using Red Hat® Ansible® Automation Platform and executing common system administration tasks across a number of systems with Ansible.
The skills tested in this exam are the foundation for system administration across many Red Hat products.

By passing this exam, you become a Red Hat Certified Engineer. An RHCE® is a Red Hat Certified System Administrator (RHCSA) who is ready to use Ansible and scripting to automate Red Hat® Enterprise Linux® tasks, integrate Red Hat emerging technologies, and apply automation for efficiency and innovation.

RHCSA certification is required to earn RHCE certification. If you choose to continue your learning journey beyond RHCE, the credential can also serve as a foundational step on your path toward our highest level of certification—Red Hat Certified Architect.

This exam is based on Red Hat Enterprise Linux® 8.4 and Red Hat Ansible Automation Platform 1.2.

Prerequisites:

- Experienced Red Hat Enterprise Linux system administrators seeking validation of their skills or require a certification either by their organization or based on a mandate (DoD 8570 directive)
- Students who have taken Red Hat System Administration III: Linux Automation with Ansible (RH-294) and are on the path to becoming a Red Hat Certified Engineer (RHCE)
- Students who are on the path to becoming a Red Hat Certified Architect (RHCA)
- Systems administrators who want to demonstrate competency in managing multiple systems
- IT professionals who work in a DevOps environment and want to demonstrate competency in automating part of their workload
- Red Hat Certified Engineers who are noncurrent or who are about to become noncurrent and wish to recertify as RHCEs
- Experienced Linux IT professionals who currently have RHCSA certification and are interested in earning an RHCE certification

Target Audience:

- Experienced Red Hat Enterprise Linux system administrators seeking validation of their skills or require a certification either by their organization or based on a mandate (DoD 8570 directive)
- Students who have taken Red Hat System Administration III: Linux Automation with Ansible (RH-294) and are on the path to becoming a Red Hat Certified Engineer (RHCE)
- Students who are on the path to becoming a Red Hat Certified Architect (RHCA)
- Systems administrators who want to demonstrate competency in managing multiple systems
- IT professionals who work in a DevOps environment and want to demonstrate competency in automating part of their workload
- Red Hat Certified Engineers who are noncurrent or who are about to become noncurrent and wish to recertify as RHCEs
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Course Outline

Lesson 1: Be able to perform all tasks expected of a

Plays

- Playbooks
- Manage security
- Manage users and groups

Lesson 2: Understand core components of Ansible

- Inventories
- Modules
- Variables
- Facts

Red Hat Certified System Administrator

- Understand and use essen
- Configuration files
- Use provided documentation to look up specific information about Ansible modules and commands

Lesson 3: Install and configure an Ansible control node

- Install required packages
- Create a static host inventory file
- Create a configuration file
- Create and use static inventories to define groups of hosts
- Manage parallelism **Lesson 4: Configure Ansible managed nodes**
- Create and distribute SSH keys to managed nodes
- Configure privilege escalation on managed nodes
- Validate a working configuration using ad hoc Ansible commands **Lesson 5: Script administration tasks**
- Create simple shell scripts
- Create simple shell scripts that run ad hoc Ansible commands

Lesson 6: Create Ansible plays and playbooks

- Know how to work with commonly used Ansible modules
- Use variables to retrieve the results of running a command
- Use conditionals to control play execution
- Configure error handling
- Create playbooks to configure systems to a specified state

Lesson 7: Use Ansible modules for system administration tasks that work with:

- Software packages and repositories
- Services
- Firewall rules
- File systems
- Storage devices
- File content
- Archiving
- Scheduled tasks
- Security
- Users and groups

Lesson 8: Work with roles

- Create roles
- Download roles from an Ansible Galaxy and use them

Lesson 9: Use advanced Ansible features

- Create and use templates to create customized configuration files
- Use Ansible Vault in playbooks to protect sensitive data