Red Hat - Linux

EX407: Red Hat Certified Specialist in Ansible Automation Exam

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- 4 Hours

Upcoming Dates

Course Description

The Red Hat Certified Specialist in Ansible Automation exam (EX407) tests your ability to use Ansible to automate the configuration of systems and applications.

By passing this exam, you become a Red Hat Certified Specialist in Ansible Automation, which also count towards becoming a Red Hat Certified Architect (RHCA).

This exam is based on Red Hat® Enterprise Linux® 7.5 and Ansible 2.7.

The material covered in this exam is now included within the curriculum of the Red Hat Certified Engineer (RHCE) exam (EX294). This new exam tests your ability to use Red Hat Ansible Automation to automate across different functions and scale infrastructure efficiently.

Preparation

Red Hat encourages you to consider taking Automation with Ansible I (DO407) to help prepare. Attendance in this course is not required; students can choose to take just the exam.

While attending Red Hat classes can be an important part of your preparation, attending class does not guarantee success on the exam. Previous experience, practice, and native aptitude are also important determinants of success.

Many books and other resources on system administration for Red Hat products are available. Red Hat does not endorse any of these materials as preparation guides for exams. Nevertheless, you may find additional reading helpful to deepen your understanding.

Exam format

This exam is a performance-based evaluation of your ability to use Ansible to automate system configuration and application deployment. Performance-based testing means that you must perform tasks similar to what you perform on your job.

You will be required to develop Ansible playbooks that configure systems for specific roles and then apply those playbooks to systems to implement those roles. You will also be asked to demonstrate your ability to run Ansible playbooks and configure an Ansible environment for specific behaviors. You will be evaluated on whether you have met specific objective criteria.

Scores and reporting

Official scores for exams come exclusively from Red Hat Certification Central. Red Hat does not authorize examiners or training partners to report results to candidates directly. Scores on the exam are usually reported within 3 U.S. business days.

Exam results are reported as total scores. Red Hat does not report performance on individual items, nor will it provide additional information upon request.

Course Outline

Study points for the exam

We recommend that candidates become a Red Hat Certified Engineer (RHCE®) or, at a minimum, a Red Hat Certified System Administrator (RHCSA®) before attempting this exam, but neither is required.

To help you prepare, the exam objectives highlight the task areas you can expect to see covered in the exam. Red Hat reserves the right to add, modify, and remove exam objectives. Such changes will be made public in advance.

You should be able to:

- Understand core components of Ansible

1. Inventories
2. Modules
3. Variables
4. Facts
5. Plays
6. Playbooks
7. Configuration files

- Install and configure an Ansible control node

1. Install required packages
2. Create a static host inventory file
3. Create a configuration file

- Configure Ansible managed nodes

1. Create and distribute SSH keys to managed nodes
2. Configure privilege escalation on managed nodes
3. Validate a working configuration using ad-hoc Ansible commands

- Create simple shell scripts that run ad hoc Ansible commands
- Use both static and dynamic inventories to define groups of hosts
- Utilize an existing dynamic inventory script
- Create Ansible plays and playbooks

1. Know how to work with commonly used Ansible modules
2. Use variables to retrieve the results of running commands
3. Use conditionals to control play execution
4. Configure error handling
5. Create playbooks to configure systems to a specified state

- Use Ansible modules for system administration tasks that work with:

1. Software packages and repositories
2. Services
3. Firewall rules
4. File systems
5. Storage devices
6. File content
7. Archiving
8. Scheduled tasks
9. Security
10. Users and groups

- Create and use templates to create customized configuration files
- Work with Ansible variables and facts
- Create and work with roles
- Download roles from an Ansible Galaxy and use them
- Manage parallelism
- Use Ansible Vault in playbooks to protect sensitive data
- Use provided documentation to look up specific information about Ansible modules and commands

As with all Red Hat performance-based exams, configurations must persist after reboot without intervention.

Audience

- System administrators who need to manage large numbers of systems
- System administrators who work in a DevOps environment and who wish to automate a large part of their day-to-day workload
- Developers who have some basic systems administration background and who wish to incorporate automation into their development process
- A Red Hat Certified Engineer (RHCE) interested in becoming a Red Hat Certified Specialist or Red Hat Certified Architect (RHCA)

Prerequisites

- Successfully complete Automation with Ansible (DO407), or demonstrate equivalent experience working with Ansible to configure systems
- Being a Red Hat Certified System Administrator (RHCSA) or higher or having equivalent systems administration experience is recommended, but not required

What You Will Learn