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Learning Style: Virtual Classroom

Technology: Red Hat

Difficulty: Intermediate

Course Duration: 5 Days

Automation with Ansible & Ansible Tower (DO410VT)

About this course:

Automation with Ansible and Ansible Tower

Automation with Ansible and Ansible Tower (DO410) teaches you how to develop

standardized automation of the enterprise IT environment in order to improve operational efficiency. You will learn how to use Ansible for automation, configuration, provisioning, and management, as well as how to use Red Hat® Ansible Tower to centrally manage Ansible at an enterprise scale.

This course combines the content from Automation with Ansible (DO407) and Automation with Ansible II: Ansible Tower (DO409), and is based on Ansible 2.3 and Ansible Tower 3.3.

Through hands-on labs, you will learn to automate system administration tasks on managed hosts with Ansible, find out how to write Ansible playbooks to standardize task execution, and manage encryption for Ansible with Ansible Vault. This course will also teach you how to deploy and use Red Hat Ansible Tower to centrally manage existing Ansible projects, playbooks, and roles; perform basic maintenance and administration of the Ansible Tower installation; and configure users and teams and use them to control access to systems, projects, and other resources through role-based access controls. You will learn to use Ansible Tower's visual dashboard to launch, control, and monitor Ansible jobs; use the Ansible Tower application programming interface (API) to launch jobs from existing templates; automatically schedule Ansible jobs; and dynamically update host inventories.

The course material covered in this curriculum is now included within our newly released Red Hat System Administration III: Linux Automation with Ansible (RH294) and Advanced Automation: Ansible Best Practices (DO447) offerings. which cover how to use Red Hat Ansible Automation to automate across different functions. If you are interested in learning how to scale infrastructure efficiently, begin your journey with Linux automation today.

Course Objective:

- Install and troubleshoot Ansible on central nodes and managed hosts.
- Automate administration tasks with Ansible playbooks and ad hoc commands.
- Write effective Ansible playbooks.
- Protect sensitive data used by tasks with Ansible Vault.
- Install and configure Ansible Tower for enterprise Ansible management.
- Use Ansible Tower to control access to inventories and machine credentials by users and teams.
- Create job templates in Ansible Tower to standardize playbook execution.
- Launch playbooks and monitor and review job results with Ansible Tower.

Audience:

This course is designed for professionals responsible for automation of configuration management, application deployment, provisioning and deployment of servers, and integration with DevOps CI/CD workflows, including these roles:

- Linux system administrators
- DevOps engineers
- Infrastructure automation engineers

- Systems design engineers

Prerequisite:

- Become a Red Hat Certified System Administrator, or demonstrate equivalent Red Hat Enterprise knowledge and experience
- Being a Red Hat Certified Engineer (RHCE) may be beneficial

Course Outline:

Introduce Ansible

Describe Ansible concepts and install Red Hat® Ansible Engine.

Deploy Ansible

Configure Ansible to manage hosts and run ad hoc Ansible commands.

Implement playbooks

Write a simple Ansible playbook and run it to automate tasks on multiple hosts.

Manage variables and inclusions

Write playbooks that use variables and facts to simplify management of the playbook and facts to reference information about the managed hosts.

Implement task control

Manage task control, handlers, and task errors in Ansible playbooks.

Deploy files to managed hosts

Deploy, manage, and adjust files on hosts managed by Ansible.

Manage large projects

Write playbooks that are optimized for larger, more complex projects.

Simplify playbooks with roles

Use Ansible roles to develop playbooks more quickly and to reuse Ansible code.

Troubleshoot Ansible

Troubleshoot playbooks and managed hosts.

Install and access Ansible Tower

Explain what Red Hat Ansible Tower is and demonstrate a basic ability to navigate

and use its web UI.

Assign access with users and teams

Create user accounts and organize them into teams in Red Hat Ansible Tower, then assign them permissions to administer and access resources in the Ansible Tower service.

Set up inventories and credentials

Create inventories of machines to manage, and set up credentials necessary for Red Hat Ansible Tower to log in and run Ansible jobs on those systems.

Manage projects and launch Ansible jobs

Create projects and job templates in the web UI, using them to launch Ansible playbooks that are stored in Git repositories in order to automate tasks on managed hosts.

Construct advanced job workflows

Use additional features of job templates to improve performance, simplify customization of jobs, launch multiple jobs, schedule automatically recurring jobs, and provide notification of job results.

Administer advanced inventories

Manage inventories that are loaded from external files or generated dynamically from scripts or the Ansible Tower smart inventory feature.

Perform maintenance and routine administration of Ansible Tower

Execute routine maintenance and administration of Ansible Tower.

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