DO336
Automate and Manage Red Hat OpenShift Virtualization with Ansible

Learn how to use Red Hat Ansible Automation Platform to automate the migration and management of virtual machines in Red Hat OpenShift Virtualization.

Automate and Manage Red Hat OpenShift Virtualization with Ansible (DO336) is designed for virtual machine administrators interested in automating migration and management tasks of virtual machines in OpenShift Virtualization by using the Ansible Automation Platform operator.

This course provides the following information and skills:
- An introduction to fundamental concepts of Ansible and Ansible Automation Platform
- Skills to deploy the Ansible Automation Platform operator, automation controller, and private automation hub instance in a Red Hat OpenShift cluster
- Strategies to migrate virtual machines from another hypervisor to OpenShift Virtualization by using the migration toolkit for virtualization operator and Ansible Automation Platform
- Skills to automate Day-2 tasks that help manage the entire VM lifecycle, such as provisioning virtual machines and supporting Kubernetes resources, managing compute resources and network devices, and installing software packages.

Course content summary

- Introduction to the fundamentals concepts, use cases, and architecture of Ansible and Ansible Automation Platform
- Deploying and configuring the Ansible Automation Platform operator, automation controller, and private automation hub in a Red Hat OpenShift cluster
- Migrating virtual machines from another hypervisor to Red Hat OpenShift Virtualization by using the migration toolkit for virtualization operator and Ansible Automation Platform
- Automating the creation and management of virtual machines in a Red Hat OpenShift Virtualization cluster by using the Ansible Automation Platform operator

Audience for this course

- **Virtual Machine Administrators** who are interested in moving virtualized workloads from traditional hypervisors to OpenShift Virtualization
- **Enterprise architects, system administrators,** and **automation architects** who are responsible for designing, managing, and automating an organization's virtual machine infrastructure.

Course reference: https://www.redhat.com/en/services/training/do336-automate-manage-red-hat-openshift-virtualization-with-ansible

Prerequisites for this course

- [Red Hat Certified Specialist in OpenShift Virtualization certification (EX316)](link) or equivalent knowledge of managing virtual machines in Red Hat OpenShift.
- This course requires no previous experience with Ansible, however, learners are encouraged to attend, before taking DO336:
    - [Ansible Basics - Automation Technical Overview (DO0007).](link)
- Although Linux skills are not required for managing OpenShift clusters and OpenShift Virtualization, operating individual Linux VMs requires Linux sysadmin skills that the following courses provide:
    - [Red Hat System Administration I (RH124)](link) and [Red Hat System Administration II (RH134)](link) or managing the operating system inside a Linux VM.

Outline for this course

- **Introducing Red Hat Ansible Automation Platform**
    - Explain the need for automation, fundamental concepts of Ansible, and the architecture and use cases for Ansible and the Ansible Automation Platform Operator in a Red Hat OpenShift cluster.

- **Deploying and Configuring the Red Hat Ansible Automation Platform Operator**
    - Deploy and configure the Red Hat Ansible Automation Platform Operator, automation controller, automation hub operator instance in a Red Hat OpenShift Container Platform cluster.

- **Migrating Virtual Machines to Red Hat OpenShift Virtualization with Ansible Automation Platform**
    - Migrate virtual machines from a compatible hypervisor to Red Hat OpenShift Virtualization by using Ansible Automation Platform and the migration toolkit for virtualization (MTV) operator.

- **Automating Day-2 Operations for Virtual Machines in Red Hat OpenShift Virtualization with Red Hat Ansible Automation Platform**
    - Automate the creation and management of virtual machines in a Red Hat OpenShift Virtualization cluster by using the Ansible Automation Platform operator.

Impact on the individual

Automate and Manage Red Hat OpenShift Virtualization with Ansible teaches students how to deploy and configure the Red Hat Ansible Automation Platform Operator, automation controller, and automation hub operator instance in a Red Hat OpenShift cluster. Students will learn how to automate the migration of virtual machines from another hypervisor to Red Hat OpenShift Virtualization by using Ansible Automation Platform and the migration toolkit for virtualization (MTV) operators. Students also learn how to add Ansible Playbooks and collections for OpenShift Virtualization to an Ansible Automation Platform hub instance and how to use Ansible Playbooks and collections to create and manage virtual machines in Red Hat OpenShift Virtualization.