

# Automation with Ansible I

Learn via: **Classroom**

Duration: **4 Day**

## **Overview**

Through hands-on labs, students will learn to automate system administration tasks on managed hosts with Ansible, learn how to write Ansible playbooks to standardize task execution, centrally manage playbooks and schedule recurring execution through a web interface with Ansible Tower. Students will also learn to manage encryption for Ansible with Ansible Vault, deploy Ansible Tower and use it to manage systems, and use Ansible in a DevOps environment with Vagrant.

## **Prerequisites**

Have a Red Hat Certified System Administrator (RHCSA) certification or equivalent experience.

## **Who Should Attend**

System and cloud administrators who need to automate cloud provisioning, configuration management, application deployment, intra-service orchestration, and other IT needs.

## **What You Will Learn**

- Install and troubleshoot Ansible on central nodes and managed hosts
- Use Ansible to run ad-hoc commands and playbooks to automate tasks
- Write effective Ansible playbooks
- Protect encrypted data needed for tasks with Ansible Vault
- Use Ansible Tower to more easily manage enterprise Ansible deployments
- Work with Ansible in conjunction with Vagrant in a DevOps environment

## **Outline**

### **Course introduction**

- Introduce and review the course.

### **Introduce Ansible**

- Describe the terminology and architecture of Ansible.

### **Deploy Ansible**

- Install Ansible and run ad hoc commands.

### **Implement playbooks**

- Write Ansible plays and execute a playbook.

### **Manage variables and inclusions**

- Describe variable scope and precedence, manage variables and facts in a play, and manage inclusions.

### **Implement task control**

- Manage task control, handlers, and tags in Ansible playbooks.

### **Implement Jinja2 templates**

- Implement a Jinja2 template.

### **Implement roles**

- Create and manage roles.

### **Configure complex playbooks**

- Configure connection types, delegations, and parallelism.

### **Implement Ansible Vault**

- Manage encryption with Ansible Vault.

### **Troubleshoot Ansible**

- Troubleshoot the Ansible control machine and managed nodes.

### **Implement Ansible Tower**

- Implement Ansible Tower.

### **Implement Ansible in a DevOps environment**

- Implement Ansible in a DevOps environment using Vagrant.

### **Comprehensive review**

- Review tasks from the Automation with Ansible course.