

DO457 - Network Automation with Red Hat Ansible Automation Platform

Duration: 32 Hours (4 Days)

Overview

The "Network Automation with Red Hat Ansible Automation Platform" course is designed to equip learners with the skills necessary to automate network operations using Ansible, a powerful IT automation tool. The course is structured to progressively build expertise, starting with Module 1 where participants install Ansible and create inventories to manage hosts. As learners progress to Module 2, they execute ad-hoc commands and craft playbooks to automate tasks. In Module 3, the course delves into making playbooks dynamic with loops and conditions. Module 4 emphasizes security and administration, teaching how to use Ansible Vault and manage inventories effectively. Module 5 focuses on automating simple network operations, Gathering network data, and configuring devices. Finally, Module 6 challenges participants with complex operations, addressing real-world network automation ansible scenarios and MACD (Moves, Adds, Changes, Deletions) challenges. By the end of the course, participants aiming for ansible red hat certification will have a solid foundation in automating network tasks, making their IT processes more efficient and reliable.

Audience Profile

The Network Automation with Red Hat Ansible Automation Platform course equips IT professionals with essential Ansible skills for automating network operations.

- Target Audience:
- Network Engineers
- Systems Administrators
- DevOps Engineers
- IT Automation Engineers
- Infrastructure Automation Professionals
- Security Professionals
- Cloud Infrastructure Engineers
- Technical IT Managers
- Operations Staff
- Site Reliability Engineers (SREs)
- Software Developers with an interest in network automation
- Professionals working with network-intensive applications or infrastructure

Course Syllabus

Configure and manage network infrastructure using Red Hat Ansible Automation Platform.

Course Description

- Network Automation with Red Hat Ansible Automation Platform (DO457) is designed for
- network administrators or infrastructure automation engineers who want to use network

- automation to centrally manage the switches, routers, and other devices in the
- organization's network infrastructure. Learn how to use Red Hat Ansible Automation
- Platform to remotely automate the configuration of network devices, test and validate the
- current network state, and perform compliance checks to detect and correct
- configuration drift.
- This course is based on Red Hat ® Ansible Automation Platform 2.3

Course Outline

Introducing Red Hat Ansible Automation Platform

- Describe the fundamental concepts of Ansible and how it is used, and install
- development tools from Red Hat Ansible Automation Platform

Implementing an Ansible Playbook

- Create an inventory of managed nodes, write a simple Ansible Playbook, and run
- the playbook to automate tasks on those nodes

Managing and Running Playbooks

- Manage automation code in version control and run Ansible Playbooks from a
- centrally managed automation controller

Managing Variables and Facts

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

Implementing Task Control

- Manage task control and task errors in Ansible Playbooks

Simplifying Playbooks with Roles and Ansible Content Collections

- Use Ansible Roles and Ansible Content Collections to develop playbooks more
- quickly and to reuse Ansible code

Automating Network Automation Tasks

- Automate common network administration tasks, discussing recommended
- practices and approaches to cross-vendor automation

Comprehensive Review

- Demonstrate skills learned in this course by installing, optimizing, and configuring
- Ansible for the management of network devices and infrastructure

Prerequisites for this course

- Experience with network administration, including a solid understanding of TCP/IP,
- routers, and managed switches
- Familiarity with managing network devices from the command line, preferably with one or
- more of Cisco IOS, IOS XR, or NX-OS; Juniper Junos; or Arista EOS

- Knowledge equivalent to Red Hat System Administration I (RH124) or better is recommended
- Prior Ansible knowledge is not required