Red Hat Certified Specialist in Ansible Network Automation (EX457)

Want to automate networks at scale? This Red Hat Certified Specialist in Ansible Network Automation (EX457) course teaches you how to manage Cisco, Arista, and Juniper devices with Ansible. You'll build advanced playbooks, configure routing protocols like OSPF and BGP, and integrate Ansible Tower for enterprise-scale automation. Practice labs guide you through real-world tasks such as backups, lifecycle management, and version control. Whether you're preparing for the EX457 exam or modernizing your network skills, this training gives you the hands-on experience to deliver efficient, automated solutions.

CBT Nuggets course material →

STUDY PLAN

WEEK 1

Introduction to EX457

Installing the Virtualisation Software

Installing Red Hat Enterprise Linux & Ansible

Building the Networking Lab

Connecting to the Networking Devices

Visual Studio Code

Validation

Understand Linux & Git Basics

Linux Command Line Basics

Working with Text Editors

Understanding Git

Using Git within VSCode

Validation

Create Ansible Playbooks

The Need for Network Automation

How Ansible Operates

Working with YAML

Ansible's Configuration and Inventory Files

Running Playbooks

Validation

Understand Ansible Variables

How Ansible Handles Variables

Working with Ansible Variables

Parsing Nested Variables

Looping Over Variables

Validation

Understand Conditions & Data Transformation

Understanding Conditions

Implementing Conditions in Ansible

Writing the Playbook

Transforming Data with Ansible Filters

Validating IP Addresses

Validation

Understand Jinja2

Why Use Templates?

Writing our First Template

Creating Loops in Jinja2

Writing Conditionals in Jinja2

Filtering Data with Jinja2 Expressions

Validation

Understand Encryption & Authentication

Protecting Data at Rest

Working with Ansible Vault

More Ansible Vault Features

Understanding Asymmetric Encryption

Using Ansible Without Passwords

WEEK 2

Validation

Understand Handlers & Roles

Understanding Handlers

What are Ansible Roles?

Creating an Ansible Role

Exploring Ansible Galaxy

Validation

Automate Arista Devices

Setting Up the Arista Lab

The EOS Collection

Sending Show Commands

Sending Configurations

Facts and Users

Banners and Hostnames

Validation

Automate Juniper Devices

Setting Up the Juniper Lab

The JunOS Collection & NETCONF

Sending Show Commands

Sending Configurations

Exploring Other Modules

Validation

Automate VyOS Devices

Building the VyOS Lab

WEEK 3

Installing the VyOS Collection

Sending Show Commands

Sending Configurations

The Facts and User Modules

The Banner and Hostname Modules

Validation

Automate VLANs

Using the Cisco VLAN Module

Using the Cisco Layer 2 Interfaces Module

Using the Juniper VLAN Module

Using the Juniper Layer 2 Interfaces Module

Validation

Automate SNMP and Syslog

Cisco SNMP Module

Cisco Syslog Module

Arista SNMP Module

Arista Syslog Module

Validation

Automate OSPF & BGP

Exploring the Cisco OSPF Module

WEEK 4

Automating OSPF Configurations

Exploring the Cisco BGP Module

Troubleshooting the BGP Module

Validation

Create Backups & Handle Errors

The Setup Module

The File Module

The Copy Module

Creating Backups of Configurations

Rescuing Playbooks from Errors

Validation

DNS, NTP & Multivendor Automation

Automating DNS

Automating NTP

Using Tags

Multivendor Automation

Vendor-Agnostic Modules

Validation

Automate with Ansible-Navigator

Installing Ansible-Navigator

Exploring Ansible-Navigator

Running Playbooks with Ansible-Navigator

Simulating Changes with Check Mode

Validation

Understand Ansible Automation Platform

Installing Ansible Automation Platform

AAP Basics

Creating an Inventory

Running Playbook with AAP

WEEK 5

Validation

Manage Automation Workflows

Defining the Workflow

Github

Private Repositories

Building a Custom Image

Running the NAPALM Playbook

Workflow Templates

Validation

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