

RSTAPI: Automate Storage Administration Using ONTAP REST API and Ansible

Course Code: RSTAPI

Duration: 3 days

Instructor-led Training (ILT) | Virtual Instructor-led Training (VILT)

OVERVIEW

This training prepares you to automate storage administration of a NetApp® ONTAP® system by using modern REST APIs and Ansible. You learn about the structure of an ONTAP REST API. You write Python programs that use the Python client library to create an aggregate, a storage virtual machine (SVM), a volume, a qtree, a snapshot, and so on. You learn how to use NetApp PowerShell Toolkit scripts that invoke REST API methods to demonstrate popular use case scenarios. You use the modern Ansible framework to automate and deploy storage administration tasks through ONTAP modules. Finally, you use Python programs and Ansible to configure your system for CIFS, NFS, and SAN protocols.

This training includes classroom lecture, coding demonstrations, and hands-on programming activities.

SKILLS COVERED

This course focuses on enabling you to do the following:

- Describe the ONTAP REST APIs and the Ansible framework
- Write Python programs to create, access, update, and delete ONTAP resources such as aggregates, SVMs, volumes, and so on
- Learn to use NetApp PowerShell Toolkit scripts to automate administration of the ONTAP system

- Learn to use the Ansible framework to call ONTAP modules from within a playbook for automation of storage administration
- Programmatically configure CIFS, NFS, and SAN protocols
- Learn about performance monitoring of an ONTAP system

WHO SHOULD ATTEND?

- Customers
- Channel partners
- OEM partners
- Authorized Learning Partners (ALPs)
- Global Systems Integrators (GSIs)
- Third-party software developers
- Infrastructure and professional services engineers
- NetApp employees

PREREQUISITES

NOTE : Before taking this course, you must be proficient in Python Programming or you will not be able to proceed through this class successfully.

- Python programming knowledge and experience required
- OT-TTPS4800
- ONTAP Cluster Administration(ONTAP9ADM)

MODULES

Module 1: ONTAP REST API Overview

- Lesson 1: ONTAP REST API Overview
- Lesson 2: ONTAP REST API Documentation
- Lesson 3: ONTAP Python Client Library

Module 2: REST API Use Cases- Python Programming

- Lesson 1: Creation of an Aggregate, an SVM, and a Volume
- Lesson 2: Volume Management
- Lesson 3: Creation of a Snapshot copy

Module 3: NetApp PowerShell Toolkit for REST API

- Lesson 1: Introduction to NetApp PowerShell Toolkit
- Lesson 2: Use Case Scenario

Module 4: Automation Using Ansible

- Lesson 1: Introduction to Ansible
- Lesson 2: Basics of YAML (Also known as YML)
- Lesson 3: Ansible Basics
- Lesson 4: Installing Ansible
- Lesson 5: Ansible Playbooks
- Lesson 6: Ansible Modules
- Lesson 7: Coding Demonstration of Simple Playbooks

Module 5: CIFS Configuration

- Lesson 1: SMB Overview
- Lesson 2: Configuration of CIFS by Using the Python Program
- Lesson 3: Configuration of CIFS by Using Ansible

Module 6: NFS Configuration

- Lesson 1: Overview of ONTAP NAS File Access
- Lesson 2: Configuration of NFS
- Lesson 3: Configuration of NFS by Using Ansible

Module 7: SAN Configuration

- Lesson 1: SAN Overview
- Lesson 2: iSCSI Configuration
- Lesson 3: FCP and NVMe-oF Configuration
- Lesson 4: Ansible Modules and Playbooks

Module 8: Performance Monitoring

- Lesson 1: ONTAP Performance
- Lesson 2: Performance Metrics
- Lesson 3: Collecting ONTAP Metrics
- Lesson 4: ONTAP System Manager

END OF PAGE