# Automate Storage Administration Using ONTAP REST API and Ansible (RSTAPI)

Modality: Virtual Classroom

**Duration: 3 Days** 

NATU: 36 Units

#### About this Course:

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.

### **Course Objectives:**

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

#### Audience:

Customers, channel partners, OEM partners, Authorized Learning Partners (ALPs), Global Systems Integrators (GSIs), third-party software developers, infrastructure and professional services engineers, and NetApp employees

#### **Prerequisites:**

- ONTAP Cluster Administration
- Python programming experience required

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## **Course Outline:**

#### On the first day, the following modules are covered:

- ONTAP REST API overview (2 hours)
- REST API Use Cases & Python Programming (3 hours)

#### On the second day, we dig cover the following topics:

- PowerShell Toolkit for REST API (2,5 hours)
- Automation using Ansible (2,5 hours)
- CIFS configuration (1 hour)

#### And on the third and final day, we cover the following topics:

- NFS configuration (1,5 hours)
- SAN configuration (2 hours)
- Performance (1 hour)

A lab is provided to perform all the hands-on activities, and all the scripts can be downloaded online on a GitHub repository.

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