DCAUI 1.2 (IMPLEMENTING AUTOMATION FOR CISCO DATA CENTER SOLUTIONS (DCAUI) V1.2) 1.2

Objetivo

After taking this training, you should be able to: â¢ Leverage the tools and APIs to automate Cisco ACI and NX-OS powered data centers. â¢ Demonstrate workflows (configuration, verification, healthchecking, monitoring) using Python, Ansible, and Postman. â¢ Leverage the various models and APIs of the Cisco Nexus OS platform to perform day 0 operations, improve troubleshooting methodologies with custom tools, augment the CLI using scripts, and integrate various workflows using Ansible, Terraform and Python. â¢ Describe the paradigm shift of Model Driven Telemetry and understand the building blocks of a working solution. â¢ Describe how the Cisco Data Center compute solutions can be managed and automated using API centric tooling, by using the Python SDK, PowerTool, and Ansible modules to implement various workflows on Cisco UCS, Cisco IMC, Cisco UCS Manager, Cisco UCS Director, and Cisco Intersight. â¢ Describing Cisco ACI App Center and Kubernetes Integration. â¢ Describing Cisco NDFC (Former DCNM) API.

PÃºblico Alvo

This training is designed for network and software engineers who hold the following job roles: â¢ Network engineer â¢ Systems engineer â¢ Wireless engineer â¢ Consulting systems engineer â¢ Technical solutions architect â¢ Network administrator â¢ Wireless design engineer â¢ Network manager â¢ Site reliability engineer â¢ Deployment engineer â¢ Sales engineer â¢ Account manager

PrÃ©-Requisitos

Before taking this training, you should have the following knowledge and skills: â¢ Basic programming language concepts â¢ Basic understanding of virtualization and VMware â¢ Ability to use Linux and Command Line Interface (CLI) tools, such as Secure Shell (SSH) and bash â¢ CCNP level data center knowledge â¢ Foundational understanding of Cisco ACI The following Cisco trainings can help you gain the knowledge you need to prepare for this training: â¢ Introducing Automation for Cisco Solutions (CSAU) â¢ Implementing and Administering Cisco Solutions (CCNAÂ®) â¢ Implementing and Operating Cisco Data Center Core Technologies (DCCOR) â¢ Programming Use Cases for Cisco Digital Network Architecture (DNAPUC) â¢ Introducing Cisco Network Programmability (NPICNP)

Carga HorÃ¡ria

40 horas (5 dias).

ConteÃºdo ProgramÃ¡tico

Course Introduction

Describing the Cisco ACI Policy Model
Cisco ACI Overview
Cisco ACI Object Model Hierarchy
Lab: Use Cisco APIC Web GUI
Reasons for Automating Cisco ACI

Describing the Cisco APIC REST API
Introduction to the Cisco ACI REST API
Cisco ACI REST API Clients
Lab: Discover the Cisco APIC REST API
Lab: Use Postman with the APIC REST API

Using Python to Interact with the Cisco ACI REST API
Python for Cisco ACI Automation
Lab: Use Python with Cisco APIC REST API
Lab: Configure and Verify Cisco ACI Using Acitoolkit
Cobra SDK and Arya
Use Cobra and Arya to Recreate a Tenant

Using Ansible to Automate Cisco ACI
Ansible ACI Modules
Lab: Manage Configuration Using Ansible
Lab: Set Up a New Tenant the NetDevOps Way
Lab: Create an Infrastructure Health Report

Describing Cisco ACI App Center and Kubernetes Integration
Cisco ACI Application Hosting Capabilities
Cisco ACI Application Types
Integrating the Kubernetes Infrastructure and Cisco ACI

Understanding Terraform for Cisco ACI
Construct a Terraform Plan to Use an ACI
Interpret a Terraform Plan to Use the Cisco Intersight Provider
Identify the Steps in the Cisco Intersight API Authentication Method
Manage Cisco UCS Servers through Cisco Intersight API

Introducing Cisco NX-OS Programmability
Cisco Nexus Platform
Cisco NX-OS Programmability

Describing Day-Zero Provisioning with Cisco NX-OS
Day-Zero Operations
Describing iPXE
Power on Auto Provisioning
Lab: Set Up Power On Auto Provisioning on the Cisco Nexus 9000

Implementing On-Box Programmability and Automation with Cisco NX-OS
On-Box Programmability on Cisco NX-OS

Lab: Use Bash and Guest Shell on Cisco NX-OS
Lab: Use Python to Enhance CLI Commands
Lab: Trigger a Python Script Using EEM

Implementing Off-Box Programmability and Automation with Cisco NX-OS
NX-API Enhancement
Lab: Configure and Verify Using NX-API and Python
Model-Driven Programmability on Cisco NX-OS
Lab: Configure and Verify Using NETCONF and YANG
Ansible for Cisco NX-OS
Lab: Use Ansible with Cisco NX-OS

Understanding Model-Driven Telemetry
Model-Driven Telemetry

Automating Cisco UCS Using Developer Tools
Cisco UCS Overview
Cisco UCS Manager XML API
Cisco IMC XML API
Lab: Connect, Query, and Modify Cisco UCS Manager Objects Using Cisco UCS PowerTool
Lab: Connect, Query, and Modify Cisco UCS IMC Objects Using Cisco IMC PowerTool
Python SDK
Lab: Utilize Cisco UCS Python SDK
Lab: Utilize Cisco IMC Python SDK
Cisco UCS Manager Ansible Modules
Lab: Implement Ansible Playbooks to Modify and Verify the Configuration of Cisco UCS Manager

Describing Cisco NDFC (Former DCNM)
Cisco NDFC
Cisco NDFC API

Describing Cisco Intersight
Cisco Intersight
Cisco Intersight APIs