DCAUI (IMPLEMENTING AUTOMATION FOR CISCO DATA CENTER SOLUTIONS) 1.0

Objetivo

After taking this course, you should be able to: â¢ Leverage the tools and APIs to automate Cisco ACI 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; â¢ Improve troubleshooting methodologies with custom tools, augment the CLI using scripts, and integrate various workflows using Ansible and Python. â¢ Describe the paradigm shift of Model Driven Telemetry and understand the building blocks of a working solution; â¢ Describe the Cisco Data Center compute solutions can be managed and automated using API centric tooling, by using the Python SDK, PowerTool; â¢ Describe Ansible modules to implement various workflows on Cisco UCS, Cisco IMC, Cisco UCS Manager, Cisco UCS Director, and Cisco Intersight.

PÃºblico Alvo

â¢ Professionals interested in knowing and implementing programming APIs automating for Cisco Data Center solutions; â¢ Professionals to prepare for exam 300-635 Automating Cisco Data Center Solutions (DCAUTO).

PrÃ©-Requisitos

Before taking this course, 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. For reference, the following Cisco courses can help you gain the knowledge you need to prepare for this course: â¢ Implementing and Administering Cisco Solutions (CCNAÂ®); â¢ Introducing Automation for Cisco Solutions (CSAU); 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

24 horas (3 dias).

ConteÃºdo ProgramÃ¡tico

Course Introduction
Course Outline
Course Goals & Objectives

Describing the Cisco ACI Policy Model

Describing the Cisco APIC REST API

Using Python to Interact with the ACI REST API

Using Ansible to Automate Cisco ACI

Describing Cisco ACI Apps Center and Kubernetes Integration

Introducing Cisco NX-OS Programmability

Describing Day-Zero Provisioning with Cisco NX-OS

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

Implementing Off-Box Programmability and Automation with Cisco NX-OS

Understanding Model-Driven Telemetry

Automating Cisco UCS Using Developer Tools

Implementing Workflows Using Cisco UCS Director

Describing Cisco DCNM

Describing Cisco Intersight

Lab outline
lab 1: Use Cisco APIC Web GUI
Lab 2: Discover the Cisco APIC REST API
Lab 3: Use Postman with the APIC REST API
Lab 4: Use Python with the Cisco APIC REST API
Lab 5: Configure and Verify Cisco ACI Using Acitoolkit
Lab 6: Use Cobra and Arya to Recreate a Tenant
Lab 7: Manage Configuration Using Ansible
Lab 8: Set Up a New Tenant the NetDevOps Way
Lab 9: Create an Infrastructure Health Report
Lab 10: Install an Application from the App Center on the Cisco APIC
Lab 11: Power on Auto Provisioning on the Cisco Nexus 9000
Lab 12: Use Bash and Guest-Shell on Cisco NX-OS
Lab 13: Use Python to Enhance CLI Commands
Lab 14: Trigger a Python Script Using Cisco Embedded Event Manager (EEM)
Lab 15: Docker Containers on NX-OS
Lab 16: Configure and Verify Using NX-API and Python
Lab 17: Configure and Verify Using NETCONF/YANG
Lab 18: Use Ansible with NX-OS
Lab 19: Streaming Telemetry
Lab 20: Connect, Query, and Modify Cisco UCS Manager Objects Using Cisco UCS PowerTool
Lab 21: Connect, Query, and Modify Cisco UCS Integrated Management Controller (IMC) Objects Using Cisco IMC

PowerTool
Lab 23: Utilize Cisco UCS Python Software Development Kit (SDK)
Lab 24 Utilize Cisco IMC Python SDK
Lab 25: Implement Ansible Playbooks to Modify and Verify the Configuration of Cisco UCS Manager