Implementing Automation in ACI

Course Overview:

Using hands-on lab-based learning, this course takes you all the way from the foundation of Network Automation to the specific skills and tools needed to implement automation in ACI.

The Course provides a comprehensive programming experience for Cisco networking professionals to automate and manage Cisco's Application Centric Infrastructure. With a focus on the python programming language, you will learn to write, edit, modify and expand complex Python scripts to utilize Python programming to automate configuration and operational needs in the ACI Fabric.

Course Outline:

- Introduction
- Fundamentals of Python Programming
- Python Data Structure
- Programming Python Functions
- Python Libraries, Packages, and Modules
- Cisco-supported APIs and Automation Protocols
- Cisco NX-OS APIs
- ACI Programmability Options
- Introduction to ACI Toolkit
- Using Cobra SDK

Labs:

1. Practice the Effects of Fundamental Python Programs
2. Program Python Data Structure
3. Create Python Scripts to Interact with Files
4. Implement Python Code in IDEs
5. Explore and Validate Automation Protocols
6. Enabling NX-API on Nexus Device
7. NX-API CLI Sandbox
8. NX-API CLI from Postman
9. Scripting NX-API Requests using Python
10. ACI REST-API with Postman
11. ACI REST-API with Python
12. Creating Full Tenant with ACI Toolkit
13. Running Sample Codes from ACI Toolkit to Manage ACI
14. Using Cobra SDK to Manage ACI

Pre-requisite:

- Knowledge of Data Center Operations
- Core knowledge of ACI
- Hands-on knowledge of managing ACI through APIC

(Note: This course focuses on "implementing automation for ACI". Not on theory of ACI architecture)