



Automating Networks Using Cisco Platforms

***WHERE GREAT TRAINING
HAPPENS EVERYDAY!***



Automating Networks Using Cisco Platforms

Course Duration

5 Days

Course Price

\$4,295.00

45 CLCs

Methods of Delivery

In-Person ILT

Virtual ILT

Onsite ILT

About this Class

The Automating Networks Using Cisco Platforms (CCNAAUTO) training teaches you how to implement basic network applications using Cisco platforms as a base, and how to implement automation workflows across network, security, collaboration, and computing infrastructure. The training gives you hands-on experience solving real-world problems using Cisco Application Programming Interfaces (APIs) and modern development tools.

This training prepares you for the 200-901 CCNAAUTO v1.1 exam. If passed, you earn the Cisco Certified Network Associate (CCNA) Automation certification. This training also earns you 48 Continuing Education (CE) credits toward recertification.

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How you will benefit

This class will help you:

- Take advantage of the network when you implement applications to fulfill business needs
- Gain a foundation in the essentials of applications, automation, and Cisco platforms
- Prepare for the 200-901 CCNAAUTO v1.1 exam
- Earn 48 CE credits toward recertification

Why Attend with Current Technologies CLC

- Our Instructors are the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

Who Should Attend

The job roles best suited to the material in this course are:

- Network Automation Engineers
- Software Developers
- System Integration Programmers
- Infrastructure Architects
- Network Designers

Prerequisites

There are no prerequisites for this training. However, the knowledge and skills you are recommended to have before attending this training are:

- Good understanding of enterprise routing and switching
- Good understanding of WAN networking
- Good understanding of Cisco SD-WAN
- Good understanding of Public Cloud services
- Good understanding of VPN technologies
- Good understanding of Cisco security solutions

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Objectives

After taking this course, you should be able to:

- Describe the importance of APIs and use of version control tools in modern software development
- Describe common processes and practices used in software development
- Describe options for organizing and constructing modular software
- Describe HTTP concepts and how they apply to network-based APIs
- Apply Representational State Transfer (REST) concepts to integration with HTTP-based APIs
- Describe Cisco platforms and their capabilities
- Describe programmability features of different Cisco platforms
- Describe basic networking concepts and interpret simple network topology
- Describe interaction of applications with the network and tools used for troubleshooting issues
- Apply concepts of model-driven programmability to automate common tasks with Python scripts
- Identify common application deployment models and components in the development pipeline
- Utilize tools to automate infrastructure through scripting and model-driven programmability
- Describe common security concerns and types of tests, and utilize containerization for local development

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Course Outline

Module 1: Practicing Modern Software Development

Module 2: Describing Software Development Process

Module 3: Designing Software

Module 4: Introducing Network-Based APIs

Module 5: Consuming REST-Based APIs

Module 6: Introducing Cisco Platforms and APIs

Module 7: Employing Programmability on Cisco Platforms

Module 8: Describing IP Networks

Module 9: Relating Network and Applications

Module 10: Employing Model-Driven Programmability

Module 11: Deploying Applications

Module 12: Automating Infrastructure

Module 13: Testing and Securing Applications

Module 14: Lab Code Reference

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Lab Outline

- Lab 1: Parse API Data Formats with Python
- Lab 2: Use Git for Version Control
- Lab 3: Identify Software Architecture and Design Patterns on a Diagram
- Lab 4: Implement Singleton Pattern and Abstraction-Based Method
- Lab 5: Inspect HTTP Messages
- Lab 6: Use Postman
- Lab 7: Troubleshoot an HTTP Error Response
- Lab 8: Utilize APIs with Python
- Lab 9: Use the Cisco Webex Collaboration API
- Lab 10: Interpret a Basic Network Topology Diagram
- Lab 11: Identify the Cause of Application Connectivity Issues
- Lab 12: Perform Basic NETCONF Operations
- Lab 13: Utilize Bash Commands for Local Development
- Lab 14: Construct Infrastructure Automation Workflow
- Lab 15: Construct a Python Unit Test
- Lab 16: Interpret a Dockerfile
- Lab 17: Utilize Docker Commands to Manage Local Developer Environment
- Lab 18: Exploit Insufficient Parameter Sanitization