

# **Automating Networks Using Cisco Platforms** **(CCNAAUTO) v1.1**

**Duration: 40 HRS**

## **Description**

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

## **How You'll Benefit**

This training 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

## **Who Should Enrol**

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

## Course Prerequisites

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

- Basic computer literacy
- Basic PC operating system navigation skills
- Basic Internet usage skills
- Hands-on experience with a programming language (specifically Python)

These skills can be found in the following Cisco Learning Offering:

- [Python Programming for Network Engineers \(PRNE\)](#)

## Course Outline

- Practicing Modern Software Development
- Describing Software Development Process
- Designing Software
- Introducing Network-Based APIs
- Consuming REST-Based APIs
- Introducing Cisco Platforms and APIs
- Employing Programmability on Cisco Platforms
- Describing IP Networks
- Relating Network and Applications
- Employing Model-Driven Programmability
- Deploying Applications
- Automating Infrastructure
- Testing and Securing Applications
- Lab Code Reference

## Lab Outline

- Parse API Data Formats with Python
- Use Git for Version Control
- Identify Software Architecture and Design Patterns on a Diagram
- Implement Singleton Pattern and Abstraction-Based Method
- Inspect HTTP Messages
- Use Postman
- Troubleshoot an HTTP Error Response
- Utilize APIs with Python
- Use the Cisco Webex Collaboration API
- Interpret a Basic Network Topology Diagram
- Identify the Cause of Application Connectivity Issues
- Perform Basic NETCONF Operations
- Utilize Bash Commands for Local Development
- Construct Infrastructure Automation Workflow
- Construct a Python Unit Test
- Interpret a Dockerfile
- Utilize Docker Commands to Manage Local Developer Environment
- Exploit Insufficient Parameter Sanitization