
Developing Applications and Automating Workflows Using Cisco Core Platforms (DEVASC) V1.1

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

Developing Applications and Automating Workflows Using Cisco Core Platforms (DEVASC) V1.1

Course Duration

5 Days

Course Price

\$4,495.00
45 CLCs

Methods of Delivery

In-Person ILT
Virtual ILT
Onsite ILT

About this Class

The Developing Applications and Automating Workflows Using Cisco Core Platforms (DEVASC) training helps you prepare for Cisco® DevNet Associate certification and for associate-level network automation engineer roles. You will learn 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 course gives you hands-on experience solving real world problems using Cisco Application Programming Interfaces (APIs) and modern development tools.

This training helps you prepare to take the 200-901 DevNet Associate (DEVASC) exam. By passing this exam, you earn Cisco Certified DevNet Associate certification.

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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
- Earn 48 CE credits toward recertification
- Prepare for the 200-901 DEVASC exam

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 Engineer
- Software Developer
- System Integration Programmer
- Infrastructure Architect
- Network Designer

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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
- Describe common security concerns and types of tests, and utilize containerization for local development
- Utilize tools to automate infrastructure through scripting and model-driven programmability

Prerequisites

There are no formal prerequisites for Cisco Certified DevNet Associate certification, but you should make sure to have a good understanding of the exam topics before taking the exam.

- And before taking this course, you should have:
- Basic computer literacy
- Basic PC operating system navigation skills
- Basic Internet usage skills
- Hands-on experience with a programming language (specifically Python)

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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: Employing Programmability on Cisco Platforms
- Module 7: Introducing Cisco Platforms
- Module 8: Describing IP Networks (ELT only)
- Module 9: Relating Network and Applications
- Module 10: Employing Model-Driven Programmability with YANG
- Module 11: Deploying Applications
- Module 12: Testing and Securing Applications
- Module 13: Automating Infrastructure

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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 Protocol Messages
- Lab 6: Use Postman
- Lab 7: Troubleshoot an HTTP Error Response
- Lab 8: Utilize APIs with Python
- Lab 9: Use the Cisco Controller APIs
- Lab 10: Use the Cisco WebEx Teams™ Collaboration API
- Lab 11: Interpret a Basic Network Topology Diagram
- Lab 12: Identify the Cause of Application Connectivity Issues
- Lab 13: Perform Basic Network Configuration Protocol (NETCONF) Operations
- Lab 14: Use Cisco Software Development Kit (SDK) and Python for Automation Scripting
- Lab 15: Utilize Bash Commands for Local Development
- Lab 16: Construct a Python Unit Test
- Lab 17: Interpret a Dockerfile
- Lab 18: Utilize Docker Commands to Manage Local Developer Environment
- Lab 19: Exploit Insufficient Parameter Sanitization
- Lab 20: Construct Infrastructure Automation Workflow