

Cisco® Developing Applications and Automating Workflows Using Cisco® Core Platforms v1.0 (DEVASC)

Overview

This course 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 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 course is 5 days of instructor led training, plus the equivalent of 3 days of self-paced training.

Prerequisite Comments

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)

Target Audience

This course is designed for anyone who performs or seeks to perform a developer role and has one or more years of hands-on experience developing and maintaining applications that are built on top of Cisco platforms.

The course is appropriate for software developers, application developers, and network engineers who want to expand their skill base and validate their skills in programmability, software, and automation. Students preparing for Cisco Certified DevNet Associate certification will also find this material useful.

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

Network automation engineer

Software developer

System integration programmer

Additional job roles that might be interested:

Infrastructure architect

Network designer

Course 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

Course Outline

1 - Course Outline

PRACTICING MODERN SOFTWARE DEVELOPMENT
DESCRIBING SOFTWARE DEVELOPMENT PROCESS (SELF-STUDY)
DESIGNING SOFTWARE (SELF-STUDY)
INTRODUCING NETWORK-BASED APIS
CONSUMING REST-BASED APIS
EMPLOYING PROGRAMMABILITY ON CISCO PLATFORMS
INTRODUCING CISCO PLATFORMS (SELF-STUDY)
DESCRIBING IP NETWORKS (ELT ONLY) (SELF-STUDY)
RELATING NETWORK AND APPLICATIONS
EMPLOYING MODEL-DRIVEN PROGRAMMABILITY WITH YANG
DEPLOYING APPLICATIONS
TESTING AND SECURING APPLICATIONS
AUTOMATING INFRASTRUCTURE