DEVASC

Developing Applications and Automating Workflows using Cisco Core Platforms

Description:

This authorized five-day course is designed to help you prepare for the Cisco DevNet Associate certification and for associate-level network automation engineer roles. The focus of this course is implementation of basic network applications using Cisco platforms as a base, as well as implementing automation workflows across network, security, collaboration and computing infrastructure. the course provides hands-on experience solving real world problems using Cisco Application Programming Interfaces (APIs) and modern development tools. 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.

Students will 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 requirements:

- Basic computer literacy
- Basic PC operating system navigation skills
- Basic Internet usage skills
- Hands-on experience with a programming language (specifically Python)
- As course did not focus on python basics, we recommend to take some python course before, like our Python1 course

This course is intended for:

- Software developers, application developers,
- Network automation engineer,
- System integration programmers,
- Infrastructure architect, Network designer,

- Network engineers who want to expand their skill base and validate their skills in programmability, software, and automation, and
- Students preparing for Cisco Certified DevNet Associate certification.

Literature:

All participants will get original Cisco student and lab guides and time limited remote access to lab environment.

Hardware:

Labs are practiced on Cisco delivered Virtual lab environment. Classrooms are equipped with high-performance computers with Internet access and the possibility of wireless connection.

Syllabus:

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

* *Points in italics are defined as self-study according to the Cisco's company official curriculum.*

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