Developing Applications and Automating Workflows using Cisco Platforms

Kód kurzu: DEVASC

This course help students prepare to Cisco® DevNet Associate certification and for associate-level network automation engineer roles. Students 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 students hands-on experience solving real world problems using Cisco Application Programming Interfaces (APIs) and modern development tools.

Formát školenia

As a standard, we implement a full-time course (onsite or ILT *) in the ALEF Training Center. Upon agreement, it is possible to implement the course at the client's premises. The course can also be implemented online (vILT **) via a video conferencing platform - Cisco Webex meetings. Instructor-led virtual training is a combination of the best of a traditional classroom course and interactive training without having to leave your own office or the comfort of your home. Convince yourself of top quality transmission, video calls and effective team collaboration.
Explanations:
ILT - Instructor Led-Training * - instructor-led training in the classroom. ** vILT (Virtual Instructor-Led Training) - this is a form of distance learning, where the instructor conducts training from the classroom through an online platform to which students connect from their offices or the comfort of their home.

Požadované vstupné znalosti

- Basic computer literacy and PC operating system navigation skills
- Hands-on experience with a programming language (specifically Python)
- Basic Understanding of networking protocols and principles
- Experience with at least some Cisco Platforms

These Cisco courses can help you meet these prerequisites:

- Implementing and Administering Cisco Solutions (
- CCNA
-)

Študijné materiály

Participants will receive access to an electronic version of the study materials.

Osnova kurzu

- 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
- Relating Network and Applications
- Employing Model-Driven Programmability with YANG
- Deploying Applications
- Testing and Securing Applications
- Automating Infrastructure

LAB Contents:

- Parse API Data Formats with Python
- Use Git for Version Control

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

Technical equipment

- Personal Laptops can be advantage
- Official Cisco LABs

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