

# DevNet App Using Cisco Core Platforms and APIs

Course code: DEVCOR

This course help students prepare Cisco DevNet Professional certification and for professional- level network automation engineer roles.. Students will learn how to implement network applications using Cisco® platforms as a base, from initial software design to diverse system integration, as well as testing and deployment automation. The course gives students hands-on experience solving real world problems using Cisco Application Programming Interfaces (APIs) and modern development tools.

## Training format

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.

## Required skills

- 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:

- Developing Applications and Automating Workflows using Cisco Platforms (DEVACS)

## Teaching materials

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

## Course outline

- Designing for Maintainability
- Designing for Serviceability
- Implementing ChatOps Application
- Describing Advanced REST API Integration
- Securing Application Data
- Securing Web and Mobile Applications
- Automating Application-Release
- Deploying Applications
- Understanding Distributed Systems
- Orchestrating Network and Infrastructure
- Modeling Data with YANG
- Using Relational and Non-Relational Databases

LAB Contents:

- Construct Sequence Diagram
- Construct Web Sequence Diagram
- Use Cisco Webex Teams™ API to Enable ChatOps
- Integrate Cisco Meraki™ API to List Service Set Identifiers (SSIDs) and Retrieve Location Data

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# DevNet App Using Cisco Core Platforms and APIs

- Use Paginated REST API Endpoint
- Utilize REST API Error Control Flow Techniques
- Evaluate Application for Common Open Web Application Security Project (OWASP) Vulnerabilities
- Resolve Merge Conflicts with Git
- Diagnose Continuous Integration and Continuous Delivery (CI/CD) Pipeline Failures
- Containerize Application Using Docker
- Integrate Application into Existing CI/CD Environment
- Diagnose Problems Using Application Logs
- Configure Network Parameters Using Ansible and Puppet
- Synchronize Firepower Device Configuration
- Utilize RESTCONF for Network Configuration
- Query Relational Database
- Query Document Store
- Query Time Series Database
- Query Graph Database

## Technical equipment

Personal Laptops can be advantage, Official Cisco LABs.

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