

# DevNet Associate v1.0

## 1 Course Introduction

- Your Lab Environment
- Linux
- Python

## 2 The DevNet Developer Environment

- DevNet Overview
- Exploring DevNet Online Resources

## 3 Software Development and Design

- Software Development
- Software Design Patterns
- Version Control Systems
- Coding Basics
- Code Review and Testing
- Understanding Data Formats

## 4 Understanding and Using APIs

- Introducing APIs
- API Design Styles
- API Architecture Styles
- Introduction to REST APIs
- Authenticating a REST API
- API Rate Limits
- Working with Webhooks
- Troubleshooting API Calls

## 5 Network Fundamentals

- Introduction to Network Fundamentals
- Network Interface Layer
- Internetwork Layer
- Network Devices
- Networking Protocols
- Troubleshooting Application Connectivity Issues

## 6 Application Deployment and Security

- Understanding Deployment Choices with Different Models
- Creating and Deploying a Sample Application
- Continuous Integration/Continuous Deployment (CI/CD)
- Networks for Application Development and Security
- Securing Applications

## 7 Infrastructure and Automation

- Automating Infrastructure with Cisco
- DevOps and SRE
- Basic Automation Scripting
- Automation Tools
- Infrastructure as Code
- Automating Testing
- Network Simulation

## 8 Cisco Platforms and Development

- Introduction to Cisco Platforms
- Cisco SDKs
- Understanding Network Programmability and Device Models
- Cisco Network Management
- Cisco Compute Management
- Cisco Collaboration Platforms
- Cisco Security Platforms