Cisco Certified DevNet Associate 200-901 (DEVASC)

Duration: 40 Hours
Certification Level: Associate

Course Overview

The **Cisco Certified DevNet Associate (DEVASC) 200-901** certification is designed for software developers and IT professionals who want to learn about network automation, programmability, and APIs. This course prepares candidates to implement and maintain applications built on Cisco platforms, making them well-equipped for roles in development, network engineering, and automation.

Course Objectives

Upon completing this course, students will:

- Understand network automation and programmability concepts
- Learn to use APIs for network management
- Gain experience with DevOps practices, continuous integration, and deployment (CI/CD)
- Implement infrastructure as code using tools like Ansible, Python, and Git
- Prepare for the **Cisco DevNet Associate 200-901 exam**

Course Modules

Module 1: Software Development and Design (8 Hours)

- Introduction to software development and design
- Understanding software lifecycle and agile methodology
- Working with version control systems (e.g., Git)
- Using REST APIs and JSON data format
- Exploring application programming interfaces (APIs) in Cisco environments

Module 2: Understanding and Using APIs (8 Hours)

- Introduction to APIs and web services

- REST API concepts: methods (GET, POST, PUT, DELETE)
- Authentication with APIs
- Using Postman for API testing
- API security and best practices

Module 3: Cisco Platforms and Development Tools (6 Hours)

- Cisco development environments: DevNet Sandbox, Cisco DNA Center
- Introduction to network automation tools (e.g., Ansible)
- Python programming for network automation
- Cisco Meraki, Cisco WebEx, and Cisco Umbrella APIs
- Integrating Cisco APIs with third-party applications

Module 4: Network Automation and Programmability (6 Hours)

- Introduction to network automation
- Using Python for network scripting
- Automating device configurations using tools like Ansible and Python
- Introduction to YAML and JSON for data representation
- Automating workflows in a networked environment

Module 5: Infrastructure and Automation Tools (6 Hours)

- Introduction to DevOps practices in networking
- Continuous Integration/Continuous Deployment (CI/CD)
- Infrastructure as Code (IaC) and tools like Terraform
- Managing configurations using tools like Ansible
- Network monitoring with APIs

Module 6: Security and Application Development (4 Hours)

- Secure development practices
- Security considerations for APIs
- Secure network design and development
- Best practices for securing applications and networks in the cloud

Module 7: Exam Preparation and Labs (6 Hours)

- Review of all exam objectives
- Hands-on labs with real-world scenarios
- Practice exam questions
- Final exam preparation strategies and tips

Target Audience

This course is ideal for:

- Software developers looking to work with networking technologies
- IT professionals and network engineers transitioning into automation
- Anyone interested in the intersection of networking and software development
- Developers wanting to learn network automation and programmability with Cisco