

Introducing Automation for Cisco Solutions (CSAU) 1.2

Course Duration: 24 Hours

Course Code: CSAU 1.2

1. Course Overview

The *Introducing Automation for Cisco Solutions (CSAU) 1.2* course is designed to provide foundational knowledge and skills in network automation using Cisco platforms. It covers the essential concepts of automation, programmability, and APIs, enabling learners to simplify network operations, improve efficiency, and reduce manual tasks. This course sets the stage for advanced Cisco automation certifications and career paths.

2. What You'll Learn?

By the end of this course, you will be able to:

- Understand the role of automation and programmability in modern networks.
- Describe the capabilities of Cisco devices and software platforms for automation.
- Work with APIs and data formats such as JSON and XML.
- Use Python scripts and REST APIs for network automation tasks.
- Explore tools like Ansible, NETCONF, and YANG models in Cisco environments.
- Implement basic automation workflows to streamline network operations.

3. Target Audience

This course is ideal for:

- Network engineers, administrators, and support staff.
- System engineers and technical solutions architects.
- Professionals interested in learning network automation.
- Learners preparing for Cisco DevNet certifications.

4. Pre-Requisites

Before attending this course, you should have:

- Basic knowledge of networking concepts (equivalent to CCNA level).
- Familiarity with Cisco networking devices.
- Understanding of fundamental programming concepts (optional but helpful).

5. Course Content

Module 1: Network Automation Overview

- Role and benefits of automation in networks
- Key trends and Cisco's automation strategy

Module 2: Data Formats and Encoding

- Introduction to JSON, XML, and YAML
- Using data formats in automation

Module 3: APIs and Protocols

- REST APIs, NETCONF, and RESTCONF
- Understanding YANG data models

Module 4: Python for Network Automation

- Introduction to Python scripting
- Using Python with Cisco APIs

Module 5: Automation Tools and Platforms

- Overview of Ansible and other automation tools
- Cisco DNA Center and automation use cases

Module 6: Building Automation Workflows

- Designing simple automation workflows
- Practical use cases in Cisco environments

