



PYTHON TRAINING

Network Automation Python Ansible Course

Automate network tasks with Python and Ansible. Learn to deploy and manage network devices efficiently.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

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- Globally Recognized Certification
 - Expert-Led Hands-On Training
 - Flexible Scheduling

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COURSE OVERVIEW

This intermediate-level "Network Automation Python Ansible Course" is meticulously designed to equip network professionals with the essential skills to automate tedious and error-prone network tasks. In just two intensive hours, you will delve into the powerful synergy of Python and Ansible, learning how to orchestrate network device configurations, perform bulk changes, and gather operational data programmatically. This course moves beyond manual CLI interactions, introducing you to the paradigms of infrastructure as code and the immense efficiency gains offered by automation. You will explore core concepts, practical syntax, and best practices to transform your network management workflow.

Mastering network automation with Python and Ansible unlocks significant professional benefits. You will gain the ability to reduce operational costs, minimize human error, and accelerate the deployment of network changes, making you an invaluable asset in any modern IT organization. This course provides a hands-on foundation to confidently apply automation principles to real-world networking challenges, enhancing network reliability and scalability. Elevate your career by becoming proficient in the tools that are defining the future of network operations and engineering.

Duration	2 hours
Level	Intermediate
Vendor	Python

COURSE CURRICULUM

01 Module 1: Introduction to Network Automation Concepts

- Why Network Automation?
- Introduction to Python for Networking
- Introduction to Ansible for Networking
- Setting up your Automation Environment (virtual labs/tools overview)
- Core principles of Infrastructure as Code for networks

02 Module 2: Python for Network Device Interaction

- Python fundamentals refresher (data types, control flow)
- Introduction to Netmiko and NAPALM libraries
- Connecting to network devices with Python
- Executing commands and parsing output using Python scripts
- Basic configuration changes via Python

03 Module 3: Ansible Fundamentals for Network Automation

- Ansible architecture and components (Control Node, Managed Nodes)
- Creating and managing Ansible inventories for network devices
- Writing your first Ansible Playbooks for network tasks
- Understanding Ansible modules for common network operations (e.g., `cisco.ios.ios_command`, `cisco.ios.ios_config`)
- Applying simple configuration templates with Ansible

04 Module 4: Practical Network Automation Use Cases

- Automating configuration backups across multiple devices
- Deploying standard VLAN configurations with Ansible
- Gathering network device facts and operational state
- Basic error handling and idempotency in automation scripts
- Best practices for network automation projects

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Network Automation Engineer**
- > **DevNet Associate/Professional (with further study)**
- > **Senior Network Administrator with Automation Focus**

FREQUENTLY ASKED QUESTIONS

Q: What prior experience or knowledge is required before enrolling in this Network Automation Python Ansible Course?

This course is designed for intermediate learners. A foundational understanding of networking concepts (OSI model, IP addressing, routing, switching) is highly recommended. Basic familiarity with command-line interfaces (CLI) for network devices and a conceptual understanding of scripting will be beneficial, though a brief Python refresher is included.

Q: How will this course specifically help me streamline network configuration and management tasks in my current role?

This course directly addresses the inefficiency of manual network tasks. You will learn to use Python to interact programmatically with devices and leverage Ansible playbooks to automate configuration deployment, health checks, and data collection across multiple network devices simultaneously. This enables faster, more consistent, and error-free network changes, freeing up time for more strategic projects.

Q: Will I gain practical, hands-on experience in automating real-world network scenarios during this 2-hour course?

Yes, despite its concise duration, this course is highly practical. You will engage with code examples and guided exercises focusing on common network automation use cases, such as device fact gathering, configuration backups, and deploying standardized configurations. The goal is to provide you with immediately applicable skills and a solid framework to build upon your automation journey.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

10,000+

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READY TO ENROL?

Take the next step in your technology career.

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