



*Training Course:
Python for IT Automation*

*10 - 14 August 2026
Madrid (Spain)*

Training Course: Python for IT Automation

Training Course code: IT236561 From: 10 - 14 August 2026 Venue: Madrid (Spain) - Training Course Fees: 6300 € Euro

Introduction

Python for IT Automation is a practical, hands-on training program designed by Global Horizon Training Center to equip IT professionals with the knowledge and skills required to automate routine administrative tasks, improve operational efficiency, and reduce manual intervention using Python. As organizations increasingly rely on automation to enhance IT operations, professionals must be capable of developing scripts that streamline system administration, network management, file processing, cloud operations, and infrastructure monitoring.

Throughout this intensive five-day program, participants will learn Python programming fundamentals from an IT operations perspective while building practical automation solutions for real-world infrastructure and technical support environments. The course emphasizes scripting, automation frameworks, APIs, remote administration, task scheduling, log management, and reporting, enabling participants to automate repetitive processes and improve service reliability.

Objectives

By the end of this program, participants will be able to:

- Understand Python programming fundamentals for IT automation.
- Write efficient Python scripts for administrative and operational tasks.
- Automate file management and system administration activities.
- Interact with operating systems using Python.
- Manage configuration files and automate repetitive maintenance tasks.
- Work with REST APIs to automate IT services.
- Automate network and infrastructure management activities.
- Process logs and generate operational reports.
- Schedule and monitor automated tasks.
- Apply automation best practices for secure, scalable, and maintainable solutions.

Course Methodology

The program combines instructor-led presentations with extensive practical exercises and real-world automation scenarios. Participants will engage in:

- Interactive lectures
- Live coding demonstrations
- Hands-on Python scripting labs
- Individual and group exercises
- IT automation case studies
- Infrastructure automation workshops
- Practical assignments
- Daily knowledge reviews and discussions

Organizational Impact

Upon successful completion of this program, organizations will benefit from:

- Increased operational efficiency through automation.
- Reduced manual workload for IT support and infrastructure teams.
- Faster incident response and system administration.
- Improved consistency and accuracy of repetitive IT processes.
- Enhanced monitoring and reporting capabilities.
- Reduced operational risks caused by manual errors.
- Better utilization of IT resources.
- Greater productivity across technical support and infrastructure departments.

Target Audience

This program is designed for:

- Technical Support Specialists
- IT Support Engineers
- System Administrators
- Infrastructure Engineers
- Network Administrators

- Help Desk Professionals
- Cloud Support Engineers
- DevOps Engineers
- IT Operations Engineers
- IT Professionals interested in automation using Python

Course Outline

Day 1 - Python Fundamentals for IT Professionals

- Introduction to Python and IT automation
- Installing Python and development environments
- Python syntax and programming basics
- Variables, data types, and operators
- Control statements and loops
- Functions and reusable code
- Working with modules and packages
- Exception handling
- Hands-on exercises developing basic automation scripts

Day 2 - Automating Operating System and File Management Tasks

- Working with files and directories
- File creation, modification, and cleanup
- Automating backups and file organization
- Reading and writing CSV, JSON, and text files
- Managing system processes
- Using OS and Path libraries
- Automating routine administrative tasks
- Log collection and processing

- Practical lab: Building file management automation tools

Day 3 - System Administration and API Automation

- Executing operating system commands
- Automating user and service management
- Monitoring CPU, memory, and disk utilization
- Introduction to REST APIs
- Sending HTTP requests using Python
- Parsing JSON responses
- Integrating Python with IT management platforms
- Automating ticketing and monitoring systems
- Practical lab: API-based automation project

Day 4 - Infrastructure and Network Automation

- Automating infrastructure management tasks
- Introduction to network automation concepts
- Working with SSH automation
- Remote server administration
- Automating configuration management
- Scheduling automated maintenance jobs
- Error logging and notification mechanisms
- Security considerations in automation
- Practical lab: Infrastructure automation workflow

Day 5 - Building Complete IT Automation Solutions

- Designing automation workflows
- Combining multiple automation scripts
- Scheduling automation using cron and task schedulers

- Developing reusable automation utilities
- Generating automated operational reports
- Automation troubleshooting and optimization
- Best practices for scalable Python automation
- Final hands-on automation project
- Course review, discussion, and action planning

Registration form on the Training Course: Python for IT Automation

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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Payment Method

- Please find enclosed a cheque made payable to Global Horizon
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