AMBIENT-IT

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Sign up

Apache HTTPs Training

2 days (14 hours)

Overview

Apache HTTP Server is one of the most widely used web servers, renowned for its robustness, modularity and multi-platform compatibility. It can host static and dynamic sites, encrypt connections via HTTPS and interface with your backend applications.

Our Apache HTTP Server (HTTPS) training course will help you master the installation, configuration and security of your servers.

You'll learn how to manage virtual hosts, configure HTTPS (auto-signed / Let's Encrypt), optimize performance and set up a reverse proxy.

At the end of the course, you'll know how to deploy a high-performance, secure Apache server, host several sites, encrypt connections and integrate Apache into scalable architectures.

Like all our training courses, this one is based on the latest stable version v2.4.65 of Apache.
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Objectives

- Understand Apache architecture and modules
- Install and configure Apache on Linux and Windows
- Set up virtual hosts
- Secure communications with HTTPS and SSL/TLS
- Optimize performance and resource management
- Use Apache as a reverse proxy and monitor the server

Target audience

- Linux/Windows system administrators
- DevOps and SRE engineers
- Web developers
- IT managers

Prerequisites

- Basic Linux/Windows administration
- Notions of networks and HTTP/HTTPS protocols
- Experience in web server management

Our Apache HTTP Server training program

Introduction to Apache HTTP Server

- Overview of Apache HTTP Server and its key features
- Comparison with Nginx and other web servers
- Installation on Linux and Windows
- Directory structure and configuration files
- Starting and managing the Apache service
- Workshop: Installing and bringing a static HTML page online

Basic configuration and virtual hosts

- Managing virtual hosts to host multiple sites
- Configuring domain names and ports
- Directories, permissions and DocumentRoot
- Access and error log settings
- Module discovery and activation
- Workshop: Creating two virtual hosts on a single server

Security with HTTPS

- Principles of SSL/TLS certificates
- Creating and installing a self-signed certificate
- Using Let's Encrypt and Certbot
- Forcing HTTPS and managing redirects
- Best practices (protocols, encryption, HSTS)
- Workshop: Setting up HTTPS with Let's Encrypt

Optimizing performance

- Activating and configuring caching
- gzip and brotli compression
- Tuning performance parameters

- Persistent connections (KeepAlive)
- Loading only the necessary modules
- Workshop: Optimizing response times on an existing site

Apache as reverse proxy and application gateway

- Mod_proxy / mod_proxy_http configuration
- Proxy to backends (Node.js, PHP?FPM, etc.)
- Basic load balancing
- Cache on reverse proxy side
- Access restrictions and filtering
- Workshop: Reverse proxy for an internal application

Supervision, maintenance and best practices

- Monitoring via logs and external tools (GoAccess, Prometheus)
- Configuration backup/restore
- Updates and module management
- Automation with Ansible or Terraform
- Security and documentation best practices
- Workshop: Apache maintenance plan

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the forthcoming course, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical training: 60% hands-on, 40% theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire is used to check that skills have been correctly acquired.

Certification

A certificate will be awarded to each trainee who completes the training course.