

# Apache HTTP Server Administration Training

(2 Days)

## About this Course

In this Apache HTTP Server training class, you learn to administer one of the most popular web servers available today. The class covers installation of Apache, basic operation of the web server, configuration, URL mapping, directory indexing, virtual hosting, performance tuning, and security.

The objective of this course is to prepare administrators for installing, configuring, securing, and performance tuning the Apache HTTP Server.

This Apache HTTP Server class assumes familiarity with general web concepts.

## Course Benefits

- Learn how install Apache HTTP Server.
- Understand the basic operation of Apache.
- Learn how to configure Apache.
- Understand how to implement URL mapping.
- Learn how to provide directory indexing.
- Learn how to performance tune the web server.
- Understand techniques to secure Apache.

## Class Prerequisites

Experience in the following *is required* for this Apache HTTP Server class:

- Familiarity with general web concepts.

## COURSE OUTLINE

### 1. Apache HTTP Server

- A. The Apache HTTP Server
- B. Features
- C. Download
- D. Windows
- E. Linux

### 2. Directory Structure

- A. Apache Directories
- B. The Role of Each Directory
- C. bin
- D. cgi-bin
- E. conf
- F. error
- G. htdocs
- H. icons
- I. include
- J. lib
- K. modules
- L. Document Root

### 3. httpd.conf Configuration

- A. Contents of httpd.conf
- B. Coding Directives, Containers, and Comments
- C. Directives
- D. Containers
- E. Comments
- F. Scope of Directives
- G. Order of Evaluation of Containers
- H. Making Port Assignments
- I. Specifying the Document Root
- J. Including Files
- K. Modularization and Organization
- L. Guidelines for Modularization
- M. Organization
- N. Verifying the Syntax of httpd.conf
- O. Updating httpd.conf between Releases
- P. Securing httpd.conf

#### **4. Load Modules**

- A. Dynamic Shared Objects
- B. The Core Module
- C. Static Modules
- D. Building Modules from Source and Installing from a Package
- E. Relationship between Modules and Directives
- F. LoadModule Directive
- G. Using a Module's Directives
- H. MIME Types and mod\_mime

#### **5. Security**

- A. Secure Socket Layer
- B. Creating a Certificate
- C. Server Setup
- D. Access Control
- E. Host and IP
- F. Authentication
- G. Basic Authentication
- H. Digest Authentication
- I. How Apache Implements Authorization
- J. LDAP Authentication and Authorization

#### **6. Logging**

- A. Logging Overview
- B. The Error Log
- C. The Access, Agent, and Referer Logs
- D. CustomLog
- E. Formatting the Log Record with LogFormat
- F. Log Rotation

#### **7. Configuring Directories**

- A. Directory Containers in httpd.conf
- B. The Options Directive
- C. Directory Indexing
- D. IndexOptions
- E. DirectoryIndex
- F. Excluding Files with IndexIgnore
- G. .htaccess
- H. Handling HTTP Status Codes with Error Documents
- I. Location Containers

## **8. Virtual Hosts**

- A. Virtual Host Container
- B. Setting Up the Virtual Host
- C. IP-based
- D. Name-based
- E. Port-based

## **9. Using Aliases and Redirecting**

- A. Configuring an Alias for a URL
- B. Redirect
- C. Using mod\_rewrite

## **10. Performance Considerations**

- A. Adjusting httpd.conf
- B. DNS Name Lookup
- C. Logging I/O
- D. Web Applications
- E. Network Issues

## **11. Customizing Request/Response Processing**

- A. Handlers and Requests
- B. Built-in Handlers
- C. Handler Directives
- D. SetHandler
- E. AddHandler
- F. RemoveHandler
- G. Filters

## **12. PHP**

- A. PHP
- B. Download and Installation
- C. Windows
- D. Linux
- E. Apache Configuration
- F. Writing a Basic PHP Web Page
- G. Using MySQL with Apache and PHP
- H. WordPress

## **13. Mod Proxy and Mod Proxy Balance**

- A. Apache as a Proxy Server