DevOpsSchool

Course curriculum · November 2026

LEVEL 04 OF 04 · ADVANCED

# Complete Apache Http Server Advanced Training

Tune, harden and scale Apache for high availability with caching, SSO, observability and safe configuration rollout.

| | | |
|---|---|---|
| LIVE ONLINE<br>**Max 8-10 hours** | CORPORATE (DAY-WISE)<br>**5 days · Days 1-5** | SELF-PACED VIDEO<br>**1-year LMS access** |
| BATCH SIZE<br>**Max 10 learners** | NEXT BATCHES<br>**1st of every month · weekends: first Saturday** | CERTIFICATE<br>**Verifiable certificate of completion** |

| Foundation | Essential | Intermediate | Advanced |
|---|---|---|---|
| 1 day · Included | 2 days · Included | 3 days · Included | 5 days · This curriculum |

## INSIDE THIS CURRICULUM


| | |
|---|---|
| What you will achieve | Outcomes and level focus |
| Who should attend | Audience and prerequisites |
| Agenda | 46 topics · Foundation to Advanced |
| Hands-on labs | 4 labs |
| Formats and fees | Live, 1:1, self-paced, corporate |
| Trainer and reviews | Rajesh Kumar |
| Enrolment | Batches, payment, contacts |


## WHY DEVOPSSCHOOL

- Rated 4.6 on Google
- 1,500+ verifiable certificates issued in the public registry
- Trainer Rajesh Kumar: 20 years in industry
- Small batches: max 10 learners, every session recorded

**Course page:** www.devopsschool.com/courses/apache-http/complete-apache-http-server-advance-training.html
**Talk to us:** WhatsApp +91 99057 40781 · +1 (469) 756-6329 · contact@DevOpsSchool.com · reply within 1 hour

OUTCOMES

# What you will achieve

By the end of the Complete Apache Http Server course path, you will be able to:

1

### Configure Apache confidently

Install, structure and maintain Apache HTTP Server 2.4 configuration for multiple sites.

2

### Secure and proxy traffic

Serve TLS and HTTP/2, control access and run Apache as a reverse proxy and load balancer.

3

### Tune and scale reliably

Optimise, harden and run Apache in high-availability, observable production setups.

WHAT THE ADVANCED LEVEL ADDS

### Performance, high availability and hardening at scale

**Hands-on:** Hardened HA web tier. Build a keepalived Apache pair with caching, LDAP-protected areas, hardened TLS and log shipping, then load-test and fail over.

WHO SHOULD ATTEND

- Experienced Complete Apache Http Server practitioners responsible for quality, security and scale.
- Senior engineers, architects and leads who design and troubleshoot Complete Apache Http Server solutions.
- Teams making Complete Apache Http Server an organisation-wide standard.

BEFORE YOU START

- The Intermediate level, or equivalent hands-on experience.
- You can already: Secure sites with TLS and HTTP/2, run Apache as a reverse proxy and load balancer and troubleshoot problems quickly.
- Basic computer skills and a laptop with a stable internet connection for the live sessions and labs.
- This curriculum includes every earlier level, so it is complete on its own.

AGENDA · FOUNDATION TO ADVANCED

# Complete Apache Http Server Advanced Training agenda

46 topics. Each level builds on the one before it, so this curriculum lists every earlier level in full. Days are for corporate (day-wise) delivery; live online batches cover the same agenda in max 8-10 hours.

## DAY 1 — Foundation: Installation, configuration structure and first site

Included from Foundation

1. What Apache HTTP Server is: httpd history, process model, modules and where it fits next to Nginx
2. HTTP essentials: requests, methods, status codes, headers and keep-alive
3. Installing httpd 2.4: apt on Debian and Ubuntu, dnf on RHEL, and building from source
4. Directory layout: apache2 versus httpd layouts, sites-available, conf.d and mods-enabled
5. Configuration basics: directives, contexts, Include files and the main server configuration
6. Service control: systemctl, apachectl -t, graceful restarts and checking loaded modules
7. Serving static content: DocumentRoot, DirectoryIndex, file permissions and SELinux contexts
8. Modules: LoadModule, a2enmod and a2dismod, static versus shared modules
9. Multi-Processing Modules: prefork, worker and event and choosing the right MPM
10. Logging basics: access log, error log, LogFormat and LogLevel
11. First virtual host: ServerName, ServerAlias, firewall ports and testing with curl

## DAY 2 — Essential: Virtual hosts, access control, rewrites and PHP

Included from Essential

12. Name-based virtual hosts: multiple sites on one IP, default host and ordering
13. Configuration sections: Directory, Location, Files and their merge order
14. Options and overrides: Options, AllowOverride and .htaccess files and their performance cost
15. Access control in 2.4: Require all, Require ip, Require host and RequireAll and RequireAny
16. Basic and Digest authentication: htpasswd, AuthType, AuthUserFile and group files
17. Redirects with mod_alias: Redirect, RedirectMatch, Alias and ScriptAlias
18. URL rewriting with mod_rewrite: RewriteRule, RewriteCond, flags and pretty URLs
19. Compression and MIME types: mod_deflate, mod_brotli, AddType and default charset
20. Caching headers: mod_expires and mod_headers for browser caching and Cache-Control
21. Custom error pages and directory listings: ErrorDocument, mod_autoindex and Indexes
22. Log management: custom log formats, piped logs, rotatelogs and logrotate
23. PHP with PHP-FPM: mod_proxy_fcgi, SetHandler and per-site PHP pools

## DAY 3 — Intermediate: TLS, HTTP/2, reverse proxy and security

Included from Intermediate

24. TLS with mod_ssl: certificates, private keys, chain files and SSLProtocol settings
25. Let's Encrypt automation: certbot with the Apache plugin and automatic renewal
26. HTTP/2 with mod_http2: Protocols directive, requirements with the event MPM
27. Reverse proxy with mod_proxy: ProxyPass, ProxyPassReverse and preserving client headers
28. Load balancing with mod_proxy_balancer: balancer members, lbmethods, sticky sessions and balancer-manager
29. Web application firewall: ModSecurity with the OWASP Core Rule Set
30. Information hiding: ServerTokens, ServerSignature, TraceEnable and security headers

31. Monitoring with mod_status: server-status, ExtendedStatus and scoreboard reading
32. MPM event tuning: ServerLimit, ThreadsPerChild, MaxRequestWorkers and KeepAlive
33. Troubleshooting: configtest, per-module LogLevel, apachectl -S and common 403, 404 and 502 causes
34. Automation: managing Apache configuration with Ansible and running the official httpd container

**DAYS 4-5** **Advanced: Performance, high availability and hardening at scale** **New at this level**

35. Content caching: mod_cache, mod_cache_disk, cache keys and cache invalidation
36. Performance at scale: benchmarking with ab and wrk, tuning workers, timeouts and file limits
37. High availability: active-passive Apache pairs with keepalived and a virtual IP
38. Security hardening: CIS benchmark items, TLS 1.3 cipher policy, HSTS, CSP and OCSP stapling
39. DoS defence: mod_reqtimeout, mod_evasive, connection limits and rate limiting at the edge
40. Enterprise authentication: mod_authnz_ldap with Active Directory and OpenID Connect with mod_auth_openidc
41. WebSockets and modern backends: proxying WebSockets, gRPC limitations and timeouts
42. Observability: JSON access logs, shipping to ELK or Loki and Prometheus metrics via an exporter
43. Migration: Apache 2.2 to 2.4 access syntax, and moving or coexisting with Nginx
44. Configuration as code: version control, CI syntax checks and staged rollouts with graceful reloads
45. Containers and Kubernetes: httpd images, mounted configs and Apache behind an ingress
46. Capstone: highly available, hardened web tier for a multi-application platform

PRACTICE

## Hands-on labs

You build these yourself during the course, guided by the trainer.

FOUNDATION **Publish your first website**
Install Apache on a Linux VM, create a virtual host for a static site, open the firewall and verify it with curl and the logs.

ESSENTIAL **Host three sites with PHP**
Configure three name-based virtual hosts, protect an admin area with basic authentication, add rewrite rules and run PHP via PHP-FPM.

INTERMEDIATE **TLS reverse proxy for two apps**
Put two backend applications behind Apache with Let's Encrypt TLS, HTTP/2, load balancing and ModSecurity, then troubleshoot a broken backend.

ADVANCED **Hardened HA web tier**
Build a keepalived Apache pair with caching, LDAP-protected areas, hardened TLS and log shipping, then load-test and fail over.

HOW YOU CAN LEARN

## Formats and fees

The same agenda in four formats. Fees are in Indian rupees as of November 2026; the course page shows them in your currency.

| FORMAT | DURATION | WHAT YOU GET | FEE |
|---|---|---|---|
| **Live & interactive (online)** | Max 8-10 hours | Instructor-led public batch of max 10 learners with demos, labs, Q&A and assignment review. Weekday batches start on the 1st of every month, weekend batches on the first Saturday of every month. | **INR 34,999** |
| **1:1 live training (online)** | Max 8-10 hours, one-to-one | The same agenda, taught one-to-one by the trainer. Starts immediately, without waiting for the next batch; sessions planned around your working hours, at your pace. | **INR 99,999** |
| **Self-paced video** | 1-year LMS access | All four Complete Apache Http Server levels, plus 20+ more courses and 50+ tools, at your own pace. | **INR 833/month** billed yearly at INR 9,996 |
| **Corporate (day-wise)** | 5 days for this level | A private batch for your team, on demand. Foundation 1 day, Essential 2, Intermediate 3, Advanced 5 (cumulative). | **Quote on request** |

ASSESSMENT AND CERTIFICATE

Your progress is checked through hands-on labs and assignments at every level. On completion you receive a DevOpsSchool certificate of completion with a unique credential ID that anyone can verify at devopsschool.com/certificates.

INCLUDED WITH EVERY LIVE BATCH

- Every live session is recorded and stays in your LMS for a year.
- Can't attend your batch? Move to next month's batch.
- Free demo class before you pay.
- Free 10-15 minute call with an advisor or the trainer to check the course fits you.

YOUR TRAINER

## Learn from Rajesh Kumar

Principal Architect, trainer and mentor in DevOps, SRE, DevSecOps and platform engineering, with 20 years across 8+ software MNCs, including Staff DevOps/SRE Engineer for a leading Japanese mobile-payment platform and Principal DevOps Architect and Manager in Europe.

Profile: www.rajeshkumar.xyz · Videos: youtube.com/@TheDevOpsSchool

| | |
|---|---|
| **20** years in industry | **200+** corporate trainings |
| **10,000+** engineers mentored | **70+** organisations coached |

REVIEWS

## What learners say

Rated 4.6 on Google · more reviews at devopsschool.com/testimonials and in our video testimonials.

> “Rajesh is very good trainer. Rajesh was able to resolve our queries and question effectively. We really liked the hands-on examples covered during this training program.”
>
> Indrayani, India

> “The training was very useful and interactive. Rajesh helped develop the confidence of all.”
>
> Abhinav Gupta, Pune

START YOUR COMPLETE APACHE HTTP SERVER TRAINING

## Join the next batch

Weekday batches start on the 1st of every month and weekend batches on the first Saturday of every month, with max 10 learners each. 1:1 training can start immediately; corporate batches run on demand. We reply within 1 hour.

Pay by UPI, credit and debit cards, net banking or PayPal. Before you pay, read our refund policy. All levels of this course: www.devopsschool.com/courses/apache-http/

ENROL OR RESERVE A SEAT
**Complete Apache Http Server Advanced Training**

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