DevOpsSchool

Course curriculum · November 2026

LEVEL 03 OF 04 · INTERMEDIATE

Nginx Intermediate Training

Run NGINX as a production proxy for web, WebSocket, gRPC and TCP traffic, automate its configuration, monitor it and troubleshoot common errors.

LIVE ONLINE **Max 8-10 hours**	CORPORATE (DAY-WISE) **3 days · Days 1-3**	SELF-PACED VIDEO **1-year LMS access**
BATCH SIZE **Max 10 learners**	NEXT BATCHES **1st of every month · weekends: first Saturday**	CERTIFICATE **Verifiable certificate of completion**

Foundation	Essential	Intermediate	Advanced
1 day · Included	2 days · Included	3 days · This curriculum	5 days · Next step

INSIDE THIS CURRICULUM

What you will achieve	Outcomes and level focus
Who should attend	Audience and prerequisites
Agenda	41 topics · Foundation to Intermediate
Hands-on labs	3 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/nginx/nginx-intermediate-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 Nginx course path, you will be able to:

1

Configure NGINX confidently

Build virtual hosts, locations, rewrites, logging and PHP or app server integrations.

2

Proxy and balance traffic

Run NGINX as a reverse proxy, cache and load balancer for HTTP, WebSocket, gRPC and TCP.

3

Secure and tune performance

Harden NGINX with TLS, access control and a WAF and tune it for high traffic.

WHAT THE INTERMEDIATE LEVEL ADDS

Proxy caching, protocols, automation and monitoring

Hands-on: Production proxy with monitoring. Proxy a WebSocket app and a gRPC service with microcaching, generate the config from Ansible, gate it with gixy in CI and graph traffic in Grafana.

WHO SHOULD ATTEND

- Regular Nginx users who want to automate, integrate and manage it at a deeper level.
- Specialists who support Nginx for colleagues or customers.
- Leads preparing Nginx for wider use across projects.

BEFORE YOU START

- The Essential level, or equivalent hands-on experience.
- You can already: Write clean NGINX configuration with server and location blocks, rewrites, logging and PHP-FPM, and tune workers, buffers, caching and HTTP/2.
- 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 INTERMEDIATE

Nginx Intermediate Training agenda

41 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, HTTPS, access basics and reverse proxy

Included from Foundation

1. Overview: introduction, about NGINX and its event-driven design, NGINX vs Apache, knowledge check
2. Server overview and installing with a package manager: nginx.org stable and mainline repositories versus distro packages
3. Building NGINX from source and adding modules: configure flags, make and make install
4. Adding an NGINX service: systemd unit and the older init service script, start, stop and reload
5. NGINX for Windows: installation, running as a process and its limitations
6. First website: default configuration, nginx -t, reload and serving a static index page
7. HTTPS (SSL): certificate and key, listen 443 ssl and redirecting HTTP to HTTPS
8. Let's Encrypt SSL certificates: certbot with the nginx plugin and automatic renewal
9. Rate limiting: limit_req_zone, burst and protecting login pages
10. Basic auth: htpasswd files and auth_basic on a protected location
11. Hardening NGINX: server_tokens off, removing unused modules, request size limits and security knowledge check
12. Reverse proxy and load balancing: prerequisites, proxy_pass to an app and an upstream load balancer
13. Load balancer options: round robin, ip_hash, backup servers, documentation and resources
14. Video streaming: mp4 and flv pseudo-streaming modules for media delivery

DAY 2 — Essential: Configuration in depth, PHP and performance tuning

Included from Essential

15. Configuration terms: simple and block directives, main, events, http, server and location contexts
16. Creating a virtual host: server blocks, listen, server_name, root and configuring multiple websites
17. Location blocks: prefix, exact, regex and ^~ matches and how NGINX chooses one
18. Variables: built-in variables such as $uri, $args and $host, set and custom variables
19. Rewrites and redirects: return 301 and 302, rewrite with last and break flags
20. Try files and named locations: try_files for front controllers and @fallback locations
21. Logging: access_log and error_log levels, per-location logs and conditional logging
22. Inheritance and directive types: standard, array and action directives and how they inherit
23. PHP processing: PHP-FPM with fastcgi_pass, fastcgi_params and SCRIPT_FILENAME
24. Worker processes: worker_processes auto, worker_connections and worker_rlimit_nofile
25. Buffers and timeouts: client_body_buffer_size, client_max_body_size, keepalive_timeout and send_timeout
26. Adding dynamic modules: load_module and modules from packages, knowledge check
27. Performance: headers and expires, compressed responses with gzip and FastCGI cache
28. HTTP2 and server push: http2 on, push removed in nginx 1.25.1, 103 Early Hints and an HTTP/3 preview

DAY 3 — Intermediate: Proxy caching, protocols, automation and monitoring

New at this level

29. Proxy caching: proxy_cache_path, cache keys, proxy_cache_valid, bypass rules, microcaching and serving stale content

30. Upstream connection tuning: keepalive to upstreams, proxy_http_version 1.1, timeouts and retries with proxy_next_upstream
31. WebSocket and gRPC proxying: Upgrade and Connection headers, grpc_pass and long-lived connections
32. TCP and UDP load balancing: the stream module for databases, DNS and other non-HTTP services
33. Application servers: Node.js, Gunicorn or uWSGI behind NGINX, PHP-FPM pool sizing
34. Request routing with map and split_clients: header-based routing and percentage A/B splits
35. njs and auth_request: NGINX JavaScript for header logic and subrequest-based authentication
36. Security headers: HSTS, Content-Security-Policy, X-Frame-Options, Referrer-Policy and CORS
37. NGINX in containers and Kubernetes: official image, config via ConfigMap, NGINX Ingress Controller and Gateway Fabric
38. Configuration automation: Ansible roles with Jinja2-generated server blocks and safe reloads
39. Configuration testing in CI: nginx -t, nginx -T dumps and gixy static analysis
40. Monitoring: stub_status, nginx-prometheus-exporter, JSON access logs and Grafana dashboards
41. Troubleshooting: 502 and 504 errors, upstream timeouts, permission and SELinux issues, debug error log

PRACTICE

Hands-on labs

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

FOUNDATION

Secure site behind a reverse proxy

Install NGINX from the official repository, issue a Let's Encrypt certificate, protect an admin path with basic auth and rate limits, and balance two app servers.

ESSENTIAL

Tune a PHP site on NGINX

Host two virtual hosts including a PHP-FPM application with try_files routing and redirects, then add gzip, expires headers, FastCGI cache and HTTP/2 and measure the gain.

INTERMEDIATE

Production proxy with monitoring

Proxy a WebSocket app and a gRPC service with microcaching, generate the config from Ansible, gate it with gixy in CI and graph traffic in Grafana.

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 Nginx levels, plus 20+ more courses and 50+ tools, at your own pace.	**INR 833/month** billed yearly at INR 9,996
Corporate (day-wise)	3 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 NGINX 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/nginx/

ENROL OR RESERVE A SEAT
Nginx Intermediate Training

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Next step after this level: Nginx Advanced Training - Master HTTP and NGINX internals, tune caching and load balancing, build custom modules, add a WAF and run graded, well-managed TLS.