DevOpsSchool

Course curriculum · November 2026

LEVEL 04 OF 04 · ADVANCED

Yaml Advanced Training

Manage large YAML estates safely with overlays, policy checks, secret encryption and standards that scale across teams.

LIVE ONLINE **Max 8-10 hours**	CORPORATE (DAY-WISE) **5 days · Days 1-5**	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 · Included	5 days · This curriculum

INSIDE THIS CURRICULUM

What you will achieve	Outcomes and level focus
Who should attend	Audience and prerequisites
Agenda	44 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/yaml/yaml-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 Yaml course path, you will be able to:

1

Write correct YAML

Use mappings, sequences, scalars, tags and anchors to write clear, valid YAML documents.

2

Use YAML in DevOps tools

Author Kubernetes, Compose, CI and Ansible files and parse YAML safely in code.

3

Govern configuration at scale

Validate, secure and standardise YAML across teams with schemas, policies and encryption.

WHAT THE ADVANCED LEVEL ADDS

Configuration at scale, security and governance

Hands-on: Capstone: governed GitOps configuration repository. Build a GitOps repository with Kustomize overlays for three environments, SOPS-encrypted secrets and CI policy checks that block unsafe changes.

WHO SHOULD ATTEND

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

BEFORE YOU START

- The Intermediate level, or equivalent hands-on experience.
- You can already: Write correct YAML for Kubernetes, Compose, CI pipelines and Ansible, parse it in code and validate it automatically with schemas.
- 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

Yaml Advanced Training agenda

44 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: Data serialisation basics and first YAML files

Included from Foundation

1. Data serialisation: why configuration and data exchange need human-readable formats
2. YAML, JSON and XML compared: readability, comments, data types and typical uses
3. Where YAML is used: Kubernetes, Docker Compose, Ansible, CI pipelines and application configuration
4. Editor setup: VS Code with the YAML extension, schema association and indentation settings
5. Indentation rules: spaces not tabs, consistent nesting and why whitespace carries meaning
6. First configuration file: simple key and value pairs and a short list for an application
7. File conventions: .yaml versus .yml extensions, UTF-8 encoding and line endings
8. Validation basics: checking syntax with yamllint and an online or editor validator
9. Reading errors: common parser messages and locating indentation mistakes
10. Converting formats: turning JSON into YAML and back with yq or Python

DAY 2 — Essential: YAML syntax, styles, structures and anchors

Included from Essential

11. What is YAML: design goals, the YAML 1.2 specification and its relationship to JSON
12. Syntax: indentation, key and value separators, document markers and reserved characters
13. YAML styles: block style versus flow style and when each is appropriate
14. Mappings: nested mappings, complex keys and avoiding duplicate keys
15. Sequences: block and flow sequences, sequences of mappings and nested lists
16. Scalars: plain, single-quoted and double-quoted strings, escapes and numbers, booleans and null
17. Multi-line scalars: literal and folded block scalars with chomping and indentation indicators
18. Structures: combining mappings and sequences and multiple documents in one file
19. Comments: comment syntax, placement rules and documenting configuration
20. Tags: core schema tags such as !!str, !!int and !!bool, explicit typing and custom tags
21. Anchors and aliases: reusing nodes with anchors, aliases and merge keys
22. Final thoughts and next steps: style choices and where to apply YAML skills next

DAY 3 — Intermediate: YAML in DevOps tools, parsing and validation

Included from Intermediate

23. Kubernetes manifests: apiVersion, kind, metadata and spec structure and multi-resource files
24. Docker Compose: services, networks, volumes and environment configuration
25. CI/CD pipelines: GitHub Actions workflows and GitLab CI jobs, stages and expressions
26. Ansible: inventories, playbooks, variables and YAML quoting pitfalls in Jinja2 expressions
27. Implicit typing pitfalls: the Norway problem, octal numbers, version strings and YAML 1.1 versus 1.2
28. Parsing in Python: PyYAML safe_load and round-trip editing with ruamel.yaml
29. Parsing in other languages: js-yaml for Node.js and gopkg.in/yaml.v3 for Go
30. Command-line tools: querying and editing YAML with yq and combining with jq

31. Schema validation: JSON Schema for YAML, kubeconform and editor schema hints
32. Linting standards: yamllint configuration rules and pre-commit hooks
33. Environment-specific values: variable substitution, Compose interpolation and Helm values files

DAYS 4-5 **Advanced: Configuration at scale, security and governance** — **New at this level**

34. Configuration at scale: Kustomize bases and overlays and Helm chart values hierarchies
35. Beyond plain YAML: when to reach for Jsonnet, CUE or generated YAML
36. Policy as code: checking YAML with Conftest and Open Policy Agent and Kyverno policies
37. Security risks: unsafe loaders, arbitrary object construction and alias expansion attacks
38. Secrets in YAML: never committing plain secrets and encrypting values with SOPS
39. Large files and performance: streaming parsers, file splitting and diff-friendly formatting
40. Generating YAML programmatically: serialising from code with stable ordering and formatting
41. GitOps repository design: directory layout, environment promotion and review workflows
42. Style guide and governance: naming, comments, ordering and automated formatting rules
43. Troubleshooting: tracing rendering issues, merge key surprises and tool-specific dialects
44. Capstone: a validated, policy-checked and encrypted configuration repository for several environments

PRACTICE

Hands-on labs

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

FOUNDATION

Write and validate a first YAML file

Write an application configuration file in YAML, lint it with yamllint, fix the reported errors and convert it to JSON to compare the structures.

ESSENTIAL

Model a complex configuration in YAML

Write a multi-document configuration with nested mappings, sequences, multi-line scalars, tags and anchors that removes repetition, then validate it.

INTERMEDIATE

Validate DevOps YAML in a pipeline

Create Kubernetes, Compose and GitHub Actions files, edit them with yq and add yamllint, kubeconform and JSON Schema checks to a CI job.

ADVANCED

Capstone: governed GitOps configuration repository

Build a GitOps repository with Kustomize overlays for three environments, SOPS-encrypted secrets and CI policy checks that block unsafe changes.

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 Yaml 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 YAML 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/yaml/

ENROL OR RESERVE A SEAT
Yaml Advanced Training

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