DevOpsSchool

Course curriculum · November 2026

LEVEL 03 OF 04 · INTERMEDIATE

Kapitan Intermediate Training

Automate Kapitan with generators, CI pipelines and GitOps delivery while keeping secrets out of Git.

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	35 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/kapitan/kapitan-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 Kapitan course path, you will be able to:

1

Model configuration once

Describe every environment in a single Kapitan inventory and generate consistent manifests from it.

2

Manage secrets safely

Keep secrets encrypted in Git with Kapitan refs and reveal them only at deploy time.

3

Automate delivery with GitOps

Compile, validate and ship Kapitan output through CI pipelines and GitOps tools.

WHAT THE INTERMEDIATE LEVEL ADDS

Generators, CI/CD and GitOps integration

Hands-on: Build a GitOps pipeline with Kapitan. Create a CI job that compiles all targets, blocks merges with stale compiled output and lets Argo CD sync the result to two clusters.

WHO SHOULD ATTEND

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

BEFORE YOU START

- The Essential level, or equivalent hands-on experience.
- You can already: Build reusable components with Jsonnet, Kadet and Helm inputs and manage secrets safely with Kapitan refs.
- 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

Kapitan Intermediate Training agenda

35 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: Kapitan concepts, inventory and first compile

Included from Foundation

1. What Kapitan is: a configuration management tool that generates Kubernetes, Terraform, scripts and docs from one inventory
2. Why Kapitan: removing duplication across environments compared with Helm, Kustomize and plain Jsonnet
3. Installing Kapitan: pip install kapitan, the kapicorp/kapitan container image and kapitan --version
4. Project layout: inventory/targets, inventory/classes, components, Jinja2 sources and the compiled directory
5. Inventory basics: targets and classes in YAML, parameters and class inheritance
6. Parameter interpolation: ${...} references between parameters and target-specific variables
7. Inspecting the inventory: kapitan inventory -t and kapitan searchvar
8. First compile: kapitan compile, selecting targets with -t and reading the compiled output
9. Input types overview: jinja2, jsonnet, kadet (Python), helm, copy and external
10. Jinja2 input: rendering text files, scripts and README documentation from inventory values
11. Kapitan with Git: committing compiled output and reviewing diffs as the change record

DAY 2 — Essential: Jsonnet, Kadet, Helm inputs and secrets

Included from Essential

12. Jsonnet input: writing Kubernetes manifests in Jsonnet and reading the inventory through kapitan.libsonnet
13. Kadet input: generating manifests in Python with BaseObj and kadet components
14. Helm input: rendering upstream Helm charts with values taken from the inventory
15. Output types: yaml, json and plain output, and setting output_path per component
16. Compile configuration: parameters.kapitan.compile entries with input_type, input_paths and output_type
17. External dependencies: fetching Git repositories, HTTP files and Helm charts with --fetch
18. Secrets with refs: the ?{...} reference syntax and kapitan refs --write and --reveal
19. Ref backends: plain, base64, gpg, gkms, awskms, azkms, vaultkv and vaulttransit
20. Generated secrets: random strings, RSA keys and base64 functions in ref definitions
21. Reusable classes: common, environment and component classes, overriding parameters per target
22. Validation: kapitan validate against Kubernetes schemas and kapitan lint for unused classes and refs
23. Team workflow: target-per-environment conventions, review of compiled diffs and pre-commit hooks

DAY 3 — Intermediate: Generators, CI/CD and GitOps integration

New at this level

24. Kapitan generators: the kapicorp generators library for Kubernetes, Terraform and documentation
25. Kubernetes generator: defining deployments, services, config maps and secrets purely in the inventory
26. Terraform with Kapitan: compiling Terraform JSON per environment and configuring state backends
27. Scripts and docs: generating apply scripts and per-target README files with Jinja2
28. CI pipelines: kapitan compile --fetch in GitHub Actions or GitLab CI, failing on uncommitted diffs
29. GitOps delivery: syncing compiled manifests with Argo CD or Flux, and Kapitan as an Argo CD plugin
30. Reveal at deploy time: kapitan refs --reveal in pipelines while plaintext never reaches Git

31. Inventory backends: reclass, the faster reclass-rs and the OmegaConf backend
32. Kadet libraries: sharing Python component code across targets and unit testing it
33. Troubleshooting compiles: --verbose output, interpolation errors, missing classes and ref decryption failures
34. Access control: KMS key policies, Vault policies and per-environment secret isolation
35. Multi-cluster layout: organising targets by cluster, region and environment

PRACTICE

Hands-on labs

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

FOUNDATION

Compile two environments from one inventory

Create dev and prod targets that share classes, override a few parameters per target and compile Kubernetes manifests and a README for both.

ESSENTIAL

Deploy an application with Kapitan secrets

Package an application as a Jsonnet or Kadet component, add a database password as a gkms or gpg ref and deploy the revealed manifests to a cluster.

INTERMEDIATE

Build a GitOps pipeline with Kapitan

Create a CI job that compiles all targets, blocks merges with stale compiled output and lets Argo CD sync the result to two clusters.

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 Kapitan 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 KAPITAN 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/kapitan/

ENROL OR RESERVE A SEAT
Kapitan Intermediate Training

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Next step after this level: Kapitan Advanced Training - Run Kapitan as a platform for many teams with fast compiles, hardened secrets, policy checks and migrations.