DevOpsSchool

Course curriculum · November 2026

LEVEL 04 OF 04 · ADVANCED

Flux Advanced Training

Run Flux at enterprise scale with progressive delivery, infrastructure controllers, performance tuning and policy-driven governance.

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	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/flux/flux-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 Flux course path, you will be able to:

1

Deliver with GitOps

Use Flux to keep Kubernetes clusters continuously in sync with the desired state stored in Git.

2

Automate releases safely

Manage Helm releases, encrypted secrets, image automation and alerts across environments.

3

Operate Flux at scale

Design multi-tenant, multi-cluster GitOps platforms with progressive delivery and governance.

WHAT THE ADVANCED LEVEL ADDS

Progressive delivery, scale, operators and governance

Hands-on: Multi-cluster platform with canary releases. Build a fleet repository for two clusters with tenants and policies, add Flagger canary releases and rebuild a cluster from Git to prove recovery.

WHO SHOULD ATTEND

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

BEFORE YOU START

- The Intermediate level, or equivalent hands-on experience.
- You can already: Automate image updates, manage encrypted secrets, wire alerts and webhooks and run Flux safely for multiple teams.
- 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

Flux 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: GitOps concepts, Flux architecture and bootstrap

Included from Foundation

1. GitOps fundamentals: declarative desired state, Git as the source of truth, pull-based reconciliation
2. What Flux is: a CNCF graduated GitOps toolkit, Flux v2 and how it compares with Argo CD
3. Flux architecture: source, kustomize, helm, notification and image automation controllers
4. Custom resources overview: GitRepository, Kustomization, HelmRepository, HelmRelease and their status
5. Prerequisites: Kubernetes cluster with kind or a managed service, kubectl and Git hosting access
6. Installing the flux CLI: package managers or install script, shell completion and flux check --pre
7. Bootstrapping Flux: flux bootstrap github or gitlab, deploy keys and the flux-system namespace
8. Repository layout: clusters, apps and infrastructure folders for a single cluster
9. First deployment: committing Kubernetes manifests and watching Flux reconcile them
10. Inspecting state: flux get all, flux get kustomizations, flux reconcile and flux suspend or resume
11. Drift correction: changing a resource by hand and watching Flux restore the desired state

DAY 2 — Essential: Sources, Kustomizations, Helm releases and environments

Included from Essential

12. Sources in depth: GitRepository refs, intervals, ignore rules and authentication with SSH or tokens
13. OCI and bucket sources: OCIRepository, Bucket and HelmRepository of type OCI
14. Kustomization controller: path, prune, wait, timeout, health checks and dependsOn ordering
15. Kustomize overlays: base and environment overlays, patches and image overrides
16. Post-build variable substitution: postBuild substitute and substituteFrom ConfigMaps and Secrets
17. Helm controller: HelmRelease chart sources, values, valuesFrom and chart version ranges
18. HelmRelease lifecycle: install and upgrade remediation, rollbacks, tests and drift detection
19. Environment promotion: staging and production folders or branches and promotion by pull request
20. Infrastructure components: deploying ingress-nginx, cert-manager and monitoring stacks with Flux
21. Troubleshooting basics: flux logs, flux events, flux tree and flux trace
22. Team workflow: pull request reviews, flux diff kustomization and validating manifests in CI

DAY 3 — Intermediate: Secrets, image automation, notifications and multi-tenancy

Included from Intermediate

23. Secrets management: SOPS with age or cloud KMS and decryption in Kustomizations
24. External secrets: integrating External Secrets Operator with Vault or cloud secret managers
25. Image automation: ImageRepository, ImagePolicy with semver or regex and ImageUpdateAutomation
26. Notification controller: Providers and Alerts for Slack, Microsoft Teams and Git commit status
27. Receivers: webhook receivers for instant reconciliation on Git push or registry events
28. Multi-tenancy: tenant namespaces, service account impersonation and RBAC lockdown
29. Fleet repository design: monorepo versus repo-per-team and repo-per-environment layouts
30. Multi-cluster management: one repository driving several clusters with shared bases

31. OCI artifacts: flux push artifact, flux build and publishing manifests to registries
32. Supply chain security: verifying artifacts with cosign or Notation and verified Git commits
33. Monitoring Flux: controller metrics in Prometheus, Grafana dashboards and reconciliation alerts
34. Upgrading Flux: CLI and controller upgrades and API version migrations

DAYS 4-5 **Advanced: Progressive delivery, scale, operators and governance** — **New at this level**

35. Progressive delivery with Flagger: canary, A/B and blue-green releases with metric analysis
36. Service mesh and ingress integration for Flagger: Istio, Linkerd, Gateway API and NGINX
37. Infrastructure as code with Flux: the Terraform or OpenTofu controller and Crossplane resources
38. Flux Operator: managing Flux installations with FluxInstance and ResourceSets
39. Scaling Flux: controller concurrency, sharding, intervals and reducing Git and API server load
40. Disaster recovery: rebuilding clusters from Git, bootstrap repeatability and secret key backup
41. Policy as code: Kyverno or OPA Gatekeeper with Flux and validating admission policies
42. Air-gapped and private registries: mirroring Flux images and charts and using OCI sources offline
43. Governance: audit trails from Git history, branch protection, CODEOWNERS and change approval
44. Observability of delivery: Flux UI options, events export and DORA metrics from GitOps
45. Migration: moving from Flux v1, Argo CD or scripted kubectl pipelines to Flux v2
46. Capstone: a multi-cluster GitOps platform with tenants, secrets, image automation and canary releases

PRACTICE

Hands-on labs

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

FOUNDATION

Bootstrap Flux and deploy an app

Bootstrap Flux onto a kind cluster from a GitHub or GitLab repository and deploy an application by committing manifests to Git.

ESSENTIAL

Promote a Helm app across environments

Deploy infrastructure and an application with Kustomizations and HelmReleases to staging and production, then promote a new version by pull request.

INTERMEDIATE

Automate releases for many teams

Set up tenant namespaces with SOPS-encrypted secrets, enable image update automation for new tags and send reconciliation alerts to Slack.

ADVANCED

Multi-cluster platform with canary releases

Build a fleet repository for two clusters with tenants and policies, add Flagger canary releases and rebuild a cluster from Git to prove recovery.

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 Flux 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 FLUX 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/flux/

ENROL OR RESERVE A SEAT
Flux Advanced Training

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