DevOpsSchool

Course curriculum · November 2026

LEVEL 04 OF 04 · ADVANCED

Mlops Concept Advanced Training

Lead MLOps at organisation level with a maturity roadmap, model risk governance, AI regulation readiness and LLMOps practices.

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	50 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/mlops/mlops-concept-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 Mlops Concept course path, you will be able to:

1

Explain MLOps clearly

Describe MLOps lifecycle, architectures and metrics to engineers and leaders alike.

2

Design production-ready ML flows

Plan data, evaluation, release, monitoring and controls for models in production.

3

Lead governed ML adoption

Set maturity targets, governance and a roadmap for responsible ML and LLM use.

WHAT THE ADVANCED LEVEL ADDS

Maturity, governance, regulation and GenAI operations

Hands-on: Capstone: organisation-wide MLOps strategy. Assess a case organisation's maturity, design its target operating model and governance controls, and present a costed 12-month roadmap.

WHO SHOULD ATTEND

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

BEFORE YOU START

- The Intermediate level, or equivalent hands-on experience.
- You can already: Design CI, continuous training, release gates and monitoring for production models, and decide when to retrain, roll back or escalate.
- 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

Mlops Concept Advanced Training agenda

50 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: MLOps concepts, reference architectures and transition playbook

Included from Foundation

1. What MLOps is and isn't: moving from notebooks to reliable, repeatable ML systems
2. MLOps versus DevOps: data and labels, model artifacts, continuous training, evaluation and deployment
3. 2025 landscape: Git workflows, containerised training, model registries, CI/CD/CT, real-time and batch serving, observability
4. Platform patterns: AWS SageMaker, Google Vertex AI and Azure ML with similar registry, pipeline and endpoint capabilities
5. Lifecycle and versioning: version control for datasets, features and labels, experiment tracking and lineage
6. Reproducible training: containers, seeds, pinned environments and artifacted models
7. CI/CD/CT for ML: lifecycle stages from data collection and training to deployment, monitoring and maintenance
8. Collaboration: how data scientists and operations teams share ownership across the lifecycle
9. Serving and release strategies: online endpoints versus batch scoring, canary and blue-green releases, rollback
10. Observability and risk: data drift, prediction drift, quality, latency and cost SLOs, lineage, approvals, model cards
11. Lightweight security and governance: least privilege, private images, encryption, PII and policy-as-code
12. Metrics that matter: lead time to model change, release frequency, change failure rate, MTTR, offline and online metrics
13. Alerting basics: alert design and human-in-the-loop review for model decisions
14. Build versus buy and transition playbook: managed versus Kubernetes DIY, quick wins, baseline to governed in 30/60/90 days

DAY 2 Essential: Design patterns, data, evaluation and team practices

Included from Essential

15. Framing ML products: when ML is the wrong answer, simple baselines, success criteria and go or no-go gates
16. Data lifecycle concepts: labelling workflows, data quality dimensions and data contracts for ML features
17. Training-serving skew: causes, shared feature logic and when a feature store pays off
18. Experiment discipline: naming, metadata, run comparison and a reproducibility checklist
19. Model packaging: joblib and pickle risks, ONNX, MLflow model flavours and container images
20. Model registry concepts: lifecycle states, approval steps and links back to data and code versions
21. Pipeline design: components, DAGs, caching, parameters and idempotent steps
22. Evaluation design: holdout and cross-validation, slicing by segment, baseline comparison and acceptance thresholds
23. Deployment patterns: embedded model, model as a service, batch, streaming and edge inference
24. ML testing pyramid: data tests, unit tests for features, behavioural model tests and integration tests
25. Documentation: model cards, datasheets for datasets and decision logs
26. Team topologies for ML: platform team, embedded ML engineers and a RACI for model ownership

DAY 3 **Intermediate: Automation flow, release safety, monitoring and controls** Included from Intermediate

27. CI pipeline anatomy for ML repositories: lint, unit tests, data checks and evaluation reports on pull requests
28. Continuous training triggers: schedules, new data, drift signals and their trade-offs
29. Promotion gates: champion and challenger comparison, fairness checks and manual approval points
30. Online experiments: shadow mode, A/B tests, traffic split sizing and statistical significance
31. Monitoring design: inputs, outputs, delayed ground truth, proxy metrics and segment-level views
32. Alerting and on-call for models: thresholds, severity, ownership and runbooks
33. Model incident patterns: silent failures, upstream schema changes, feedback loops and training data leaks
34. Retrain or roll back: decision rules, fallback models and business rule safety nets
35. Security controls: artifact integrity, secrets, access reviews and PII minimisation in training data
36. Policy-as-code: encoding promotion and deployment rules with OPA or cloud policy services
37. Cost awareness: GPU utilisation, batch versus online serving cost and per-model spend tracking
38. Worked walkthrough: the same CI/CD/CT flow on SageMaker, Vertex AI or Azure ML compared step by step

DAYS 4-5 **Advanced: Maturity, governance, regulation and GenAI operations** **New at this level**

39. Maturity models: Google level 0 to 2 and the Microsoft MLOps maturity model for baseline and target setting
40. ML platform as a product: golden paths, self-service onboarding and platform team metrics
41. Use-case portfolio: prioritising models by value and risk and tracking realised business impact
42. Model risk management: model inventory, independent validation, periodic review and decommissioning
43. AI regulation and standards: EU AI Act risk tiers, ISO/IEC 42001 management systems and NIST AI RMF
44. Responsible AI programme: fairness, explainability, transparency and human oversight commitments
45. LLMOps concepts: prompts as versioned artifacts, evaluation-driven development, RAG operations and agent monitoring
46. AI security: OWASP Top 10 for LLM applications, ML supply chain risks and red teaming
47. FinOps for ML: unit economics per prediction, reserved and spot capacity and chargeback models
48. Platform strategy: managed, open-source or hybrid stacks, multi-cloud, vendor risk and exit plans
49. Change management: skills plans, communities of practice and adoption metrics
50. Capstone: an MLOps strategy with maturity baseline, target operating model, governance and 12-month roadmap

PRACTICE

Hands-on labs

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

FOUNDATION **Map your ML delivery path**

Draw the current path of one model from notebook to production, score it against the lifecycle stages and pick three quick wins for the next 30 days.

ESSENTIAL **Design one model's MLOps blueprint**

For a churn or fraud use case, write the success criteria, data contract, evaluation plan, deployment pattern and model card your team would sign off.

INTERMEDIATE

Design a gated release and monitoring

Specify the CI checks, CT trigger, promotion gate, shadow test and monitoring alerts for one model, then walk through a simulated drift incident.

ADVANCED

Capstone: organisation-wide MLOps strategy

Assess a case organisation's maturity, design its target operating model and governance controls, and present a costed 12-month roadmap.

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 Mlops Concept 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 MLOPS CONCEPT 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/mlops/

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