DevOpsSchool

Course curriculum · November 2026

LEVEL 04 OF 04 · ADVANCED

Harbor Advanced Training

Run Harbor as a highly available, monitored enterprise registry with tested backups, upgrades and multi-site distribution.

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	45 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/harbor/harbor-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 Harbor course path, you will be able to:

1

Run a private registry

Install and configure Harbor to store images, Helm charts and OCI artifacts securely.

2

Enforce supply chain security

Use scanning, signing, SBOMs, immutability and policies to control what can be deployed.

3

Operate Harbor at scale

Replicate, cache, automate, monitor and upgrade Harbor as a highly available enterprise service.

WHAT THE ADVANCED LEVEL ADDS

High availability, scale, operations and upgrades

Hands-on: Highly available enterprise registry. Deploy Harbor with the Helm chart on external PostgreSQL, Redis and S3 storage, add monitoring and prove a backup, restore and upgrade cycle.

WHO SHOULD ATTEND

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

BEFORE YOU START

- The Intermediate level, or equivalent hands-on experience.
- You can already: Integrate Harbor with your identity provider, replicate and cache images across registries and automate it through APIs and webhooks.
- 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

Harbor Advanced Training agenda

45 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: Registry concepts, architecture and installation

Included from Foundation

1. Container registry concepts: images, tags, digests, manifests and OCI artifacts
2. What Harbor is: a CNCF graduated, open source registry with policies, scanning and replication
3. Harbor architecture: core, portal, jobservice, registry, PostgreSQL, Redis and Trivy components
4. Installation options: online and offline installers with Docker Compose and the Harbor Helm chart
5. Configuring harbor.yml: hostname, HTTPS certificates, data volume and admin password
6. Running the installer: ./install.sh with Trivy enabled and verifying the containers
7. Trusting the registry: CA certificates for Docker, containerd and Podman clients
8. Projects: public and private projects and the default library project
9. Pushing and pulling images: docker login, tag, push and pull and browsing artifacts in the portal
10. Users and roles: project admin, maintainer, developer, guest and limited guest
11. Harbor web portal tour: repositories, artifacts, tags, logs and configuration screens

DAY 2 — Essential: Security scanning, policies, robot accounts and artifacts

Included from Essential

12. Vulnerability scanning: Trivy scanner, scan on push, manual scans and reading CVE reports
13. SBOM generation: creating and viewing software bills of materials for artifacts
14. Deployment security: preventing vulnerable images from running and CVE allowlists
15. Image signing: Cosign and Notation signatures and enforcing signed-only pulls
16. Robot accounts: system and project robot accounts with scoped permissions for CI/CD
17. Tag immutability: protecting release tags from being overwritten
18. Tag retention: rules by repository, tag pattern, count and age
19. Project quotas: storage limits per project and quota monitoring
20. Helm charts as OCI artifacts: helm push and helm pull with oci:// references
21. Other OCI artifacts: CNAB, WASM modules and generic artifacts with ORAS
22. Garbage collection: scheduling GC, dry runs and reclaiming storage

DAY 3 — Intermediate: Authentication, replication, proxy cache and automation

Included from Intermediate

23. Authentication modes: database, LDAP or Active Directory and OIDC single sign-on
24. Group-based access: LDAP and OIDC groups mapped to project roles
25. Replication endpoints: Harbor, Docker Hub, Amazon ECR, Google Artifact Registry, Azure ACR and Quay
26. Replication rules: push-based and pull-based replication, filters, triggers and schedules
27. Proxy cache projects: caching Docker Hub and other upstream registries and avoiding rate limits
28. P2P preheat: integrating Dragonfly or Kraken to distribute images to large clusters
29. Webhooks: notifying CI/CD and chat tools on push, scan and replication events
30. Harbor REST API v2.0: Swagger explorer, automation scripts and API authentication

31. Infrastructure as code: managing projects, robots and policies with the Harbor Terraform provider
32. CI/CD integration: pushing from GitHub Actions, GitLab CI and Jenkins and pulling into Kubernetes
33. Audit logs and job service: tracking operations and troubleshooting failed jobs

DAYS 4-5 **Advanced: High availability, scale, operations and upgrades** — **New at this level**

34. High availability architecture: Harbor on Kubernetes with external PostgreSQL and Redis
35. Storage backends: S3, Azure Blob, Google Cloud Storage and Swift for registry data
36. Load balancing and TLS: ingress, internal TLS between components and certificate rotation
37. Performance tuning: jobservice workers, database connections, caching and large-image handling
38. Monitoring: Harbor Prometheus metrics, Grafana dashboards and alerting on registry health
39. Logging: component logs, log rotation and shipping logs to a central platform
40. Backup and restore: database dumps, registry storage backups and Velero for Kubernetes installs
41. Upgrades: data migration between Harbor versions and zero-downtime upgrade planning
42. Multi-site distribution: hub-and-spoke replication and edge registries for remote clusters
43. Security hardening: least-privilege roles, robot rotation, system CVE allowlist and network policies
44. Governance: retention and immutability standards, compliance reporting and audit reviews
45. Capstone: an enterprise registry platform with HA, SSO, scanning policies, replication and monitoring

PRACTICE

Hands-on labs

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

FOUNDATION

Install Harbor and push images

Install Harbor over HTTPS with Docker Compose, create a private project with members and push and pull images from Docker and Podman.

ESSENTIAL

Build a secure image workflow

Configure scan on push, a vulnerability policy and Cosign signing, then push a Helm chart and images from a robot account used by CI.

INTERMEDIATE

Replicate and cache across registries

Enable OIDC login, replicate a project to a cloud registry, create a Docker Hub proxy cache and automate project setup with Terraform.

ADVANCED

Highly available enterprise registry

Deploy Harbor with the Helm chart on external PostgreSQL, Redis and S3 storage, add monitoring and prove a backup, restore and upgrade cycle.

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 Harbor 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 HARBOR 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/harbor/

ENROL OR RESERVE A SEAT
Harbor Advanced Training

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