DevOpsSchool

Course curriculum · November 2026

LEVEL 03 OF 04 · INTERMEDIATE

# Rancher Intermediate Training

Back up, upgrade and troubleshoot Rancher and clusters, and operate monitoring, logging, projects, quotas and access control.

| | | |
|---|---|---|
| **LIVE ONLINE**<br>Max 8-10 hours | **CORPORATE (DAY-WISE)**<br>3 days · Days 1-3 | **SELF-PACED VIDEO**<br>1-year LMS access |
| **BATCH SIZE**<br>Max 10 learners | **NEXT BATCHES**<br>1st of every month · weekends: first Saturday | **CERTIFICATE**<br>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 | 39 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/rancher/rancher-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 Rancher course path, you will be able to:

1

### Manage Kubernetes with Rancher

Install Rancher and provision, import and manage Kubernetes clusters from one console.

2

### Operate clusters day two

Back up, upgrade, monitor, log and troubleshoot Rancher and downstream clusters.

3

### Scale securely with GitOps

Run HA, hardened, multi-cluster platforms with Fleet, policies and RKE2.

WHAT THE INTERMEDIATE LEVEL ADDS

### Day-two operations, monitoring, projects and troubleshooting

**Hands-on:** Operate a multi-team cluster. Create projects with quotas and roles for two teams, enable monitoring, alerts and logging, take an etcd snapshot and practise a restore.

WHO SHOULD ATTEND

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

BEFORE YOU START

- The Essential level, or equivalent hands-on experience.
- You can already: Install Rancher on Kubernetes with Helm, provision downstream clusters and deploy, expose and configure workloads from Rancher.
- 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

# Rancher Intermediate Training agenda

39 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: Rancher architecture, RKE, RKE2 and first install

Included from Foundation

1. Intro to Rancher: multi-cluster Kubernetes management, Rancher Prime vs community edition and current 2.x releases
2. Learning the Rancher architecture: Rancher server components, authentication proxy, cluster controllers and agents
3. Communication with downstream clusters: cattle-cluster-agent, node agents, tunnels and kubeconfig proxying
4. Architectural best practices: a dedicated management cluster, high availability, load balancer and DNS
5. Discovering RKE: RKE1 concepts and its end of life, RKE2 and K3s as the current Kubernetes distributions
6. Installing RKE: the rke binary, SSH and Docker requirements; installing RKE2 with the install script
7. Preparing nodes for Kubernetes: OS requirements, swap, kernel modules, firewall ports and container runtime
8. Creating the cluster configuration file: cluster.yml for RKE, config.yaml for RKE2 and node roles
9. Certificate options: Rancher self-signed, your own CA, and Let's Encrypt with cert-manager
10. Deploying Kubernetes: rke up or starting rke2-server and agents, then retrieving the kubeconfig
11. Installing Rancher with Docker: single-node install for development and evaluation
12. First login: bootstrap password, server URL, the Rancher dashboard and importing an existing cluster

## DAY 2 — Essential: Rancher on Kubernetes, cluster provisioning and workloads

Included from Essential

13. Installing Rancher with Kubernetes: deploying into RKE or RKE2 with the Helm chart, cert-manager and TLS options
14. Designing and provisioning clusters: where will my cluster live (custom, hosted EKS/AKS/GKE, node driver or imported)
15. Cluster constraints: limitations within certain cluster types, node resource requirements, networking and port requirements
16. Cluster roles: etcd, control plane and worker roles and how to place them
17. Deploying a Kubernetes cluster: RKE configuration options and reusable, centrally managed cluster configurations
18. Node drivers and cloud credentials: machine pools, cloud providers and deploying a cluster from the UI
19. Deploying and managing workloads: deploy workloads, upgrade workloads and roll back workloads
20. Using persistent storage: provisioning storage classes, using persistent volume claims and Longhorn
21. Dynamic data: ConfigMaps, Secrets, certificates, registry credentials and resource naming
22. Service discovery and load balancing: services in Rancher, layer 4 versus layer 7, LoadBalancer services and Ingress
23. The Rancher application catalog: how it works, catalog scope, included global catalogs and Apps today
24. Custom catalogs: adding custom catalogs as Helm chart repositories and using catalog apps
25. Using the CLI tools: kubectl with Rancher-generated kubeconfig files and the Rancher CLI

## DAY 3 — Intermediate: Day-two operations, monitoring, projects and troubleshooting

**New at this level**

26. Day two operations for RKE: secure the installation files, backups and DR with etcd snapshots

27. RKE maintenance: upgrading Kubernetes, certificate management and rotation, adding and removing nodes
28. Rancher on Docker lifecycle: making backups, restoring from a backup and upgrading Rancher
29. Rancher on Kubernetes lifecycle: backups with the rancher-backup operator, restoring and upgrading Rancher with Helm
30. Editing clusters: editing cluster options and upgrading Kubernetes from Rancher
31. Monitoring: enabling advanced monitoring with rancher-monitoring and using the Grafana dashboards
32. Alerting: configuring notifiers and alerts with Alertmanager routes and PrometheusRules
33. Logging: configuring logging with the Logging operator, flows and outputs to Elasticsearch, Loki or Splunk
34. Namespaces and projects: namespace overview, projects as namespace groups and project security
35. Resource quotas and resource limits: project and namespace quotas and default container limits
36. Working inside a project: namespace management, project monitoring, project alerts and logging
37. Basic troubleshooting: what could go wrong, Rancher's API server, container runtime, node conditions and kubelet
38. Advanced troubleshooting: etcd health, control plane components, nginx-proxy and the container network (CNI)
39. Access control: authentication providers (LDAP, SAML, OIDC) and global, cluster and project roles

PRACTICE

## Hands-on labs

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

FOUNDATION

**Install RKE2 and Rancher**

Prepare Linux nodes, build an RKE2 cluster, install Rancher on it and import a second cluster into the Rancher dashboard.

ESSENTIAL

**Provision a cluster and deploy an app**

Provision a downstream cluster from Rancher, then deploy a web application with storage, secrets, an Ingress and a Helm chart from the catalog.

INTERMEDIATE

**Operate a multi-team cluster**

Create projects with quotas and roles for two teams, enable monitoring, alerts and logging, take an etcd snapshot and practise a restore.

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 Rancher 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 RANCHER 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/rancher/


ENROL OR RESERVE A SEAT
**Rancher Intermediate Training**

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**Next step after this level: Rancher Advanced Training** - Run Rancher at enterprise scale with Fleet GitOps, HA and DR, hardened security, RKE2 migration and edge and hosted clusters.