DevOpsSchool

Course curriculum · November 2026

LEVEL 04 OF 04 · ADVANCED

Jenkins Advanced Training

Administer, automate and scale Jenkins for many teams with multibranch pipelines, shared libraries, configuration as code and hardened security.

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	53 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/jenkins/jenkins-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 Jenkins course path, you will be able to:

1

Automate builds with Jenkins

Install Jenkins and create freestyle and pipeline jobs that build, test and package code on every change.

2

Integrate the delivery toolchain

Connect Jenkins to Git, build tools, test tools, quality gates, Jira, Docker and cloud platforms.

3

Run Jenkins at scale

Secure, back up, upgrade and scale Jenkins for multiple teams with code-defined configuration.

WHAT THE ADVANCED LEVEL ADDS

Administration, API, multibranch and scaling Jenkins

Hands-on: Capstone: multibranch delivery platform. Stand up a JCasC-configured Jenkins with Kubernetes agents and a shared library, then deliver a multibranch pipeline from pull request to deployment.

WHO SHOULD ATTEND

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

BEFORE YOU START

- The Intermediate level, or equivalent hands-on experience.
- You can already: Add Linux and Windows agents, write declarative pipelines, integrate Jenkins with build, test and cloud tools, publish reports and secure access.
- 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

Jenkins Advanced Training agenda

53 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: CI concepts, Jenkins installation and first job

Included from Foundation

1. Let's understand continuous integration: what CI is, its benefits, and continuous delivery vs continuous deployment
2. Continuous integration tools: Jenkins vs TeamCity vs Bamboo, and where GitHub Actions and GitLab CI fit
3. What is Jenkins: controller and agent architecture, jobs, builds, workspaces, executors and plugins
4. Jenkins installation prerequisites: supported Java 17 or 21, memory, disk, ports and firewall rules
5. Installing Jenkins on Linux: using yum or dnf on RHEL-family systems and using apt on Ubuntu and Debian
6. Installing Jenkins on Windows and Tomcat: the MSI installer, and deploying jenkins.war on Tomcat
7. Installing as a service: systemd unit or Windows service, starting and stopping Jenkins, initial admin password
8. Jenkins in a container: running the official image with a persistent jenkins_home volume
9. Jenkins home directory: jenkins_home layout, jobs, workspace, plugins and config.xml files
10. Jenkins dashboard tour: setup wizard, suggested plugins, first admin user, navigation and build history
11. Understand the freestyle project: what it is and when to choose freestyle or pipeline jobs
12. Creating a simple job: run a shell or batch step, read console output and rebuild from build history

DAY 2 — Essential: Freestyle jobs, triggers, plugins and notifications

Included from Essential

13. Freestyle general tab: description, discard old builds, parameters, restricting where the project runs
14. Freestyle source code management tab: Git repository URL, credentials and branches to build
15. Jobs scheduling: manual builds, build periodically on a fixed cron schedule, poll SCM, trigger builds remotely by script
16. Build trigger based on push to Git: GitHub and GitLab webhooks compared with SCM polling
17. Freestyle build environment, build steps and post-build actions: workspace cleanup, timestamps, archiving artifacts
18. Manage Jenkins: system configuration and global tool configuration for JDK, Maven, Ant, Gradle and Git
19. My views, people and credentials: list views, the user directory, credential types and scopes
20. Java build jobs: simple Java applications built with Maven, Ant and Groovy
21. Windows and native build jobs: simple .NET application with MSBuild and C++ application with a batch build
22. Useful job configuration: parameterised jobs, executing concurrent builds and job executors
23. Job chaining: build other projects, build after other projects are built, throttle builds
24. Jenkins plugins: installing, configuring and updating plugins, plugin documentation on plugins.jenkins.io
25. Notification and feedback: email notification, advanced Email Extension notifications and Slack notification
26. CI build pipeline and dashboard: visualising upstream and downstream jobs with pipeline views and dashboards

DAY 3 — Intermediate: Agents, pipelines, integrations, reports and security

Included from Intermediate

27. Jenkins node management: adding a Linux node over SSH and Windows nodes as inbound agents
28. Nodes management using Jenkins: labels, executors, usage modes, tool locations and node monitoring
29. Pipeline as code: Jenkinsfile with declarative syntax, stages, steps, agents, environment, when and post

30. Groovy for pipelines: objects, properties and methods, primitive and wrapper types, classes, constructors, inheritance
31. Groovy classes in shared code: getters and setters, static members and the Jenkins script console
32. Integration with source and build tools: Git, Maven, Gradle and JUnit
33. Integration with quality and test tools: SonarQube, JaCoCo, Coverity and Selenium
34. Integration with infrastructure tools: Docker, AWS, Terraform, Packer, Ansible, Chef and Puppet
35. Jenkins integration with Jira: linking builds and commits to issues and updating issues from pipelines
36. Reports in Jenkins: JUnit report and test results trends, Cucumber reports and Selenium reports
37. Quality reports: SonarQube reports and quality gates, JaCoCo coverage reports and Coverity reports
38. Security in Jenkins: authentication with the user database, LDAP or SSO, authorization with matrix-based security
39. Managing folders and subfolders: organising jobs with folder-level credentials and permissions
40. Using Jenkins plugins best practices: top useful plugins, keeping the set minimal, updates and security advisories

DAYS 4-5 **Advanced: Administration, API, multibranch and scaling Jenkins** — New at this level

41. Jenkins advance administrator: Jenkins upgrade strategy, LTS vs weekly releases and plugin compatibility checks
42. Jenkins backup and restore: what to back up in jenkins_home, filesystem snapshots and restore drills
43. Jenkins command line: jenkins-cli.jar over HTTP or SSH to manage jobs, builds, plugins and safe restarts
44. Jenkins API programming: REST API with JSON and XML, API tokens, triggering builds and querying results
45. Jenkins multibranch pipeline: branch and pull request discovery, organisation folders and webhooks
46. Jenkins multi-configuration project: matrix builds across axes and the pipeline matrix directive
47. Shared libraries: vars and src layout, versioned global libraries and reusable pipeline steps
48. Jenkins Blue Ocean: pipeline visualisation, its maintenance status and the Pipeline Graph View plugin
49. Jenkins nodes high availability: redundant agents, ephemeral Kubernetes and Docker agents, controller recovery
50. Configuration as Code: JCasC YAML, plugin installation manager and reproducible controllers
51. Scaling Jenkins: distributing builds, executor sizing, controller JVM tuning, build discard and artifact storage
52. Security hardening: CSRF protection, agent-to-controller security, script approval, credential masking and audit trail
53. Capstone: CI/CD pipeline from Git push to a tested, scanned container deployed to Kubernetes or AWS

PRACTICE

Hands-on labs

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

FOUNDATION

Install Jenkins and run a job

Install Jenkins as a service on Ubuntu or Windows, complete the setup wizard and create a freestyle job that runs a script and keeps its build history.

ESSENTIAL

Build and chain freestyle jobs

Create parameterised freestyle jobs that build a Java Maven app on every Git push, trigger a downstream test job and send email and Slack notifications.

INTERMEDIATE

Build a declarative CI pipeline

Write a Jenkinsfile that builds on a Linux agent, runs JUnit and Selenium tests, publishes JaCoCo and SonarQube reports and builds a Docker image.

ADVANCED

Capstone: multibranch delivery platform

Stand up a JCasC-configured Jenkins with Kubernetes agents and a shared library, then deliver a multibranch pipeline from pull request to deployment.

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 Jenkins 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 JENKINS 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/jenkins/

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