DevOpsSchool

Course curriculum · November 2026

LEVEL 04 OF 04 · ADVANCED

# Code Quality And Analysis Advanced Training

Lead an organization-wide code quality program with governed gates, compliance reporting, refactoring strategy and scaled tooling.

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|---|---|---|
| LIVE ONLINE<br>**Max 8-10 hours** | CORPORATE (DAY-WISE)<br>**5 days · Days 1-5** | 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 · Included | 5 days · This curriculum |

## INSIDE THIS CURRICULUM

| | |
|---|---|
| What you will achieve | Outcomes and level focus |
| Who should attend | Audience and prerequisites |
| Agenda | 40 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/codequality/code-quality-and-analysis-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 Code Quality And Analysis course path, you will be able to:

1

### Measure code quality

Use metrics, linters and SonarQube to find and prioritize real quality issues.

2

### Automate quality gates

Enforce quality, coverage and security checks in pull requests and CI pipelines.

3

### Lead quality improvement

Run organization-wide quality programs with compliance reporting and refactoring strategy.

WHAT THE ADVANCED LEVEL ADDS

### Quality programs, compliance and scale

**Hands-on:** Quality program capstone. Design a quality program for a legacy portfolio with baselines, gates, a refactoring plan and compliance reports for leadership.

WHO SHOULD ATTEND

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

BEFORE YOU START

- The Intermediate level, or equivalent hands-on experience.
- You can already: Enforce quality and security gates in CI, add SAST, dependency, secret and IaC scanning, and administer SonarQube.
- 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

# Code Quality And Analysis Advanced Training agenda

40 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: Quality concepts, linters and first analysis

Included from Foundation

1. Code quality: readability, maintainability, reliability and security as measurable properties
2. Code smells and technical debt: duplication, long methods, deep nesting and how debt accumulates
3. Metrics: cyclomatic and cognitive complexity, duplication, coverage and maintainability ratings
4. Analysis types: static versus dynamic analysis, linters, SAST and coverage tools
5. Coding standards: style guides such as PEP 8, Google Java Style and Airbnb JavaScript
6. Formatters: Prettier, Black, gofmt and EditorConfig
7. Linters: ESLint, Ruff and Pylint, Checkstyle and PMD
8. SonarQube overview: SonarQube Server, SonarQube Cloud and SonarQube for IDE
9. First analysis: running SonarScanner on a project and reading the results
10. Code review basics: checklists and pull request etiquette

## DAY 2 — Essential: Quality gates, coverage and team workflow

Included from Essential

11. SonarQube concepts: issues, rules, quality profiles and quality gates
12. New code focus: the Clean as You Code approach and new code definitions
13. Project configuration: sonar-project.properties, exclusions and test sources
14. Coverage integration: JaCoCo, coverage.py and Istanbul reports
15. Bug-finding tools: SpotBugs, Error Prone and golangci-lint
16. Pre-commit hooks: the pre-commit framework, husky and lint-staged
17. IDE integration: SonarQube for IDE connected mode and editor linters
18. Pull request analysis: decoration and review workflow with quality gates
19. Duplication detection: CPD and SonarQube duplication metrics
20. Team conventions: shared configs, rule severity and suppression policy

## DAY 3 — Intermediate: CI gates, SAST, SCA and administration

Included from Intermediate

21. CI integration: quality gates in Jenkins, GitHub Actions, GitLab CI and Azure Pipelines
22. SAST: Semgrep rules, CodeQL queries and SonarQube security hotspots
23. Dependency analysis: OWASP Dependency-Check, Dependabot and Renovate
24. Secrets detection: gitleaks and trufflehog in pipelines
25. Infrastructure as code scanning: Checkov, Trivy config scanning and hadolint
26. Custom rules: ESLint plugins, Semgrep custom rules and PMD XPath rules
27. SonarQube administration: projects, permissions, LDAP or SAML, plugins and upgrades
28. Reporting: dashboards, portfolio views and trend analysis
29. Mutation testing: PIT and Stryker to measure test quality
30. Troubleshooting analysis: missing coverage, wrong scopes, memory and scanner errors

DAYS 4-5 **Advanced: Quality programs, compliance and scale** New at this level

31. Quality programs at scale: organization-wide gates, baselines and legacy debt strategy
32. Monorepo and multi-language analysis: performance and incremental analysis
33. Compliance reporting: OWASP Top 10, CWE Top 25, CERT and MISRA standards
34. Engineering health: DORA metrics alongside quality metrics and debt trends
35. Refactoring strategy: strangler fig, characterization tests and safe refactorings
36. Supply chain: SBOM generation with Syft or CycloneDX tools and license compliance
37. Scaling SonarQube: Data Center Edition, database tuning and Compute Engine workers
38. AI-assisted coding: validating generated code with review rules and analysis gates
39. Executive reporting: quality OKRs and portfolio dashboards
40. Capstone: quality improvement program for a legacy application portfolio

PRACTICE

## Hands-on labs

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

FOUNDATION **Analyse a project for the first time**
Add a formatter and linter to a project, run a first SonarQube analysis and fix the top issues it reports.

ESSENTIAL **Set up a team quality gate**
Configure a quality profile and gate, add coverage reporting and pre-commit hooks and decorate pull requests with analysis results.

INTERMEDIATE **Build a security and quality pipeline**
Create a CI pipeline that runs linting, tests with coverage, Semgrep, dependency and secret scanning and blocks merges on the quality gate.

ADVANCED **Quality program capstone**
Design a quality program for a legacy portfolio with baselines, gates, a refactoring plan and compliance reports for leadership.

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 Code Quality And Analysis 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 CODE QUALITY AND ANALYSIS 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/codequality/

ENROL OR RESERVE A SEAT
**Code Quality And Analysis Advanced Training**

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