

DEVOPS

INTERMEDIATE

1 DAY

Code Quality Scanning with SonarQube

Build a strong foundation in code quality governance using SonarQube, from scanning fundamentals to automated quality gates in CI/CD. Learn how to detect bugs, vulnerabilities, and maintainability risks early and enforce standards that improve engineering quality across enterprise codebases.

Why SonarQube for Code Quality?

Reduced production defects

Catch bugs and code smells early before they impact customers.

Standardized engineering quality

Enforce common coding standards across teams and repositories.

Improved security posture

Identify vulnerabilities and hotspots during development, not after release.

Better release confidence

Ship faster with measurable code health and automated quality checks.

Higher developer productivity

Consistent quality gates reduce rework and firefighting.

What you'll be able to do

- ✓ Understand what SonarQube is and why organizations use it for code quality and security.
- ✓ Differentiate between code smells, bugs, vulnerabilities, and security hotspots.
- ✓ Set up SonarQube and connect projects for scanning.
- ✓ Run scans using SonarScanner for Java, JavaScript/Node.js, Python, and .NET (overview).
- ✓ Interpret scan results and prioritize fixes effectively using severity and effort estimation.
- ✓ Implement and enforce Quality Gates to stop bad code from merging.
- ✓ Integrate SonarQube into CI pipelines using GitHub Actions (recommended), GitLab CI (optional), and Jenkins (overview).
- ✓ Apply enterprise adoption best practices including standards, governance, reporting, and baseline strategy for legacy code.

Who this is for

- Developers (backend and frontend)
- DevOps Engineers
- QA Engineers
- Engineering Leads
- Security teams supporting secure SDLC

Curriculum

01 SonarQube Fundamentals

- Apply sonarqube fundamentals with SonarQube in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards

02 Projects, Rules, and Quality Profiles

- Apply projects, rules, and quality profiles with SonarQube in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards

03 Quick Setup and Tokens

- Apply quick setup and tokens with SonarQube in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards

04 First Scan with SonarScanner

- Apply first scan with sonarscanner with SonarQube in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards

05 Issues, Severity, and False Positives

- Apply issues, severity, and false positives with SonarQube in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards

06 Quality Gates and Standards

- Apply quality gates and standards with SonarQube in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards

07 CI Integration with GitHub Actions

- Apply ci integration with github actions with SonarQube in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards

08 Governance and Rollout Workshop

- Apply governance and rollout workshop with SonarQube in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards