

QA

INTERMEDIATE

4 DAYS

API Automation Testing with Robot Framework

Build a strong foundation in API automation testing using Robot Framework, from core concepts to advanced, scalable test design. Learn how to automate, maintain, and integrate API tests into CI/CD pipelines while applying best practices to ensure reliable, high quality APIs in real world environments.

Why Robot?

Readable API tests

Write maintainable keyword-driven API suites.

Pipeline readiness

Run Robot suites in CI with clear reports.

Faster team onboarding

Share reusable keywords across testers and developers.

Broader coverage

Combine API checks with extensible libraries.

What you'll be able to do

- ✓ Understanding the basics of API automation testing and the importance of automating API tests.
- ✓ Learning the fundamentals of Robot Framework, including its syntax, test case design, and built-in libraries.
- ✓ Gaining practical knowledge of automating API tests using Robot Framework, including test case development, execution, and reporting.
- ✓ Learning how to design and maintain a scalable and robust automation framework for API testing using Robot Framework.
- ✓ Understanding advanced concepts of API automation testing, such as data-driven testing, parameterization, and integration with CI/CD pipelines.
- ✓ Exploring best practices and techniques for ensuring the highest quality standards for your organization's APIs.
- ✓ Understanding the challenges of API automation testing and how to overcome them.
- ✓ Gaining hands-on experience with real-world scenarios and case studies to apply the learned concepts in your day-to-day work.

Who this is for

- Software testers
- Quality Assurance Engineers
- Test Automation Engineers
- Developers

Curriculum

01 API Testing Foundations

- Apply api testing foundations using Robot Framework in practical test workflows
- Build and run hands-on exercises with realistic scenarios
- Validate results, logs, and failure signals
- Capture reusable patterns for team frameworks

02 Tool Setup

- Apply tool setup using Robot Framework in practical test workflows
- Build and run hands-on exercises with realistic scenarios
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03 Auth and Security

- Apply auth and security using Robot Framework in practical test workflows
- Build and run hands-on exercises with realistic scenarios
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04 Request/Response Validation

- Apply request/response validation using Robot Framework in practical test workflows
- Build and run hands-on exercises with realistic scenarios
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05 Data-Driven Tests

- Apply data-driven tests using Robot Framework in practical test workflows
- Build and run hands-on exercises with realistic scenarios
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06 Suites and Reuse

- Apply suites and reuse using Robot Framework in practical test workflows
- Build and run hands-on exercises with realistic scenarios
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07 Contract Testing

- Apply contract testing using Robot Framework in practical test workflows
- Build and run hands-on exercises with realistic scenarios
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08 CI/CD Integration

- Apply ci/cd integration using Robot Framework in practical test workflows
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09 Reporting and Debugging

- Apply reporting and debugging using Robot Framework in practical test workflows
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10 Framework Design

- Apply framework design using Robot Framework in practical test workflows
- Build and run hands-on exercises with realistic scenarios
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11 Best Practices and Case Studies

- Apply best practices and case studies using Robot Framework in practical test workflows
- Build and run hands-on exercises with realistic scenarios
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- Capture reusable patterns for team frameworks