

QA

INTERMEDIATE

4 DAYS

API Automation Testing with REST Assured

Build a strong foundation in automated API testing using REST Assured, covering RESTful concepts, testing strategies, and real world API scenarios. Learn how to design, execute, and report automated API tests to improve quality and accelerate delivery.

Why REST Assured?

Improved Quality

Automated API testing with REST Assured can help identify issues in the API quickly, leading to improved software quality.

Faster Time-to-Market

Automated API testing can help reduce the time required to release software to market. By identifying issues early in the development process, teams can fix them quickly, leading to faster releases.

Reduced Time and Cost

Automated API testing can help save time and reduce the cost of testing.

What you'll be able to do

- ✓ Gain an understanding of RESTful API concepts such as endpoints, resources, methods, and status codes.
- ✓ Learn about different API testing strategies such as functional testing, load testing, and security testing.
- ✓ Learn how to use REST Assured to automate API testing
- ✓ Learn how to write test cases using REST Assured for real-world API scenarios
- ✓ Learn how to generate reports using REST Assured, including HTML reports and JSON reports

Who this is for

- QA Engineers and Testers
- Developers
- IT Professionals
- Business Analysts
- DevOps Engineers
- Cloud Engineers
- Microservices Architects

Curriculum

01 Introduction to API Automation Testing

- Understanding the importance of API testing and the role of automation in API testing.
- Hands-on practice for introduction to api automation testing
- Validate results and handle common failures
- Capture reusable patterns for the framework

02 REST Assured Overview

- A comprehensive overview of REST Assured, its features and benefits, and how it can be used to automate API tests.
- Hands-on practice for rest assured overview
- Validate results and handle common failures
- Capture reusable patterns for the framework

03 Setting up the Environment

- Installing REST Assured, integrating it with a build tool, and configuring the environment for API testing.
- Hands-on practice for setting up the environment
- Validate results and handle common failures
- Capture reusable patterns for the framework

04 Making API Requests

- Creating HTTP requests using REST Assured, and performing various operations such as GET, POST, PUT, DELETE, etc.
- Hands-on practice for making api requests
- Validate results and handle common failures
- Capture reusable patterns for the framework

05 Validating API Responses

- Verifying the status code, header, and body of an API response using REST Assured, and using response validation techniques such as JsonPath and XmlPath.
- Hands-on practice for validating api responses
- Validate results and handle common failures
- Capture reusable patterns for the framework

06 Handling Authentication and Authorization

- Implementing authentication and authorization techniques such as Basic Auth, OAuth, and JWT.
- Hands-on practice for handling authentication and authorization
- Validate results and handle common failures
- Capture reusable patterns for the framework

07 Managing Test Data

- Storing and retrieving test data from external sources such as files and databases, and using data-driven testing techniques.
- Hands-on practice for managing test data
- Validate results and handle common failures
- Capture reusable patterns for the framework

08 Writing Advanced Tests

- Implementing advanced test scenarios such as parallel execution, testing APIs that return paginated results, and testing APIs with complex payloads.
- Hands-on practice for writing advanced tests
- Validate results and handle common failures
- Capture reusable patterns for the framework

09 Debugging and Troubleshooting

- Debugging and troubleshooting common issues in API testing, and using tools such as Postman to debug API requests and responses.
- Hands-on practice for debugging and troubleshooting
- Validate results and handle common failures
- Capture reusable patterns for the framework

10 Best Practices and Tips

- Following best practices for writing and organizing REST Assured tests, and using tips and tricks to improve the efficiency and reliability of API tests.
- Hands-on practice for best practices and tips
- Validate results and handle common failures
- Capture reusable patterns for the framework

11 Integrating API Tests with CI/CD Pipelines

- Integrating API tests with CI/CD pipelines using tools such as Jenkins, and automating the entire API testing process.
- Hands-on practice for integrating api tests with ci/cd pipelines
- Validate results and handle common failures
- Capture reusable patterns for the framework

12 Reporting and Documentation

- Generating reports and documentation for API tests, and using tools such as Allure to create comprehensive and readable reports.
- Hands-on practice for reporting and documentation
- Validate results and handle common failures
- Capture reusable patterns for the framework

13 Future Trends in API Automation Testing

- Exploring emerging trends and technologies in API automation testing, and understanding the future direction of REST Assured and other API testing tools.
- Hands-on practice for future trends in api automation testing
- Validate results and handle common failures
- Capture reusable patterns for the framework