



API Testing

OUR MISSION :

"Our mission is to empower learners worldwide through innovative technology, personalized learning experiences, and accessible educational resources. We strive to cultivate a community where every individual can achieve their full potential, regardless of their background or circumstances."

OUR VALUES :

"To pioneer the future of education by leveraging cutting-edge technology to make learning more engaging, effective, and inclusive. We envision a world where education transcends boundaries, creating opportunities for lifelong learning and fostering a society enriched by knowledge and creativity."



COURSE CURRICULUM:

Week 1: API Testing Fundamentals Review

- Day 1-2: Introduction to APIs
 - Understanding RESTful and SOAP APIs.
 - Basic principles of API design and architecture.
- Day 3-4: Overview of API Testing
 - Types of API testing: functional, integration, performance, security.
 - Common tools for API testing.
- Day 5: Setting Up API Testing Environment
 - Installing and configuring API testing tools (Postman, SoapUI).

COURSE CURRICULUM:

Week 2: Advanced API Testing Tools and Techniques

- Day 1-2: Postman Advanced Features
 - Creating and managing collections and environments.
 - Writing and running tests with Postman scripts.
- Day 3-4: SoapUI Advanced Features
 - Creating complex test suites and cases.
 - Using Groovy scripting for advanced validations.
- Day 5: Hands-on with Postman and SoapUI
 - Practical exercises on using advanced features.

COURSE CURRICULUM:

Week 3: Automation and CI/CD Integration

- Day 1-2: API Test Automation with Postman
 - Writing automated tests with Newman.
 - Integrating Postman with CI/CD pipelines (Jenkins, GitLab CI).
- Day 3-4: API Test Automation with SoapUI
 - Creating automated test scripts.
 - Integrating SoapUI with CI/CD pipelines.
- Day 5: Practical Automation Exercises
 - Hands-on automation projects with Postman and SoapUI.

COURSE CURRICULUM:

Week 4: Performance and Load Testing

- Day 1-2: Introduction to Performance Testing
 - Concepts of performance, load, and stress testing.
 - Tools for performance testing (JMeter, Gatling).
- Day 3-4: Load Testing with JMeter
 - Setting up JMeter for API load testing.
 - Creating and running load test scripts.
- Day 5: Analyzing Load Test Results
 - Understanding performance metrics.
 - Hands-on: Load testing and result analysis with JMeter.

COURSE CURRICULUM:

Week 5: Security and Penetration Testing

- Day 1-2: Introduction to API Security Testing
 - Common security vulnerabilities in APIs (OWASP Top 10).
 - Tools for security testing (OWASP ZAP, Burp Suite).
- Day 3-4: Security Testing with OWASP ZAP
 - Setting up and configuring OWASP ZAP.
 - Performing security scans and analyzing results.
- Day 5: Practical Security Testing
 - Hands-on: Identifying and mitigating security vulnerabilities.

COURSE CURRICULUM:

Week 6: Advanced Testing Strategies

- Day 1-2: Data-Driven Testing
 - Creating data-driven tests with parameterization.
 - Tools and techniques for data-driven testing.
- Day 3-4: Mocking and Virtualization
 - Using mocking tools (WireMock, MockServer).
 - Creating mock APIs for testing.
- Day 5: Contract Testing
 - Introduction to contract testing (Pact).
 - Hands-on: Implementing contract tests.

COURSE CURRICULUM:

Week 7: API Testing in Microservices and Cloud

- Day 1-2: Testing Microservices APIs
 - Challenges and strategies for testing microservices.
 - Tools for microservices testing (Karate, RestAssured).
- Day 3-4: API Testing in Cloud Environments
 - Strategies for testing APIs deployed in the cloud.
 - Integrating API tests with cloud CI/CD pipelines.
- Day 5: Practical Microservices Testing
 - Hands-on: Implementing tests for microservices APIs.

COURSE CURRICULUM:

Week 8: Final Project and Presentations

- Day 1-4: Project Development
 - Students work on a comprehensive final project that integrates multiple aspects of the curriculum.
 - Project example: Designing, implementing, and automating a full suite of tests for a complex API.
- Day 5: Project Presentation and Evaluation
 - Students present their projects.
 - Feedback and evaluation.

Our Partners Company's



The logo consists of the letters 'TS' in a large, bold, black sans-serif font, centered within a white circular shape that has a slight 3D effect with a shadow on the right side.

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