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Katalon Studio Test Automation

Accelerate your automation journey with Katalon Studio in 3 days

FA-0276 · 3 days

DevOps, Cloud & Infrastructure · Automation, RPA & Power Platform

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Introduction

In today's fast-paced software development environment, the need for effective and efficient test automation is more critical than ever. Katalon Studio, with its powerful and intuitive automation platform, is quickly becoming a popular choice for testing web, mobile, and API applications.

This 3-day course is specifically designed to introduce beginners to Katalon Studio, focusing on its free version capabilities. By the end of this course, you will be able to create, execute, and maintain automated test scripts, ensuring that your applications are always reliable and bug-free.

With over 30 years of industry experience, your instructor will focus on real-world, in-demand testing techniques rather than just academic theory, equipping you with the skills to meet industry requirements.

Learning outcomes

By the end of this course, you will be able to:

- Understand the fundamentals of test automation using Katalon Studio.
- Create test cases, test suites, and execute them across different browsers.
- Apply data-driven testing techniques to enhance test coverage.
- Debug and troubleshoot test failures efficiently.
- Integrate Katalon Studio with Jenkins for continuous integration (CI).
- Test API services (SOAP & REST) using Katalon Studio.
- Utilize custom keywords to create reusable test components.
- Leverage basic mobile testing and cross-browser testing capabilities using BrowserStack.

- Understand and execute testing in a DevOps environment.

Prerequisites

- Basic understanding of software testing concepts.
- Familiarity with HTML, CSS, and basic programming concepts (preferred, but not mandatory).
- Katalon Studio (free version) installed on your machine.

Training outline

1. Introduction to Katalon Studio

1. Overview of Katalon Studio and its features.
2. Setting up Katalon Studio (Free version) and creating a project.
3. Introduction to the user interface and essential components.
4. Record and playback functionalities.

2. Test Case Creation

Creating your first automated test case.

1. Test case structure.
2. Test steps, objects, and actions.

Web Object handling and interactions.

1. Identifying and handling web elements (buttons, input fields, etc.).
2. Recording on active primary browsers (Chrome, Firefox).

3. Test Suite and Test Suite Collection

Creating test suites and test suite collections.

1. Grouping test cases into suites.
2. Managing and organizing test collections for different environments.

4. Logs & Reports

Understanding logs and reports for test results.

1. Analyzing execution logs.
2. Exporting test execution reports.

5. Reusing Test Cases

1. Creating reusable test cases to enhance maintainability.
2. Using built-in keywords and custom keywords for reusability.

6. Variables and Headless Browsers

Introduction to variables in test scripts.

1. Local and global variables.
2. Using variables for dynamic testing.

2. Headless browser execution for faster testing.

7. Custom Keywords

Introduction to custom keywords.

1. Creating reusable code blocks for frequently used test logic.
2. Managing custom keywords for complex test automation scenarios.

8. Data-Driven Testing

Implementing data-driven testing in Katalon Studio.

1. Using external data sources (Excel, CSV).
2. Parameterizing test cases for multiple test inputs.

9. Email Notifications

Configuring email notifications for test execution results.

1. Setting up email notifications for success and failure reports.
2. Customizing the email content and formats.

10. Debugging and Troubleshooting

Debugging test cases using breakpoints.

1. Troubleshooting common errors.
2. Best practices for debugging and resolving issues.

11. Continuous Integration with Jenkins (CI/CD)

Integrating Katalon Studio with Jenkins for continuous testing.

1. Installing and configuring Jenkins.
2. Running Katalon tests through Jenkins pipelines.

12. API Testing (SOAP & REST)

Introduction to API testing in Katalon Studio.

1. Creating API requests (SOAP & REST).
2. Verifying API responses and integrating them into test cases.
2. Data-driven API testing.

13. Execution Environments and Profiles

Creating and managing execution profiles.

1. Setting up different environment profiles for test execution.
2. Executing test suites with various configurations.

14. Failure Handling Techniques

Handling failures and exceptions in Katalon Studio.

1. Built-in failure handling strategies.
2. Retry logic and conditional test execution.

15. Web Objects and Checkpoints

Working with dynamic and static web objects.

1. Advanced web object identification techniques.

Using checkpoints for validation.

1. Incorporating checkpoints to verify test results.

16. Testing in DevOps Process

The role of test automation in DevOps.

1. Integrating Katalon Studio into a DevOps pipeline.
2. Testing strategies for continuous integration and delivery.

17. BrowserStack for Cross-Browser Testing

Introduction to BrowserStack for cross-browser and cross-platform testing.

1. Setting up BrowserStack with Katalon Studio.
2. Running tests on multiple browsers and devices.

By the end of this course, you will have a strong understanding of how to use Katalon Studio (free version) to automate testing of web applications and APIs, as well as integrate your automation with CI/CD pipelines using Jenkins. You'll be equipped with practical knowledge to immediately apply in your organization, ensuring faster delivery of high-quality software through test automation.

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