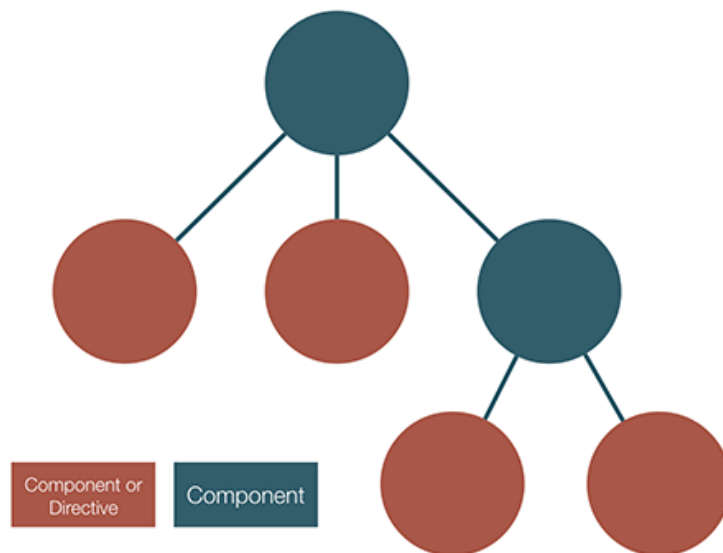# Katalon Studio Advanced Training Curriculum

Course Description: This course provides more in-depth training for learners to perform automation testing for Web UI, API/Web services and mobile using Katalon Studio. You will be trained with step-by-step instructions to set up automation projects and integrate with tools such as Git and Jenkins from scratch. This training also includes tips and tricks to handle specific test scenarios in testing projects and integration configurations.

1. **Introduction and Getting Started**
   - Overview of Katalon Studio, software prerequisites, features, GUI, setting, and preferences
   - Overview of essential definitions and features: test suite, test suite collection, logs, types of reports, environments (profiles), headless browsers, command-line runs, record and spy, checkpoints, and so on
   - How to perform fundamental tasks: create environments, send test results via email, run tests in headless mode, locate Web objects, refer and reuse test cases, get data from external sources, handle test failure, debug and troubleshoot.

2. **Create Automation Tests**
   - Step-by-step guide to create automation tests in Katalon Studio
   - How to create tests in three modes: Record, Manual, and Script

3. **Katalon Analytics and Katalon Recorder**
   - What are Katalon Analytics and Katalon Recorder?
   - How to use these tools for automation

4. **Custom Keywords**
   - What are custom keywords?
   - How to create custom keywords

5. **Videos and Screenshots**
   - How to capture test failure screenshots
   - How to record execution video

6. How to Use Variables
- Private variables
- Local variables
- Global variables

7. Integration with Git (VCS)
- How to integrate with Git version control system
- How to clone, pull, commit, and push changes
- How to use Git commands for team collaboration

8. Integration with Jenkins (CI)
- What is CI (Continuous Integration)?
- How to run tests from Jenkins CI
- Examples and best practices

9. Jenkins + Git
- How to integrate Jenkins with Git for CI/CD

10. Sample Web application testing project
- Sample project to set up Web browser automation
- Demo on test creation, test execution, and reporting

11. Listeners
- What is a test listener?
- How to create setup and teardown for test cases

12. Setup and Teardown
- What are setup and teardown?
- How to use setup and teardown for test suites

13. API Testing
- How to use Katalon Studio for API testing
- API testing basics
- API testing features
- How to create and run API tests

14. SOAP Web Services Testing with Katalon Studio

- Introduction
- Practical example to test SOAP Web services in Katalon Studio
- Step-by-step guide
- Summary and recap

15. REST Web Services Testing with Katalon Studio

- Introduction
- Practical example to test REST web services in Katalon Studio
- Step-by-step guide
- Summary and recap

16. API Validations

- Introduction
- How to validate response
- How to get value from nodes
- How to create a complete API validation test
- Summary and Recap

17. Handling HTTP methods GET, POST, PUT, DELETE

- Introduction
- How to handle a GET API request in Katalon Studio
- How to handle a POST API request in Katalon Studio
- How to handle a PUT API request in Katalon Studio
- How to handle a DELETE API request in Katalon Studio
- Summary and recap

18. Response Validation

- How to find values in XML and JSON responses

19. API Chaining

- Extract data from XML responses and chaining requests
- Extract data from JSON responses and chaining requests

20. API Tests in Test Suite and Test Suite Collection

- How to run API tests in a test suite and test suite collection

21. Results and Reporting
- API testing report
- Test suite report
- Test suite collection report
- Katalon Analytics

22. Running from Commandline
- How to run API tests in command-line mode

23. Running from Jenkins
- How to run API tests in Jenkins CI

24. Mobile Testing
- How to use Katalon Studio for mobile testing
- Mobile testing features
- Set up and create mobile tests
- Execute and report

25. BDD in Katalon Studio
- How to implement BDD in Katalon Studio
- Cucumber support
- Steps to start a BDD testing project
- Example

26. Katalon Plugins
- What are Katalon Store and Katalon plugins?
- Demo on how to use Katalon plugins