

Course Content for Robot Framework with Python & Selenium / API Automation Testing

- 1. Introduction to Robot Framework**
 - a. What is Robot Framework
 - b. Advantages of using Robot Framework
- 2. Install & Configure Robot Framework with Python**
 - a. Install Python and its related configurations
 - b. Introduction and Installation of Robot Framework and Selenium Library
 - c. Getting started with .robot file syntaxes and its templates
- 3. Getting Started with Robot Framework Tests with Keywords & Variables**
 - a. Create New Robot Framework Automation Project
 - b. Invoking Browsers for Web Automation with Selenium using Robot Keyword
 - c. Learning Synchronization Robot keywords & error messages validations
 - d. Key Sections of Robot Framework File
 - e. Create First TestCase in Robot Framework
 - f. How to declare and use the variables in the Robot files for global use
 - g. Importance of Resource files/keyword in centralizing the reusable code
 - h. How to send Arguments to keywords from the Test and from the variables
 - i. Convert Manual Test into Automation Script
 - j. Overview of Builtin and Selenium Library
 - k. Basics of Locating WebPage Elements
- 4. Introduction to Xpath & CSS Selectors**
 - a. Basic XPath & CSS Selectors Syntax
- 5. Handling Windows in Robot Framework**
 - a. How to Handle Browser Windows
 - b. How to handle Tabbed Browser Windows
- 6. Working with WebElements**
 - a. How to handle Radio Buttons
 - b. Working with Checkboxes
 - c. How to handle Frames in Robot Framework
 - d. How to handle List in Robot Framework
 - e. How to handle Alerts in Robot Framework
 - f. How to handle Mouse Actions
 - g. How to Set Selenium Timeout and Speed
 - h. Implicit Wait vs Explicit Wait
 - i. How to use Implicit Wait
 - j. How to use Explicit Wait

7. Selenium Functional Automation using Robot Framework Keywords

- a. How to retrieve the list of webelements using Robot Framework
- b. Using Collections Library of Robot Framework to build functional logic
- c. Generating dynamic locators to solve the problem with Robot keywords
- d. Handling Dropdowns of web pages with Robot Selenium keywords
- e. Handling Alerts checkboxes of Login form with Selenium Libraries
- f. Handling Child windows and tabs with Robot Selenium framework
- g. Parsing Get Text Selenium Strings using Robot String libraries

8. Making Robot Framework Script More Readable

- a. What are Custom User defined keywords? and why should we need them
- b. How to Create User Defined Keywords
- c. How to access Selenium Library instance to Python custom library files
- d. Step by step procedure to create custom Python library keywords with example
- e. Move User Defined Keywords to Resource File
- f. Robot Framework Test Setup and Teardown

9. Data Driven Testing & Parameterization the Selenium Tests using Robot Framework

- a. How to apply parameterize the test with multiple data sets in Robot framework
- b. How Reporting works and generates in Robot Framework for Test results
- c. How and where Screenshots generated in Robot framework on test failures
- d. How to load the data from CSV files into Robot tests -external plugins
- e. Monitoring the Reports and Logs for parameterized tests in the Framework

10. Implementing Page object Design Pattern to organize the Robot Test files

- a. How to implement Page objects for Robot framework tests
- b. Writing page objects for Robot Selenium tests and moving objects to PO folders
- c. Build end to end Scenario of Ecommerce app with Robot Selenium framework

11. Parallel Test execution & reporting in the Robot Framework with Pabot plugin

- a. How to run all the tests from the folder from Robot command Line
- b. How to run all the Robot files tests parallel in framework - pabot plugin

12. Guideline to perform API Testing with Robot Framework

- a. Performing API Testing POST call with Robot Framework keywords
- b. Performing GET call API requests with Robot Keywords - example
- c. Integrating Add and Retrieve Book details API tests with Global Variables scope
- d. Wrapping up API tests with Delete API and integrate API tests with Jenkins

13. Data Driven Testing in Robot Framework

- a. How to do Data Driven Testing
- b. How to do Data Driven Testing using CSV File
- c. How to do Data Driven Testing using Excel File