Publication date : 03/11/2024

Course : Robot Framework: test automation

Practical course - 3d - 21h00 - Ref. RBF
Price : 1930 € E.T.

3,8 / 5

BEST

Robot Framework is a generic, open source framework for automating acceptance tests. This course will teach you the basics of this [[toolkit]], from installation to test writing and automation, right through to integration in a continuous integration solution.

Teaching objectives

At the end of the training, the participant will be able to:

- Positioning Robot Framework in the ecosystem of test automation frameworks
- Understanding the basics of Robot Framework operation
- Installing a development and runtime platform for Robot Framework
- Analyze a test by keyword
- Assembling Robot Framework keywords to design and structure a test
- Organizing resources and using libraries
- Using standard Robot Framework libraries
- Understanding the benefits of CI/CD and using the Robot Framework with GitLab-CI

Intended audience

Testers/automation engineers, project managers, designers/developers.

Prerequisites

Software testing culture. Experience with a programming language such as Python or Java is recommended.

Practical details

Hands-on work

The course includes numerous practical exercises.

PARTICIPANTS

Testers/automation engineers, project managers, designers/developers.

PREREQUISITES

Software testing culture. Experience with a programming language such as Python or Java is recommended.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

Course schedule

1 Introduction to automation

- The automation project.
- Agile testing: peer programming, Test-Driven Development (TDD).
- TDD practice.
- The practice of BDD (Behaviour-Driven Development).
- The principles of ATDD (Acceptance Test-Driver Development).
- Automation frameworks (hybrid, KDT...).
- KDT, introduction to Robot Framework.

2 Presentation and installation

- Robot Framework philosophy.
- Architecture and concepts.
- Libraries, external libraries.
- Integrated tools.
- Installing Robot Framework in a Python environment.

Hands-on work

Install Python, RIDE, PyCharm/Visual Studio Code. Set up a Python virtual environment. Robot Framework installation.

3 Test writing syntax - Part 1

- Test organization, vocabulary and syntax, test structure.
- Declaration, scope and manipulation of variables (extension of Python variables).
- Run tests from the IDE, run tests with CLI options, debug tests.
- Visualization and interpretation of results.
- Viewing test reports in Allure.

Hands-on work

Write tests with Robot Framework keywords. Run tests with/without command-line options. Produce and analyze test reports with keywords. Customize test documentation and keywords with Robot Framework tools.

4 Test writing syntax - Part 2

- Test Setup, Test Teardown.
- Tag and arguments.
- Data-driven testing with Robot Framework.
- Behavior-driven testing with Robot Framework.
- Test suite.

Hands-on work

Modify the tests to include the concepts seen in part 2.

5 Robot Framework standard libraries

- BuiltIn, Collections, Screenshot, Process, Dialogs, OperatingSystem.
- Using these libraries in tests.

Hands-on work

Use these libraries to take Robot Framework testing a step further.

TEACHING AIDS AND TECHNICAL RESOURCES

• The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
• At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
• A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

6 Customizing keywords in Robot Framework

- Principle, syntax, parameters.
- Use.

Hands-on work
Create custom keywords. Create keyword libraries. Create resource files and variable files.

7 Creating test libraries

- Python library implementation.

Hands-on work
Write Python programs implementing new keywords.

8 Advanced features

- Launching parallel tests in Robot Framework.
- Post-processing.
- Third-party libraries (Selenium, Appium).
- Rest API testing.

Hands-on work
Implement these features to go further.

9 CI/CD, continuous integration/deployment

- Strategic issues.
- Robot Framework in CI/CD.

Demonstration

Dates and locations

REMOTE CLASS
2026 : 22 Apr., 5 May, 17 June, 26 Aug., 15 Sep., 26 Oct., 10 Nov., 14 Dec.

PARIS LA DÉFENSE
2026 : 22 Apr., 17 June, 26 Aug., 26 Oct., 14 Dec.

LILLE
2026 : 26 Oct.