

# Testing and acceptance for project ownership: Design and implementation

Hands-on course of 3 days - 21h

Ref.: REA - Price 2024: CHF2 180 (excl. taxes)

## EDUCATIONAL OBJECTIVES

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

- Learn aspects of the profession: Psychology, positioning, limits
- Understand the interdependencies of accepting a software project
- Gain an understanding of functional and non-functional testing techniques
- Develop test cases and test scenarios
- Document and manage tests
- Carry out the tests, up to the acceptance report

## HANDS-ON WORK

Scenarios involving a case study that leads to the design, implementation and execution of application's acceptance tests in a tool-equipped environment.

## THE PROGRAMME

last updated: 07/2021

### 1) Introduction to acceptance testing

- What is software testing and acceptance?
- The difficulties of testing and noncompliance.
- Tester psychology.
- Test players: Acceptance manager, tester, automation engineer, ergonomist, etc.
- Functional testing.
- The concept of "V&V", verification and validation.
- Types of tests.
- The notion of test coverage.

*Exercise* : Intuitive testing research based on an example.

### 2) The project context

- Understanding roles within the project (project owner, lead contractor, acceptance team, users).
- The project lifecycle: Traditional and Agile modes.
- The various processes.
- The deliverables (technical and functional specifications, acceptance plan, testing, etc.).
- Requirements (typology, quality criteria).

*Case study* : Reviewing the specifications being studied and their business requirements.

### 3) The approach to acceptance testing

- The acceptance process and its interactions.
- The steps of the acceptance approach (synoptics).
- Acceptance in the project schedule.
- Versioning.
- Non-regression tests.

*Case study* : Reviewing the acceptance plan being studied.

## 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.

## 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](mailto:psh-accueil@ORSYS.fr) to review your request and its feasibility.

#### 4) Managing tests and non-compliances

- The principles and practices of test management.
- Test reference spaces, functions. Market tools.
- Test architecture.
- Principles of non-compliance management.
- Anomaly managers, principles and market solutions.
- Test configuration management (principles and practices).

*Hands-on work* : Receiving and configuring a test repository. Receiving and configuring an anomaly management tool.

#### 5) Test design

- Design principles.
- The course of design.
- Traceability of requirements and tests.
- Techniques of partitioning or defining "equivalence classes".
- "Limit testing" techniques.
- Decision tables or defining input-output combinations.
- Cause-effect graphing. Finite state graphing.
- Non-functional testing techniques (ergonomics, usability, performance, etc.).
- Covering test objectives.

*Hands-on work* : Designing tests for the application being tested with the test repository.

#### 6) Implementing tests

- Principles and conditions of implementation.
- Providing functional specifications.
- Testing platforms
- Manual testing.
- Test campaigns, databases.
- Test data generators.
- Automated testing: Principles, benefits, and drawbacks.
- Functional test robots (overview).
- Peer review of tests.

*Hands-on work* : Implementing tests for the tested application. Presenting the implementation of an automatic test using a functional test robot. Cross-review of tests.

#### 7) Executing tests

- Preparing the campaign.
- Delivery of the version being tested and its documentation.
- Conducting the tests.
- Recording the results and anomalies.
- Corrective/upgrading versions (Change Control Board CCB).
- Consolidating the results.
- Stopping and acceptance criteria (Go/No go).
- The acceptance report.

*Hands-on work* : Carrying out tests for the application being tested. Recording the results and final evaluation.

## DATES

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### REMOTE CLASS

2024 : 19 Jun, 18 Sep, 02 Dec