Course : PHPUnit, mastering unit tests

Practical course - 2d - 14h00 - Ref. TUH
Price : 1720 CHF E.T.

★★★☆ 3,9 / 5

In order to control the quality of your developments, you will learn how to implement unit tests with PHPUnit. You'll learn in detail about PHPUnit's mechanisms and how to use this tool in the development of new features, as well as in the maintenance of legacy code or code coverage.

Teaching objectives

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

- Understand the benefits of unit testing as part of a quality approach
- Install, configure and use PHPUnit
- Discover different approaches to test writing
- Analyze your code and produce metrics

Intended audience
PHP developers, software architects.

Prerequisites
Good knowledge of object-oriented programming (OOP) and PHP.

Practical details
Hands-on work
Learn how to use the tool, get a new development off to a good start or make an existing application more reliable.

Teaching methods
Alternating lectures (50%) and practical exercises (50%).

Course schedule

PARTICIPANTS
PHP developers, software architects.

PREREQUISITES
Good knowledge of object-oriented programming (OOP) and PHP.

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.

1 Principles of unit testing

- What is a test?
- Why test an application?
- Defining unit tests.
- What are the other types of test? How can they be classified and differentiated?
- Fundamentals to know.
- Composer", PHP's dependency manager.
- PSR: an overview of certain PHP standards.
- Initialize a PHP project in compliance with these standards using "Composer" and other tools.

2 Getting started with Framwork PHPunit

- Presentation and history of the framework.
- Writing PHPUnit tests with assertions, annotations, data providers, fixtures...
- The PHPUnit command line and XML configuration.

Hands-on work
Getting to grips with the framework and setting up the first unit tests.

3 When and how to test an application

- Test execution methods (command line, IDE, continuous integration, etc.).
- Test-driven development /behavior-driven development.
- Application maintenance (refactoring and bug fixing) through testing.
- Definition and application of additional concepts (SUT, Fakes, Mocks, Stubs, etc.).

Exercise
Carry out unit tests in different variants on exercises reflecting real-life use cases.

4 Overview of code coverage

- Basic concepts of code coverage.
- How do you produce metrics?
- Analyze and use metrics to improve application reliability.

Hands-on work
Installation of a code coverage tool, generation and use of metrics.

5 Testing at the heart of quality

- The close relationship between testing and development principles (SOLID, DRY, KISS, etc.).
- Good and bad practice in unit testing.
- Go further with PHPUnit
- Other PHPUnit features.
- Other unit testing tools.
- Write and run functional tests.

Dates and locations

REMOTE CLASS

2026 : 8 June, 10 Dec.