

Course : UML, understanding modeling

Practical course - 2d - 14h00 - Ref. CMO

Price : 1540 CHF E.T.

At the heart of project management lies the expression of requirements and the functional specifications of an application. To guarantee the quality of the implementation, a good representation of the system to be developed requires the modeling of business processes. In this practical course, you will learn about the main UML 2.0 modeling diagrams used to describe the information and processes of the target system.

Teaching objectives

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

- ✓ Understand the basics of object-oriented design
- ✓ Describing information system data
- ✓ Describe system processes and represent the different states of an object
- ✓ Representing information flows
- ✓ Using UML in a project approach

Intended audience

This course is aimed at project managers who will be involved in IT projects using UML models.

Prerequisites

Basic computer skills.

Course schedule

1 Presentation and concepts

- Modeling methods.
- Object-oriented concepts: class, Object, generalization, inheritance, polymorphism...
- Modeling level. UML and project management.
- UML 2: presentation of proposed evolutions.

PARTICIPANTS

This course is aimed at project managers who will be involved in IT projects using UML models.

PREREQUISITES

Basic computer skills.

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.

2 Process description

- Definition of basic concepts: process, activity.
- The use case diagram. Use cases, at the heart of the UML approach.
- How to describe cases? Different types of cases: business cases and functional cases.
- Activity diagram.
- Describe the activities of a process: activity, action, stimuli, data flow, control...
- Sequence diagram.
- How do you describe a process workflow? Objects, messages, time axis. Here's an illustration.
- Typologies of processes used for modeling: business/support/steering, basic/variant, generic/specialized.

Case study

Build a sequence diagram to describe the workflow of the process under study.

3 Information description

- Class diagram. Describing system data. Class, association, operation, genericity and specialization.
- The Object diagram. How do you use an Object diagram to illustrate a class diagram?
- The state diagram. Description of different object states. State, transition, state nesting.

Hands-on work

Identify and define data from document analysis. Build a class model and interpret results.

4 Description of exchanges

- The communication diagram.
- How do you describe the project context?
- Representation of exchanges between system objects.
- Object, message, order condition, parameters.

Hands-on work

Construct a communication diagram to describe related areas.

5 Function description

- Definition of future system functions: functional use cases.
- Collaboration between software objects.
- Description of system operations.

6 Project process

- Integrate UML modeling into an existing project management approach.
- Project method "classic".
- RUP method, Rational Unified Process.
- Organize documentation.

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.

REMOTE CLASS

2026 : 11 June, 24 Sep., 3 Dec.