

Object Oriented Analysis & Design using UML 2

Course Background:

The object-oriented development of software systems has undergone a dramatic evolution in the last couple of years. This is mainly due to the introduction of a single common language for visualizing and documenting software design. Over the past decade, under the supervision of The Object Management Group (OMG), the Unified Modeling Language (UML) has developed into a design-language standard that is generally accepted and widely used. It has been developed to overcome the Babylonian confusion that existed in the beginning of the 90's with all the object-oriented design languages that emerged.

Course Benefits:

This course is aimed at providing basic working knowledge of the UML 2 notations as well as insight in the design goals and usage of these notations. After this workshop, participants will:

- have knowledge about the underlying modeling methods of the Unified Modeling Language;
- have a comprehension of the a generic OO development approach and the corresponding documentation structure;
- be able to apply the basic OO concepts to the development of embedded systems and are able to define the abstractions needed;
- be able to analyze a development problem and deliver diagrams and descriptions that are required to construct a software solution;
- be able to oversee the problems and issues that have to be dealt with in the architectural design and implementation of the software solution.

Who will benefit from this course?

- Software developers
- Software engineers
- Project managers

Pre-requisites:

The participants will need to have an initial understanding of object-oriented programming languages, like C++ or Java.

Course Contents:

This course consists of five blocks of one day:

Introduction	Introduction to OO
	UML Overview
	Demo of a model documented in UML, according to the Unified Process
UML Notations and problem analysis	Class and Object modeling
	Use-Case modeling
	Object Interaction modeling
	Object Behavior modeling
Workshop (1 day)	Carrying out the analysis of an example problem
Architecture	From analysis to design
	Patterns and architecture

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Course Format:

Teaching Method: Lectures, small exercises and workshop
Teaching Material: Object Oriented Analysis & Design workbook, CD-ROM containing the UML specification document (pdf-format).
Language: English or Dutch
Instructor: This course is delivered by a Certified UML Advanced professional



During every half day session, the lectures will be followed by small exercises to practice modeling with UML and get a working knowledge of basic notations. The emphasis is on obtaining a good mental separation between analysis of a problem and construction of a solution. The workshop aims at providing a good understanding of the relationships between the various models as well as a feeling for heuristics to obtain effective object decompositions.

Additional Options:

In order to further enhance the outcome of this course, please indicate any desired options when signing up for this course, or contact your account manager. There is no focus on specific tools and platforms.

Additional Subjects:

This course can be easily combined with other elements from the course curriculum of Mithun Training & Consultancy. Additional exercises can be added, and your own project can be even used during the course. Please contact your account manager for more information about the possibilities we can offer.

Complementary Courses:

The course curriculum offered by Mithun:

Requirements Engineering basics	Requirements Engineering Foundations
	RM&E Aware for Managers
	Interviewing Basics
	Applying Use Cases
	Writing SMART Requirements Basics
	How to derive detailed Requirements Workshop
Requirements Engineering advanced	The Risk of Words – Writing and Documenting Requirements
	Interviewing Techniques & Guidelines
	Elicitation Workshop Techniques & Guidelines
	Agreeing on Requirements
	Writing SMART Non-Functional Requirements Statements
Vendor Management	Writing requirements for Vendors and working with Vendors
Scrum	Introduction to Scrum
Object Oriented Analysis & Design	Preparation training for OMG UML Professional Certification
	Object Oriented Analysis & Design using UML 2.x
	Design Patterns
	Realizing Software Architectures with UML 2.x
	Specification of Component Interfaces
	API Design
	UML for Event Driven Systems
Real-time & Embedded Analysis & Design	Structured Analysis & Design for Real-time Systems
	Advanced Real-Time Analysis & Design
	Real-time Software Design
	Software Design with Real-Time Java
	Preparation training OCRES Intermediate Certification
Quality	Capability Maturity Model Integration (CMMI) for practitioners
	Capability Maturity Model Integration (CMMI) for managers

Terms and conditions:

The standard terms and conditions of Mithun Training & Consultancy are applicable. A copy is sent on request.

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