Object Oriented System Analysis using UML
Training Course - OOSA UML - 2 Days

This UML training course is aimed at system analysts and developers who want to create a detailed object oriented implementation-free analysis model of a computer system from the system requirements specification. The industry best practice modelling techniques are based on the Unified Modelling Language v2.3 and are taught within the context of a model-driven software development process. The models produced are sufficient to form the basis for the design of systems using a variety of different architectures. The advantages that using these techniques has for estimation, traceability, test development and project management is discussed. Each technique is taught to the level required for competence on a real project. Understanding is tested with exercises based on a real-world project example either using a suitable UML modelling tool or on paper.

Delegates will learn:

- The basics and the necessary detail of the Unified Modelling Language
- The basics and the necessary detail of Object Orientation
- How to create a detailed model of system data using classes and their relationships
- How to recognise complex data constructs and to use the appropriate syntax to model them
- How to map the functionality of the system requirements onto the object model using sequence diagrams
- How to structure the modelling in the form of a use case implementation
- How to model the dynamics of system data and functionality using statecharts
- How to model at a consistent level of abstraction
- How the modelling performed during system analysis fits into an incremental model-driven development process

Suitable for:

Business Analysts, System Analysts, System Architects and Developers with at least 2 years experience. This course is not suitable for those seeking certification as a step towards a qualification. See the Certification Policy for a detailed discussion.

Course Logistics:

Course attendance is limited to 12 students. Courses start at 9.30am on the first day, 9.00am on subsequent days and finish at 5.00pm each day. Students normally use a computer for the exercises, but these can be performed on paper if required. For a discussion on using a UML modelling tool please see Modelling Tool Use on Courses. Printed course manuals for each student with copies of all presentations, exercises and solutions are provided.

On-Site (In-House) Courses:

The client is expected to provide an appropriate venue, refreshments, XGA/WXGA projector and screen, whiteboard or flipchart and at least one computer per two students loaded with a suitable UML modelling tool, unless exercises are to be performed on paper. For a full discussion of on-site course issues please see On-Site Course Logistics.

Scheduled Public Courses:

This course is available as scheduled public training at our London Training Centre. Students bring their own laptops for use on the course. Please see the Public UML Training Courses in London page for details.

Pricing:

On-site (in-house) course pricing is available from the On-Site Course Price Calculator page. Public course pricing is available on the Public UML Training Courses in London page. For consultancy pricing please see the On-Site Consultancy Price Calculator.

Training Course Outline

Day 1

Introduction

People - Course Structure - Object Orientation - Unified Modelling Language - System Analysis

Objects and Classes

What is an Object? - Classes and Objects - Attributes - Operations and Methods - Designing Good Classes - Choosing the Right Classes

Object and Class Workshop

Object Relationships

Associations and Links - Navigability and Naming - Multiplicity and Other Adornments - Association Classes and N-arys - Aggregation and Composition

Object Relationship Workshop

Day 2

Interaction Modelling

Interactions, Messages, Operations and Methods - Sequence Diagrams - Selection and Iteration - Activation - Collaboration Diagrams

Interaction Modelling Workshop

State Modelling

The Meaning of the State Model - States and Transitions - Events and Conditions - Actions and Activities - Consistency with Other Diagrams

State Modelling Workshop

System Analysis

Creating the Initial Object Model - Reverse Engineering a Data Model - The Analysis Cycle - Iterative Modelling - Prototyping as an Analysis Technique - Completing the Model

System Analysis Workshop

Should the content of this UML course not fit your exact requirements, then CRaG Systems can create a custom course for you. Please either email or call us to discuss your particular needs.

CRaG Systems (UK) sales@cragsystems.co.uk +44 (0)845 003 9358

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