Object Orientation

Audience Object Orientation Course

The course Object Orientation is intended for individuals who want to become familiar with the basic concepts of object-oriented system development.

Prerequisites Course Object Orientation

To join the course Object Orientation no specific skills or knowledge is required. General knowledge of system design is helpful to a proper understanding.

Realization Training Object Orientation

The theory is treated on the basis of presentation slides. Demos and exercises are used to illustrate the theory. The course material is in English. The course times are from 9.30 up and to 16.30.
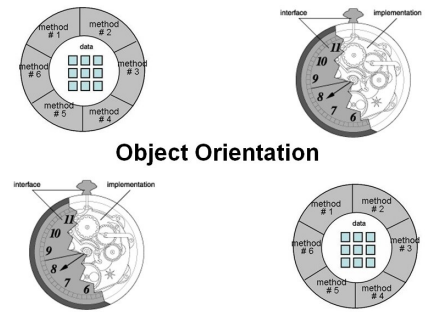
Certification Object Orientation

Participants receive an official certificate Object Orientation after successful completion of the course.

Duration: 1 day   **Price: € 699**

Open Schedule

Object Orientation

Content Course Object Orientation

In the course Object Orientation the fundamental concepts behind object oriented design and programming are discussed. Almost all modern programming languages support object orientation and for a good reason. Object orientation provides software that is more maintainable, is more suitable for reuse and is more in line with the real world.

Intro Object Orientation

The course starts with an introduction that explains how object orientation originated. Attention is paid to the software crisis and how you can regard objects as both domain and program concepts.

Classes and Objects

Next the characteristics of classes and objects are discussed. The course then covers what classes are and how objects can be instantiated. Also treated is how the responsibility for data storage and processing can be assigned to classes by means of attributes and methods.

Object Oriented Concepts

Then well known object oriented concepts such as encapsulation, inheritance, polymorphism, interfaces and abstract classes are explained and demonstrated. The relationships that can exist between classes, such as association, aggregation and composition, are also treated.

Object Oriented Modeling

Finally attention is paid to the standard methods and techniques of object oriented system design and modeling with UML.

Modules Course Object Orientation

Module 1 : Intro Object Orientation	Module 2 : Classes and Objects	Module 3 : Object Oriented Concepts
Characteristics of Software Software Crisis Object Oriented Paradigm Object Orientation in Software Process Domain Analysis Requirements Gathering Use Case Analysis Use Case Diagrams Object Orientation in Software Design Objects as Domain Concepts Objects as Program Concepts Reusability Object Oriented Programming Paradigm Unstructured Programming Procedural Programming Object Oriented Programming	Abstraction in Object Orientation Procedural versus OO View Objects Classes Instance variables Methods and Operations Class or Instance? Identifying Classes Identifying Attributes Assign Responsibilities to Classes Identifying Operations Prototyping on paper CRC Cards Constructors Creating Objects Using Objects	Object Orientated Concepts Other Key Concepts Encapsulation Access Control Class Fields and Methods Inheritance Inheritance Hierarchy Is a rule Method Overloading Method Overriding Polymorphism Polymorphism Example Abstract Classes Interfaces Interface Implementation Dynamic Binding

Module 4 : Object Oriented Modeling
Object Oriented Modeling with UML UML Diagrams and Views Static Modeling Class Diagram Generalizations Avoid Unnecessary Generalizations Associations Identifying Associations Aggregation Composition Object Diagrams Associations versus Generalizations Interfaces Dynamic Modeling Interaction Diagrams Sequence Diagrams