



Object-Oriented Analysis with UML

Length: Two days

Level: Beginner

DESCRIPTION

This course introduces students to the basics of object-oriented development using the Unified Modeling Language (UML) and teaches how to create an object-oriented analysis model.

First, concepts such as abstraction, polymorphism, and encapsulation are presented and students learn what a class and an object are and how they can be used to build software. Then students learn to step into design and create a design model that is created independently from any development environment (C++, Java TM, .Net, etc). Class lessons show students how to identify classes that carry out use-case behavior, how to construct use-case realizations, and how to use architectural artifacts to help constrain their design.

OBJECTIVES

Upon completion of the course, participants will be able to:

- Understand and describe the basic principles of object orientation
 - Describe the physical structure of a class
 - Understand the relationship between a class and an object
 - Define and use polymorphism and generalization
 - Read and interpret the artifacts of requirements that are used as a starting point for analysis and design
 - Read and interpret architectural layers and their relationships, key abstractions, and analysis mechanisms for use in creating a design model
 - Identify classes from a use-case flow of events
 - Distribute use-case behavior to classes identifying responsibilities of the classes
 - Use the UML to represent an analysis model
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TOPICS

- Fundamentals of object-orientation
 - Fundamentals of UML
 - Modeling system behavior with use cases
 - Analysis and Design overview
 - Architectural Analysis
 - Identifying classes from use-case behavior
 - Using UML analysis stereotypes
 - Modeling the dynamic and static structure of a use-case realization
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AUDIENCE

- Software Developers
 - Analysts
 - Project Managers
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PREREQUISITES

- None