

Use Case Modeling Fundamentals

Objectives

- Understand and apply use case modeling approach for capturing detailed software requirements
- Relate use cases to requirements management
- How to identify actors and use cases
- How to model system usage with use case diagrams
- How to organize the use case model
- How to incrementally refine use cases
- How to define scope of system with use cases

Description

Use Case Modeling Fundamentals teaches the experienced business and system analyst how to capture the detailed requirements for a software development project using the use case technique. Beginning with a discussion of common challenges and best practices for use cases, the course continues with an overview of the use case modeling process and how the use case evolves throughout the iterative lifecycle. Then the course describes the concepts of actors and use cases, how to identify and name them, and guidelines for avoiding functional decomposition. How to represent the interaction between actors and use cases using UML use case diagrams is discussed. Then strategies for organizing the use case model and producing the use case survey are described. The course also introduces how to apply UML activity diagrams for system and use case workflow modeling. The basic and alternate flows for a use case are discussed when outlining use cases. The course finishes with an overview of how to complete a detailed use case specification including business rules and special requirements.

Course Outline (Modules and Topics)

- Introduction to Use Cases
 - Review requirements traceability and work products
 - Common challenges, root causes, and best practices
 - Use case process workflow
 - Evolution of use case model in iterative lifecycle
- Identify Actors and Use Cases
 - Unified Modeling Language (UML) background
 - Concepts for actors and use cases
 - Characteristics of "good" use cases
 - Identification and naming guidelines
 - Avoiding functional decomposition
- Model System Usage
 - Actor/use case interaction
 - UML use case diagrams
- Organize Use Case Model
 - Model organization strategies
 - Actor/role relationships
 - System workflow modeling with activity diagrams
 - Use case survey
- Outline Use Cases
 - Use case specification overview
 - Basic flow
 - Alternate/exceptional flows
 - Test cases/scenarios
 - Use case workflow modeling with activity diagrams
- Detail Use Cases
 - Detailing event flows
 - Pre- and post-conditions
 - Special requirements
 - Business rules

Duration

1 day

Course

01-0704

Prerequisites

- Software development experience
- Experience with traditional requirements elicitation techniques – or – Requirements Gathering Fundamentals course

Continuing education

- UML Fundamentals
- Object-Oriented Analysis with UML
- User Interface Design with UML
- Test Case Analysis with UML

Classroom requirements

- No computers required

In partnership with

Audience

- Business architect
- Business analyst
- System analyst
- Project manager
- Software architect
- Test analyst
- Technical writer

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