

# ***PROCESS IMPACT***

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## **Description: eLearning Course “Exploring User Requirements with Use Cases”**

**Description:** Use cases are an effective and widely used technique for eliciting software requirements. The use-case approach focuses on the goals that users have with a system, rather than emphasizing system functionality. This eLearning course by Karl Wiegers presents the use-case approach to requirements elicitation in a practical and straightforward fashion. Many practice sessions give the student opportunities to try some of the techniques described. Topics covered include:

- Business, user, and functional requirements
- The requirements development process
- Identifying user classes and actors
- Scenarios and use cases
- Anatomy of a use case
- Use case diagrams and using other analysis models
- Documenting a use case
- Facilitating use-case elicitation workshops
- Deriving functional requirements from use cases
- Reviewing use cases
- Using use cases to design test cases

**Objectives:** On completion of this course, the student will be able to:

- Describe the value of use cases in requirements elicitation.
- Identify use cases for a project.
- Identify and describe actors.
- Lead a use-case elicitation workshop.
- Write use case descriptions at various levels of detail.
- Apply use cases to develop functional requirements and test cases for a software system.

**Audience:** This course will be useful to requirements and business analysts, user representatives, software developers, testers, project managers, and anyone else who needs to understand the user requirements for a software system.

**Components:** 8 course modules  
119 slides  
6 hours of audio presentation  
10 practice sessions  
3 quizzes  
numerous articles, templates, work aids, and examples

# Outline: eLearning Course “Exploring User Requirements with Use Cases”

## Module 1: Objectives and Agenda (15 minutes)

## Module 2: Software Requirements Overview (70 minutes)

- A. Requirements definitions
- B. What use cases are and are not
- C. Naming use cases
- D. Classifying different kinds of requirements information
- E. Practice session: Classifying requirements
- F. A requirements development process
- G. Context diagram
- H. Practice session: Drawing a context diagram
- I. Quiz

## Module 3: Users and Actors (28 minutes)

- A. User classes and actors
- B. Actor personas
- C. Discovering actors
- D. Practice session: Identifying actors

## Module 4: Use Cases: What and Why (58 minutes)

- A. Alternative requirements views
- B. Scenarios and use cases
- C. Use-case diagrams
- D. A use-case development process
- E. Discovering use cases
- F. Practice sessions: Identifying use cases
- G. Practice session: Drawing a use-case diagram
- H. Prioritizing use cases
- I. Quiz

## Module 5: Anatomy of a Use Case (87 minutes)

- A. Use case template
- B. Preconditions and postconditions
- C. Practice session: Identifying preconditions and postconditions
- D. Chaining use cases
- E. The normal flow of the use case
- F. Writing good use cases
- G. Alternative flows, and exceptions
- H. Practice session: Identifying exceptions
- I. Three iterations of use-case development
- J. Analysis models and use cases
- K. Practice session: Writing a detailed use case

## Module 6: Advanced Use-Case Modeling (19 minutes)

- A. The use-case *include* and *extend* relationships
- B. Augmenting use cases with analysis models

**Module 7: Use-Case Elicitation Workshops (30 minutes)**

- A. The use-case workshop process
- B. Facilitating requirements workshops
- C. Quiz

**Module 8: From Use Cases to Software (43 minutes)**

- A. Use cases and functional requirements
- B. Reviewing use cases
- C. Practice session: Writing functional requirements
- D. Use cases and software testing
- E. Practice session: Writing test cases
- F. Use-case traps to avoid