Description: eLearning Seminar “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 seminar 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 seminar, 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 Seminar “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