Use Cases for the Rational Unified Process

COURSE OUTLINE

ID: USE-CASE-RUP

Overview
This two-day course is an exercise-driven course to guide students in developing well-written and effective use cases following the concepts and guidelines of the IBM® Rational® Unified Process version 7. Students learn the basic concepts of RUP 7 regarding requirements specification, with emphasis on writing use cases to capture the user requirements of a software system.

The course focuses on both business use cases and system use cases, properly structuring a RUP use case, incrementally writing the use case from Basic Flow to Alternate Flows, and the proper grammar and sentence structure for the use cases descriptions. Both business use cases and system use cases are studied, with multiple examples of each. Students write three complete use cases in this course.

Prerequisites
Experience in requirements gathering, or systems analysis is desirable, but not mandatory.

Duration
Two days, with the option for an additional day for a facilitated use case workshop in which the instructor guides the students as they apply their classroom learning and write use cases for their company projects.

Audience
Business or system analysts, technical managers, and software developers following the Rational Unified Process, who wish to learn use case techniques for capturing requirements for software system development.

Objectives
At the end of this course, students will be able to:
• Identify where use case development fits into a project’s requirements identification activities.
• Articulate the characteristics and identification of both business and system use cases, and business and system actors.
• Write effective use cases conforming to the IBM/Rational Unified Process.
• Choose, and identify, the proper scope for the use cases to be written.
• Avoid the most common mistakes made by use case writers.
• Understand how use cases can benefit offshore/outsourced projects.
• Manage multiple use cases with similar steps.

Outline
Course Introduction
– Value in this Course
– Course Objectives
Use Case Introduction
– What is a Use Case?
– Where Do Use Cases Fit in RUP?
– What Will You Deliver in RUP?

Use Case Examples
– Business: Apply for Life Insurance Policy
– System: Withdraw Funds from ATM
– Group Discussion: Use Case Production

Use Case Writing "Miniature"
– The Writing Process in 5 slides

Course Case Studies
– Example Case Study
– Student Exercise Case Study
– Example: Identify Stakeholders and User Goals
– Student Case Study Exercise: Identify Stakeholders and User Goals

Use Case Structure in RUP
– Basic Flow
– Alternate Flows
– Group Discussion: Use Case Structure
– Exercise: Write a First Use Case

Use Case Scope in RUP
– Business Use Cases
– System Use Cases

Business Use Cases
– RUP Business Modeling Discipline
– Business Use Case Model
– Business Actors
– Example Business Use Case

System Use Cases
– RUP Requirements Discipline
– System Use Case Model
– System Actors
– Example System Use Case
– Group Discussion: Use Case Scope

Use Case Style Topics
– Essential Use Cases
– Design-detail Use Cases
– Style Guidelines for Use Cases
– Audience for Use Cases
– Group Discussion: Use Case Style
Discovering Actors and Use Cases
- Primary and Secondary Actors
- Business Actors and Use Cases
- System Actors and Use Cases
- Group Discussion: Actors and Use Cases

The Use Case Diagram
- Anatomy of the Use Case Diagram
- <<include>> Relationship
- <<extend>> Relationship
- Group Discussion: The Use Case Diagram

The Process for Writing Use Cases
- Identify Candidates & Scope
- Write the Basic Flow
- Identify the Alternate Flows
- Write the Behavior of each Alternate Flow

Identify Candidate Use Cases
- Example Case Study
- Student Case Study Exercise

Identify Use Case Scope
- Example Case Study
- Student Case Study Exercise

Identify Actors
- Example Case Study
- Student Case Study Exercise

Write the Basic Flow
- Example Case Study
- Student Case Study Exercise

Identify the Alternate Flows
- Example Case Study
- Student Case Study Exercise

Write the Alternate Flows
- Example Case Study
- Student Case Study Exercise
- Group Peer-Review

Automated Actors

Pre- and Post-Conditions

Use Cases with Similar Steps

Writing Use Cases—Doing It All Together
- Student Exercise: Write a Complete Use Case
Use Case Pitfalls
- CRUD-based Use Cases
- Use Case Normalization
- Steps as Use Cases

Who Should Write Use Cases?

Wrapup

Appendix A
- Top 10 Mistakes with Use Cases

Appendix B
- Use Cases for Enhancement Projects
- Use Cases for System-to-System Interaction
- Use Cases for System Ports
- Use Cases in Outsourced and Offshore Projects