User & System Requirements For Successful Software

Course: **00034**
Filter: **Beginner**
Duration: **20 hours**
Category:: **Programming**
Price: **2450,00 €**

About Course

Improve customer satisfaction and product delivery by applying techniques from this user and system requirements course. With this training, you will gain the skills to capture software requirements, leverage clearly defined processes, specify user and system requirements, match processes to the size of your projects, and apply quality and consistency tests to the requirements model.

What you'll learn

- Develop requirements for software-intensive systems
- Build a use case-based requirements model
- Write user stories and brief, casual, and fully developed use cases
- Model user interfaces using mock-ups and a data model

Pre-requisites

None

Curriculum

Module 1: The Importance of Software Requirements

- Defining and differentiating between requirement types

- Locating requirement sources
- Development approaches
- Structuring the requirements document
- Requirements components: text, diagrams, data

Module 2: Structuring Your Project

- Matching the process to size and complexity of projects
- Differentiating Agile from standard techniques
- Identifying and prioritizing stakeholders
- Eliciting initial requirements from input documents
- Iterating requirements collaboratively
- Elicitation
- Analysis
- Specification
- Validation
- IEEE
- SWEBOK
- The Unified Process

Module 3: Capturing and Refining Use Cases

- Scripting user stories and use cases
- Iteration and progressive elaboration of use cases
- Use cases as behavioral requirements
- Identifying stakeholders and actors
- Naming and scoping use cases
- Writing scenarios: main and alternatives
- Adding preconditions and guarantees
- Refining use cases with stakeholders
- Factoring common steps
- Discovering extension scenarios
- Verifying use case completeness
- Diagramming scenarios with UML
- Choosing free text vs. formal use case notation

Module 4: Generating Interface Requirements

- Supporting use cases with user interface mock-ups
- Comparing types of interface
- Storyboarding and prototyping

Module 5: Data Requirements

- Exploring the use cases and the interface
- Determining data business rules
- Representing data models with UML class diagrams
- Entities
- Attributes
- Associations
- Adding associations' multiplicity
- Maintaining the glossary

Module 6: Nonfunctional Requirements

- Obtaining volumetrics
- Classifying nonfunctional requirements using FURPS
- System reliability: Availability, Accuracy and Failures
- Addressing the "-ilities"

Module 7: Validating Requirements and Producing Test Scenarios

- Achieving well-formed requirements through validation
- Reviewing requirements with walkthroughs
- Verifying requirements with inspections
- Ensuring testability of requirements
- Extrapolating test scripts and scenarios from requirements