USER & SYSTEM REQUIREMENTS FOR SUCCESSFUL SOFTWARE DEVELOPMENT

Course number : 135

Overview

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

Who should attend

Pre-requis

Outline

The Importance of Software Requirements

The software development life cycle

- Defining and differentiating between requirement types
- Locating requirement sources
- Development approaches

Presenting software requirements

- Structuring the requirements document
- Requirements components: text, diagrams, data

Structuring Your Project

Tuning your methodology to your project size

- Matching the process to size and complexity of projects
- Differentiating Agile from standard techniques

Analyzing stakeholder input

- Identifying and prioritizing stakeholders
- Eliciting initial requirements from input documents
- Iterating requirements collaboratively

Applying the requirements process

- Elicitation
- Analysis
- Specification
- Validation
- IEEE
- SWEBOK
- The Unified Process

Capturing and Refining Use Cases

Writing user stories

- Scripting user stories and use cases
- Iteration and progressive elaboration of use cases

Creating structured 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

Iterating use cases

- Refining use cases with stakeholders
- Factoring common steps
- Discovering extension scenarios
- Verifying use case completeness

Organizing use cases

- Diagramming scenarios with UML
- Choosing free text vs. formal use case notation

Generating Interface Requirements

Integrating interface requirements

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

Producing interface models

- Storyboarding and prototyping
- Modeling interfaces with UML state diagrams and navigation maps

Data Requirements

Analyzing data requirements

- Exploring the use cases and the interface
- Determining data business rules

Creating a requirements data model

- Representing data models with UML class diagrams
- Entities
- Attributes
- Associations
- Adding associations' multiplicity
- Maintaining the glossary

Nonfunctional Requirements

Gathering nonfunctional requirements

- Obtaining volumetrics
- Classifying nonfunctional requirements using FURPS

Documenting nonfunctional requirements

- System reliability: Availability, Accuracy and Failures
- Addressing the "-ilities"

Validating Requirements and Producing Test Scenarios

Performing requirements validation

- Achieving well-formed requirements through validation
- Reviewing requirements with walkthroughs
- Verifying requirements with inspections

Generating use case tests from requirements

- Ensuring testability of requirements
- Extrapolating test scripts and scenarios from requirements
- Relating requirements to system and UA testing

Schedule

Location Dates Status

Tuition

IN CLASSROOM OR ONLINE PRIVATE TEAM TRAINING

STANDARD $3895

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FAQ

Certification