

In Search of Excellent Requirements

This two-day, tool-independent course, based on Karl Wiegers' highly acclaimed book *Software Requirements* (Microsoft Press 2003) and taught by a certified Orasi instructor, will provide students with a tool-kit of practices, reinforced with practice sessions and group discussions, which immediately can be used to improve the quality of requirements development and management in any organization.

Requirements form the foundation for all the software work that follows. Arriving at a shared vision of the product to be developed is one of the greatest challenges facing the software project team, and customer involvement is among the most critical factors in software quality.

Duration

Two days

Class Limit

20 students

Labs

Over 20% of class

Materials Provided

- *Student manual containing the course slides*
- *Student handouts with class exercises and case studies*

This class will emphasize several practical techniques including:

- Creating an effective customer-developer partnership
- Customer involvement through a "product champion" model
- The application of use cases for defining user needs and system functions
- Writing software requirements specifications using a standard template
- Classifying and recording business rules that affect a software system
- A simple model for prioritizing requirements
- Constructing dialog maps and other analysis models to provide alternative views of the requirements
- Using prototypes to clarify and refine user needs
- Using peer reviews to find requirement errors
- Using a requirements traceability matrix to connect requirements to design elements, code, and tests

The class will combine lecture, practice sessions, class discussions and group discussions on requirements problems and solutions.

Objectives

- Be able to recognize and classify different types of requirement information
- Learn about many "good practices" for requirements elicitation, analysis, specification, validation, and management
- Learn how to apply the use case technique for eliciting user requirements
- Select appropriate techniques for representing requirements on your projects
- Be able to critically evaluate requirements statements for ambiguity and other problems

Prerequisite

None

Intended Audience

Requirements analysts, project and product managers, user representatives, software engineers, marketers, and anyone else engaged in gathering, documenting, analyzing, or managing customer requirements for software applications.



Course Outline

Introduction to Requirements Engineering

- Introduction to seminar, objectives, participant expectations
- Define three levels of software requirements: business, user, and functional
- Describe benefits of high-quality requirements
- Requirements development vs. requirements management

Software Requirements Development

- Suggested requirements development process
- Challenges of special requirements development
- The requirements analyst: importance, roles, and value
- Need for customer involvement
- Vision and Scope document
- 5 dimensions of software projects
- Sources of requirements
- Requirements elicitation tips
- Classify customer requirements
- Techniques for excellence in requirements
- User Classes
- The product champion: characteristics, expectations, problems
- Use cases: examples, benefits, exercise
- Facilitate requirements
- Business rules
- Requirements specification approaches: textual, graphical, formal
- Software requirements specification (SRS)
- SRS and use cases
- Commercial requirements management tools and their capabilities
- Write quality requirements
- Software quality attributes
- Non-functional requirements
- Requirements prioritization
- Estimate the value, costs, and priority of features
- Analysis models
- Data flow diagram
- Prototyping
- Find missing requirements
- The V-Model
- Requirements validation techniques

About Orasi

Orasi provides comprehensive consulting and training services to support proven processes and best-of-class technologies. At Orasi, our experienced trainers and consultants enable customers to realize the benefits of effective processes supported by trained personnel and the right technology. We help organizations build higher quality products, from needs assessment and strategic consulting to technical implementation.

Whether you want to improve current processes and workflows or bring employees up to speed on proven practices and technology, Orasi helps you manage your people, processes and technologies to ensure success. With Orasi, you'll gain a competitive advantage and realize a return on your technology investments throughout the development cycle.

