

## Virtual Requirements Gathering with Data Techniques



### BRIEF DESCRIPTION

**4 Sessions**

The Requirements Gathering and Writing course teaches the Business Analyst how to gather requirements and write the different levels of requirements effectively including data requirements. The course provides the Business Analysts with a repeatable process for requirements gathering using business models, use cases, data diagramming techniques and user stories techniques. The workshop uses a “GoToMeeting” conference call format with Instructor lead lecture and interactive exercises. The course is one third lecture and two thirds hands on case study exercises for capturing the project scope definitions, business requirements, detailed functional specifications and data requirements gathering techniques.

### DESCRIPTION

The course focuses on industry standards and best practices for writing requirements needed for project scope definition, business requirements and documenting the detailed functional specifications requirements necessary for software projects. The course focus is on:

- Understanding the different levels of requirements
- The requirements management process
- Characteristics and guidelines for writing effective requirements and use cases
- Communication techniques for gathering requirements
- Writing skills and instructions for capturing the scoping, business requirements documents, detailed functional specifications and data requirements
- Practical exercises in scoping definitions, functional requirements, non-functional requirements, use cases, data requirements techniques and screen/reporting specifications
- Writing and critiquing use cases and requirements using guidelines and checklists

The objectives of the course are to:

- Define best practices and standards for writing functional and non-functional requirements
- Provide practical exercises for using requirements gathering techniques using business models and use cases
- Learn the data requirements modeling techniques with case study exercises
- Writing and critiquing requirements and detailed requirements using industry standards and best practice guidelines and checklists

## Curriculum & Schedule

### Session 1 (1:00 pm – 5:00pm Eastern Time)

#### Course Introduction

#### Requirements Process Overview

- Introduction to Requirements
- Requirements Delivery Approach
- Roles & Responsibilities
- Success Factors

#### Requirements Gathering Techniques

- Conducting Requirements Workshops
- Brainstorming
- Storyboarding
- Teleconferencing
- Interviewing
- Kit Reviews and Walk-throughs
- Requirements Approach and Artifacts Overview- context diagram, use case diagram, business process flows, use cases and user stories
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#### Discovery Phase- Defining the Scope

- Writing effective project initiation deliverables:
  - Business problem statement
  - Success criteria/objectives
  - Business parameters
  - Solution Alternative Analysis
- **Exercise- Discovering and writing business problem statements, success criteria/objectives, business parameters**
- How to write effective scope statements & assumptions
- Interviewing, questioning and active listening skills
- **Exercise- Interviewing and writing the project scope statement & assumptions**
- Building the use case diagram
- **Exercise- Creating the use case diagram**

### Session 2 (1:00 pm – 5:00pm Eastern Time)

#### Discovery Phase- Requirements Analysis

- Documenting requirements in iterations- understanding the different levels of requirements
- Characteristics of writing effective requirements
- Instructions and guidelines for writing effective requirements
- Requirements attributes
- Quality measures and checklists for writing effective requirements

- How to identify and write effective business rules
- Building the “to be” business process flows and activity diagrams with swimlanes
- **Exercise- Creating the “to be” business process flow**
- **Exercise- Identifying and writing quality requirements and business rules**

#### Discovery Phase- Requirements Analysis – User Stories and Use Cases

- Benefits of using the high level use case to identify requirements
- How to write the high level use case
  - Guidelines for the use case iterations
  - Templates and Quality Checklists
- **Exercise- Writing a high level use case**
- How to write the requirements using the user stories technique
- Identify and write the test cases for the user stories
- How to capture user stories for a use case
- **Exercise- Creating a user story**
- How to write effective non-functional requirements
- IEEE Categories
- Non-functional definitions and examples
- **Exercise- Writing quality non-functional requirements**
- Capturing detailed requirements using site maps and identifying inventories of screens, reports and system interfaces
- Iteration Plan – What is the thought process for building a plan?
  - Setting priorities
  - Creating the build plan

#### **Session 3 (1:00 pm – 5:00pm Eastern Time)**

#### Discovery Phase- Detailed Requirements Use Cases

- How to create the detailed use cases
- How to build an activity diagram with swimlanes using UML notation
- **Exercise- writing the detailed use case, creating the activity diagram with swimlanes for the use case**
- Using brainstorming and storyboarding techniques to create the draft screens
- Screen mockup data field descriptions
- **Exercise- storyboarding the mockups and data field descriptions**
- Defining the Report Specifications
  - Key components of the report specifications requirements
  - Report Mock-ups
  - Report Specifications Template

#### Quality Checking Requirements (High-Level Design Sign-off)

- Quality measures for checking requirements
- Techniques for quality checking requirements
  - Desk checking using checklists and questions for validating requirements
  - Conducting Work Sessions for requirements validation

- Requirements Inspection Process and Sign-off for requirements validation
- Change control management
  - How to control requirements defects and change requests
  - Tracing requirements defects and change requests after sign-off

#### **Session 4 (1:00pm – 4:00pm Eastern Time)**

##### Discovery Phase- Data Requirements Gathering Techniques

- How to build and use the context diagram for scoping data requirements
- How to build the dataflow diagram
- **Exercise- building the context and dataflow diagram**
- How to interpret and create the logical data model and matrices
- **Exercise- creating a logical data model**
- How to create the domain object model
- **Exercise- creating the domain object model**

##### Wrap up

#### **MATERIALS**

Each course participant receives a Course Handbook with sample templates, guidelines and checklists for writing requirements definition documents. A course workbook of the case study exercise deliverables created in class.

#### **WHO SHOULD ATTEND**

Those who will find this of value are the Business Analysts, Business Systems Analyst, System Analyst, Requirements Leads, Project Managers, Solutions Leads, Technical Leads, Quality Assurance, Business Subject Matter Experts (SMEs), Architects, Designers and Developers.