



## **Agile Testing**

*A 2-Day Class on Adapting Traditional Software Test/QA Practices in an Agile Context*

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### **Overview**

When a software development organization adopts Agile practices, the testing practices must become Agile as well. But what does that mean? This 2-day class provides participants with an in-depth understanding of how testing changes when a team adopts Agile methods.

The class begins with a brief overview of key Agile values, methods, and practices. Participants then have the opportunity to experience the transition to Agile practices in a simulation. (The simulation is paper-based and is appropriate for all team members: no prior Agile experience or programming expertise required.) By the end of the first day, participants have a clear understanding of the Agile values and principles that drive the process changes and that will help them determine how to adapt their existing testing practices in a newly Agile context.

During the second day we cover concrete practices such as Exploratory Testing and test automation. Participants learn about testing tools and frameworks that Agile teams commonly use such as the xUnit family of unit testing frameworks, FIT/Fitnesse, and Selenium (a tool for functional or acceptance-level tests on Web-based applications).

Along the way, we discuss real life experiences of testers on Agile software projects.

### **Course Objectives**

- Understand what “Agile” really means (not just the buzzword)
- Experience a simulated Agile project
- Learn how to adapt traditional testing practices to an Agile context
- Learn how Session-Based Exploratory Testing fits on Agile projects
- Learn how to create lightweight test documentation
- See demonstrations of open source testing tools commonly used by Agile teams
- Understand how Acceptance Test Driven Development results in executable requirements
- Understand how to apply test analysis and design skills when eliciting requirements and acceptance criteria from business stakeholders
- Discover the evolving role of the Agile Tester on Agile projects

### **Intended Audience**

Anyone interested in Agile Testing or how a traditional software Test/QA practices can be adjusted when a project team “goes Agile.”

## Course Outline

1. Introduction
  - Agile values, methods, and terminology defined
  - Traditional QA practices, how they evolved, and why they don't work in an Agile context
  - Testing as an information service
  - Elements of good feedback
2. The Agile Simulation
  - Experiencing the transition to Agile
  - Debrief
  - A retrospective incorporating observations and insights from the simulation as a whole
  - Mapping insights from the simulation to experiences in the real world
3. Eliciting Acceptance Criteria
  - Applying test analysis and design skills to eliciting requirements and acceptance criteria
4. Automated Tests on Agile Teams
  - Unit (developer) testing
  - Continuous integration
  - Automated acceptance testing tools and frameworks
5. Acceptance Test Driven Development (ATDD)
  - The ATDD cycle
  - Expressing acceptance criteria as automatable tests
  - Demonstration: ATDD in action
6. Exploratory Testing
  - Exploratory Testing defined
  - Using heuristics
  - Session-Based Exploratory Testing on Agile teams
7. Lightweight Test Documentation
  - Styles of documentation
  - Wikis
  - Mind maps
  - Reusable checklists of tests
8. Wrap-up
  - Summary
  - Next steps