Implement the Built-In Quality of SAFe® with Acceptance TDD

SUMMARY

"Built-In Quality" is a core value of SAFe®, of doing Lean-Agile at scale. It is what allows quicker delivery of Business value. One of the key practices in realizing Built-In Quality is Acceptance Test-Driven Development (ATDD). This course describes how the triad (customer, tester, and developer) creates acceptance tests to provide a joint understanding of the requirements. It shows how to use those acceptance tests as a communication and verification tool. Applying these skills streamlines communication within the organization, decreasing rework, raising customer satisfaction, and promoting trust within the organization. These methods have demonstrated an ability to be able to lower released errors by up to 90%. This course is based on the book *Lean-Agile Acceptance Test-Driven Development* by Ken Pugh.

DESCRIPTION

Built-in Quality is one of the four core values of the Scaled Agile Framework®. The enterprise's ability to deliver new functionality with the fastest sustainable lead time and to be able to react to rapidly changing business environments is dependent on solution quality.

But built-in quality is not unique to SAFe. Rather, it is a core principle of the Lean-Agile Mindset, where it helps avoid the cost of delays associated with recall, rework, and defect fixing. The Agile Manifesto is focused on quality as well; it says, "Continuous attention to technical excellence and good design enhances agility." There can be no ambiguity about the value of built-in quality in large-scale systems. It is *mandatory*.

The goal is to have the system work as intended, not to simply have the code do as intended. Lean-Agile thinking achieves this is by moving testing forward in the development process.

Acceptance Test-Driven Development (ATDD) applies this test-first approach to testing stories and features and capabilities. Using ATDD, teams write the test first before developing the code. Whether ATDD is adopted formally or informally, many teams find that this approach is much more efficient.

In his book, *Lean-Agile Acceptance Test-Driven Development*, Ken Pugh notes that the focus of ATDD is more on expressing requirements in unambiguous terms rather than focusing on the test *per se*.

The goal is for the customer, developers, and testers to collaborate to clearly understanding requirements prior to implementation.

Pugh notes that there are three names that are used for this approach: Acceptance Test-Driven Development, Specification by Example, and Behavior-Driven Design. While there are slight differences in these three versions, they all focus on the same goal.

Whether it is viewed as a form of expressing requirements or as a test, it results in better understanding. Acceptance tests serve to record the decisions made while writing stories.

For more, see *www.scaledagileframework.com/built-in-quality* and *www.scaledagileframework.com/test-first*.

We are ideally suited to deliver this course

Net Objectives has been doing Agile at scale since 2004. We have pioneered dozens of practices that have now become common-place in the Agile community. Some of have become integrated into the SAFe framework and other have not yet such as ATDD and architecture.

The Net Objectives team has been providing thought leadership in eXtreme Programming, Design Patterns, TDD, ATDD, Emergent Design and more for over 15 years, including the publication of multiple award winning books.

Note: This course is neither authorized by Scaled Agile Inc., nor provides any certification related to SAFe.

CONTACT US
info@netobjectives.com
1.888.LEAN-244 (1.888.532.6244)

LEARN MORE
www.NetObjectives.com
portal.NetObjectives.com

Note: Net Objectives is a contributor to SAFe, especially its discussion of ATDD. While this course is neither authorized by Scaled Agile, Inc. nor provides certification related to SAFe, it is consistent with the intent of SAFe.

COURSE OBJECTIVES

This course helps participants understand how to transform requirements accurately into testable specifications. This is a collaborative, efficient manner that minimizes waste. It addresses requirements, specifications, implementation and testing.

LEARNING OBJECTIVES

In this course, you will:

- Understand ATDD
- Describe how to turn requirements into acceptance tests
- Identify good acceptance tests
- Describe acceptance tests as a communication vehicle
- Describe how ATDD embodies a core principle of SAFe to "Build Quality In."

COURSE OUTLINE

1. Software Development. ATDD and why it is useful.
2. Acceptance Test Examples: Style, size, scope, clarity
3. The Business Tests: Objectives, scope
4. User Stories and Scenarios
5. Test Anatomy
6. Tables as Tests
7. System Boundary and Tests
8. Events, Responses, States
9. Complex Business Rule and Separation
10. Test Evaluation: Pitfalls, maintaining scalability, sustainability
11. Retrospective: Issues of transition and motivation

LEVEL

Foundational

TARGET AUDIENCE

Customers, product managers, business analysts, SMEs, developers and testers.

It is essential that the development and test team and at least one customer, business analyst, product manager, or SME attend the course together.

This course is appropriate for anyone who is involved in the definition, development and quality assurance of software related products.

ATTENDEE MATERIALS

Course materials are provided at the start of the class.

ROOM SETUP AND EQUIPMENT

One computer per two students. Students usually sit at tables, 4-6 students per table. Flip chart and whiteboard for the instructor. A projector with screen.

PREREQUISITES

This course is about analyzing requirements. There are no requirements beyond basic word processing skills.

COURSE LENGTH

This course is structured with both teaching and an optional coaching session:

- 2 days: All teams together
- 1 day: Teams coached individually

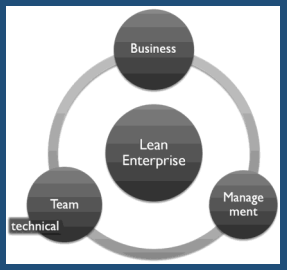
MAXIMUM NUMBER

24

NET OBJECTIVES

We are committed to delivering the principles, practices, and perspectives that businesses must know in order to maximize their return on their technology solution and software development efforts. We combine our experience and a time proven approach based on lean thinking to continuously extend the capability of what is possible in creating effective technology delivery organizations (IT or product). We provide these learned methods to our clients to assist them in achieving their goals and in assisting them in making their organizations more successful.

Full course descriptions may be found at
www.NetObjectives.com/training



FLEX Enterprise Transformation
Lean ● Agile ● Team Agility
Patterns ● TDD ● ATDD
Assessments ● Consulting Training