

Conducting a Value-Driven User Stories Exercise



by **Chris Sterling**

Certified Scrum Trainer,
Agile Coach, and
Principal Consultant
at SolutionsIQ

Conducting a Value-Driven User Stories Exercise

by **Chris Sterling**

• Introduction

Traditionally, software development projects have begun with a long requirements-gathering process to ensure the final deliverable would meet the needs of the intended users. In some cases, this has meant incurring excessive costs before understanding the size of the project, as well as failure to assess return on investment. The Agile software development approach emphasizes both value and user satisfaction, as summed up by the following Agile principle:

Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.

The *value-driven user stories exercise* is used by Scrum product owners and their teams to identify required product functionality based on user needs. Agile focuses on broadly defined features (often referred to as *epics*) rather than lengthy upfront definition of requirements. Instead, requirements are addressed “just in time” — at the point when implementation becomes a high priority.

• Background on Scrum and User Stories

The Scrum framework is a value-driven approach for managing projects. Factors that affect value include cost, quality, time, risk, and functionality. A shrink-wrapped software package may express value in terms of new market opportunities, existing customer upgrades, and extension of product packaging strategies. An internal IT project may define value as reduction in operational costs, timely access to essential business information, and increased productivity.

According to the Scrum development framework, desired product functionality is prioritized stack ranked in a *product backlog*, with highest value items on top — the value and priority of items in the backlog may change over time. The implementation team draws from the top of the product backlog, so the highest value functionality is implemented first.

A *user story* describes product functionality from the user’s perspective, whether the user is a customer or internal user. User stories are used by many Scrum teams as the format for describing product backlog items. According to Ron Jeffries, one of the founders of Extreme Programming, there are three components of a user story:

- **Card** that contains a short description of desired product functionality
- **Conversation** between the customer and implementation team about the product
- **Confirmation** of terms for customer acceptance of the product

In his book *User Stories Applied*, Mike Cohn introduced a user story template that describes the user's intended use of the product in terms of the value the user hopes to gain. Clearly defining the value from a user's perspective makes it much easier to establish priority for user stories in the product backlog.

• • • Outline of Approach

The value-driven user stories exercise can be especially useful at these points in the project lifecycle:

- **Creating first product backlog:** A product owner knows what value he/she wants to provide for a specific customer, but has not yet created a list of product features.
- **Breaking epics into smaller stories:** Lower-priority features in the product backlog may not have been defined in detail. As these features ascend in the backlog, they may need to be broken down into manageable chunks (smaller user stories) for the delivery team.
- **Planning for an upcoming release:** The high-level features for the next release in the project roadmap need to be broken into smaller user stories.

The value-driven user stories exercise includes the following steps:

1. Brainstorm value statement
2. Identify user roles
3. Conduct breakout sessions
4. Debrief and gather feedback
5. Capture user stories in product backlog

We discuss each step in detail in the following sections.

• • • Preparation

Preparation for the value-driven user stories exercise includes determining how much time you need, and identifying and inviting required participants. Here are some suggested timeframes:

- **Creating first product backlog** — Four-hour sessions for one to three days
- **Breaking epics into smaller stories** — two to three hours for each epic
- **Planning for upcoming release** — two to three hours for each epic

Participants should include subject matter experts, architecture experts, business analysts, customers (if possible), and the product owner. Schedule a room large enough to accommodate small breakout sessions, with space on the walls to pin up artifacts, information radiators, and facilitation aids. These items may be useful for conducting the exercise:

- One to three packs of 3"x5" sticky notes or index cards
- One black sharpie per participant
- White board and colored dry erase markers

- Easel pad and easel
- Product vision statement
- Product roadmap
- Digital camera (to record generated materials)

Here is a sample meeting agenda:

- Introduction by product owner (*10 minutes*)
- Brainstorm value statement (*10 minutes*)
- Identify user roles (*10 minutes*)
- Conduct breakout sessions (*45 to 60 minutes*)
- Debrief and gather feedback (*30 minutes*)
- Close and review (*10 minutes*)

• Step 1: Brainstorm Value Statement

The product owner starts the meeting by introducing the product vision statement, product roadmap, or epic user story that is driving the exercise, and then answering any participant questions. A facilitator begins the brainstorming session by asking what values or benefits the product, release, or user story will provide the user, capturing contributions on a white board or easel pad.

Tips

- Designate a facilitator ahead of time—either the project Scrum Master or a third-party facilitator.
- Allow enough discussion for the participants to feel informed and involved.
- If introducing a product roadmap, focus on the first release.
- If introducing a product vision, write down some high-level capabilities the product should have. These may become epic user stories to help drive the exercise.
- The facilitator should help ensure participants express and capture value from the end user's perspective rather than from a technical perspective.

Artifacts

- Explanation of value that the product or epic user story will provide

• Step 2: Identify User Roles

The facilitator should ask the participants to identify the users who will be interested in the value identified in Step 1. Capture contributions on the white board, and allow participants to make user roles more specific or more general through discussion.

Tips

- The facilitator should restate each user role for participants to get confirmation.
- The facilitator should ask the group if they are satisfied with the list as the discussion slows.

Artifacts

- List of user roles interested in the product or feature's offered value.

• Step 3: Conduct Breakout Sessions

The facilitator should ask the participants to choose a partner for the breakout session and then have each pair choose a user role from those listed in Step 2. Each pair will generate user stories from their user role's perspective, based on the values listed in Step 1. Use the Mike Cohn template: "As a <<user>> I want to <<feature>> so that <<value>>".

Tips

- Make sure participants understand that each user story should be fully written using the Mike Cohn template. It will make the group debrief go much smoother and decrease the need to rewrite user stories before capturing in the product backlog.
- Some of the value statements may not be appropriate for every user role.
- If the group is not large enough to cover all of the user roles at once, each pair should continue to choose a new user role until all have been covered.
- If there are not enough user roles, form larger breakout groups.
- Breakout pairs should only focus on one user role at a time.
- Upon discovery of new value statements, the breakout pairs should add them to the list of value statements.

Artifacts

- A stack of index cards or sticky notes with user stories written on them

• Step 4: Debrief and Gather Feedback

The facilitator should ask each pair to read a user story, soliciting feedback from the group after each. The group should discuss and modify the user stories as needed. When the group is satisfied with each user story, the facilitator should place it on a table in the center of the group to indicate completion. When the group is satisfied with all user stories, it's time to conduct a retrospective so the team can improve next time the exercise is conducted.

Tips

- Ask for a pair to volunteer to go first in debriefing the group.
- Allow the group to give feedback on each user story.
- Be sure to place finished user stories in the center of the group to emphasize completion before moving to the next user story.
- Conduct a short retrospective on the entire exercise to make sure improvements are made for next time it is conducted.

Artifacts

- Conversation with participants about each user story generated
- New and modified user stories from group feedback
- Stack of user stories to be captured in the product backlog

• Action Item: Capture Generated User Stories

It's critical to capture the completed user stories. As a backup, spread out the materials and take digital photos. Enter the user stories into the product backlog immediately after the exercise, when the conversations about each story are still fresh. Not all of the generated user stories must be listed together in the product backlog. For instance, the product owner may decide to focus on particular user roles for an upcoming release of the product.

• Conclusion

Agile emphasizes delivering value early and continuously to ensure customers get the highest return on their investment. The value-driven user story exercise allows you to assign value to specific users by feature, which in turn makes it easier to prioritize deliverables. The exercise can and should be used throughout the project lifecycle to help you optimize returns for your customers, whether internal or external.



About the Author

Chris Sterling is a principal consultant, certified Scrum trainer and Agile coach for SolutionsIQ. With more than 14 years of experience in software development and consulting, Sterling leads enterprise integration projects for technology startups, large corporations, and government agencies with a clear focus on enabling architecture. As an Agile coach, Sterling is an innovator and facilitator to increase product delivery consistency and quality in project management, architecture, and software development. Along with his daily responsibilities, Sterling has released multiple free and open source projects and provides thought leadership on the use of open source in the enterprise. He was founder of the International Association of Software Architects (IASA) Puget Sound Chapter and currently supports the Seattle Scrum Users Group.

About SolutionsIQ

*SolutionsIQ offers a full spectrum of services to develop **software** and fulfill technical **talent** needs, while improving your Agile **knowledge** and capabilities. Clients include AT&T (Cingular), Amazon, Corbis, Expedia, Federal Home Loan Bank, Infospace, Key Bank, Nike, Nordstrom, Safeco, US Bank, and Washington State University. A Microsoft Gold Certified Partner, SolutionsIQ is also a member of the Java Community Process, Scrum Alliance, Software Association of Oregon, and Washington Technology Industry Association. Learn more at www.SolutionsIQ.com.*