

Scrum Essentials

Scrum Definition

Scrum is a lightweight framework that helps people, teams and organizations to generate value through adaptive solutions for complex problems

Agile Manifesto

1. Individuals and interactions over processes and tools.
 2. Working Software over comprehensive documentation
 3. Customer collaboration over contract negotiation.
 4. Responding to change over following a plan.
- ★ While there are value in the items on the right, we value more the items on the left.

Pillars of Empiricism

1. Transparency
2. Inspection
3. Adaptation

Scrum Values

1. Commitment
2. Focus
3. Openness
4. Respect
5. Courage

The Increment

Definition

Is a **concrete stepping stone** toward the **Product Goal**.

Key Points

The Increment (cont)

- ★ Each sprint should deliver an increment. A potentially releasable increment is created each sprint.
- ★ Multiple increments may be created within a sprint.
- ★ Increment may be delivered to stakeholders prior to the end of the Sprint.
- ★ Sprint Review should never be a gate to releasing value or a bottle neck. Showing or releasing an increment to the stake holders should no wait till the sprint review.
- ★ Increments are an additive to all prior Increments and thoroughly verified, ensuring that all Increments work together.
- ★ In order to provide value, the Increment must be usable.

The commitment for the increment is: The Definition of Done (DoD)

The **Definition of Done** is a formal description of the state of the Increment when it **meets the quality measures** required for the product.

DoD creates transparency by providing everyone a shared understanding of what work was completed as part of the Increment.

The Increment (cont)

- ★ It creates transparency, so everyone knows what needs completing and to what standards.
- ★ If a Product Backlog item does not meet the Definition of Done, it cannot be released or even presented at the Sprint Review.
- ★ Instead, it returns to the Product Backlog for future consideration.

If the Definition of Done for an increment is part of the standards of the organization, all Scrum Teams must follow it as a minimum.

- ★ If it is not an organizational standard, the Scrum Team must create a Definition of Done appropriate for the product.
- ★ The scrum team can add standards.
- ★ The Developers are required to conform to the Definition of Done.
- ★ If there are multiple Scrum Teams working together on a product, they must mutually define and comply with the same Definition of Done.

Key Points

- ★ Once the developers meet the Definition of Done of a product backlog item, and increment is born.
- ★ Once a Product Backlog Item meets the DoD is ready to present to the stakeholders and be considered for releasing to the users.

Scrum Artifacts

Scrum's artifacts **represent work or value**. They are designed to **maximize transparency of key information**. Thus, everyone inspecting them has the same basis for adaptation.

Each artifact **contains a commitment** to ensure it provides information that enhances transparency and focus against which progress can be measured:

1. For the **Product Backlog** it is the **Product Goal**.
2. For the **Sprint Backlog** it is the **Sprint Goal**.
3. For the **Increment** it is the **Definition of Done**.

Scrum Principles

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| 1. Satisfy Customers Through Early & Continuous Delivery. | 7. Working software is the primary measure of progress. |
| 2. Welcome Changing Requirements Even Late in the Project. | 8. Agile Processes to support a consistent development pace. |



Scrum Principles (cont)

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| <p>3. Frequent Delivery of working software.</p> <p>4. Collaboration between the business stakeholders and developers throughout the project.</p> <p>5. Support, trust and motivate the people involved.</p> <p>6. Enable face-to-face interactions.</p> | <p>9. Attention to technical detail and design enhances agility.</p> <p>10. Simplicity (the art of maximizing the amount of work not done) is essential.</p> <p>11. Self-organizing teams encourage great architectures requirements and designs.</p> <p>12. Regular reflections on how to become more effective.</p> |
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The Sprint Backlog

Definition

It is a list of work that need to be completed within the sprint.

The Developers owns the Sprint Backlog

The Sprint Backlog (cont)

- Developers are always accountable for creating a plan for the sprint.
- The Sprint Backlog is a plan by and for the developers.
- It is a highly visible, real-time picture of the work that the Developers plan to accomplish during the Sprint in order to achieve the Sprint Goal

The Sprint Backlog is composed of:

- The Sprint Goal (why)
- The set of Product Backlog items selected for the Sprint (what)
- Actionable plan for delivering the Increment (how).

The commitment for the sprint backlog is: Sprint Goal

- The Sprint Goal is the single objective for the Sprint.
- Although the Sprint Goal is a commitment by the Developers.
- The sprint goal should be flexible enough in terms of the exact work that is needed to achieve.
- The Sprint Goal is created during the Sprint Planning event and then added to the Sprint Backlog.
- As the Developers work during the Sprint, they keep the Sprint Goal in mind.
- If the work turns out to be different than they expected, they collaborate with the Product Owner to negotiate the scope of the Sprint Backlog within the Sprint without affecting the Sprint Goal.

Key Points

The Sprint Backlog (cont)

- ★ The sprint Backlog is initially created during sprint planning session, developers are accountable of the amount work they can deliver.
- ★ The developers can modify the sprint backlog through out the sprint. And the sprint backlog emerges during the sprint.
- ★ This emergence occurs as the scrum team works through the plan and learns more about the work needed to achieve the sprint goal.
- ★ As more work is required, the developers add it to the sprint backlog.

The Product Backlog

Definition

The Product Backlog is an **emergent, ordered list of what is needed to improve the product**. It is the **single source of work** undertaken by the Scrum Team.

Product Backlog is:

- Emergent:** Means that you add to it and change it over time as you inspect and adapt
- Ordered:** Is ordered by priorities and/or dependencies.
- Single Source:** Product Backlog is the single source of work undertaken by the scrum team

The product owner owns the product backlog

The Product Backlog (cont)

- Developing and explicitly communicating the product goal.
- Creating and explicitly communicating product backlog items.
- Ordering product backlog items.
- Ensuring that the product backlog is transparent, visible, and understood.

Key points

- ★ Anyone can add details to a BLI with the Product Owner's discretion.
- ★ Multiple teams can work together on the same product, but a single product backlog is used to describe the upcoming work on the product.

Commitment to the product Goal

- The Product Goal is the long-term objective for the Scrum Team. They must fulfill (or abandon) one objective before taking on the next.
- The Product Goal describes a future state of the product which can serve as a target for the Scrum Team to plan against. **⚠️**The scrum team should use this goal to plan the work to achieve this goal.

Product Definition

A product is a vehicle to deliver value. It has a clear boundary, known stakeholders, well-defined users, or customers. A product could be a service, a physical product, or something more abstract.

Scrum Roles and Responsibilities	
Role	Accountable For:
Product Owner	The product owner(PO) is accountable for maximizing the value of the product resulting from the work of the scrum team.
Developers (Developers & Testers)	Developers are the people in the scrum team accountable for create any aspect of a usable increment each sprint. (Developers and Testers)
Scrum Master	The scrum master is accountable for the scrum team effectiveness. They do this by enabling the scrum team to improve its practices within the scrum framework.

Developers (Developers & Testers)
<p>Key Points</p> <ul style="list-style-type: none"> ★ Scrum teams are cross-functional. ★ Developers must be empowered and respected, they should be self-managed. They are structured and empowered to manage their own work. ★ Developers are trusted to manage themselves to complete the work in the sprint backlog and holds themselves accountable for the success of the sprint. ★ Developers are also accountable to internally decide who does what, when and how. ★ It is up to the developers as a self-managed team to create a plan to complete the sprint goal (Sprint backlog). ★ If some of the developers are struggling with assigned work they need to help each other. ★ Developers should meet the Definition of Done for each task. ★ They should adapt their plan each day toward the sprint goal. ★ Developers should meet every day at daily scrum. ★ There are no sub-teams or hierarchies, developers are a cohesive unit of professionals. <p>Developers are always accountable for:</p>

Developers (Developers & Testers) (cont)
<ul style="list-style-type: none"> ★ Creating a plan for the sprint, the sprint backlog ★ Instilling quality by adhering to a definition of done ★ Adapting their plan each day toward the sprint goal ★ Holding each other accountable as professionals.

Scrum Events				
<table border="1"> <tr> <td>Daily Standup</td> <td>Sprint Planning</td> <td>Sprint Review</td> <td>Sprint Retrospective</td> </tr> </table>	Daily Standup	Sprint Planning	Sprint Review	Sprint Retrospective
Daily Standup	Sprint Planning	Sprint Review	Sprint Retrospective	

Daily Standup
<p>Definition</p> <p>The purpose of the daily scrum is to inspect progress toward the Sprint Goal and adapt the Sprint Backlog as necessary, adjusting the upcoming planned work.</p> <p>Daily Scrums improve communications, identify impediments, promote quick decision-making, and consequently eliminate the need for other meetings.</p> <p>During Daily Scrum you can answer this questions:</p> <ol style="list-style-type: none"> 1- What I did Yesterday. 2- What I plan to do today. 3- What is Blocking me. <p>Key Points</p>

Daily Standup (cont)
<ul style="list-style-type: none"> ★ It is held at the same time and place every working day of the sprint. ★ Is a 15 minutes event for the Developers of the Scrum Team. ★ Developers are the only ones are required. ★ Developers can select whatever structure and techniques they want, but they must focus on progress toward the sprint goal and produce and actionable plan for the next day of work. ★ The Daily Scrum is not the only time Developers are allowed to adjust their plan. They often meet throughout the day for more detailed discussions about adapting or re-planning the rest of the Sprint's work.

Sprint Planning
<p>Definition</p> <p>Sprint Planning initiates the Sprint by laying out the work to be performed for the Sprint. This resulting plan is created by the collaborative work of the entire Scrum Team.</p> <p>Key Points</p>



Sprint Planning (cont)

- ★ The Product Backlog must be refined.
- ★ The whole Scrum Team is required, that means that more than just the scrum team can be involved.
- ★ The Scrum Team may also invite other people to attend Sprint Planning to provide advice.
- ★ The Product Owner ensures that attendees are prepared to discuss the most important Product Backlog items and how they map to the Product Goal.
- ★ Every participant must know what the Sprint Goal is.
- ★ Sprint Planning results in a plan for the sprint, **The Sprint Backlog**

Deciding the Sprint Goal

The Scrum Team can decide the sprint goal by considering the following three topics during the planning session:

- 1- Why is this Sprint valuable?
- 2- What can be Done this Sprint?
- 3- How will the chosen work get done?

1- Why is this Sprint valuable?

- The Product Owner proposes how the product could increase its value and utility in the current Sprint.
- Then, the whole Scrum Team then collaborates to **define a Sprint Goal** that communicates why the Sprint is valuable.
- **The Sprint Goal must be finalized prior** to the end of Sprint Planning.

2- What can be Done this Sprint?

Sprint Planning (cont)

- Developers select items from the Product Backlog to include in the current Sprint.
 - The Scrum Team may refine these items during this process, which increases understanding and confidence.
- Selecting how much can be completed within a Sprint may be challenging. However, the more the Developers know about their past performance, their upcoming capacity, and their Definition of Done, the more confident they will be in their Sprint forecasts.

3- How will the chosen work get done?

- For each selected Product Backlog item, Developers plan the work necessary to create an Increment that meets the Definition of Done.
- Developers decomposed Product Backlog items into smaller work items of one day or less.
- No one else tells the Developers how to turn Product Backlog items into Increments of value.
- The Sprint Goal, the Product Backlog items selected for the Sprint, plus the plan for delivering them are together referred to as the Sprint Backlog.
- Sprint Planning is timeboxed to a maximum of eight hours for a one-month Sprint. For shorter Sprints, the event is usually shorter.

Sprint Review

Definition

The purpose of the Sprint Review is to inspect the outcome of the Sprint and determine future adaptations. The Scrum Team presents the results of their work to key stakeholders and progress toward the Product Goal is discussed.

Key Points

- ★ Scrum Team and stakeholders review what was accomplished in the Sprint and what has changed in their environment.
- ★ Based on this information, attendees collaborate on what to do next.
- ★ The Product Backlog may also be adjusted to meet new opportunities.
- ★ The Sprint Review is a working session and the Scrum Team should avoid limiting it to a presentation.

Product Owner Role in the Sprint Review

- Should be keeping on top of changes in the market place and be ready to make decisions on how to maximize the value of the product.

Goals

Sprint Review (cont)

- ★ Inspect the outcome of the Sprint and determine future adaptations
- ★ To transparently inform about work which **has been done (including adding work)** and work **has not been done (including work removed)**.
- ★ Take advantage to **receive feedback** from the stakeholders and adapt.

Product Owner

Key Points

- ★ The Product Owner is a **value maximizer**.
 - ★ Is accountable for **effective product backlog management**.
 - ★ Decides work tasks priority, is accountable for **ordering product backlog items**
 - ★ Must **understand the market and the product** to understand what makes a valuable product.
 - ★ Accountable to clearly **communicate the Product Backlog Items**.
 - ★ Accountable to ensure the **Product Backlog is Transparent, visible and understood**.
 - ★ Represents the needs of **many stake holders** in the product backlog.
 - ★ The Product Owner Vision is called **"The Product Goal"**
- © **The Product Goal**
- Is the Product Owner Vision, is a long term objective for the Scrum Team



Scrum Master

Key Points

- ★ The Scrum master is a servant leader, who serves the scrum team, the product owner and the organization.
- ★ The Scrum master is accountable for establishing scrum as defined in the scrum guide. They do this by helping everyone to understand scrum theory and practice, both within the scrum team and the organization.
- ★ The scrum master is accountable for the scrum team effectiveness. They do this by enabling the scrum team to improve its practices within the scrum framework.

Scrum master serves the Scrum team by:

- ★ Coaching team members to work together on the sprint goal through self management and cross-functionality.
- ★ Helping the scrum team focus on creating high-value increments that meet the definition of done.
- ★ Encourage the scrum team to raise problems, discover any dependencies or impediments and help to remove them finding solutions so the team can progress.
- ★ Ensuring all scrum events happen are positive, productive and kept within the time box.
- ★ Scrum masters coach the team on how to do scrum properly.

Scrum master serves the Product Owner by:

Scrum Master (cont)

- ★ Helping find techniques for effective product goal definition and product backlog management.
- ★ How to decompose BLI to be ready for the sprint.
- ★ Helping the scrum team to understand the need for clear and concise product backlog items.
- ★ Helping establish empirical product planning for a complex environment.
- ★ Facilitating stakeholder collaboration as requested or needed
- ★ Promote the inspection and adaption opportunities for empirical product planning.

Scrum master serves the organization by:

- ★ Leading, training, and coaching the organization in its scrum adoption.
- ★ Planning and advising scrum implementation within the organization.
- ★ Helping employees and stakeholders understand and enact an empirical approach for complex work.
- ★ Removing barriers between stakeholders and scrum team

Sprint Retrospective

Definition

Sprint Retrospective (cont)

The purpose of the Sprint Retrospective is to **plan ways to increase quality and effectiveness**.

The Scrum Team inspects how the last Sprint went with regards to:

- individuals
- Interactions
- Processes
- Tools
- Definition of Done. {{nl}}
- ★ This event is a good chance to add to the wealth and improve the definition of done.

Scrum Team discusses:

- ★ what went well during the Sprint
- ★ what problems it encountered
- ★ how those problems were (or were not) solved. **Key Points**

Key Points

- ★ focus on How you are working as a team
- ★ The Scrum Team identifies the most helpful changes to improve its effectiveness.
- ★ Impactful improvements are addressed as soon as possible. They may even be added to the Sprint Backlog for the next Sprint.
- ★ The Sprint Retrospective concludes the Sprint.