Sprint in Agile methodology

A sprint, in Agile software development, is a set period of time during which specific work has to be completed and made ready for review.

The idea of having a time box is to ensure that immediately after the sprint, they can retrospect and adapt to make improvements.

This ability to inspect and adapt is the most critical goal of a sprint that allows the team to inspect the product increment iteratively and also improve how they work together as a team.

Few Things about Sprint :

- Every Sprint is of same duration
- Every Sprint is four weeks or less in duration
- There are no breaks between two Sprints
- The intention of every Sprint is "Potentially Shippable" deliverable
- All meetings/ceremonies are time boxed
- Every Sprint starts with Sprint Planning Meeting

Following are the typical ceremonies of scrum:

1. Backlog Grooming

2. Sprint planning

3. Daily Standup

4. Sprint Review

5. Sprint Retrospective

1. Backlog Grooming

Backlog grooming is when the product owner and some, or all, of the rest of the team review items on the backlog to ensure the backlog contains the appropriate items, that they are prioritized, and that the items at the top of the backlog are ready for delivery.

This activity occurs on a regular basis and may be an officially scheduled meeting or an ongoing activity.

Some of the activities that occur during this refinement of the backlog include:

- removing user stories that no longer appear relevant
- creating new user stories in response to newly discovered needs
- re-assessing the relative priority of stories
- assigning estimates to stories which have yet to receive one
- correcting estimates in light of newly discovered information
- splitting user stories which are high priority but too coarse grained to fit in an upcoming iteration

2. Sprint Planning / Sprint 0 (zero)

Sprint Planning takes place at the beginning of an iteration or interval and the team determines how much work it thinks is possible to be accomplished be the end of the interval.

- The Sprint Planning Meeting facilitated by Scrum Master
- The Sprint Planning Meeting is attended by Scrum Master, Product Owner, Dev Team members, Testing Team, and stakeholders
- The Sprint Planning Meeting produces committed Sprint Backlog
- No additional stories to be added into Sprint Backlog after the Sprint Planning Meeting (they do add it in between the sprint)
- Sprint planning should happens after considering availability of employees
- No story deleted after the Sprint Planning Meeting from Sprint Backlog

3. Daily standup / Scrum

Daily Scrum takes place every day and is usually a stand up meeting with not more than 10–15 minutes time. The goal here is that the teams exchanges information about ongoing work, identifies synergies or impediments and ideally makes a quick planning for the day. (happens for 30 minutes)

Every day of team has Daily Standup at same time of day, where all the stakeholder are available

The Daily Standup is not a status meeting but information sharing and asking for help meeting

In the Daily Standup every team member answers three things only.

1. What is the issue you are facing
2. How you are planning to mitigate it
3. What is next actionable item for the day.

4. Sprint Review

Sprint Review meeting is the meeting where the product that was implemented in the interval is demonstrated to the product owner and possible other stakeholders or even people who are interested. This meeting is an important source of feedback about the product.

- The Sprint Review Meeting is conducted at last day of Sprint before Demo and Retrospective

- The Sprint Review Meeting is for stakeholder feedback on the increment of current increment as well as product

- The Sprint Review Meeting is facilitated by Scrum Master

- All members of the team attend the Sprint Review Meeting

- The Sprint Review Meeting is time boxed in to two hours per week of Sprint duration

5. Sprint Retrospective

The Sprint Retrospective is an opportunity for the Scrum Team to inspect itself and create a plan for improvements to be enacted during the next Sprint.

A Typical Sprint Retrospective Model

What worked well?

What could be improved?

What will we commit to doing in the next Sprint?

Scrum Team members make actionable commitments

The Sprint Retrospective occurs after the Sprint Review and prior to the next Sprint Planning. This is at most a three-hour meeting for one-month Sprints. For shorter Sprints, the event is usually shorter. The Scrum Master ensures that the event takes place and that attendants understand its purpose. This is the opportunity for the Scrum Team to improve and all member should be in attendance.

During the Sprint Retrospective, the team discusses:

- What went well in the Sprint
- What could be improved
- What will we commit to improve in the next Sprint

The Scrum Master encourages the Scrum Team to improve its development process and practices to make it more effective and enjoyable for the next Sprint. During each Sprint Retrospective, the Scrum Team plans ways to increase product quality by improving work processes or adapting the definition of "Done" if appropriate and not in conflict with product or organizational standards.

By the end of the Sprint Retrospective, the Scrum Team should have identified improvements that it will implement in the next Sprint. Implementing these improvements in the next Sprint is the adaptation to the inspection of the Scrum Team itself. Although improvements may be implemented at any time, the Sprint Retrospective provides a formal opportunity to focus on inspection and adaptation.

Role of Scrum master

The scrum master role was created as part of the Scrum framework. The name was initially intended to indicate someone who is an expert at Scrum and can therefore coach others.

The role does not generally have any actual authority. People filling this role have to lead from a position of influence, often taking a servant-leadership stance

The Scrum Master serves the Product Owner in several ways, including:

- Ensuring that goals, scope, and product domain are understood by everyone on the Scrum Team as well as possible;

- Finding techniques for effective Product Backlog management;

- Helping the Scrum Team understand the need for clear and concise Product Backlog items;

- Ensuring the Product Owner knows how to arrange the Product Backlog to maximize value;

- Scrum master should address the impediments if any and should resolve to mitigate them and associated concerns .

- Identify the areas that could have been handled better in the retrospective. The plan should be to create the list ,group and discuss then vote per the priority.

Roles Of Product Owner

A Scrum Product Owner is responsible for maximizing the value of the product resulting from the work of the Development Team. How this is done may vary widely across organizations, Scrum Teams, and individuals.

The Product Owner is the sole person responsible for managing the Product Backlog. Product Backlog management includes:
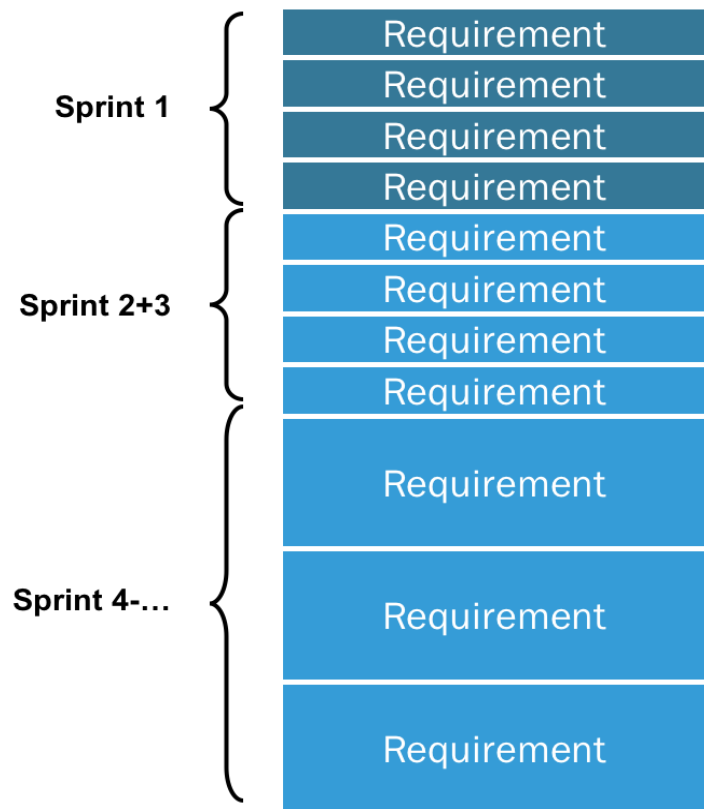
Product Backlog

- Clearly expressing Product Backlog items.
- Ordering the items in the Product Backlog to best achieve goals and missions.
- Optimizing the value of the work the Development Team performs.
- Ensuring that the Product Backlog is visible, transparent, and clear to all, and shows what the Scrum Team will work on next.
- Ensuring the Development Team understands items in the Product Backlog to the level needed.
- The PO determines which functionality will be developed
- The PO determines the priority of what will be developed
- The PO manages the backlog (the administration of functionality to be developed)
- The PO discusses with all stakeholders what is needed to create business value
- The PO accepts the functionality during the sprint review, so it can be delivered to the production environment

- The Product Owner represents team in Demo
- The Product Owner is accountable to refine Product Backlog on continuous basis
- The Product owner do not add or delete items in Sprint Backlog in middle of a Sprint (but this happens)
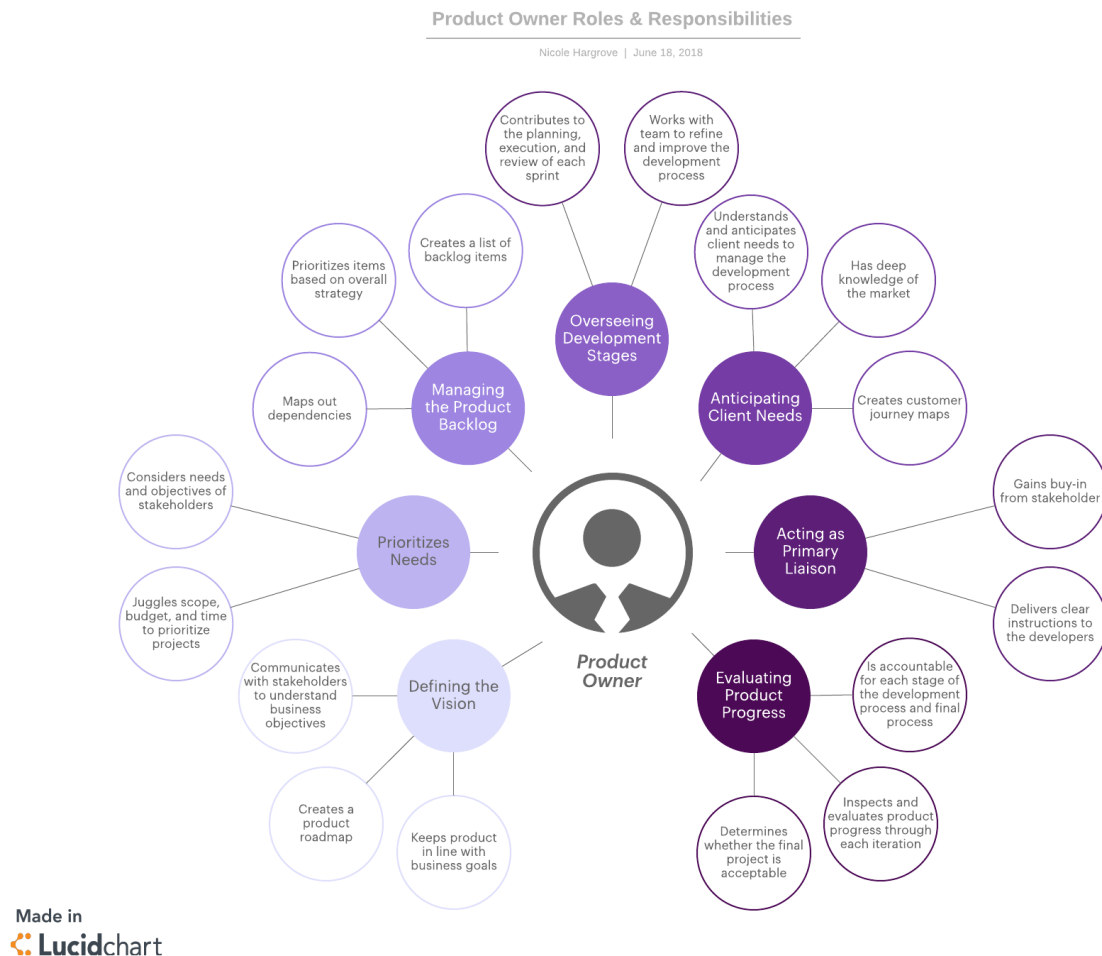
The Product Owner may do the above work, or have the Development Team do it. However, the Product Owner remains accountable.

The Product Owner is one person, not a committee. The Product Owner may represent the desires of a committee in the Product Backlog, but those wanting to change a Product Backlog item's priority must address the Product Owner.

For the Product Owner to succeed, the entire organization must respect his or her decisions. The Product Owner's decisions are visible in the content and ordering of the Product Backlog. No one can force the Development Team to work from a different set of requirements.