Basics of Scrum in Agile

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# Definition and Standards

Scrum is an agile framework used to complete challenging projects where there are dynamic changes in the requirements. In Scrum there are 3 roles: product owner, ScrumMaster and development team. It uses fixed-length iterations called sprints and are time bound and cannot exceed 30 days. The teams in Scrum consist of 7 +/- 2. Scrum team aims by end of each sprint to build a shippable product. A daily Scrum meeting must be 15 mins and team should be standing during entire meeting time.

# Estimation and Techniques

Team can use any logic to estimate their user stories as no rule says you have to adopt to one of techniques to estimate. A team ability to estimate user stories becomes much better and accurate once they worked for a while in Agile projects. However, new teams to Agile may face difficulties in estimating points for user stories. Planning Poker and T-Shirt Sizes are some of estimation techniques can be used to estimate user stories. Planning Poker is a game that team members can play during planning meetings to make sure everyone participate. As team members start to align the story points with hours of effort, confusion may occur. To avoid the confusion, it may be more effective to use a non-numeric estimation technique like T-Shirt Sizing. Frequently, the method of determining the story point for each story will consume lot of time. Less time is consumed with Relative Mass Valuation method.

# Scrum Roles and Responsibilities

Product owner is responsible for release burn-down chart, for the product vision and to provide clarification on the user story to the development team. It maintains the product backlog. Besides it is the only one who can make a decision whether the product is ready to ship and the only authoritative person to take decision about abruptly discontinuing sprint and to take decision of including further functionality to the product backlog. It is the person to constantly reprioritize the product backlog.

Facilitator of Scrum process is the ScrumMaster. It helps to resolve any issues faced by the Scrum team, shields the team from external distractions, makes a positive environment for the team to be self-organizing and enforces time boxes. Also, ScrumMaster maintains sprint burn-down / burn up charts, facilities the required meetings, promotes improved practices of engineering and has no management authority for the team.

Development team should be self-organized, cross-functional and self-manage the tasks among the team. The development team should resolve issues of people management among the team and if it has gone out of the team’s control, they take it to ScrumMaster. They work with the product owner in reprioritizing the product backlog items. The team consists of 7 +/- 2 members and responsible in completing the committed task for the sprint.

# Product Backlog

The product backlog is the list of functionalities with the short descriptions derived from the requirements of the project. For any changes to be made to the end product, the product backlog is the single source of requirements. User stories are prioritized by the product owner in discussion with the development team considering the business priority pf those user stories and the dependencies on the other stories, if any. Managing the product backlog is the product owner responsibility.

# Sprint Planning

The product owner, ScrumMaster, and the development team are the attendees of Sprint planning meeting. What should be the duration of the sprint and into how many sprints the project be divided into to address the requirements in the product backlog are going to be decided in the meeting. Sprint 0 is the phase where the planning the resource, planning the project, duration of sprint, and the number of sprints will be decided and also a bit more discussion happens on the product backlog items. Sprint planning is basically divided into 2 parts. The Sprint Goal and Sprint Backlog. Deciding the sprint goal goes on the first half of sprint planning. The team discusses on what needs to be achieved at the end of that sprint. Where Sprint Backlog is the list of the product backlog item for which the development team commits to deliver as part of that particular sprint.

# Sprint Velocity

A sprint velocity is defined as the development team’s capability to deliver the number of user stories based on the estimated story points. First sprint velocity decides the capability of the development team and therefore will be beneficial for planning further sprints.

# Sprint

A defined period of time in which the specific committed work has to be done is the meaning of sprint. It is timeboxed and cannot be extended under any situation, regardless of whether all the user stories committed are delivered or not. If any user story or part of it is incomplete after the sprint completion time, that user story will be moved back to the product backlog for reprioritization.

# Daily Scrum

A daily meeting on each day of the sprint called the Daily Scrum is hold by the team. Usually, this meeting is held at the same location and time every day for 15 minutes. What I did yesterday, what I am going to do today, and impediments I may have are discussed in the meeting by each member. All team members are required to attend, and the product owner and the ScrumMaster are expected to attend the meeting. Those daily meetings are not used for discussing issues and solving problems.

# Minimum Viable Product

At the beginning of each sprint, user stories are chosen in such a logical manner that after the sprint, they will be in a position to deliver a potentially shippable product that is expected to be ready at the end of each sprint.

# Sprint Review

After each sprint is completed, the Scrum team holds a sprint review meeting to show the functioning product that was developed and tested as part of the sprint.

# Sprint Retrospective

There is always area for improvement no matter how good a Scrum team is. The Scrum team schedules an internal meeting after every sprint to assess what went wrong and what went well. The meeting is facilitated by the ScrumMaster by asking everybody to explain their ideas.

# Scaling of Scrum

Usually, the Scrum team consists of 7 +/- 2 people; and the team will not function efficiently. Now when we have a bigger project to execute, we deal with the team strength by dividing the project into modules and then having a separate Scrum team for each module to complete and then finally integrate all the modules which is the scaling scrum concept.

# Scrum of Scrums

When a technical issue happens, the ScrumMaster will arrange for a team consisting of one key member from each different Scrum team, and then from a separate team to analyze and address the issue this is called the Scrum of Scrums.