Scrum Project Roadmap

What is Scrum?

Scrum is a subset of Agile. It is a lightweight process framework for agile development, and the most widely-used one.

- A "process framework" is a particular set of practices that must be followed in order for a process to be consistent with the framework. (For example, the Scrum process framework requires the use of development cycles called Sprints, the XP framework requires pair programming, and so forth.)
- "Lightweight" means that the overhead of the process is kept as small as possible, to maximize the amount of productive time available for getting useful work done

Why Scrum?

A Scrum process is distinguished from other agile processes by specific concepts and practices. Scrum is most often used to manage complex software and product development, using iterative and incremental practices. Scrum significantly increases productivity and reduces time to benefits relative to classic "Waterfall" processes. Scrum processes enable organizations to adjust smoothly to rapidly changing requirements, and produce a product that meets evolving business goals. An agile Scrum process benefits the organization by helping it to

- Increase the quality of the deliverables
- Cope better with change (and expect the changes)
- Provide better estimates while spending less time creating them
- Be more in control of the project schedule and state

What are the Scrum Roles and their Responsibilities?

There are three main roles in a Scrum:

1. Product Owner
2. Scrum Master
3. Development (Dev.) Team

PRODUCT OWNER

- Development work aligns with customer needs
- Frequent opportunities to re-prioritize work
- Maximum delivery of value

1. The **Product Owner** buffers the Team from feature and bug-fix requests that come from many sources, and is the single point of contact for all questions about product requirements. Product Owner works closely with the team to define the user-facing and technical requirements, to document the requirements as needed, and to determine the order of their implementation. Product Owner maintains the Product Backlog (which is the repository for all of this information), keeping it up to date and at the level of detail and quality the Team requires. The Product Owner also sets the schedule for releasing completed work, and makes the final call as to whether implementations have the features and quality required for release.

2. The **Scrum Master** is responsible for making the process run smoothly, for removing obstacles that impact productivity, and for organizing and facilitating the critical meetings. The Scrum Masters responsibilities include

- Improve the lives of the development Team by facilitating creativity and empowerment.
- Improve the productivity of the development Team in any way possible.
- Improve the engineering practices and tools so that each increment of functionality is potentially shippable.
- Keep information about the Team's progress up to date and visible to all parties.

In practical terms, the Scrum Master needs to understand Scrum well enough to train and mentor the other roles, and educate and assist other stakeholders who are involved in the process. The Scrum Master should maintain a constant awareness of the status of the project (its progress to date) relative to the expected progress, investigate and facilitate resolution of any roadblocks that hold back progress, and generally be flexible enough to identify and deal with any issues that arise, in any way that is required. The Scrum Master must protect the Team from disturbance from other people by acting as the interface between the two. The Scrum Master does not assign tasks to Team members, as task assignment is a Team responsibility. The Scrum Master's general approach towards the Team is to encourage and facilitate their decision-making and problem-solving capabilities, so that they can work with increasing efficiency and decreasing need for supervision. The goal is to have a team that is not only empowered to make important decisions, but does so well and routinely.
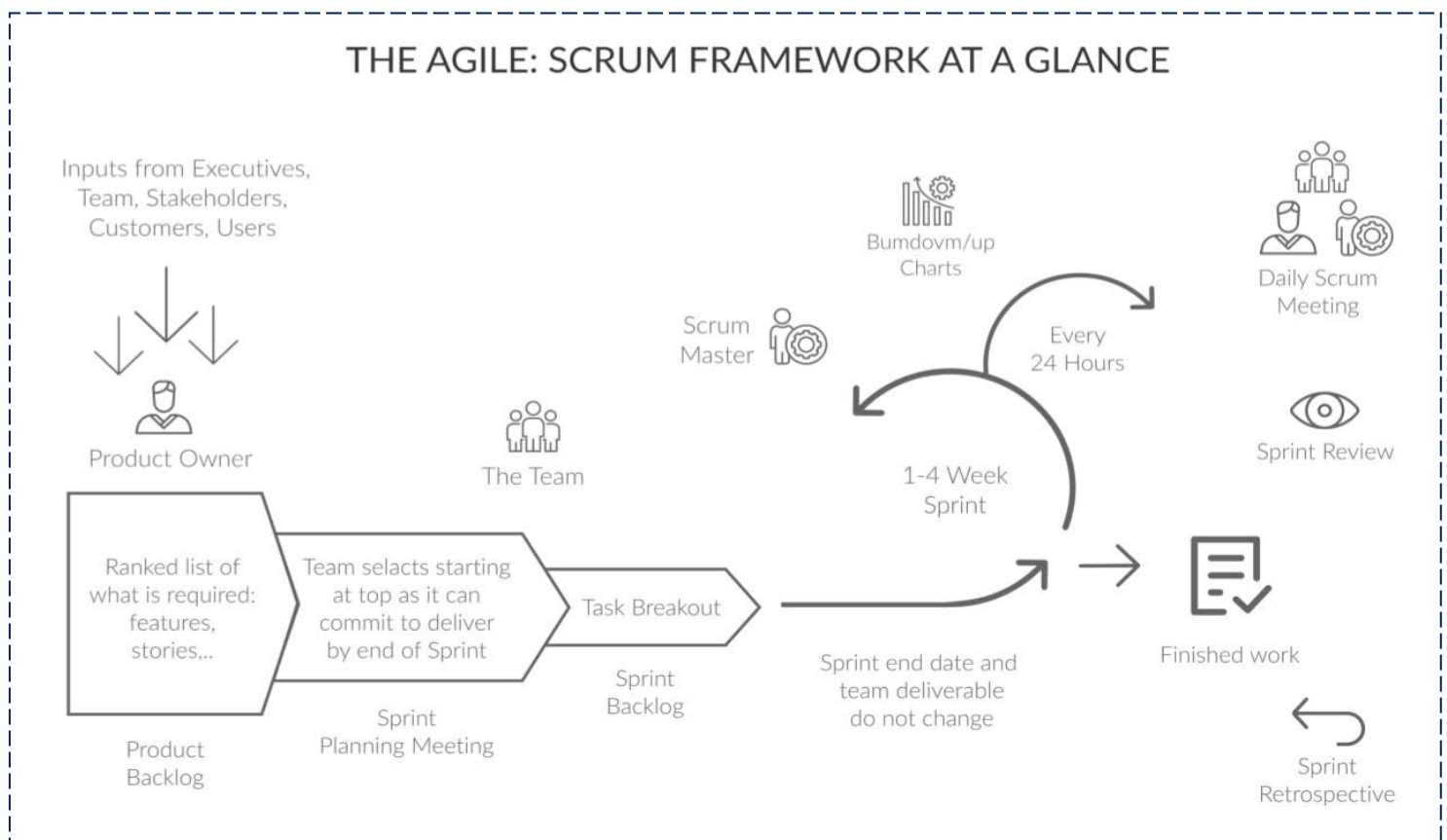
SCRUMMASTER

- Planning/task-level tracking in daily meetings
- Tremendous awareness of project state/status
- Catching and addressing issues quickly

3. The **Development Team** is a self-organizing and cross-functional group of people who do the hands-on work of developing and testing the product. Since the Team is responsible for producing the product, it must also have the authority to make decisions about how to perform the work. The Team is therefore self-organizing: Team members decide how to break work into tasks, and how to allocate tasks to individuals, throughout the Sprint.

DEVELOPMENT TEAMS

- Enjoy development work
- Work is valued and used
- Reduced non-productive work

What is the Scrum Process?

THE AGILE: SCRUM FRAMEWORK AT A GLANCE

Inputs from Executives, Team, Stakeholders, Customers, Users

Product Owner

Product Backlog — Ranked list of what is required: features, stories,...

Sprint Planning Meeting — Team selects starting at top as it can commit to deliver by end of Sprint

The Team

Sprint Backlog — Task Breakout

Scrum Master

Bumdovm/up Charts

1-4 Week Sprint

Every 24 Hours

Sprint end date and team deliverable do not change

Finished work

Daily Scrum Meeting

Sprint Review

Sprint Retrospective

What are the general Terminologies used in Scrum?

- **Product Backlog:** Is a prioritized list of work for the development team that is derived from the project roadmap, its requirements, and user stories. The most important items are shown at the top of the product backlog so the team knows what to deliver first.

- **Sprint:** Is a short, time-boxed period when a scrum team works to complete a set amount of work. Sprints are at the very heart of scrum and agile methodologies, and getting sprints right will help your agile team ship better software with fewer headaches.

- **Sprint planning:** Is an event in scrum that kicks off the sprint. The purpose of sprint planning is to define what can be delivered in the sprint and how that work will be achieved. Sprint planning is done in collaboration with the whole scrum team.

-**Sprint Backlog:** is the list of items, user stories, or bug fixes, selected by the development team for implementation in the current sprint cycle. Before each sprint, in the sprint planning meeting the team chooses which items it will work on for the sprint from the product backlog. A sprint backlog may be flexible and can evolve during a sprint.

- **Sprint retrospective**: The retrospective is where the team comes together to document and discuss what worked and what didn't work in a sprint, a project, people or relationships, tools, or even for certain ceremonies. The idea is to create a place where the team can focus on what went well and what needs to be improved for the next time, and less about what went wrong.

-**Daily Scrum:** This is a daily super-short meeting that happens at the same time (usually mornings) and place to keep it simple. Many teams try to complete the meeting in 15 minutes, but that is just a guideline. The goal of the daily scrum is for everyone on the team to be on the same page, aligned with the sprint goal, and to get a plan out for the next 24 hours.

A common way to conduct a Daily Scrum is for every team member to answers three questions in the context of achieving the sprint goal:

•   What did I do yesterday?
•   What do I plan to do today?
•   Are there any obstacles?

Scrum Project Roles To-Dos and Responsibilities

Step	Responsible Person(s)	Things to do
1	Product Owner	1. Create a Product Backlog containing all the user stories in a prioritized order of the whole project.
2	Product Owner Scrum Master	1. The Product Owner and the Scrum Master will have a Sprint Planning meeting in which they will agree on a Sprint. (Note: The meeting must include agenda and minutes)
3	Scrum Master	1. Will make the Sprint Backlog.
4	Scrum Master Dev. Team	1. Scrum Master will give the Sprint Backlog to Dev. Team and they will discuss all the features that will be included in the product.
5	Product Owner Scrum Master Dev. Team	1. This meeting will finalize what will be included in the product and all the sides will discuss on the product features. 2. If accepted by all the sides the Dev. Team and the Scrum Master will start working on the project, else, they will take again the same meeting until agreed or Sprint Retrospective will happen.
6	Scrum Master Dev. Team	1. Scrum Master arranges Daily Scrums with Dev. Team for the next day(s).
7	Product Owner Scrum Master Dev. Team	1. Scrum Master and Dev. Team will show the finalized product to the Product Owner. If accepted process will be finished, else, proceed to Step 7.
8	Scrum Master Dev. Team	1. Increment will happen and the requested changes by the Product Owner will be done by Scrum Master and Dev. Team.

NOTE: For having the best outcome from all the steps above, Product Owner should take part in all the steps.

Communication Pipeline:

As we are having our classes online, we should use online sources for staying connected:

- For sharing information with each other we should use our WhatsApp group.
- For Sprints, if needed, we should use Zoom software/application.
- For sharing and exchanging files, we should use our AUAF email accounts.

Needed Documents Formats

1. For the product Backlog we can use the following format in a Excel sheet.

ID	As a…	I want to be able to…	So that…	Priority	Sprint	Status
			PRODUCT BACKLOG EXAMPLE			
1	Administrator	see a list of all members and visitors	I can monitor site visits	Must	1	Done
2	Administrator	add new categories	I can allow members to create engaging content	Must	1	Done
3	Administrator	add new security groups	security levels are appropriate	Must	1	Done
4	Administrator	add new keywords	content is easy to group and search for	Must	1	Done
5	Administrator	delete comments	offensive content is removed	Must	1	Done
6	Administrator	block entries	competitors and offenders cannot submit content	Must	1	Done
7	Administrator	change site branding	the site is future-proofed in case brand changes	Could	1	Done
8	Member	change my password	I can keep secure	Must	1	Done
9	Member	update my contact details	I can be contacted by Administrators	Must	2	Work in Progress
10	Member	update my email preferences	I'm not bombarded with junk email	Should	2	Work in Progress
11	Member	share content to social networks	I can promote what I find interesting	Could	2	Work in Progress
12	Visitor	create an account	I can benefit from member discounts	Must		To be started
13	Visitor	login	I can post new entries	Must		To be started
14	Visitor	add comments	I can have a say	Must		To be started
15	Visitor	suggest improvements	I can contribute to the site usability	Should		To be started
16	Visitor	contact the Administrators	I can directly submit a query	Could		To be started
17	Visitor	follow a member's updates	I'm informed of updates from members I find interesting	Should		To be started
18	Visitor	view a member's profile	I can know more about a member	Must		To be started
19	Administrator	generate incoming traffic report	I can understand where traffic is coming from	Must		To be started

2. For Sprint Backlog we can use the following format in an Excel sheet.
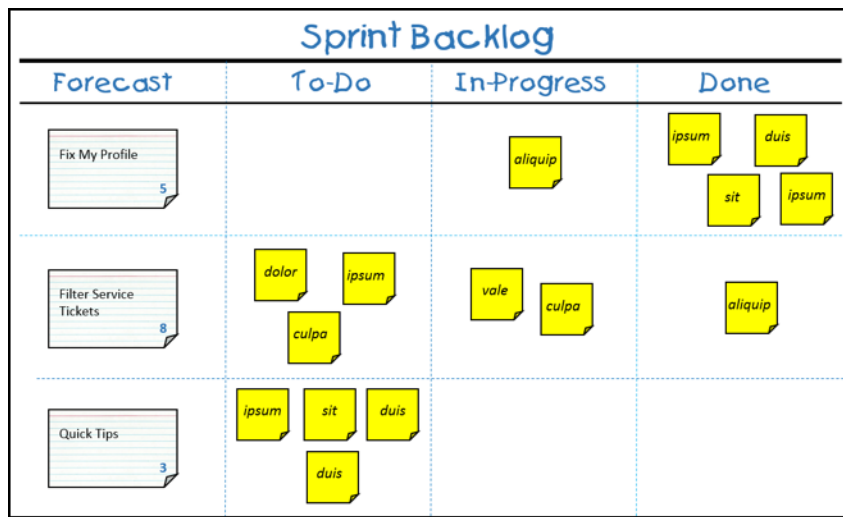
3. For Burndown Chart we can use the following format in an Excel sheet.