

Agile and Scrum Lesson



Agile

Agile is a methodology for project management that emphasises:

- flexibility,
- adaptability
- customer satisfaction.

It is based on the Agile Manifesto, a set of values and principles that guide Agile development.

<http://agilemanifesto.org/>

Scrum

Scrum is an Agile framework for managing and completing complex projects.

It is a type of Agile methodology that is primarily used for software development.

Scrum provides a structure for team collaboration, frequent inspections and adaptations, and delivering working software incrementally.

The benefits of Agile and Scrum in web and software development include:

Faster delivery of working software

Increased collaboration and communication among team members

Greater flexibility and adaptability to changes in requirements

Improved customer satisfaction through frequent delivery of working software

Increased team productivity and motivation

The roles that make up a Scrum team include:

Development Team:

Responsible for the actual development of the software



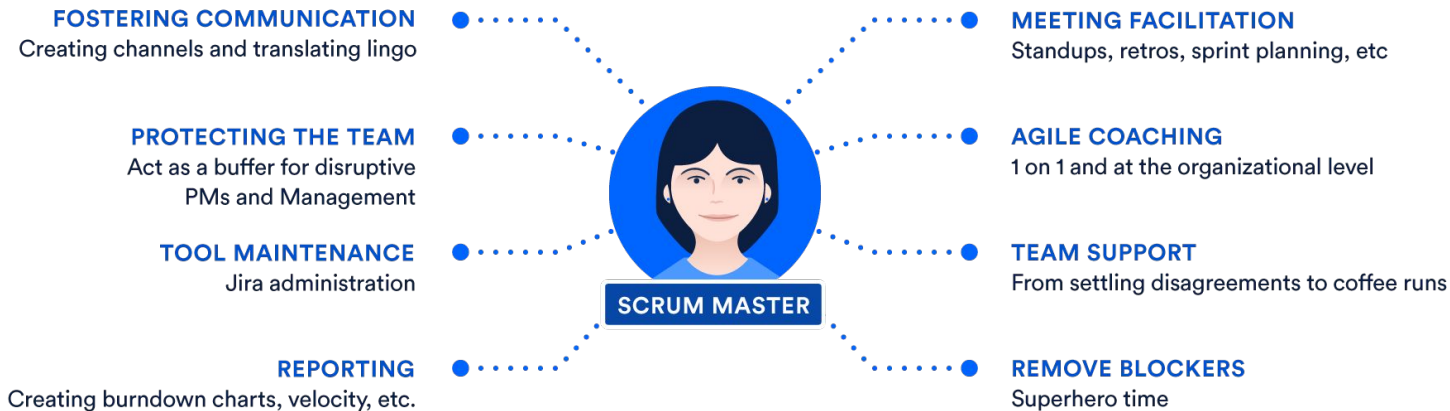
Product Owner:

Responsible for the product backlog and ensuring that the team is working on the most important items.



Scrum Master:

Responsible for facilitating the scrum process and ensuring that the team adheres to the scrum principles



What is a Sprint

A Sprint is a short period of time, usually 1-4 weeks, where a team works on a specific set of tasks to create a potentially releasable product increment.

During a sprint, the team has several meetings or ceremonies to keep the work on track, check progress and adapt to changes.

These ceremonies are:

Sprint Planning: where the team decides what tasks to work on for the upcoming sprint.

Daily Scrum(Standup): where the team members check-in with each other every day to discuss progress and plan for the next day.

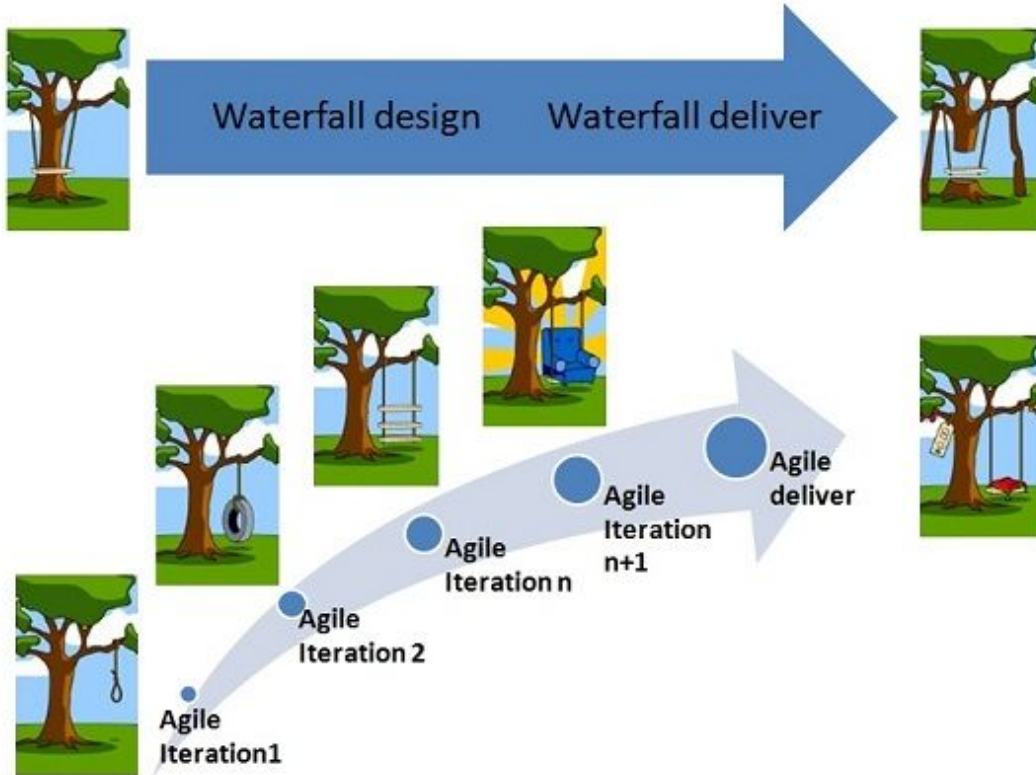
Sprint Review: where the team demonstrates the work done during the sprint and gets feedback from stakeholders.

Sprint Retrospective: where the team reflects on the work done during the sprint and plan for improvements.

The goal of a sprint is to deliver a working product increment at the end of the sprint and measure progress by using metrics like the sprint burndown chart.

Break?

Agile and Waterfall



Agile

Agile is an iterative and incremental approach that emphasises flexibility, adaptability, and customer satisfaction. It is based on the Agile Manifesto, which prioritises individuals and interactions, working software, and customer collaboration over processes and tools. Agile development is typically done in small, self-organising teams, with an emphasis on continuous delivery of working software.

Waterfall

Waterfall, on the other hand, is a linear, sequential approach where progress flows in a downward fashion through several distinct phases of development. It is a traditional method that was developed before Agile, it is a more structured and rigid approach, it requires detailed documentation, and it prioritises strict planning, clear requirements, and a defined process.

comparison of the two methodologies:

Agile:	Waterfall:
<ul style="list-style-type: none">• Emphasises flexibility, adaptability, and customer satisfaction• Prioritises individuals and interactions, working software, and customer collaboration• Uses small, self-organising teams• Emphasises continuous delivery of working software	<ul style="list-style-type: none">• Emphasises strict planning, clear requirements, and a defined process• Prioritises detailed documentation• Uses large teams and a linear, sequential approach• Emphasises delivery of a complete product at the end of the project

Summary of Agile vs Waterfall

In summary, Agile is a more flexible and adaptive approach that values working software and customer collaboration, while Waterfall is a more structured and rigid approach that values detailed documentation and planning.