

Agile and Scrum Cheat Sheet

Agile Overview

An iterative, incremental method of managing and developing projects that allows for rapid delivery of high-quality software.

★ Core Values (from the 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.

★ Principles

- 1.) Customer Satisfaction → Delivering valuable software to customers is the highest priority.
- 2.) Embrace Change → Welcome changing requirements, even late in development, to harness customer feedback.
- 3.) Incremental Delivery → Break projects into small, manageable incrementals for frequent delivery and feedback.
- 4.) Frequent Delivery → Delivering working software frequently (from weeks to months).
- 5.) Collaboration → Business stakeholders and developers must work together daily throughout the project.
- 6.) Motivated Individuals → Build projects around motivated individuals.

Give them the environment and support they need, and trust them to get the job done.

- 7.) Face-to-Face Conversation → The most efficient and effective way of conveying information to and within a development team is face-to-face conversation.
- 8.) Working Software → is a primary measure of progress.
- 9.) Sustainable Development → Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
- 10.) Technical Excellence → Continuous attention to technical excellence & good design enhances agility.
- 11.) Simplicity → The art of maximizing the amount of work not done is essential.
- 12.) Self-Organizing Teams → The best architectures, requirements & designs emerge from self-organizing teams.
- 13.) Regular Reflection → At regular intervals, the team reflects on how to become more effective, then tunes & adjusts its behavior accordingly.

★ Scrum Framework

Scrum → A framework within which people can address complex adaptive problems, while productively and creatively delivering products of the highest possible value.

★ Scrum team

Product Owner → Represents the stakeholders and prioritizes backlog items based on Business Value.

Scrum Master → Facilitates Scrum, events, removes impediments, and coaches the team on agile practices.

Development Team → Cross-functional professionals who deliver releasable increments at the end.

★ Roles and Responsibility

① Product owner.

Defines Product Backlog → creates & prioritizes the list of work.

Stakeholder Communication → Represents the customer interests and ensures the team understands the backlog items.

Backlog Refinement → Continuously revises and prioritizes backlogs to ensure the value.

② Scrum Master

Process Facilitator → Coaches the teams on Scrum practices and principles.

Removes Impediments → Activity works to remove obstacles that hinder the team's progress.

Shields Team from Interruptions → Ensures the team remains focused on the sprint goals

③ Development Team:

Self Organizing → Determines how to accomplish the work and is accountable for creating a usable increment.

Cross-Functional → Possesses all the necessary skills to complete the work within the sprint.

Accountable → Responsible for delivering a potentially releasable product increment.

Sprint Events

① Sprint:

Time boxed → Typically 14 weeks.

Goal → Produce a usable and potentially releasable product increment.

② Sprint Planning:

Attendees → Product Owner, Scrum Master, Development Team.

Activities → Define the Sprint Goal, select backlog items, and create a plan to achieve goals.

③ Daily Scrum

Duration → 15 minutes.

Focus → Sync team, progress, plan for next 24 hours.

Question → What did I do yesterday? What will I do today?

④ Sprint Review

Attendees → Scrum team, stakeholders.

Activities → Demonstrate the increment, gather feedback.

⑤ Sprint Retrospective

Attendees → Scrum team

Activities → Reflect on the sprint, identify improvements, and plan actionable steps for the next sprint.