Scrum - Rituals Workbook

Iterative Time-box Activities

Analyze
Design
Construct
Integrate
Test

Quality of an Iteration

Maintaining quality in sprints is a key challenge for Scrum teams, especially when they have to deliver working software in short iterations. Quality is not only about finding and fixing bugs, but also about meeting customer expectations, adhering to standards, and ensuring maintainability and usability

Quality of Outcome Determination

During each Sprint Retrospective, the Scrum Team plans ways to increase product quality by adapting the Definition of “Done” as appropriate.

Sprint definition

- Used to define the work speed of the team.
- The average number of story points the development team completes each sprint.
- Only includes completed items.
- Requires historical data.
- Problem with changing situations (environment/complexity/team composition).
- Knowing the team's velocity allows the Scrum Master to predict the final completion date of the project. It allows the team to make reasonable commitments regarding the number of story points to agree to work on the upcoming sprint.

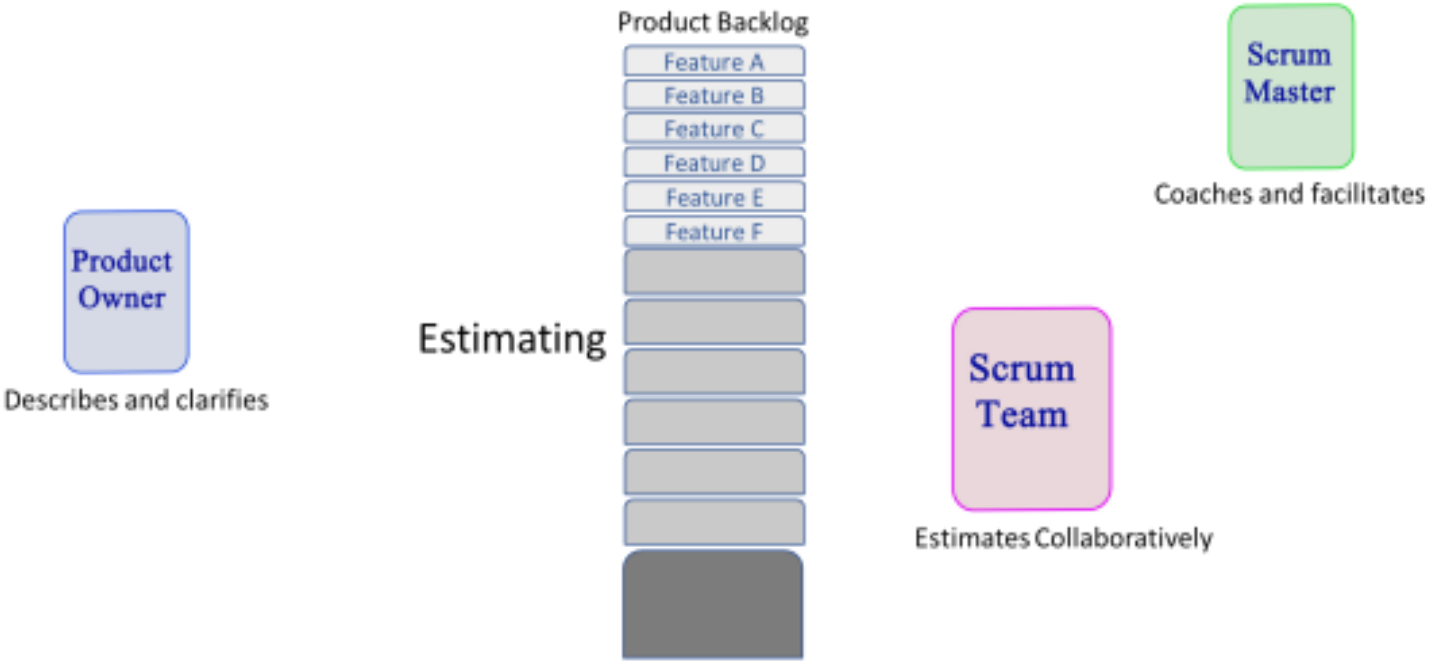
Determination of length of sprint. The team determines length based on their belief of what would work best to enhance team productivity. Usually one month or less.

Sprint Rituals

Sprint Planning Meeting	Beginning of every sprint. Inputs to Sprint planning are the definition of done, product backlog, retrospective commitments, and development team. Questions are to be answered by Sprint Planning, including what and how. Outputs of Sprint planning goal, forecast, and backlog.
Estimation	The act of determining the expected size of something. In Scrum, estimating helps to set expectations as to the amount of work that can be performed or the length of time until something is finished.

3 types of estimation	When this occurs	Unit of measure
Portfolio Backlog Planning	Sprint Planning Session	T-shirt sizes (XS, S, M, L, XL)
Product Backlog Grooming	Sprint Planning Session	Story points or ideal days
Sprint Backlog Tasks Planning	Sprint Planning Session	Ideal hours or effort hours

Scrum Roles Involved in Estimation



Planning Poker

- The Planning Poker determines the amount of work for each Product Backlog Item based on the Fibonacci Sequence.
- User Stories are Presented
    - The Product Owner presents a high-priority story to be estimated.
- Each Participant Gets a Set of Cards
    - Development team members use cards to represent different story points, typically following the Fibonacci sequence (1, 2, 3, 5, 8, 13, etc.). These points compare the size of stories, where a 2-point story is envisioned to be twice as easy as a 4-point story. These points reflect the effort, complexity, and time needed to complete a user story.
    - Estimating precision decreases with the size of the story. It's easier to estimate smaller tasks with higher accuracy.
- Individual Estimation
    - Each team member chooses a card representing their estimate of the effort involved. This is done silently to avoid influencing each other.

- Reveal and Discuss
    - All members reveal their cards at the same time. If everyone agrees on a specific number, that becomes the estimate. If estimates vary widely, the high and low bidders explain their reasoning, uncovering misunderstandings or unconsidered aspects of the user story.
- Repeat Estimation if Necessary
    - After discussing the user story, the team may re-estimate the story points until a consensus is reached.
- Proceed to the Next Story
    - After reaching a consensus on one user story, the team moves on to the next and repeats the process.

Triangulation

The Triangulation Board is a tool that groups user stories based on their relative size and compares them to estimate their size category. This complements Planning Poker's numerical and individual estimations by providing a visual comparison to assess user story sizes.

Ideal day / Ideal hour ● Ideal Hour: A unit of time during which a team member is entirely focused on the task at hand, with no interruptions. ● Ideal Day: estimate how long it would take to complete something working full-time without interruptions.
Problems with Ideal Estimation ● It is unlikely to have an ideal hour or day without interrupted focus.

Daily Standup

Purpose: The Development Team uses the Daily Stand-up to inspect progress toward the Sprint Goal and to inspect how progress is trending toward completing the work in the Sprint Backlog

3 Questions

- What did you do since the last meeting?
- What are you planning to do before the next meeting?
- Do you experience any obstacles?

Rules

- The Scrum Master asks the questions. Same place and time every day.
- For synchronization, not problem-solving.
- A short meeting may be held after the Scrum meeting to resolve issues (only attended by relevant team members).
- Time box: 15 minutes daily. (It works best if you do it in the early hours of the day.)

Pair Programming

- Ensures that all team members have a shared responsibility for the codebase, promoting knowledge sharing and reducing the risk of knowledge silos.
- Driver: The person who writes the code focuses on implementing the task.
- Navigator: This person reviews each line of code as it is typed, considering the strategic direction of the work, spotting potential flaws, and considering the broader scope of the problem.
- Rotation of Roles: Regularly switching the driver and navigator roles prevents fatigue and ensures both participants remain engaged and contribute equally.
- Continuous Reflection: Engaging in real-time code review allows for immediate feedback and correction of mistakes, fostering a deep understanding of the codebase and improving code quality.
- Focusing on a single task with two minds minimizes distractions, enhancing concentration and productivity.
- Improved Code Quality: Continuous review processes ensure that code is functional but also clean and maintainable.
- Flexible Pairing: Changing pairs can expose team members to different parts of the codebase and problem-solving approaches, enriching the team's overall skill set.
- Learning and Mentoring: Less experienced developers can learn from more

experienced colleagues, speeding up the onboarding process and fostering continuous professional development within the team. ● Pair programming encourages developers to articulate their thought processes, leading to more transparent communication among team members and a more cohesive team environment.

Sprint Review Meeting

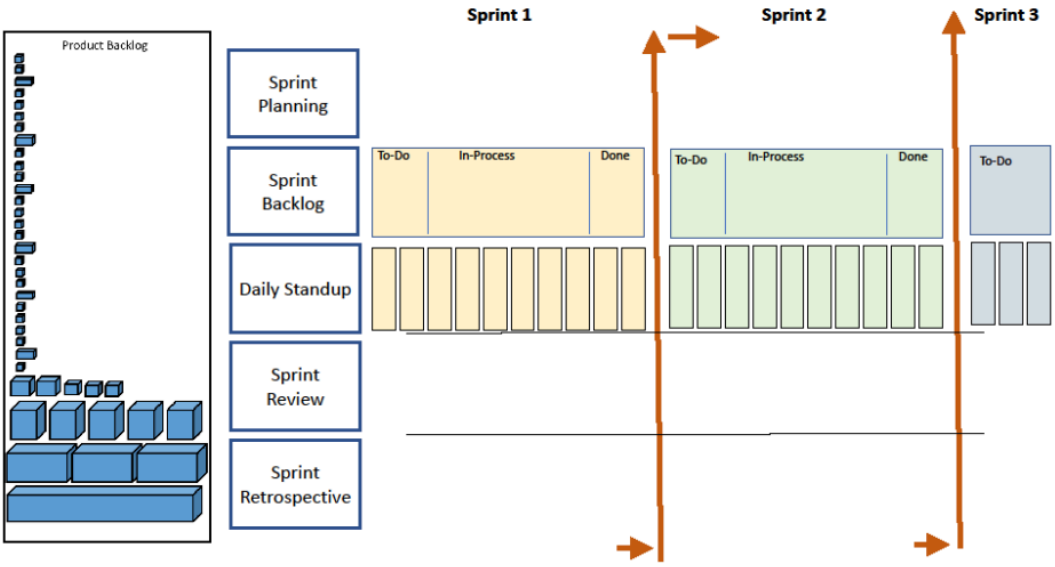
Purpose ● Validating the user stories with the developed product. ● Review the overall journey of the project. ● Demonstrating the developed product and getting feedback from other team members.
Participants Entire team, along with the external stakeholders involved in the project.
Timing: 4 hours max
Location Informal Meeting in person / Remote
Expected Outcomes ● Possible feedback from team members. ● Changes or adjustments to be made. ● Accomplishment of project. ● Inspect the increment and adapt the Product Backlog if needed. ● Attendees collaborate on the next things that could be done to optimize value. ● Delivers the product increment build during the Sprint to management, customers, users, and the Product Owner. ● The team follows the demo meeting to learn from their experiences this Sprint

Sprint Retrospective Meeting

Last activity in a sprint It is an opportunity for the team to reflect on their performance during the recently completed sprint, identify areas for improvement, and plan ways to increase product quality by adapting the Definition of “Done” as appropriate.
3 hours max The Scrum master is responsible for coordinating and conducting this meeting.
Reflect on sprint An opportunity for the Scrum Team to inspect, reflect, and create a plan for improvements for the next Sprint.
Improvements of the process for the future The team openly discusses any challenges or obstacles they encountered during the sprint. These could include roadblocks, process inefficiencies, or communication issues.
Review ‘Definition of Done’

Ritual Timing

Sprint Duration	1 month
Daily Stand-up	15 minutes
Spring Planning	8 hours
Spring Review	4 hours
Sprint Retrospective	3 hours


Product Backlog
Sprint Planning
Sprint Backlog
Daily Standup
Sprint Review
Sprint Retrospective
Sprint 1
Sprint 2
Sprint 3
To-Do
In-Process
Done
To-Do
In-Process
Done
To-Do

Scrum Process Cheat Sheet

Scrum Roles

- Scrum Team
- Product Owner
- Scrum Master

Key Artifacts

Product Backlog
- Requirements – user stories
- Desired work
- Prioritized by Product Owner
- Anybody can add to it

Sprint Goal
- Summary of work focus in Sprint
- Declared by Product Owner
- Accepted by team

Sprint Backlog
- Team member chooses work – work never assigned
- Owned/managed by team
- Estimated work remaining updated daily.

Block List
- List of blocks or unmade decisions.
- Owned by Scrum Master
- Updated Daily.

Burndown Chart
- Shows effort spent over period.
- Stories/features complete

Ceremonies

Sprint Planning
- Hosted by Scrum Master.
- Highest priority items from Product Backlog become Sprint Backlog.
- Estimate Sprint Backlog by effort.
- Work Breakdown.
- Declare Sprint Goal.

Daily Standup/Daily Scrum
- Hosted by Scrum Master
- 15 mins – same time each day.
- Not for problem solving.
- Questions
  - 1) What did you do?
  - 2) What will you do?
  - 3) What's in your way?
- Team updates sprint backlog.

Sprint Review
- Hosted by Scrum Master 2-4 Hours
- Accomplishments.
- Entire team participates.
- Features demoed for feedback

Sprint Retrospective
- Hosted by Scrum Master 15-30 mins
- Discussions on What to "start doing", "continue doing", "stop doing"