

11 Scrum

A lightweight, iterative, incremental framework for managing complex projects.

- Helps teams collaborate, adapt to change, deliver value quickly

- Lightweight → Simple structure with minimal rules
- Iterative → Work happens in small repeating cycles
- Incremental → Product grows gradually - each sprint adds working parts
- Collaborate → Teamwork and open communication are central.

Goal: Deliver Working Software Frequently while adapting to customer feedback

12 Core aspects of Scrum

- Control: [Empractical process control]
 - Decisions are based on experience and observation
 - Team inspect and adapt after every sprint
- Self-organization:
 - Team manage themselves and decide how to complete work
 - No micromanagement from above
- Collaboration:
 - Close teamwork between product owner, scrum master and developers
 - Everyone communicates openly
- Value-Based Prioritization:
 - Work that delivers most value to the customer first.
- Time Boxing:
 - Sprints: 2-4 weeks
 - Every scrum activity has a fixed time limit
 - Keeping focus and discipline
- Iterative Development:
 - Continuous improvements through small cycle
 - Learn and enhance each sprint

- 13 Key Scrum Definitions
- Scrum's Framework for managing complex projects iteratively and incrementally.
 - Sprint: A fixed period to complete selected tasks → 2-4 weeks
 - Daily Scrum: 15-minute daily meeting to check progress and plan next steps
 - Product Backlog: Prioritized list of all work, features, improvements for the product
 - Sprint Backlog: Subset of product backlog chosen for the current sprint
 - Product owner: Represents the customer, decides priorities
 - Scrum Master: Facilitator and coach who ensures Scrum is followed
 - Development team: Cross functional group that builds the project
 - Time Boxing: Setting a maximum time limit for some activities

- 14 Scrum Lifecycle [Process Flow]
- Continuous Cycle
- Product Backlog Creation: Product owner lists and prioritizes all requirements
 - Sprint Planning: Team selects what to do in the upcoming sprint
 - Sprint Execution: Team works on tasks for 2-4 weeks
 - Daily Scrum: 15-minute check-in to sync progress
 - Sprint Review: Present complete work to stakeholders for feedback
 - Sprint Retrospective: Team reflects and decides how to improve next sprint
 - New Sprint: Cycle repeats with improvements and new priorities

- 15 Scrum Management vs Traditional Management
- | | |
|--|---|
| <ul style="list-style-type: none"> Self-organization Team decides how to work | <ul style="list-style-type: none"> Command and Control Managers dictate tasks |
| <ul style="list-style-type: none"> Flexible and adaptive plans Focus on delivering value Welcomes change Scrum Master = Servant leader | <ul style="list-style-type: none"> Fixed plans Focus on schedules and reports Resists change Manager = Controller |

- 16 Scrum Events
- Sprint Planning → 8 hours max.
 - Set the Sprint Goal → what will be achieved
 - Team chooses tasks from product backlog → from Sprint Backlog
 - Everyone agrees on what can be delivered
 - Involves → ① Product owner ② Scrum Master ③ Development team
 - Daily Scrum → 15 minutes
 - Short 15 minutes meeting every morning
 - Questions: ① What did we do yesterday? ② What will we do today? ③ Any blockers or issues?
 - Purpose: Maintain transparency and focus.
 - Sprint Review → 4 hours maximum.
 - Held at the end of the sprint
 - Team presents the finished product increments to stakeholders
 - Collects feedback for next sprint
 - Ensures product meets business value and user needs.
 - Sprint Retrospective → 3 hours maximum
 - Held after Sprint Reviews
 - Team reflects on: ① What went well ② What can be improved ③ What activities to take out next sprint
 - Promotes continuous improvement and teamwork.

17 Scrum Artifacts

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- ```

graph TD
 PB[Product Backlog] --> SB[Sprint Backlog]
 subgraph PB_desc [Product Backlog]
 direction TB
 1["The master list of everything the product needs"]
 2["Created and prioritized by the product owner"]
 3["Constantly updated → Never final"]
 4["Includes: ① New features ② Bug fixes ③ Technical improvements"]
 end
 subgraph SB_desc [Sprint Backlog]
 direction TB
 1["Selected items from product backlog to be completed in the current sprint"]
 2["Created by the team during Sprint Planning"]
 3["Shows team commitment for the sprint"]
 end

```
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- Sprint Backlog
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  - Shows team commitment for the sprint

### 18 Scaling Scrum → For Big organizations.

- Scrum of Scrums → Representatives from each team coordinate work
- LeSS (Large Scale Scrum) → Extends Scrum to multiple teams developing one product
- SAFe (Scaled Agile Framework) → Used in large enterprises to manage several agile teams

### 19 Scrum Rules

- Product Owner → Voice of the customer and business
  - Manage and Prioritize the Product Backlog
  - Ensure team works on tasks that deliver maximum value
  - Communicate product vision and goals
  - Take decisions on features and releases

Acts as the link between stakeholders and the development team

- Scrum Master → The servant leader and coach for the team
  - Facilitate Scrum meetings → Planning, Review, Retrospectives
  - Remove obstacles and protect the team from distractions
  - Teach and ensure Scrum principles are followed
  - Promote a culture of self-organization and continuous improvement

- Development team → Ideal size: 3-9 members
  - Cross-functional, self-organizing team that builds the product
  - Includes all needed skills & Developers, Designers, Testers
  - The team collectively owns the sprint goal and results