

# Scrum

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## Scrum

- a lightweight practice.
- simple to understand but very difficult to master.
- an iterative and incremental approach that enhances predictability and mitigates risks

## structure & practices of Scrum

## Scrum, based on three pillars

- transparency
- inspection
- adaptation

# Scrum & transparency

Transparency – everyone can see every part of the product

A visibility that is accessible to

- both people on the Scrum team
- and those outside common standards for the project

an important part of transparency

agreeing on common standards for the project:

- agreeing on common terminology to use throughout development
- and agreeing on what it means for a feature to be done.

# Scrum & inspection

## inspection

Scrum encourages frequent inspection of work products and progress to detect undesirable deviations from expectations.

- “Scrum points out all of your flaws.”
  - These inspections should happen frequently, but not so frequent that they get in the way of development.
- » Developers sometimes are hesitant to adopt Scrum, because it points out everything they are not doing right.

# Scrum & adaptation

## adaptation

During an inspection, when someone finds that the product development is starting to stray from the vision, the team must adjust and adapt to prevent further deviation.

## Four specific techniques for inspection and adaptation in Scrum

- sprint planning,
- daily Scrum,
- sprint review,
- sprint retrospective.

Who do you think the Scrum team consists of?

- A. the product manager,
- B. the client,
- C. the development team,
- D. the business executives.

## Quiz – A

Who do you think the Scrum team consists of?

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- ✓ B. the client,
- ✓ C. the development team,
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# Roles in a Scrum team

## New names for the roles

- product manager – Scrum master,
- the client – product owner
- development team – development team.



# Scrum development teams 1/2

## self-organizing

“No one, not even the Scrum master, can tell the team how to take their backlog of features and turn them into increments of working software.”

## cross-functional

“The team consists of everyone and everything that they need to complete the product, possibly involving specialists from different areas.”

- The team should not depend on others who are not on the team.
- team members take on mixed tasks, like doing both coding and testing, rather than having dedicated coders and testers.
- members of the development team have no titles
  - only ever be referred to as developer, or their name, regardless of whether they are responsible for specific tasks.

# Scrum development teams 2/2

## no sub-teams

Developers may have a specialized skill within the team. However, accountability belongs to the entire team.

## small

ideally larger than three and less than nine.

- The Scrum master and the product owner are not included in that number unless they are contributing to development.
- A good rule: you should be able to feed your entire team with two pizzas.

## Which of these software product managers, if any, have a true Scrum development team?

A. Kelsev.    B. Jim.    C. Billy.    D. Carrv.    E. Hillarv.

- You're at a conference on Scrum practices. You have been talking to several other software product managers about their development teams.
- The first SPM you talk to is named Kelsey. She describes her team as having four programmers, two testers, and one user interface designer.
- Next, you meet Jim. He says his current team consists of 20 developers.
- Next, you meet Billy. He simply says that he has a very talented team of seven developers.
- Then you run into an old friend, Carry. She says her team has nine developers. Five are on the development team and four are on the testing team.
- Finally, you meet a new software product manager, Hillary. She says her team consists of just three developers and they subcontract out their testing.

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# the product owner

## product owner

- A person who is responsible for the product.
- one person, not a committee
- The product owner could represent a committee, but only the product owner can suggest product changes to the Scrum team.
- responsible for the product backlog (a list of all the expected functionalities of the product).

## on product backlog & priorities

- responsibility to provide the Scrum team with a clearly-defined product backlog with priorities
- The priorities must be respected and developed in that order.
- They have the ultimate say on what gets developed.
- duty of the product owner to make sure that the development team understands what is expected for the features in the backlog.

- You are the software product manager who has been hired to work on a project for a **Nike running app**.
- You had your first meeting with your development team and the representative from Nike, Penny. The team decided that they were going to use Scrum.
- You were appointed as the Scrum master, and Penny would be the product owner.
- Your team is halfway into development and get an email from the CEO of Nike.
- He's **requesting** that the application has pre-made running playlists that users can listen to while they run.
- You know that your development team had already talked to Penny about this feature, and they decided as a team that they wouldn't implement this feature in favor of another one.

### Following the practices of Scrum, what should you do?

- A. send him an email back saying, no, you get no say in this project,
- B. tell your development team to add the feature to the backlog,
- C. tell your development team to develop the feature for this iteration, or
- D. send him back an email asking for all feature requests to come through Penny.

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# product manager – Scrum master & duties

## duties

- make sure the Scrum team is adhering to
  - Scrum theory
  - practice
  - rules
- have specific duties to
  - the product owner
  - the development team



# product owner & duties

## duties to the product owner

- finding techniques to manage the backlog,
- helping the Scrum team to generate a clear and concise backlog,
- ensuring that the product owner knows how to prioritize the backlog to get maximum value,
- facilitating Scrum events.

# the development team & duties

## duties to the development team

- coaching the team to self-organize
- removing development roadblocks
- facilitating Scrum events

### Scrum events, responsible for facilitating

Scrum events & four techniques for inspection and adaptation.

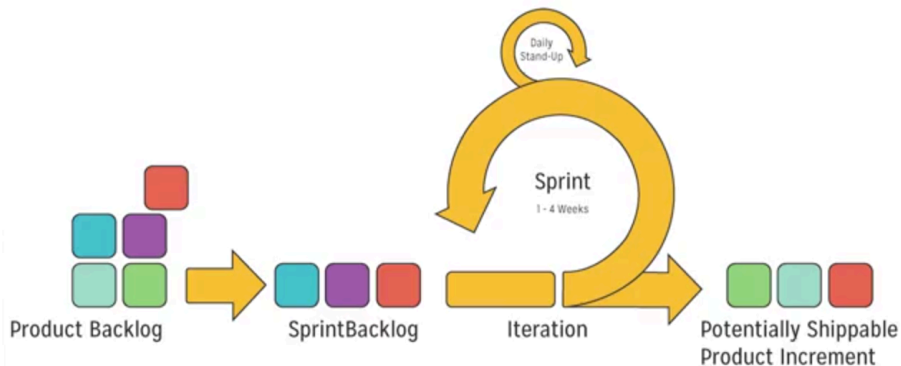
- Sprint planning
- daily Scrum
- sprint review
- sprint retrospective

(also need to specify a maximum time for the duration of these events and adhere to that)

# scrum events & sprint

## four Scrum events, organized into sprint

“A sprint is the development phase of the specific amount of time in which a working prototype is delivered to the client at the end.”



## sprint goal

- During the sprint, no changes can be made that will affect the sprint goal.
- The sprint goal is the big-picture view of what is going to get done in that sprint.
- Changes that will change the sprint goal will go into the backlog and can be implemented in the next sprint.

### strict timing

- to keep the allotted time and adjust the scope, rather than keeping the scope and eventually delaying releases.
- A sprint lasts one month or less, typically one to two weeks.
- Once your Scrum team specifies the length of your sprints, they must consistently stay that length for the entire development process.
- Sprints cannot be made longer or shorter.
- At the end of each sprint, the client is delivered a working prototype.

# Sprint 3/3

## Sprint planning

- occurs at the beginning of the current sprint
- to determine what will be completed in that sprint.

## daily Scrum – a daily meeting

- at the beginning of each day
- developers talk about what tasks they will be doing and what they need to accomplish these tasks

## sprint review and retrospective – at the end of the sprint

The next sprint begins immediately after the previous one ends.

## context

- Your team is developing a mobile app that allows users to search for food and drink specials at local restaurants.
- The sprint goal for this iteration is to set up the user interface.
- This is everything that the end user will see and interact with.
- Halfway through development for the iteration, the client sends you an email that they've changed their mind and they want the main **colors** of the application to be blue and white instead of red and black.
- They also request that they want the application to now support **ads that pop up on the screen**.

## Which of these changes can be made to the current iteration?

- A. the color change,
- B. pop-up ads,
- C. both of them,
- D. neither of them.



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# definition of done 1/2

## done & purpose

to avoid having a bunch of work in half-done states (might result from the whole team working independently).

- an important part of scrum
- The working prototype that is delivered at the end of this print must be done.
- Agile Manifesto & progress

## definition of done 2/2

### done & the development team

- “A feature is considered done when the feature is coded, tested, and documented.”
- It is the responsibility of the development team to determine what qualities determine whether a product is done.
- The team must all completely understand what done means to their team.

### To get a feature done

- requires and forces communication, integration, and synchronization.
- requires that development go slow to ensure that each feature is truly done.

# on adapting Scrum

## scrum – all-or-nothing or individually

- Scrum recommends an all-or-nothing approach, [Like XP]
- the practices of Scrum can be implemented individually, and they stand alone better than some of the XP practices.
  - But if you implement the practices individually, you are not really practicing Scrum.
  - Practicing Scrum implies that it is practiced in its entirety.

## scrum in the real world

Adobe, Amazon, Microsoft, and Yahoo

## flaws of Scrum?