



# Transcript

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## Introduction to Scrum and the Scrum Team

### Learning Objective

After completing this topic, you should be able to

- *match Scrum team roles with their corresponding responsibilities*

### 1. Defining Scrum

The term "scrum" originates from the rugby formation, in which a team's players work together to gain possession of the ball. The agile methodology of Scrum borrows this term to describe a framework of project management processes and techniques. Scrum enables project teams to develop complex products quickly and efficiently, to adapt to change, and to regularly deliver value to customers in the form of working products.

Scrum aligns to core agile values in several ways:

- it involves an iterative, incremental development process
- it focuses on frequent delivery of working product features to the customer
- it depends on a high level of customer involvement throughout the development process, and
- it relies on self-organizing and cross-functional development teams

Many Scrum practices are common to all agile methodologies, although associated terminology may differ. For example, most agile methodologies divide the development process into short, incremental periods of development. In Extreme Programming, or XP, and general agile terms, these are known as iterations. In Scrum, they're called sprints.

Like other agile methodologies, Scrum is based on empirical, rather than prescriptive, process control. This iterative development method allows the team to efficiently respond to new challenges and requirements at any point during the course of development. Unlike plan-driven development, where all aspects are defined at the beginning of the project, Scrum projects can proceed with even a high-level product

backlog. Instead of defining every aspect of a product at the start of the project, a Scrum team follows a continuous cycle of inspection and adaptation.

Select each feature for more information about it.

**Inspection**

Inspection occurs regularly during the development cycle to uncover problems and deviations, and enable customers to provide feedback and request changes. Examples of inspection include events such as sprint planning, the daily scrum, the sprint review, and sprint retrospective.

**Adaptation**

Adaptation occurs in response to the results of inspection. Change is implemented as soon as possible after the need for a change is identified. This helps prevent issues from developing into bigger problems and becoming more difficult to resolve.

A Scrum team collaborates with the customer to create a list of requirements for a product, ordered based on their importance to the customer. This list is called the product backlog, and it continues to be refined as a project progresses. During each sprint, the team works on completing a selection of items from the product backlog. These items are combined to allow for the delivery of working features to the customer at the end of each sprint.

Each sprint builds on the previous one, and product features may go through multiple sprints until they meet customer requirements. Once a customer has approved them, the team moves on to the next set of items in the product backlog.

Each sprint generally lasts between 10 and 30 days. This ensures frequent delivery of working features. It also provides customers with regular opportunities to review a product or service, give feedback, and request changes.

**Question**

What is Scrum?

**Options:**

1. A framework that supports complex product development
2. A step-by-step process for developing products
3. A methodology for ensuring that pre-defined project work proceeds as planned and so meets customer's requirements
4. A collection of prioritized customer requirements for a product

## Answer

**Option 1:** *Correct. Scrum is a framework for developing complex products that aligns with the core agile values. It emphasizes the frequent delivery of value to customers in the form of working product features. Complex products are broken down into components, which are developed over multiple iterations known as sprints.*

**Option 2:** *Incorrect. Scrum is a framework for processes and methodologies you can use to develop a product. It's not a step-by-step process or technique for building products.*

**Option 3:** *Incorrect. Scrum is an agile methodology that uses an empirical – rather than predictive – approach to process control. Instead of planning all aspects of a project beforehand, a Scrum team expects change, and incorporates frequent inspection and adaptation in the development process.*

**Option 4:** *Incorrect. In the Scrum methodology, the collection of customer requirements that drives development is called the product backlog. Scrum itself is a framework for complex product development. The product backlog is just one of the artifacts it uses.*

### Correct answer(s):

1. A framework that supports complex product development

## 2. The product owner

A Scrum team includes three roles:

- the product owner, who knows the details of the product to be developed
- the Scrum Master, who ensures everyone understands the Scrum methodology, and
- the development team, consisting of the individuals who design, build, and test the product

The product owner is usually a customer representative, whose main focus is to represent the interests of the customer throughout the development process. The product owner measures how well a project performs in terms of return on investment, or ROI.

The product owner compiles the list of requirements in the product backlog and orders them according to their importance to the customer. Everyone must respect the product owner's decisions regarding the product backlog because it reflects the wishes of the customer.

Anybody who wants a change to be made to the product backlog must clear this with the product owner first. The product owner is accountable for the product backlog and needs to communicate any approved changes to the development team.

The product owner works closely with the development team and is available to answer questions throughout the project to ensure everyone understands the requirements and works according to the product backlog.

An effective product owner has specific personal and professional qualities:

- the ability to formulate a clear vision for a product
- the capacity to gather and maintain a full set of requirements for the product backlog
- good communication skills and the ability to interact with people from different functional areas
- organizational and problem-solving skills, and
- decision-making ability, to answer the team's questions and make decisions based on priorities

### 3. The Scrum Master

In a Scrum team, the Scrum Master is the expert on all Scrum-related issues and ensures that everyone works according to Scrum principles and practices. He or she should also shield the development team from external processes and control, so they can fully concentrate on development. The Scrum Master may be a member of the development team. Alternatively, a dedicated Scrum Master may guide multiple development teams. The Scrum Master interacts closely with both the product owner and the development team.

Select each role to find out how the Scrum Master interacts with it.

#### **Product owner**

The Scrum Master helps the product owner understand the Scrum methodology and how to work in an agile development environment. The Scrum Master also works closely with the product owner to ensure the product backlog is effectively managed and that the product vision is clearly reflected in the requirements listed in the product backlog.

#### **Development team**

The Scrum Master ensures that members of the development team work according to Scrum rules. The Scrum Master mentors team members in the approach and ensures that the self-organizing and cross-functional structure of the team works efficiently. The Scrum Master also identifies and addresses obstacles to productivity and any performance issues.

The Scrum Master must have a proven track record of implementing Scrum in theory and in practice, be a servant leader, and be an excellent organizer and communicator. The Scrum Master should also be proficient in conflict resolution, have good presentation skills, and have an active interest in developing the skills of others.

## 4. The development team

A Scrum team usually consists of five to nine individuals who share the responsibility for developing a product and delivering it to the product owner at the end of each sprint. The optimal team is self-organizing and cross-functional.

Select each characteristic of the development team to find out more about it.

### Self-organizing

Everyone on the development team is equally responsible for the development process, and for making decisions about how development should proceed. Development team members are expected to be fully committed to the project and available full time. This allows for faster development and more appropriate decisions, based on actual experience. It also gives team members ownership of the process, which helps motivate them and facilitates the generation of creative solutions.

Open communication and transparency are vital characteristics of a self-organizing team. Accurate and timely information has to flow freely between team members so they can work efficiently and effectively.

### Cross-functional

A Scrum development team consists of individuals from different functional areas, for example from engineering, programming, design, marketing, sales, and network support. Team members draw on their unique expertise when working together to solve complex problems and deliver value to the customer.

This structure improves communication between individuals who may traditionally not have met. For example, a software engineer gets to hear from the programmer directly why something is difficult to code, and they can solve the problems together.

The development team decides how it should achieve the goals of a sprint. However, it contacts the product owner when any questions arise about customer requirements.

At the end of each sprint, the team presents its results to the product owner for review.

The Scrum Master may advise and mentor the development team in how best to apply the Scrum approach to its work.

## 5. The Scrum team in practice

You're working as a Scrum Master on a project that involves developing tracking software for a transport company. The company wants to be able to track all goods

online, receive alerts when actual schedules deviate from those planned, and generate user-friendly management reports.

At the start of the project, you assess the development team and product owner's familiarity with Scrum. The development team has been working according to Scrum principles for a while, but you notice that the product owner, Lisa, has only theoretical knowledge of Scrum.

So you assist Lisa in developing the product backlog, ensuring that the customer's requirements are listed in order of the value they'll generate, or the importance of the business problems they'll solve.

After the development team completes the first sprint, Lisa reviews the result and approves the release of a basic version of the tracking tool. The transport company is satisfied with the team's work. However, it also asks that its customers be allowed to track goods online themselves.

This is a new requirement but, based on marketing surveys, one that will add to the transport company's ability to compete. So the company's CEO asks Lisa to prioritize this feature.

You and Lisa discuss the implications of changing the direction of the current sprint to accommodate this request. The current sprint is close to completion, so you advise Lisa to let the development team continue with its current work. However, you add the new requirement to the top of the list in the product backlog.

Lisa updates the development team on the changes to the product backlog. The goal adopted for the next sprint is to build the functionality that will enable customers to track their goods online.

The development team receives the new backlog item and starts to design the required functionality. You notice some team members aren't convinced this functionality will provide real value to the customer so you discuss the issue with them.

You remind them that, as the product owner, Lisa determines which requirements create the most ROI for the transport company and that the development team must work together to deliver this value.

### Question

Match Scrum team roles with the corresponding responsibilities. Each role may match to more than one responsibility.

#### Options:

- A. Product owner
- B. Scrum Master
- C. Development team

**Targets:**

1. Develops and maintains the product backlog
2. Identifies obstacles to productivity
3. Decides how best to develop required functionality
4. Represents the interests of the customer
5. Mentors team members in the Scrum approach

**Answer**

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*The product owner takes responsibility for the product backlog, which lists the customer's requirements in order of priority – based on the business value they'll contribute.*

*The Scrum Master identifies and addresses obstacles to productivity, as well as any performance issues, to ensure that the Scrum team works as efficiently and effectively as possible.*

*The members of the development team, which is self-organizing, decide how best to develop required product functionality during a sprint. The team is responsible for delivering its results to the product owner at the end of each sprint.*

*The product owner represents the interests of the customer. This person focuses on maximizing value, or ROI, for the customer by ensuring that the requirements listed in a product backlog are met.*

*If a development team is new to Scrum, or the Scrum Master notices problems in the way the approach is implemented, the Scrum Master will mentor team members.*

**Correct answer(s):**

Target 1 = Option A

Target 2 = Option B

Target 3 = Option C

Target 4 = Option A

Target 5 = Option B

**Summary**

Scrum is a framework for developing complex products. Like other agile methodologies, it uses an iterative and incremental development process, with ongoing adaptation to change and frequent delivery of value to the customer.

A Scrum team includes three roles – the product owner, the Scrum Master, and the development team. The product owner represents the interests of the customer and maintains the product backlog.

The Scrum Master provides training and guidance in the Scrum approach, monitors the team's work, and attempts to remove any obstacles to productivity.

The development team is a self-organizing, cross-functional team that takes responsibility for meeting the requirements in the product backlog.

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