

## **Introduction to Project Management**

Lesson 03—Introduction to Agile and Scrum









After completing this lesson, you will be able to:



- Describe the Agile Manifesto
- Explain Agile Project Management, its life-cycle, and framework
- Define Scrum
- List Scrum history
- Give an overview of Scrum terminologies and roles
- List the best practices of Scrum

## Agile Manifesto



The Agile Manifesto was signed in February 2001 by a group of 17 leading software developers.

This is considered the key reference for all Agile practices.

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

Individuals and interactions over processes and tools
Working software over comprehensive documentation
Customer collaboration over contract negotiation
Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

Kent Beck Mike Beedle Arie van Bennekum Alistair Cockburn Ward Cunningham Martin Fowler James Grenning
Jim Highsmith
Andrew Hunt
Ron Jeffries
Jon Kern
Brian Marick

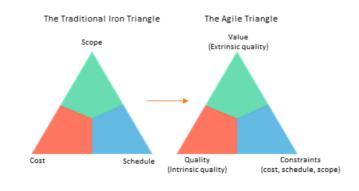
Robert C. Martin Steve Mellor Ken Schwaber Jeff Sutherland Dave Thomas

## Agile Project Management



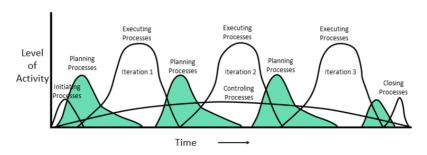
The book, Agile Project Management (APM) by Jim Highsmith was one of the first attempts to broaden Agile techniques into a more cohesive whole.

- APM introduced phases for agile projects that aligned with the PMP phases applied by the Project Management Institute.
- APM also modified the traditional "Iron Triangle" to emphasize Value and Quality and created the Agile Triangle.



In Agile Project Management, Planning is an iterative component of the project lifecycle. In the image, repeated sets of green shading are seen as planning occur throughout the project lifecycle.

Agile Project Management Lifecycle





The five phases of APM framework are as follows:

# Envision Speculate Explore Adapt Close

Determine the product vision, project scope, the project community, and how the team will work together.

Develop a featurebased release, milestone, and iteration plan to deliver on the vision. Deliver tested features in a short timeframe, constantly seeking to reduce the risk and uncertainty of the project.

Review the delivered results, the current situation, and the team's performance, and adapt as necessary.

Conclude the project, pass along key learnings, and celebrate.

Scrum is one of the leading Agile techniques developed in the 1990s by Ken Schwaber and Jeff Sutherland.

Features that make Scrum popular:

- Simplicity and proven results
- Enables other agile engineering techniques
- Emphasizes small teams and team empowerment
- Welcomes changes to requirements
- Allows working from a single source of prioritized work items
- · Daily status meetings
- Team commitment to a potentially shippable increment during a 'Sprint'

### **Scrum History**

The major incidents in the history of Scrum are as follows:

- In 1986, Hirotaka Takeuchi and Ikujiro Nonaka described a new approach to commercial product development.
- In the early 1990s, Ken Schwaber used what would become Scrum at his company, Advanced
   Development Methods.
- Jeff Sutherland, with John Scumniotales and Jeff McKenna, developed a similar approach at Easel Corporation, and were the first to refer to it using the single word Scrum.
- In 2001, Schwaber and Mike Beedle described the method in the book Agile Software Development with Scrum.

## Overview of Terminologies used in Scrum



#### Following are some key Scrum terms:

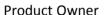
- Product Backlog: All work to be performed in the foreseeable future, both well-defined and requiring further definition.
- Sprint: A period of 30 days or less within which a set of work will be performed to create a
  deliverable.
- Sprint Backlog: A well defined requirement that can be worked on with relatively little change over a period of 30 days or less and will result in a tangible, potentially shippable incremental deliverable.
- Scrum: A daily meeting at which progress and impediments to progress is reviewed.

#### **Overview of Scrum Roles**



The Scrum roles are important features of Scrum and not using these specific terms is often referred to as 'Scrum-but.'

#### Scrum defines three roles:





Responsible for the project's success by defining the project vision, requirements, and priorities.

#### Scrum Master



Accountable to the team to remove impediments that will prevent them from achieving the goals of the Product Owner.

#### **Development Team**



Team comprises people with a mix of roles and self-organizes to determine how to best meet the goals of the Product Owner.



#### Following are some points to be kept in mind for each Scrum role:



- Resists the temptation to "manage" the team and to add more important work after the sprint is already in progress.
- Be willing to make hard choices during the sprint planning meeting.



Scrum Master

- Works to assist both the team and the Product Owner.
- Guides the Product Owner how to maximize Return On Investment (ROI).
- Improves the lives of the Development Team by facilitating creativity and empowerment.



The team has the autonomy to choose how to best meet the goals, and is held responsible for them.



How many roles are there in Scrum?

- a. None
- b. 3
- c. 12
- d.  $7 \pm 2$



## QUIZ

1

How many roles are there in Scrum?

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- b. 3
- c. 12
- d.  $7 \pm 2$

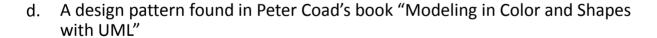
#### Answer: b.

**Explanation:** Scrum identifies three roles: Product Owner, Scrum Master, and the Team.



What does the Agile Triangle reflect?

- a. The difference between traditional project management and agile project management
- b. The emphasis that agile projects place on delivering value and ensuring quality
- c. The Team, Product Owner, and Scrum Master



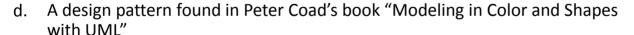


## QUIZ

2

What does the Agile Triangle reflect?

- a. The difference between traditional project management and agile project management
- b. The emphasis that agile projects place on delivering value and ensuring quality
- c. The Team, Product Owner, and Scrum Master



#### Answer: b.

**Explanation:** Agile projects place a strong emphasis on value and quality.





Which of the following are the responsibilities of the Scrum Master?

- a. Achieving initial and ongoing funding for the project
- b. Teaching the Product Owner how to maximize ROI and the objectives
- c. Being responsible for developing the functionality of the product
- d. Removing the barriers between the customer and the Product Owner



## QUIZ

3

Which of the following are the responsibilities of the Scrum Master?

- a. Achieving initial and ongoing funding for the project
- b. Teaching the Product Owner how to maximize ROI and the objectives
- c. Being responsible for developing the functionality of the product
- d. Removing the barriers between the customer and the Product Owner

#### Answer: b.

**Explanation:** The Scrum Master is responsible for teaching the Product Owner how to maximize ROI and the objectives.







- The Agile Manifesto is considered the key reference for all Agile practices.
- The book, Agile Project Management (APM) by Jim Highsmith was one of the first attempts to broaden Agile techniques into a more cohesive whole.
- The five phases of APM framework are envision, speculate, explore, adapt, and close.
- Scrum is one of the leading Agile techniques developed in the 1990s by Ken Schwaber and Jeff Sutherland.
- The Scrum roles are important features of Scrum and not using these specific terms is often referred to as 'Scrum-but'.



## **Thank You**