



WELCOME

Based on

Project Management Institute, *A Guide to the Project Management Body of Knowledge, (PMBOK® Guide) – Sixth Edition*, Project Management Institute, Inc., 2017.

Knowlett Learning PMP® Preparation Program

Microsoft Partner

Silver Project and Portfolio Management
Silver Learning





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graph TD
 Initiate --> Plan
 Plan --> Execute
 Execute --> Monitor[Monitor & Control]
 Monitor --> Close
 Close --> Initiate
 subgraph PM [Project Management]
 Initiate
 Plan
 Execute
 Monitor
 Close
 end

```

- 

- 35 contact hrs



# PMP® ELIGIBILITY CRITERIA

## PMP Eligibility Requirements

To be eligible for the PMP credential, you must meet certain educational and professional experience requirements. All project management experience must have been accrued within the last eight consecutive years prior to your application submission.

| Educational Background                                                          | Project Management Experience                                                                                                                                                   | Project Management Education         |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Secondary degree (high school diploma, associate's degree or global equivalent) | Minimum five years/60 months unique non-overlapping professional project management experience during which at least 7,500 hours were spent leading and directing the project*  | 35 contact hours of formal education |
| OR                                                                              |                                                                                                                                                                                 |                                      |
| Four-year degree (bachelor's degree or global equivalent)                       | Minimum three years/36 months unique non-overlapping professional project management experience during which at least 4,500 hours were spent leading and directing the project* | 35 contact hours of formal education |

- In case of any **Questions/Clarifications**, please get in touch with your respective Business Development Representative
- KnowledgeWoods will have your CV checked by **PMP® Certification Expert**



# PMP EXAM CHANGES

The Project Management Professional (PMP)<sup>®</sup> certification exam will change on **2 January 2021** to meet those needs and will focus on three new domains:

- 1. PEOPLE** – emphasizing the skills and activities associated with effectively leading a project team
- 2. PROCESS** – reinforcing the technical aspects of managing a project
- 3. BUSINESS ENVIRONMENT** – highlighting the connection between projects and organization strategy



# PMP EXAM CHANGES

Content that spans the value delivery spectrum, including predictive, agile and hybrid approaches, will be included across the three exam domains.

## **The new exam is comprised of:**

- 180 questions (the previous exam was 200) but the same number of questions will be scored
- 230 minutes to complete the exam
- One additional break for a total of two 10-minute breaks
- Questions will be a combination of multiple-choice, multiple responses, matching, hotspot and limited fill-in-the-blank. [See prototype questions to learn more](#) .



# About PMP® SURESHOT™ Program

## Expect for SURE

- **Intermediate to Advance** course in Project Management
- Focuses you to **Prepare & Pass PMP® Exam**
- Based on *PMBOK® Guide*
- May be **Slightly Dry** and Question Based

## Please - Do Not Expect

- Basic Discussion on Project Management
- **Templates,**
- **Case Study** to learn concepts
- Handholding for new project managers.



# PMI® MEMBERSHIP FEE

|                        |                                                                                                                             |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>PMI® Membership</b> | <ul style="list-style-type: none"><li>- \$129 Membership Fee + \$10 Registration Fee</li><li>- \$129 Renewal/Year</li></ul> |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------|

| Exam Administration Type     | PMI Member Status | US Dollars |
|------------------------------|-------------------|------------|
|                              |                   |            |
| Computer-based testing (CBT) | member            | \$405      |
| Computer-based testing (CBT) | nonmember         | \$555      |



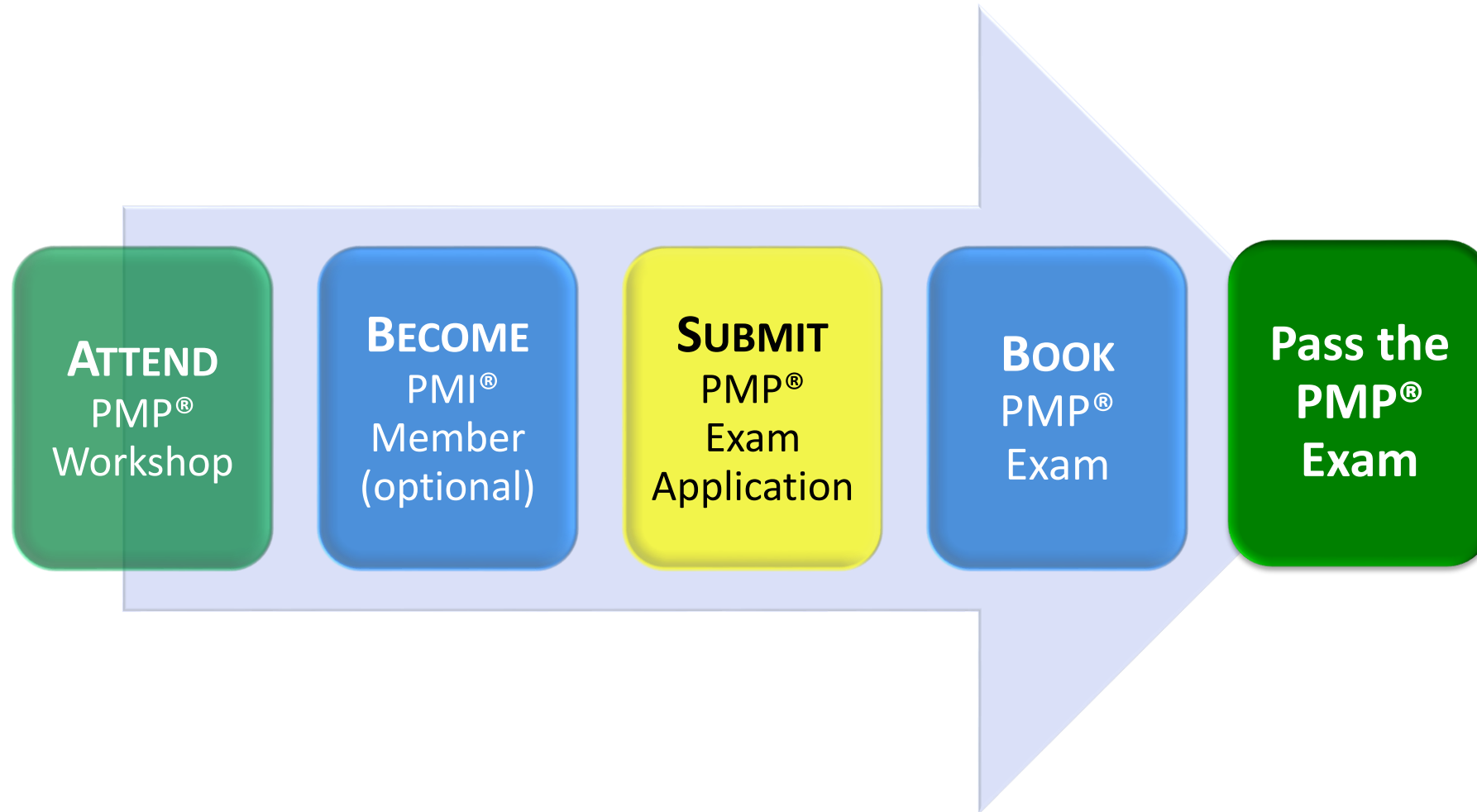
# PMP® QUESTION TYPES

- Scenario based
- Situational
- Using attached illustrations such as Network Diagram
- Formulas and Computing
- Negative descriptors such as Except
- Two likely Answers

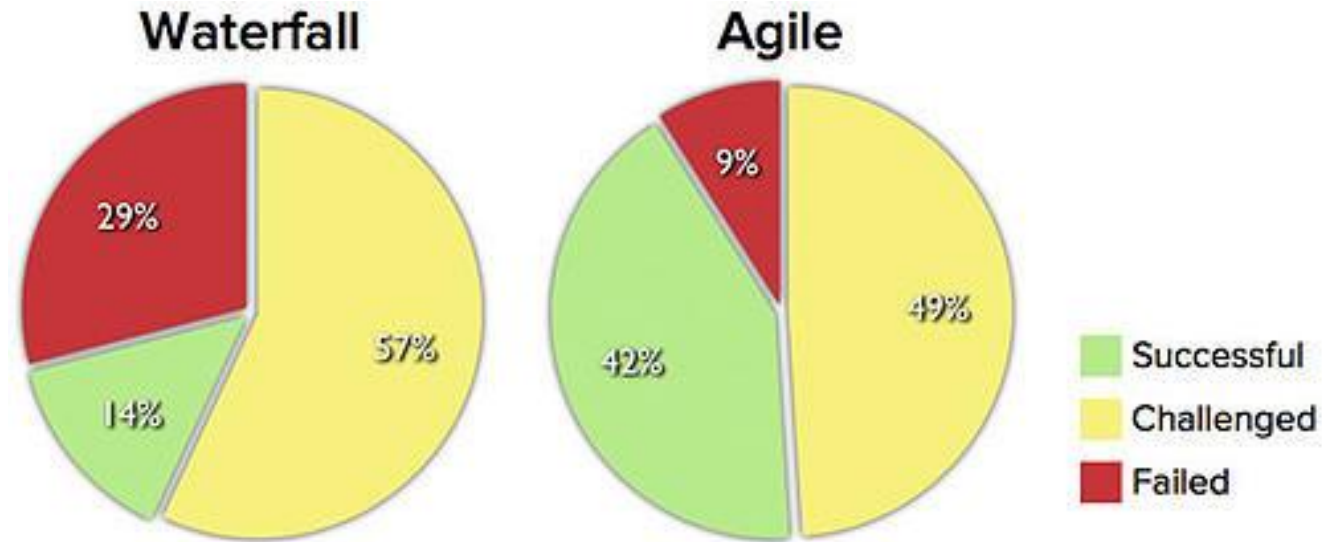




# ROADMAP TO BECOME A PMP®



## Agile is 3 Times More Successful



Source: The CHAOS Manifesto, The Standish Group, 2012.

Agile projects are successful three times more often than non-agile projects, according to the CHAOS report from the Standish Group. The report goes so far as to say, **“The agile process is the universal remedy for software development project failure. Software applications developed through the agile process have three times the success rate of the traditional waterfall method and a much lower percentage of time and cost overruns.”** The Standish Group defines project success as on time, on budget, and with all planned features. The study is based on projects from 2002 - 2010.



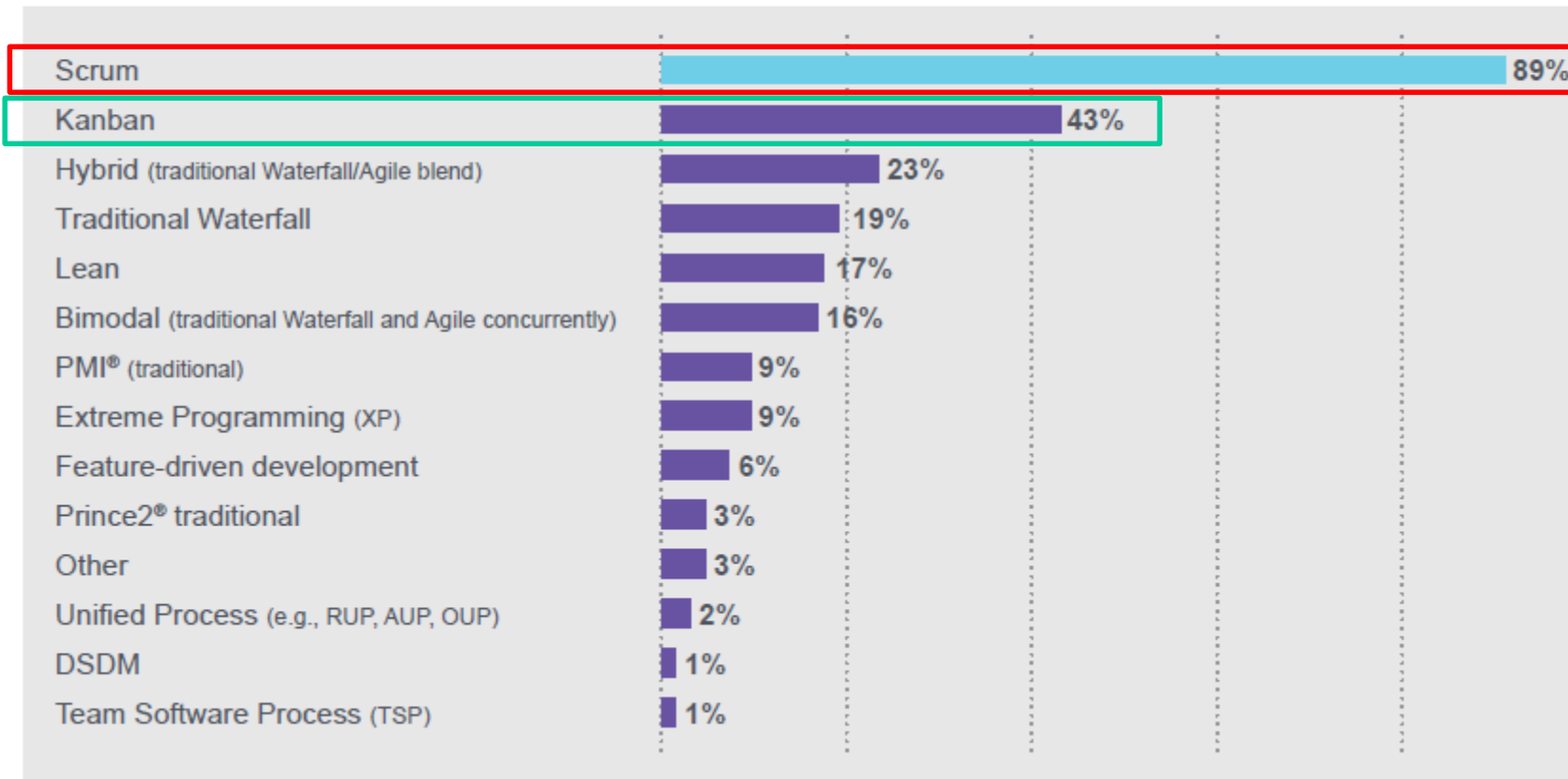
# 2016 STATE OF SCRUM report

How the world is successfully applying  
the most popular Agile approach to projects

## 2. Which Agile approach is your organization using?

(Multiple answers allowed)

Most respondents — 89% — report that Scrum specifically is the Agile approach or at least one of the Agile approaches used in their organization. (Ninety-two percent of respondents use any form of Scrum, including scaling Scrum frameworks, among their approaches.) Kanban is the second most common, followed by a hybrid approach, then traditional Waterfall. Lean, previously in third place at 21% in 2015, fell to 17% in 2016.



“The ability to prioritize, the ability to collaborate with a team, all these necessary skills and ancillary skills of facilitating and coaching will become more important in each work environment,” he says. “And all of these will, over the course of the next five to 10 years, show up more in university or college education.”

Indeed, that is already happening. There are K–12 schools in the United States, Canada, and Europe where children learn Agile practices. U.S. universities, such as Rutgers, the University of Virginia, and Northwestern University, offer courses in Agile or Agile project management. So do universities in Great Britain, Australia, and the Czech Republic.

But whether in education or business, it’s adopting Agile practices, such as innovation and collaboration, that can make or break a successful Agile transformation.

“Companies are going to continue to see that their ability to innovate in order to compete is going to rely on them figuring out how to experiment in a very short time frame,” Orrell says. “Those experiments will sometimes succeed and sometimes fail, but that’s the nature of innovation.”

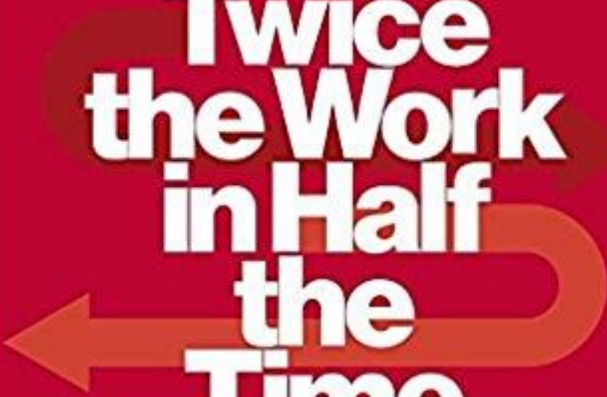
“It’s that innovation that’s going to keep companies competitive.”

## The Future of Scrum

98% of respondents say they plan to use Scrum moving forward.

Copyrighted Material

# **SCRUM** **The Art of Doing Twice the Work in Half the Time**

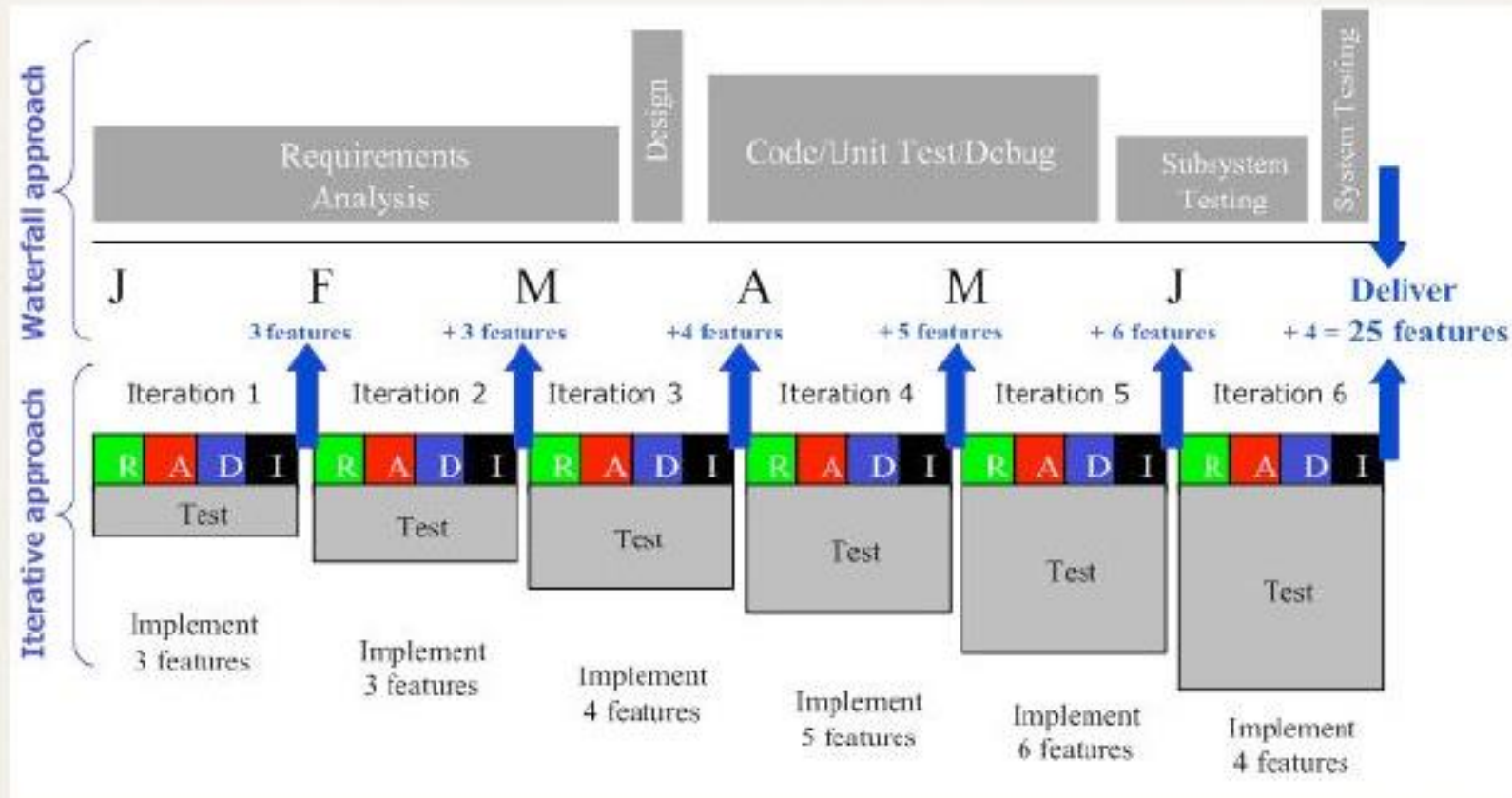


**JEFF SUTHERLAND**  
Co-creator of Scrum  
**J. J. SUTHERLAND**

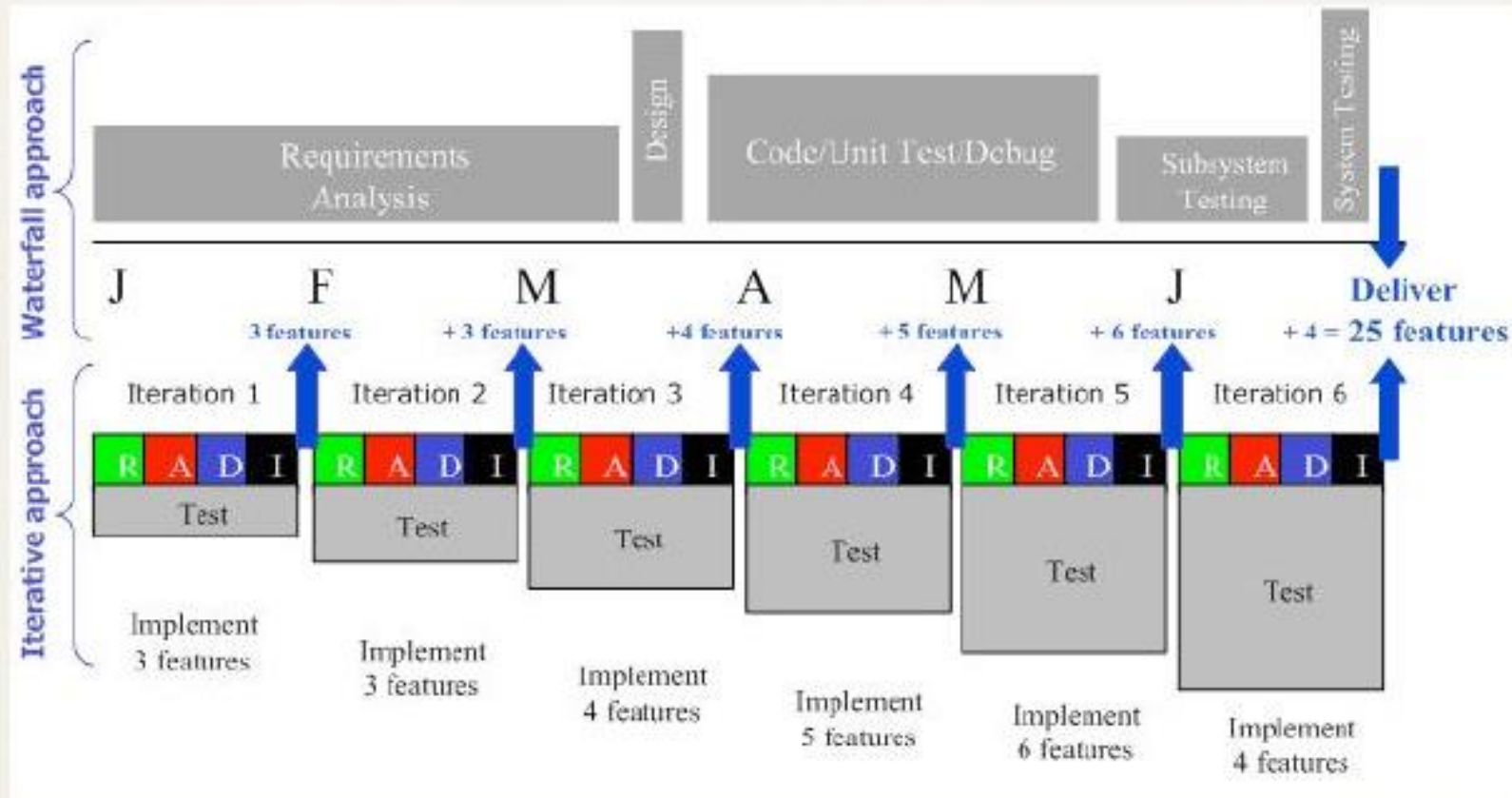
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# Scrum vs. Waterfall

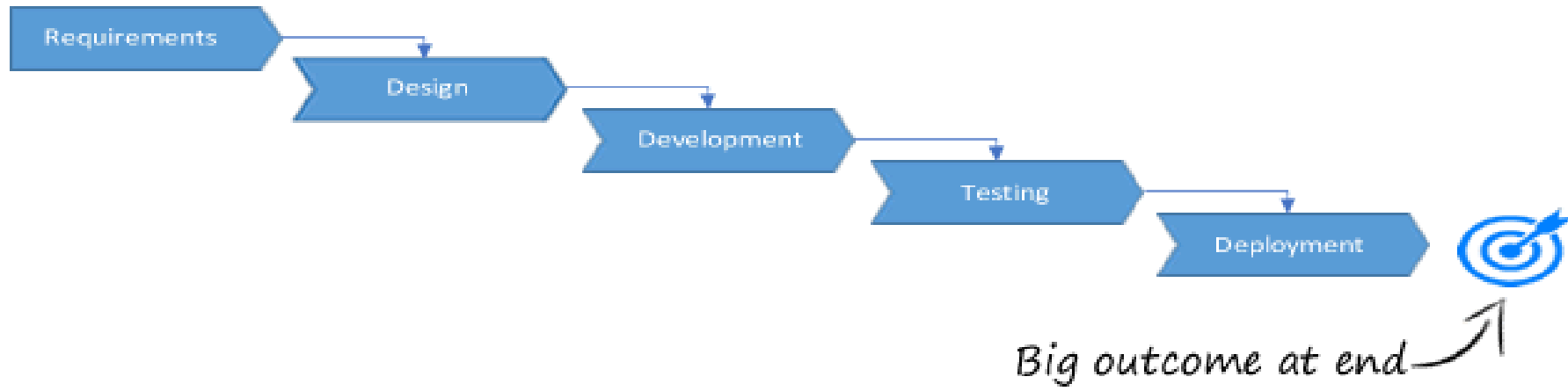


# Scrum vs. Waterfall

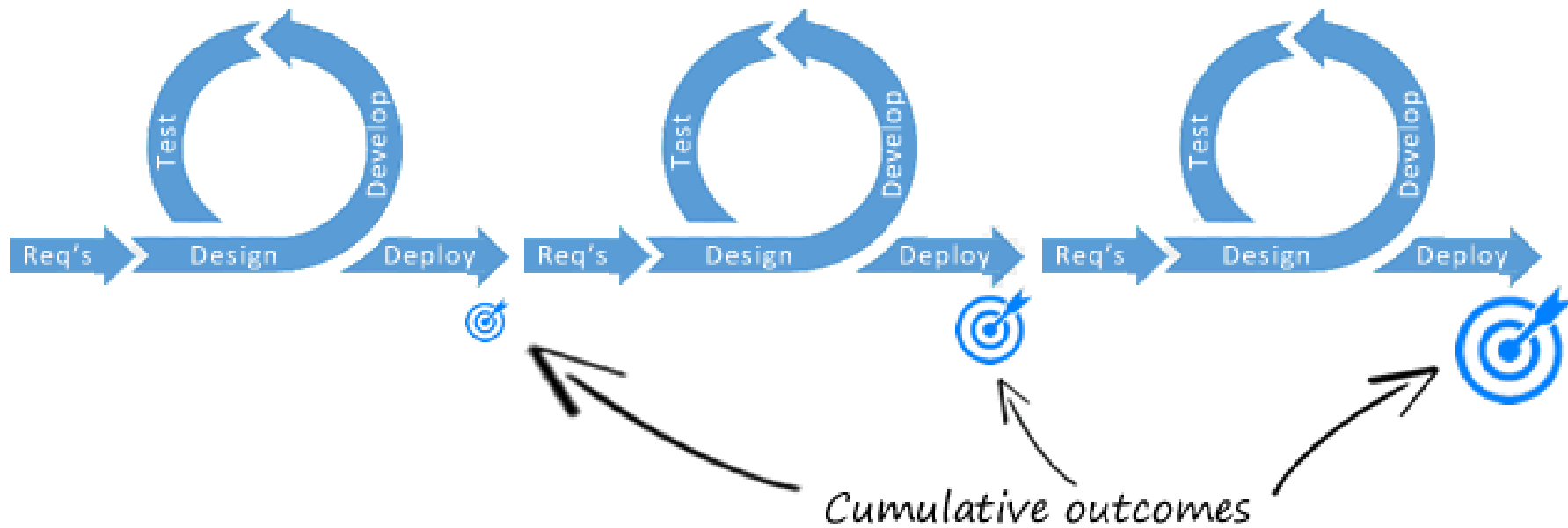




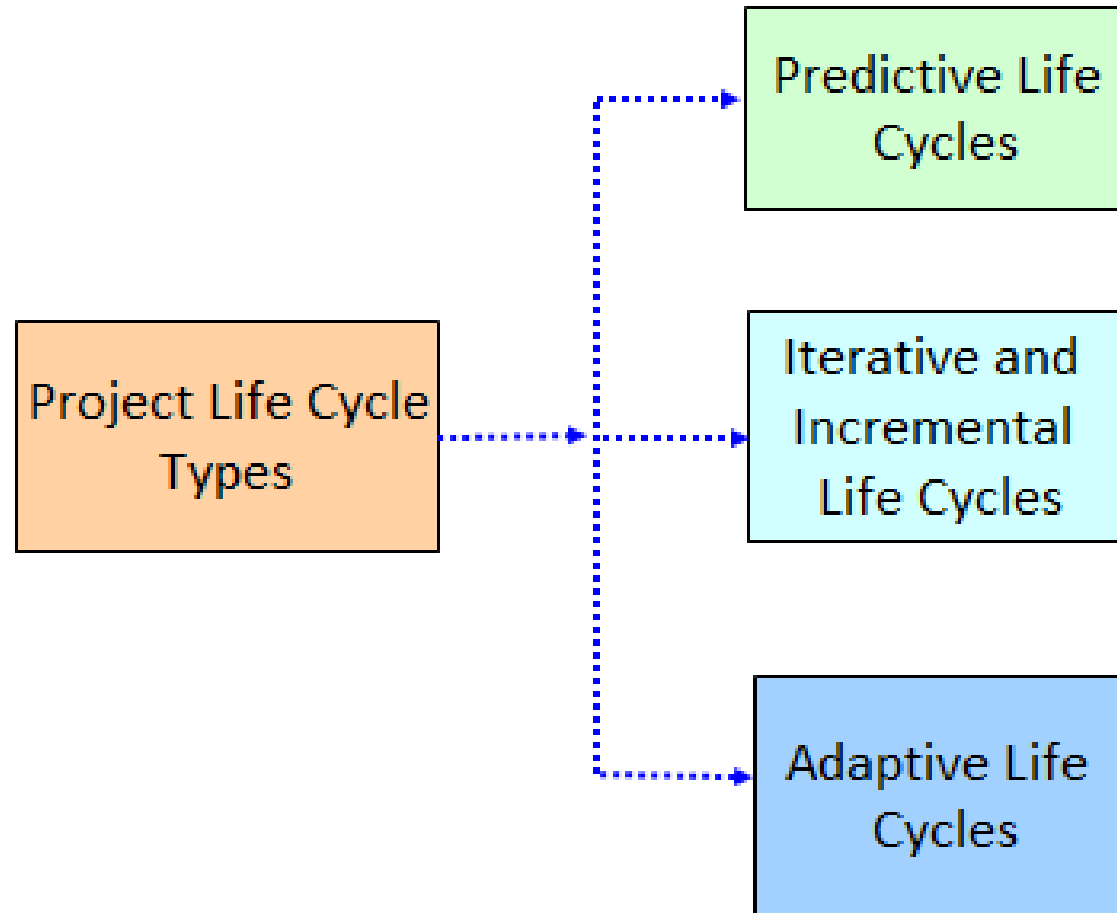
## Waterfall



## Agile



## **Life Cycle Selection**

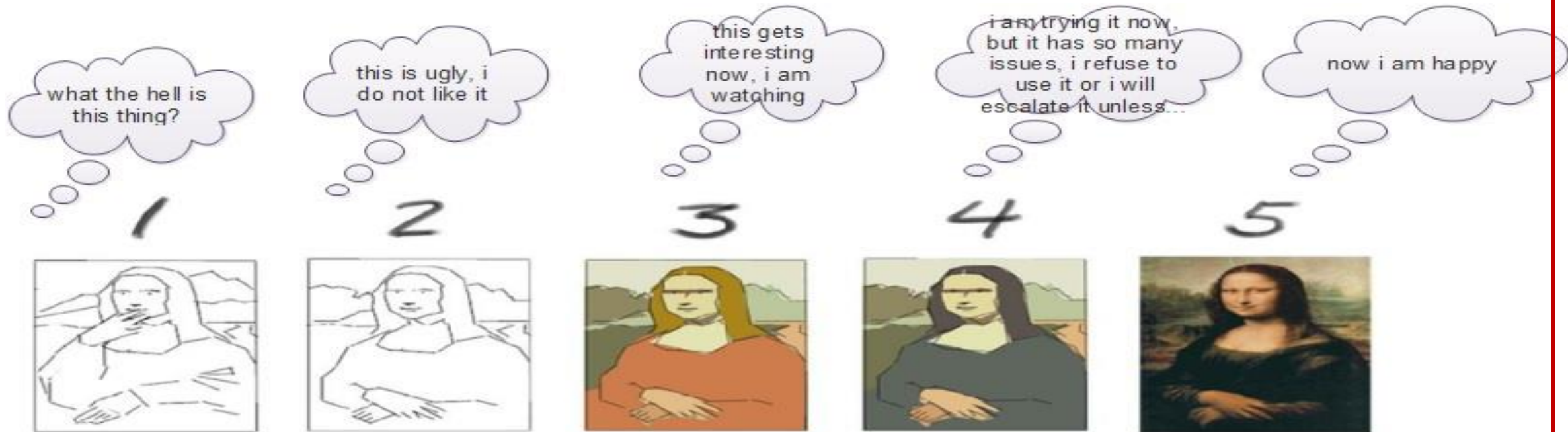


No life cycle can be perfect for all projects. Instead, each project finds a spot on the continuum that provides an optimum balance of characteristics for its context. Specifically,

- ❑ Predictive life cycles. Take advantage of things that are known and proven. This reduced uncertainty and complexity allows teams to segment work into a sequence of predictable groupings. (3.1.1)
- ❑ Iterative life cycles. Allow feedback on partially completed or unfinished work to improve and modify that work. (3.1.2)
- ❑ Incremental life cycles. Provide finished deliverables that the customer may be able to use immediately. (3.1.3)
- ❑ Agile life cycles. Leverage both the aspects of iterative and incremental characteristics. When teams use agile approaches, they iterate over the product to create finished deliverables. The team gains early feedback and provides customer visibility, confidence, and control of the product. Because the team can release earlier, the project may provide an earlier return on investment because the team delivers the highest value work first. (3.1.4)

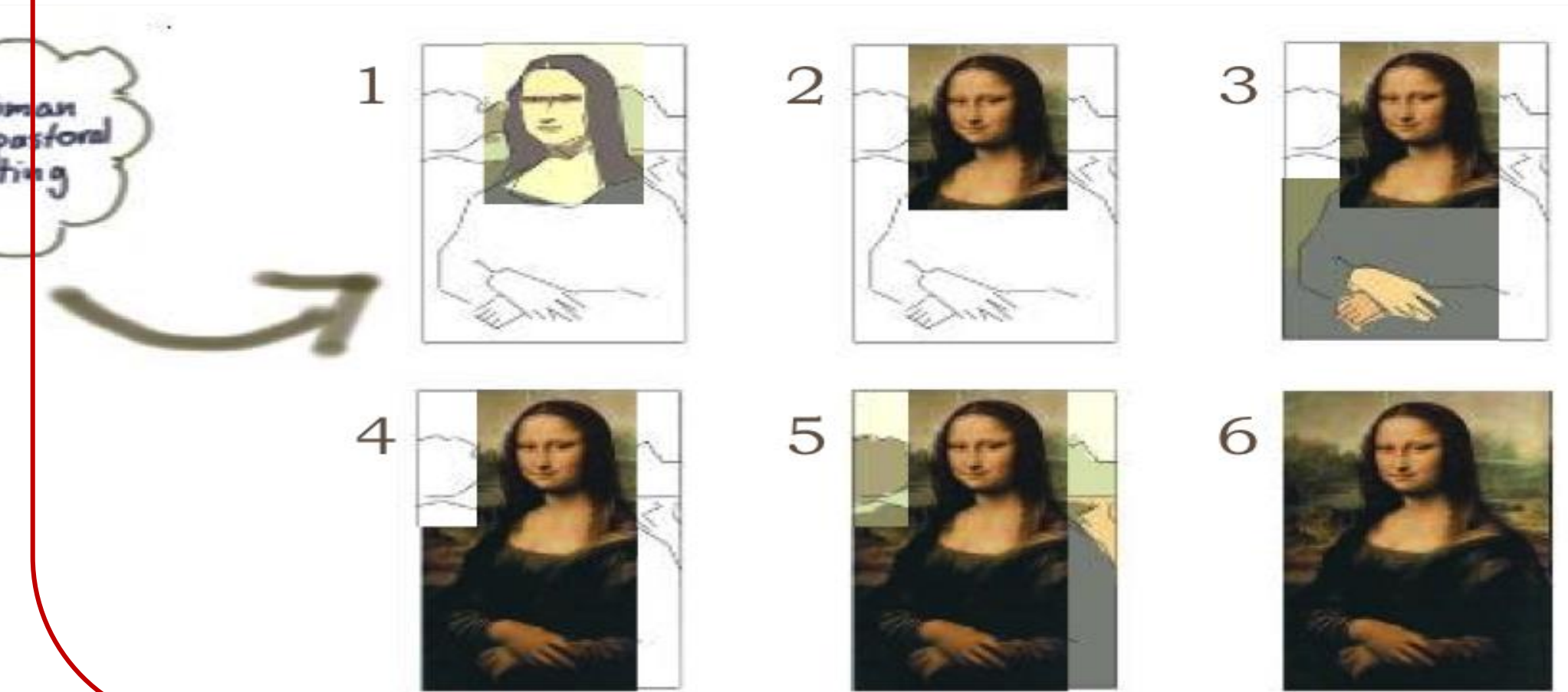
## Iterative Life Cycle

2. **Iterative life cycle**, the project scope is generally determined early in the project life cycle, but time and cost estimates are routinely modified as the project team's understanding of the product increases. **Iterations** develop the product through a series of repeated cycles, while **increments** successively add to the **functionality of the product**.



## Incremental Life Cycle

3. In an incremental life cycle, the deliverable is produced through a series of iterations that successively add functionality within a predetermined time frame.



4. **Adaptive life cycles** are agile, iterative, or incremental. The detailed scope is defined and approved before the start of an iteration. **Adaptive life cycles** are also referred to as agile or change-driven life cycles.

5. A **hybrid life cycle** is a combination of a **predictive** and an **adaptive** life cycle. Those elements of the project that are well known or have fixed requirements follow a predictive development life cycle, and those elements that are still evolving follow an adaptive development life cycle.



# Scrum is Iterative and Incremental

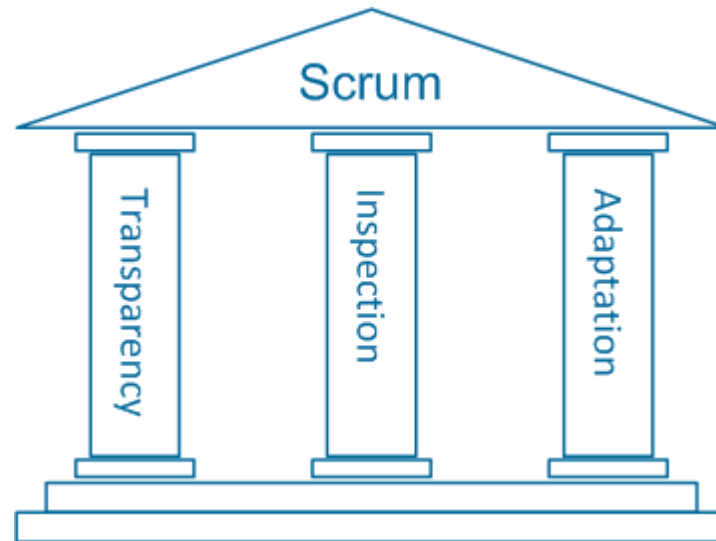
Scrum is an **iterative** and **incremental** approach to develop high quality products.

Scrum is:

- Lightweight
- Simple to understand
- Difficult to master

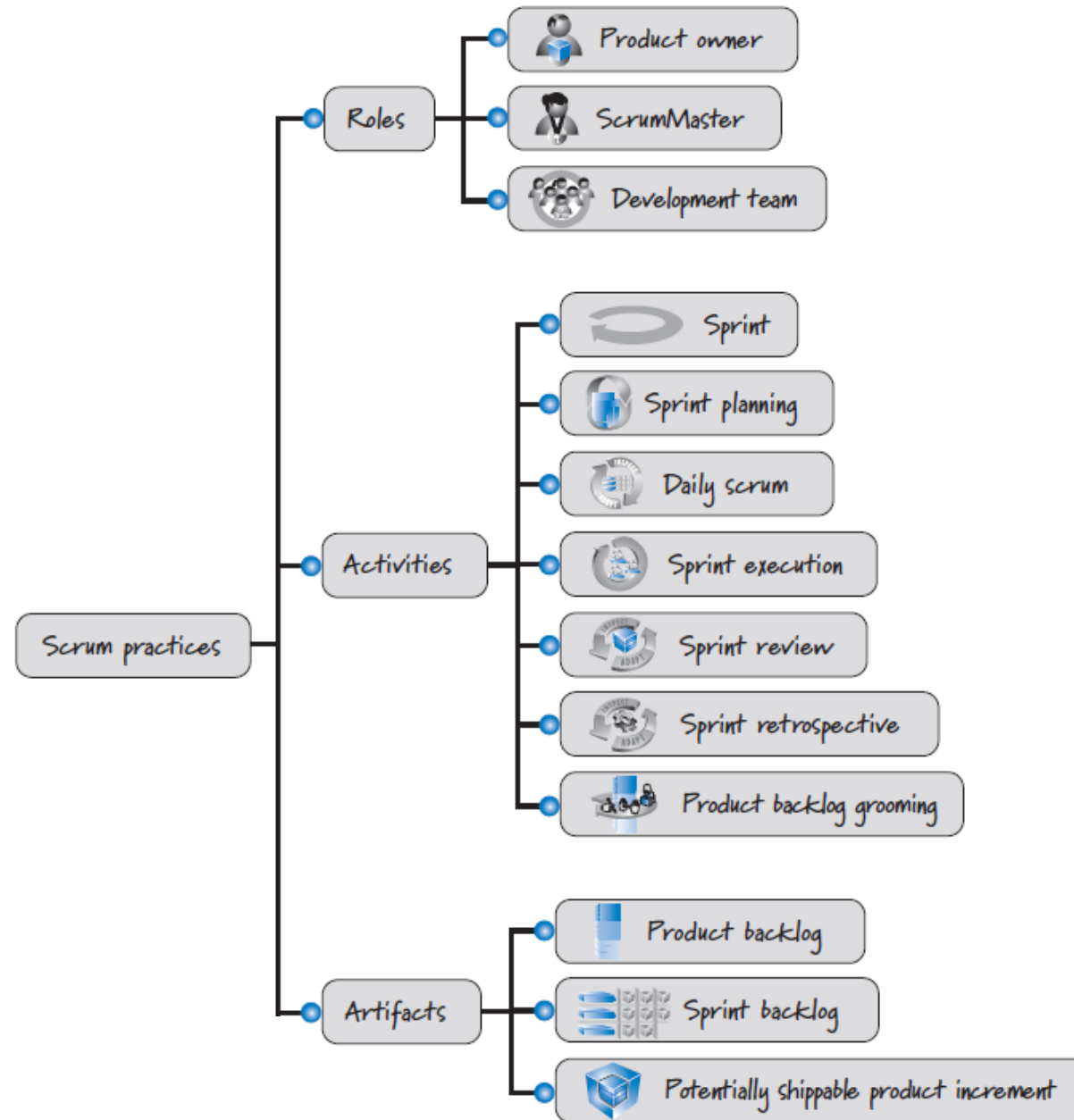
The three pillars of Scrum are:

- transparency
- inspection, and
- adaptation





# Scrum Practices



# The Product Owner



Voice of the customer

Owns value

Gathers feedback

Makes decisions

# The Scrum Master



**SCRUM  
MASTER**

Scrum Master helps the Scrum team to follow the process.

Helps Product Owner to understand & create the Product.

## Development Team

# The Development Team

**Responsible for delivering a potentially shippable increment of working software.**

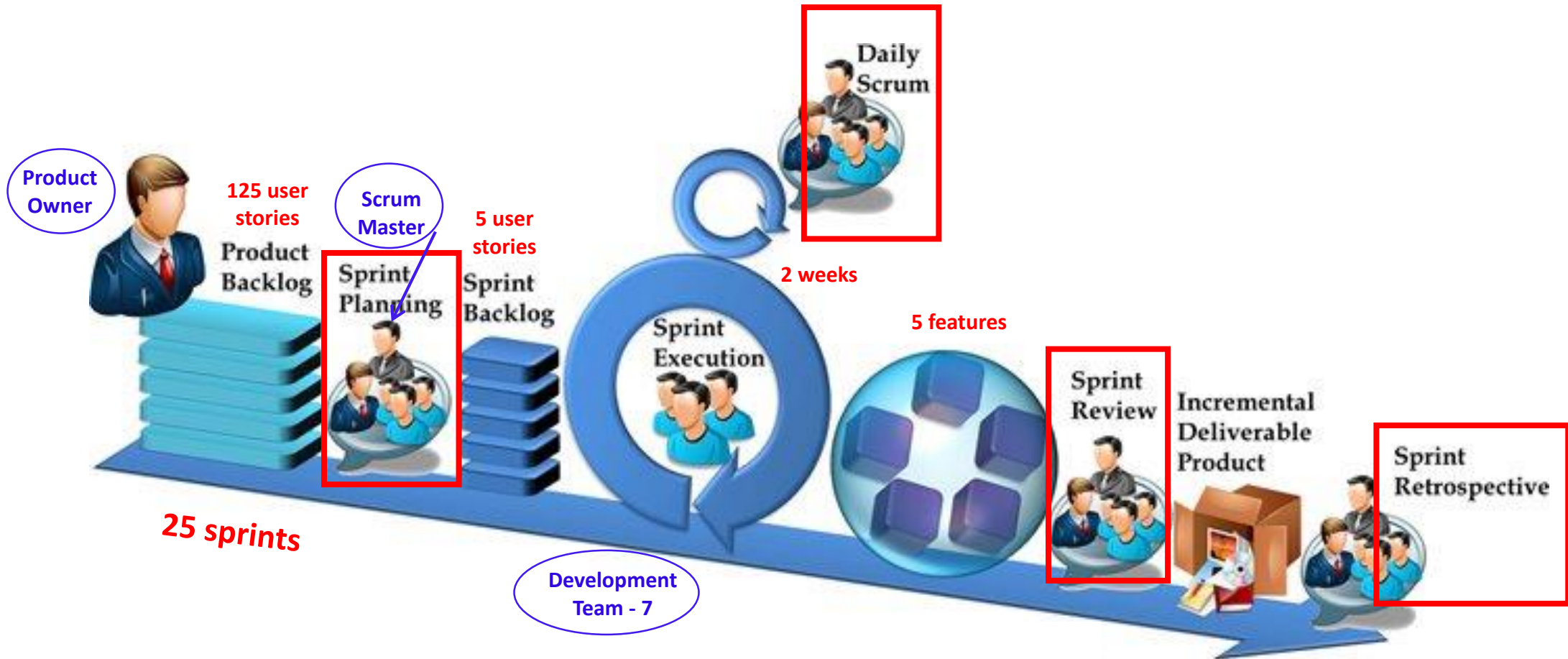
- Self-organized
- Cross functional
- Developer as title
- Defines practices
- 4 to 9 persons



# Sprint Execution

One Year Project (01 Jan 2021 to 31 Dec 2021)

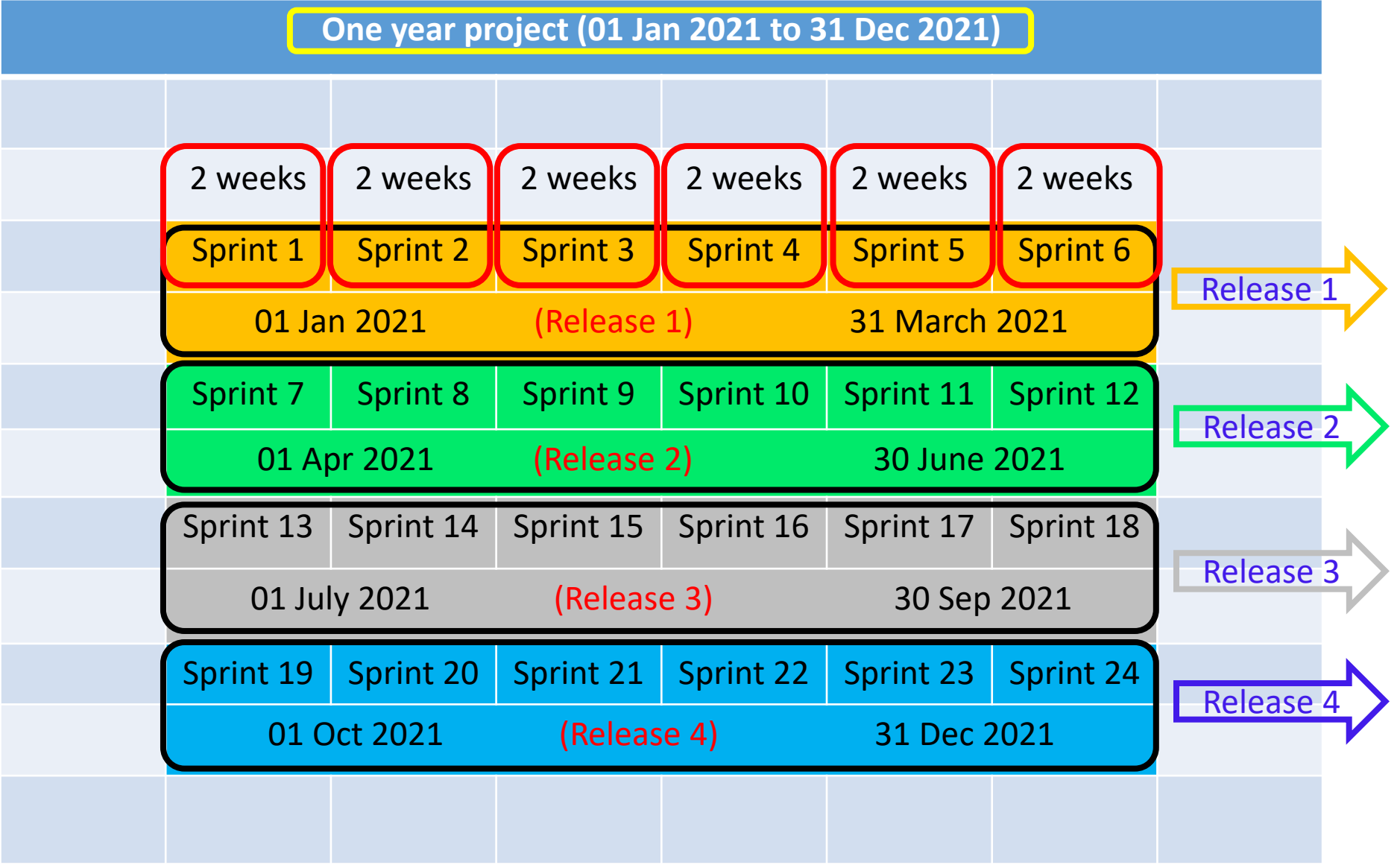
25 sprints of 2 weeks duration each



Two Weeks Sprint (10 working days)

|       | Mon<br>12 April                    | Tue                         | Wed                         | Thurs                       | Fri                         | Mon                         | Tue                         | Wed                                   | Thurs                       | Fri<br>23 April                           |
|-------|------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------------------------|-----------------------------|-------------------------------------------|
| 9-10  | Sprint Planning Meeting<br>(4 hrs) | Daily Scrum<br>(15 minutes) | Daily Scrum<br>(15 minutes) | Daily Scrum<br>(15 minutes) | Daily Scrum<br>(15 minutes) | Daily Scrum<br>(15 minutes) | Daily Scrum<br>(15 minutes) | Daily Scrum<br>(15 minutes)           | Daily Scrum<br>(15 minutes) | Daily Scrum<br>(15 minutes)               |
| 10-11 |                                    |                             |                             |                             |                             |                             |                             |                                       |                             |                                           |
| 11-12 |                                    |                             |                             |                             |                             |                             |                             |                                       |                             |                                           |
| 12-1  |                                    |                             |                             |                             |                             |                             |                             |                                       |                             |                                           |
| 1-2   |                                    |                             |                             |                             |                             |                             |                             |                                       |                             | Sprint Review Meeting<br>(2 hrs)          |
| 2-3   |                                    |                             |                             |                             |                             |                             |                             |                                       |                             |                                           |
| 3-4   |                                    |                             |                             |                             |                             |                             |                             | Backlog Refinement Meeting<br>(2 hrs) |                             | Sprint Retrospective Meeting<br>(1.5 hrs) |
| 4-5   |                                    |                             |                             |                             |                             |                             |                             |                                       |                             |                                           |

Sprint Execution





# Sprint Planning Meeting







**Daily Scrum or Stand up**

## 3 important questions

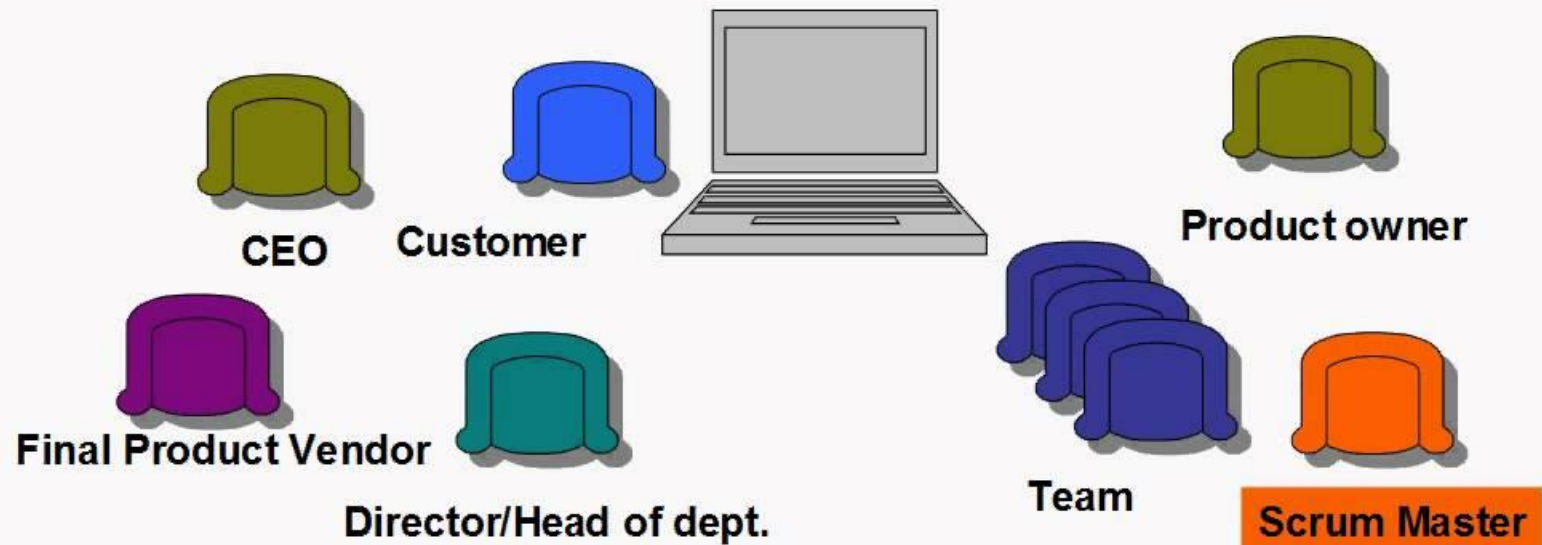
What work did you complete yesterday? **1**

What have you planned for today? **2**

Are you facing any problems or issues? **3**

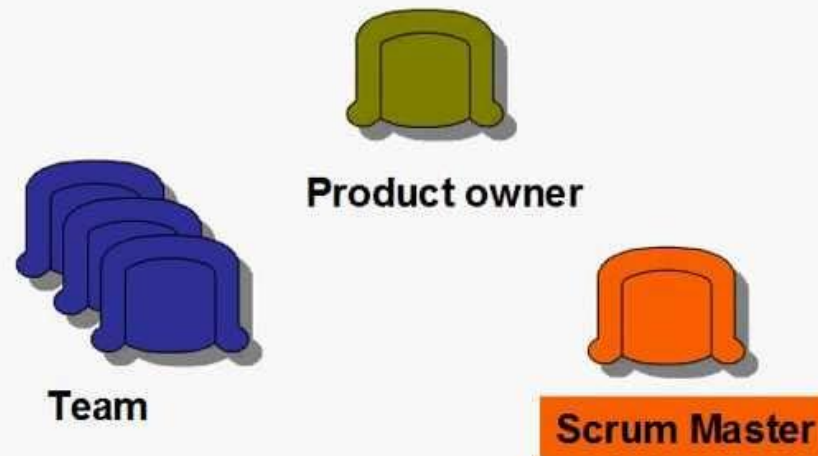
# Sprint Review

- Demo of the sprint's functionality
- Stakeholders present
- Product owner and Stakeholders discuss backlog
- Stakeholders ask questions

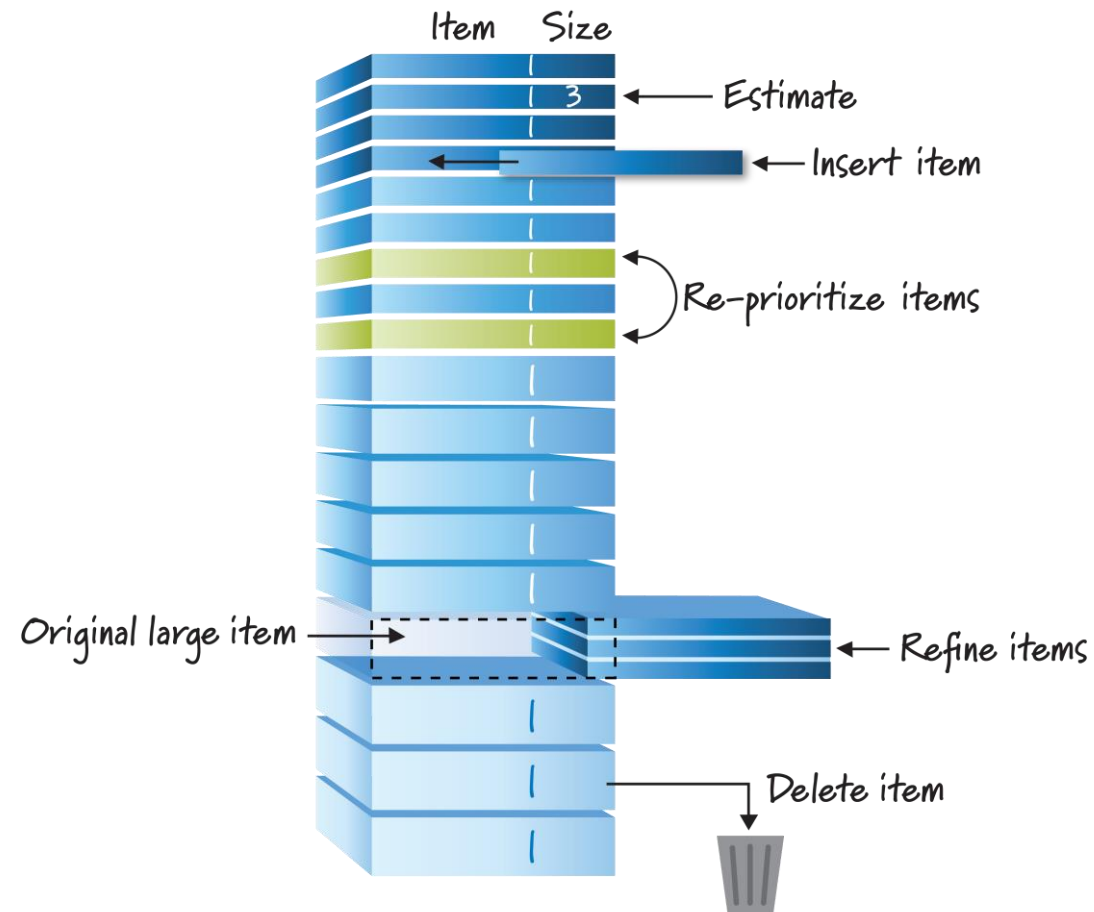


# Sprint Retrospective

- What went well this sprint?
- What could we improve next sprint?
- Dev Environment, working practices, communication



# Product Backlog Grooming/Refinement





# The 'DEEP' Quality of Product Backlog

## Detailed Appropriately

- Higher-priority items are described in more detail than lower-priority ones.

## Estimated

- The product backlog items are coarse-grained estimated and often expressed in story points.

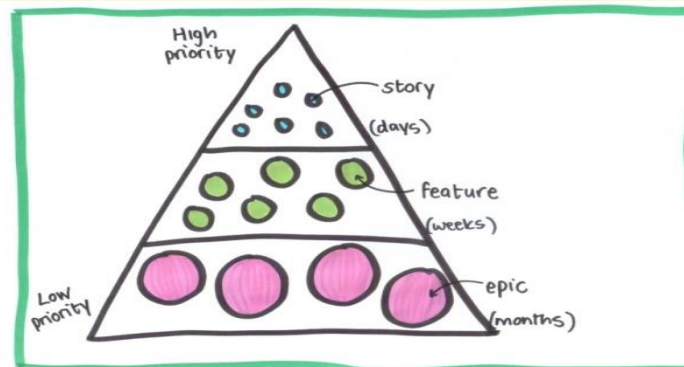
## Emergent

- It evolves and change frequently. New items are discovered and existing items are refined.

## Prioritized

- All items in the product backlog are prioritized. Higher priority items are at the top.

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## Question

The three pillars of empirical process control are:

- A. Respect For People, Kaizen, Eliminating Waste
- B. Planning, Demonstration, Retrospective
- C. Inspection, Transparency, Adaptation
- D. Planning, Inspection, Adaptation

## Answer – C

Scrum is founded on empirical process control theory, or empiricism. Empiricism asserts that knowledge comes from experience and making decisions based on what is known.

Three pillars uphold every implementation of empirical process control: transparency, inspection, and adaptation.



Question:

Which meeting is the last one in any sprint?

- A. Daily Scrum
- B. Sprint Retrospective
- C. Sprint Review
- D. Sprint Planning

**Answer: B**

Question:

Sprint execution starts after which event?

- A. Daily Scrum
- B. Sprint Retrospective
- C. Sprint Review
- D. Sprint Planning

**Answer: D**



# Sprints

## Two Weeks Sprint (10 working days)

|       | Mon<br>12 April                    | Tue                         | Wed                         | Thurs                       | Fri                         | Mon                         | Tue                         | Wed                                   | Thurs                       | Fri<br>23 April                           |
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| 11-12 |                                    |                             |                             |                             |                             |                             |                             |                                       |                             |                                           |
| 12-1  |                                    |                             |                             |                             |                             |                             |                             |                                       |                             |                                           |
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| 3-4   |                                    |                             |                             |                             |                             |                             |                             | Backlog Refinement Meeting<br>(2 hrs) |                             | Sprint Retrospective Meeting<br>(1.5 hrs) |
| 4-5   |                                    |                             |                             |                             |                             |                             |                             |                                       |                             |                                           |

\* Selection of user stories (based on definition of ready) (WHAT meeting)

\* Splitting the user stories into tasks and sub-tasks, and estimating the hours required for each (HOW meeting)

Sprint Execution

## Question

What does it mean to say that an event has a time-box?

- A. The event must happen at a set time.
- B. The event must happen by a given time.
- C. The event must take at least a minimum amount of time.
- D. The event can take no more than a maximum amount of time.

**Answer – D**

Time-boxed events are events that have a maximum duration.

# **Requirements and User Stories**

# Overview

- ❑ Scrum and sequential product development (waterfall) treat requirements very differently.
- ❑ With sequential product development, requirements are non-negotiable, detailed up front, and meant to stand alone.
- ❑ In Scrum, the details of a requirement are negotiated through conversations that happen continuously during development and are fleshed out just in time and just enough.
- ❑ With sequential product development, requirements are treated much as they are in manufacturing. They are required, non-negotiable specifications to which the product must conform. These requirements are created up front and given to the development group in the form of a highly detailed document.
- ❑ A formal change control process needed in case of sequential product development.

# When requirements are written down

End users

I want a tape



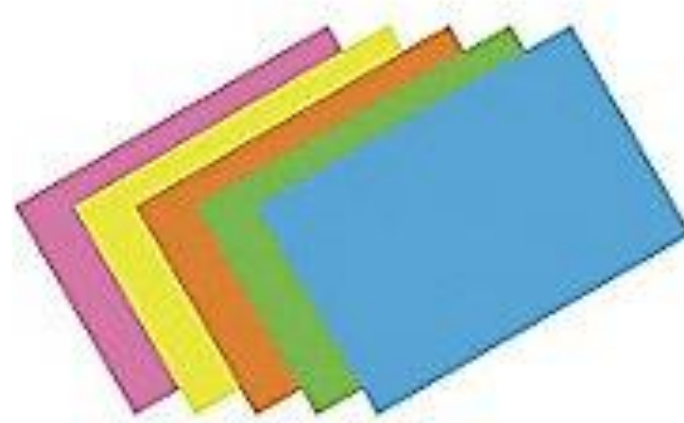
Product owner

Development team



# What Are User Stories?

- ❑ A convenient format for expressing the requirements.



**User Story Cards**

## Typical User Story Format:

As a <.....>, I want <.....>, so that <.....>.

As a <.....>, I want <.....>



## User Story Example

**As a traveler**  
**I want to log-in to the portal**  
**So that I can book tickets**



# User Story Examples

As a user, I want to  
reserve a hotel  
room

As a vacation  
traveler, I want to  
see photos of hotels

As a user, I want to  
cancel a reservation

As a frequent flier, I  
want to rebook a past  
trip **so that** I save time  
booking my trips I take  
often



# User Story Examples

**As a** project manager

**I need** to create a project schedule

**So that** I know when all the project tasks happen,  
so that I can schedule resources to do those tasks

**As an** Account Manager

**I want** to see sales per customer

**So that** I can determine which customers are most profitable.

# User Stories

## The Three C's of a User Story

### Card

- The story itself
- A promise to have a conversation at the appropriate time

### Conversation

- The requirements themselves communicated from the Product Owner to the Delivery Team via a conversation
- Write down what is agreed upon

### Confirmation

- The Acceptance Criteria for the story
- How the Delivery Team will know they have completed the story

**I**ndependent

**N**egotiable

**V**aluable

**E**stimable

**S**mall (Sized appropriately)

**T**estable

**I**ndependent

**N**egotiable

**V**aluable

**E**stimable

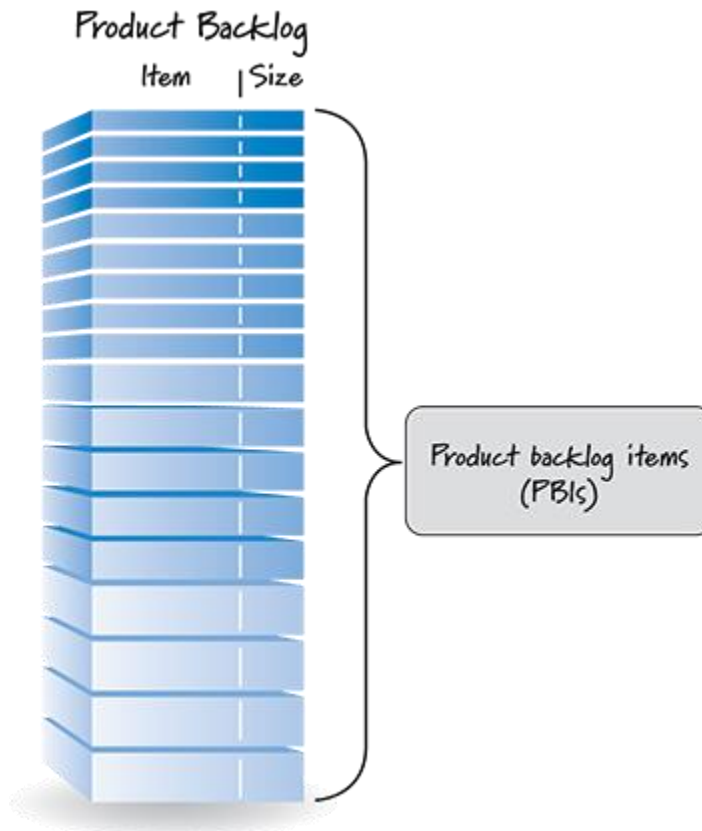
**S**mall (Sized appropriately)

**T**estable

- As much as is practical, user stories should be *independent* or at least only loosely coupled with one another.
- The details of user stories should also be *negotiable*. Stories are not a written contract in the form of an up-front requirements document. Instead, stories are pointers for the conversations where the details will be negotiated.
- Stories need to be *valuable* to a customer, user, or both.
- Stories should be *estimable* by the team that will design, build, and test them.
- Stories should be *sized appropriately* for when we plan to work on them. Stories worked on in sprints should be *small*.
- Stories should be *testable* – they either pass or fail their associated tests.

**I** ndependent  
**N**egotiable  
**V**aluable  
**E**stimable  
**S**mall (Sized appropriately)  
**T**estable

## Sized Appropriately (Small)



Product backlog items (PBIs)



# The Three C's of a User Story

## Card

- The story itself
- A promise to have a conversation at the appropriate time

## Conversation

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- The Acceptance Criteria for the story
- How the Delivery Team will know they have completed the story





# Three Cs: User Story is pointer to the requirement



## 1. Card

Stories are traditionally written on note cards

## 2. Conversation

Details behind the story come out during conversations with Product Owner

## 3. Confirmation

Acceptance tests confirm that story was done correctly

# 1. Card

- ☐ Typically 3" X 5"
- ☐ Not intended to capture all of the information that makes up the requirement.
- ☐ Small, handwritten to ensure brevity.
- ☐ Just to capture the essence of a requirement.
- ☐ Pointer or placeholder for the requirements.



## 2. Conversation

- ❑ The user story is simply a 2-way promise to have that conversation.
- ❑ Conversation can be:
  - When the user story is written
  - When it is refined
  - When it is estimated
  - During sprint planning
  - While the user story is being designed, built, and tested during the sprint
- ❑ One of the benefits of user stories is that they shift some of the focus away from writing and onto conversations.

### 3. Confirmation

- ❑ These are acceptance criteria written at the back of the card.
- ❑ They are used by the development team to better understand what to build and test and by the product owner to confirm that the user story has been implemented correctly.

## 1. Card

**As a busy breakfast maker,  
I want the toast to pop-up when it's done,  
So that I can focus on other things while  
it's cooking.**



## 2. Conversation

**As a busy breakfast maker,  
I want the toast to pop-up when it's done,  
So that I can focus on other things while it's cooking.**



**Developer:**

*“That’s really expensive. The popping part is easy – that’s just a spring. But knowing when the toast is done requires an optical sensor – new technology. And it is something that will require a lot of development.”*

**Product owner:**

*“But what about all the other toaster’s out there?”*

**Developer:**

*“Oh, they use a timer. They don’t know when the toast is done.”*

*Product owner:*

*“Our customers don’t want a super toaster. They just want a regular toaster, with a timer, like everyone else.”*

*Developer:*

*“Oh, that won’t be expensive at all. That’s easy.”*

*Product owner:*

*“Great!”*



### 3. Confirmation

**As a busy breakfast maker,  
I want the toast to pop-up when it's done,  
So that I can focus on other things while  
it's cooking.**



**As a busy breakfast maker,  
I want the facility to set the toaster  
timings.**

**As a busy breakfast maker,  
I want the toaster to give me a signal when  
the toast pops up.**

**As a busy breakfast maker,  
I want the toaster to switch-off on its own  
when the toast pops up.**



# User story example

**As a User,**  
**I want to** upload a photo from my local machine  
**so that** any users can view it.

During **conversations**, the following are clarified:

There will be an upload button at the top of my profile page  
There will be a file size limit of 25MB  
The supported formats are: jpeg, png, gif and bmp

**Confirmation** can be something like this:

Click the “Upload” button.  
Specify a picture file to upload.  
Check that .jpg, .png, .gif and .bmp extensions are supported.  
Check that other filetypes aren’t able to be uploaded.  
Check that files larger than 25MB results in an error.  
Click “Upload Photo”.

# Typical Confirmation Format

**GIVEN** <precondition> .....

**WHEN** <Actor + Action> ....

**THEN** <Observable Results>

**As a Product Owner**  
**I want login functionality**  
**So that users can login or signup**

### Conditions of Satisfaction

1

**Given** registered user accesses the portal  
**When** user enters user name and password,  
**Then** user should login to the portal

2

**Given** that registered user forgets his/her password  
**When** the user enters his/her valid registered email ID,  
**Then** user password to be sent to user's valid registered email ID

3

**Given** that new user wants to sign up  
**When** user enters required registration details,  
**Then** user should be able to sign up successfully

**As a traveler**  
**I want to** login to the portal  
**So that** I can book tickets



### Conditions of Satisfaction

Positive case

**Given** registered user accesses the portal  
**When** user enters valid user name and password,  
**Then** user should login to the portal and see the booked history page

Negative case

**Given** registered user accesses the portal  
**When** user enters invalid user name and password,  
**Then** user should not login and user gets “invalid user name/password” message.

Non-functional

**Given** registered user accesses our website  
**When** user enters invalid user name and password,  
**Then** user should be able to login within 60 seconds



**As a traveler**  
**I want to** be reminded of my password to my email ID  
**So that** I can recollect my password

### Conditions of Satisfaction

Positive case

**Given** that registered user forgets the password  
**When** the user enters registered email ID,  
**Then** user password to be sent to user's registered email

Negative case

**Given** that registered user forgets the password  
**When** the user enters invalid email ID,  
**Then** user should be shown the message "invalid email ID".

Non-functional

**Given** that registered user forgets the password  
**When** the user enters registered email ID,  
**Then** user should be able to login within 60 seconds



**As a movie-goer,**  
**I can** pay for my chosen seat  
**So that** I can complete my  
reservation.

**As a movie-goer,**  
**I can** pay for my seat in US \$  
**So that** I can complete my  
reservation.

**As a movie-goer,**  
**I can** pay for my seat in INR  
**So that** I can complete my  
reservation.



**As a movie-goer,**  
**I can** pay for my chosen seat  
**So that** I can complete my reservation.

**As a movie-goer,**  
**I can** supply payment information to pay for my seat  
**So that** I can complete my reservation.

**As a movie-goer,**  
**I can** add payment information to my profile  
**So that** I can use it when I pay for seats.



**As a movie-goer,**  
**I can** reserve a set on-line  
**So that** I am sure I can go for  
the movie.

**As a movie-goer,**  
**I can** choose a seat from the  
seat map  
**So that** I can sit where I want

**As a movie-goer,**  
**I can** pay for my chosen seat  
**So that** I can complete my  
reservation.





**As a Producer,**  
**I can** manage my shows  
**So that** I can sell tickets to  
them

**As a Producer,**  
**I can** create a new show  
**So that** I can set ticket prices.

**As a Producer,**  
**I can** update information about  
a show  
**So that** the website is accurate.



**As a movie-goer,**  
**I can** pay for my seats in US \$  
**So that** I can complete my reservation.

**As a Developer,**  
**I must** research foreign currency conversions  
**So that** I can process US \$.

**As a Developer,**  
**I will** implement foreign currency processing  
**So that** movie goers can use their native currency.

# Gathering Stories

## How do user stories come into existence!

1. User-Story-Writing Workshop
  - ☐ Collective brainstorming
  - ☐ Top-down, Bottom-up approaches
2. Story Mapping
  - ☐ Decomposing high-level user activity into workflow that can be further decomposed into a set of detailed tasks

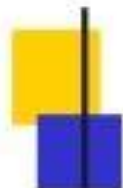












# User Story Mapping 範例



## Question

The Product Backlog is ordered by:

- A. Size, where small items are at the top and large items are at the bottom.
- B. Risk, where safer items are at the top, and riskier items are at the bottom
- C. Least valuable items at the top to most valuable at the bottom.
- D. Whatever is deemed most appropriate by the Product Owner.

## Answer – D

The Product Owner decides what makes the most sense to optimize the value of the work being done by the Development Team.



# **Different Prioritization Methods**

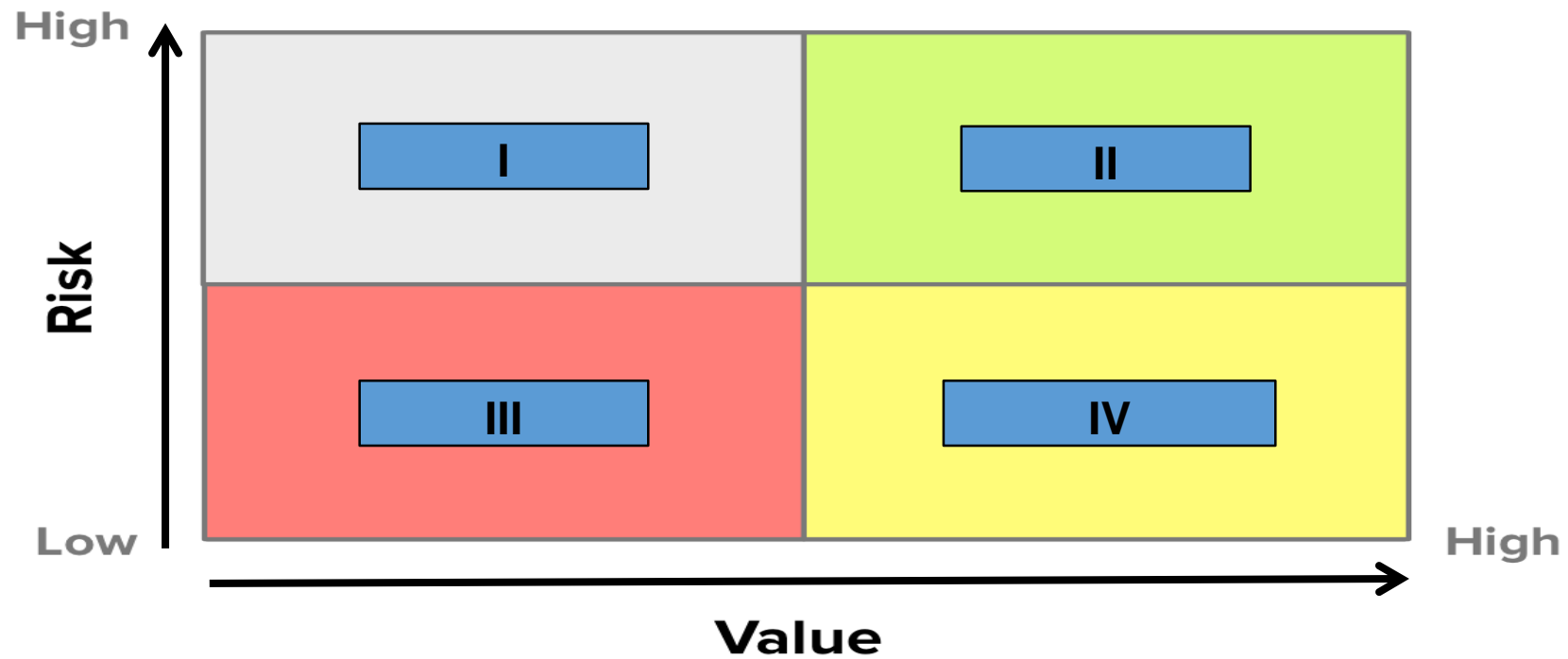
1. MoSCoW prioritization
2. Value based prioritization
3. Kano model of prioritization
4. Karl Wiegers relative weighting prioritization



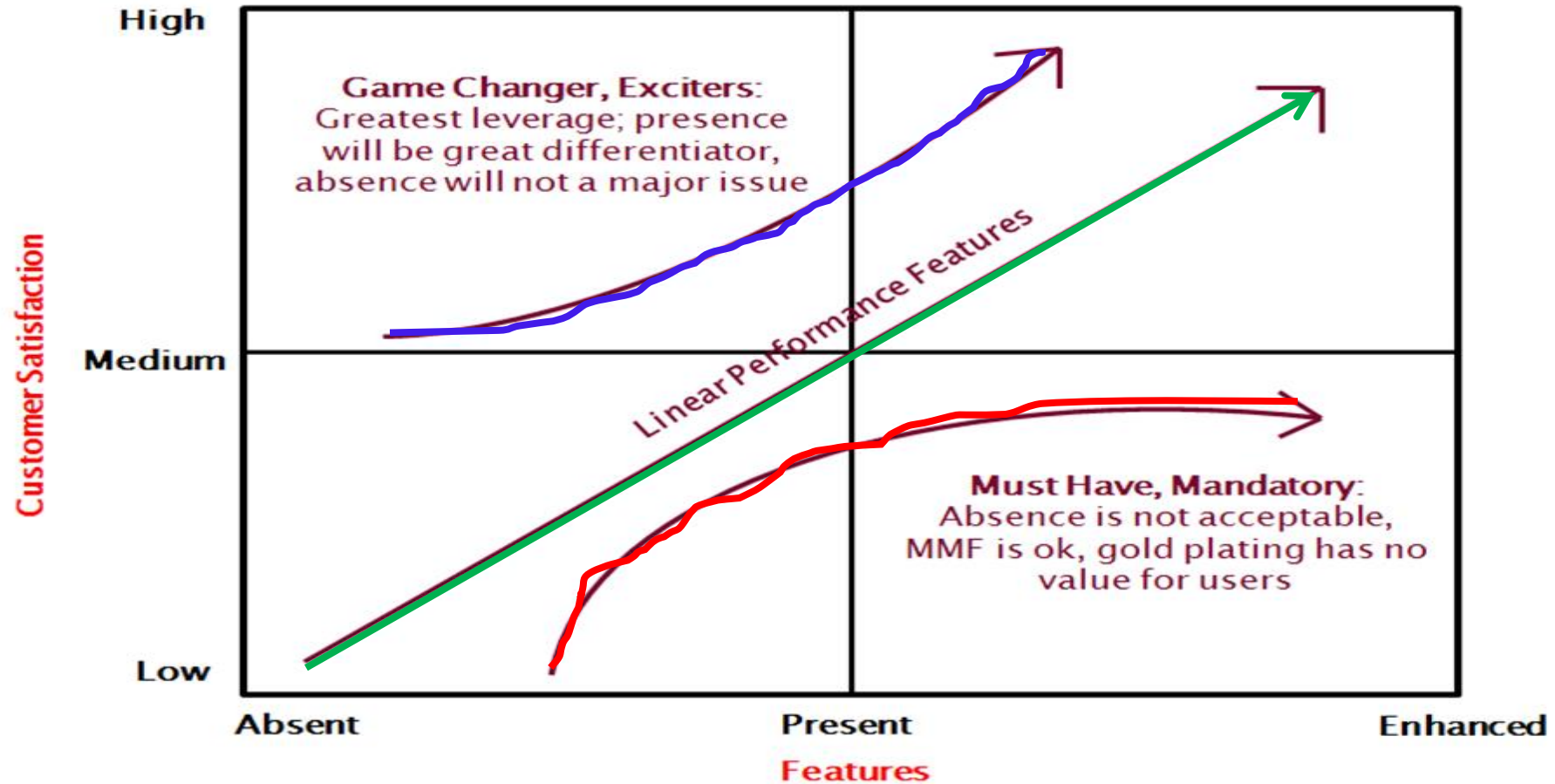
# 1. MoSCoW Prioritization



## 2. Value Based Prioritization



### 3. Kano Model of Prioritization



# **Size Estimation (In Story Points)**



M



L



XS



S



XL



S

a) Quantity in each, in ml. 100, 150, 200, 250, 300, 350, 400, 450, 500, 600 – Absolute sizing

b) XS, S, M, L, XL, XXL – Relative sizing



XXL



L



3



1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13 .....

1, 2, 3, 5, 8, 13, 21, 34, 55, 89 ..... Fibonacci Series

1, 2, 3, 5, 8, 13, 20, 40, 100 ..... Modified Fibonacci Series





# Planning Poker





# Product Owner



Voice of the customer

Owns value

Gathers feedback

Makes decisions

# Scrum Master



Owens the process

Protects team

Not the boss

Facilitator

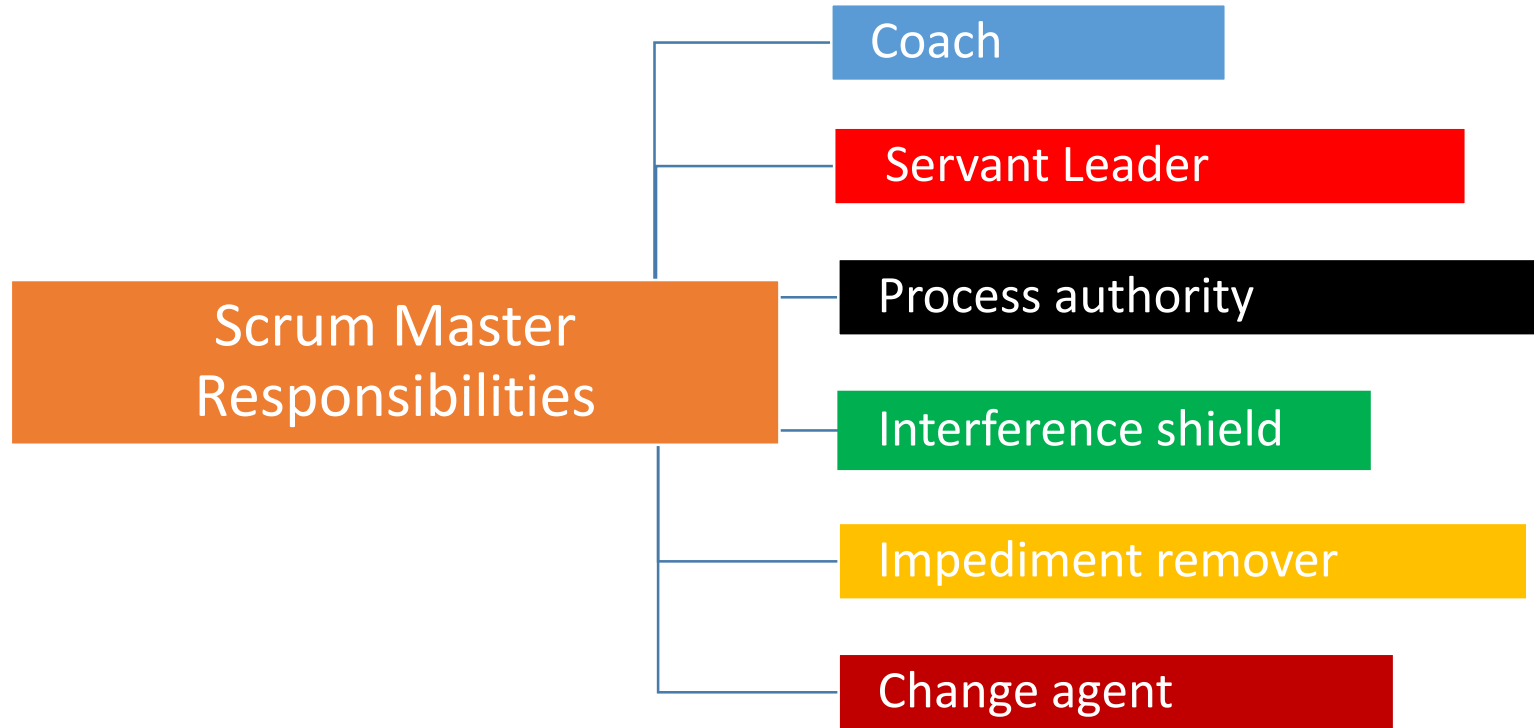
# The Scrum Master



**SCRUM  
MASTER**

Scrum Master helps the Scrum team to follow the process.

Helps Product Owner to understand & create the Product.



# The Development Team

## The Development Team

**Responsible for delivering a potentially shippable increment of working software.**

- Self-organized
- Cross functional
- Developer as title
- Defines practices
- 4 to 9 persons



## Development Team Characteristics

```
graph LR; A[Development Team Characteristics] --- B[Self-organizing]; A --- C[Cross functionally diverse and sufficient]; A --- D[T-shaped skills]; A --- E[Musketeer attitude]; A --- F[Transparent communication]; A --- G[Right-sized]; A --- H[Focused and committed]; A --- I[Works at sustainable pace];
```

Self-organizing

Cross functionally diverse and sufficient

T-shaped skills

Musketeer attitude

Transparent communication

Right-sized

Focused and committed

Works at sustainable pace



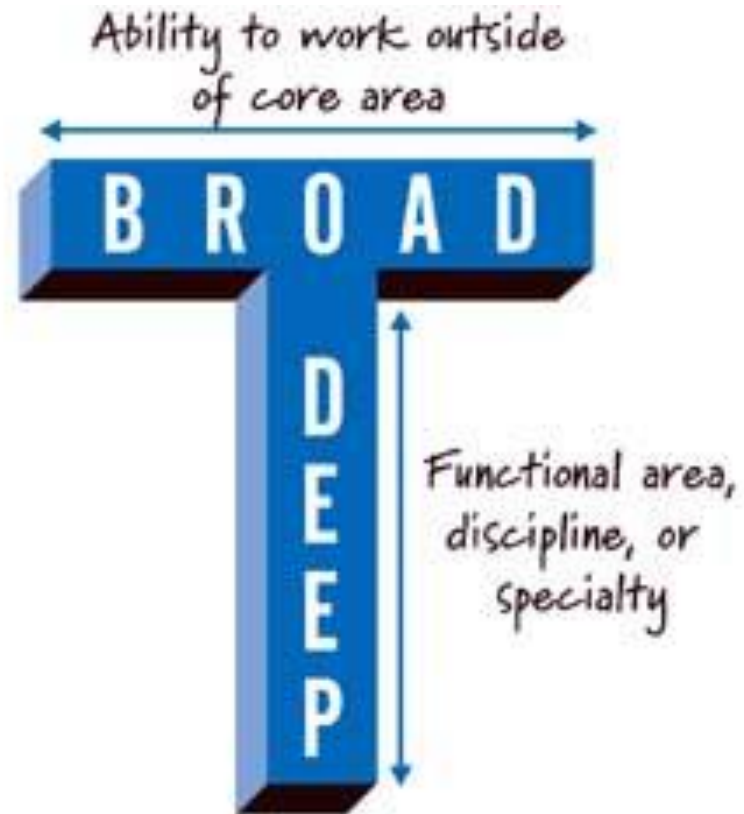
## Development Team Characteristics

### Self-Organizing



## Development Team Characteristics

### T-shaped skills



## Development Team Characteristics

### Musketeer Attitude





# Practice Questions



## Question

Which statement best describes a Product Owner's responsibility?

- A. Optimizing the value of the work the Development Team does.
- B. Directing the Development Team.
- C. Managing the project and ensuring that the work meets the commitments to the stakeholders.
- D. Keeping stakeholders at bay.

## Answer – A

The Product Owner is responsible for maximizing the value of the product and the work of the Development Team.

Question.

Which of the following is a characteristic of a good scrum team?

- A. Self organizing
- B. Do not ask too many questions.
- C. All team members follow the Scrum Master's direction.
- D. Each team member can perform all tasks.

**Answer: A**

## Question

Who has the final say on the order of the Product Backlog?

- A. The Stakeholders
- B. The Development Team
- C. The Scrum Master
- D. The Product Owner

## Answer – D

The Product Owner is the sole person responsible for managing the Product Backlog.



## Question

The CEO asks the Development Team to add a "very important" item to a Sprint that is in progress. What should the Development Team do?

- A. Add the item to the current Sprint without any adjustments.
- B. Add the item to the current Sprint and drop an item of equal size.
- C. Add the item to the next Sprint.
- D. Inform the Product Owner so he/she can work with the CEO.

Answer – D

The items selected for a Sprint have been selected as most valuable with the Product Owner. The items serve the Sprint's goal. No changes should be made that endanger the Sprint Goal. No one external to the Scrum Team can force changes on the Development Team (Sprint Backlog) and the Product Owner (Product Backlog).

## Question

Who should know the most about the progress toward a business objective or a release, and be able to explain the alternatives most clearly?

- A. The Product Owner
- B. The Development Team
- C. The Scrum Master
- D. The Project Manager

## Answer – A

The Product Owner is the sole person responsible for managing the Product Backlog, which includes that the Product Backlog is visible, transparent, and clear to all, and shows what the Scrum Team will work on next.

Question.

Who ensures that needs are documented in user stories or other concise formats?

- A. Project Manager
- B. Product Owner
- C. Business Analyst
- D. Scrum Master

**Answer: B**

Question.

When is a Sprint considered complete?

- A. When committed items have met the definition of done.
- B. When the Scrum Master says so.
- C. When the tasks on the project plan are completed.
- D. When the time-box expires.

**Answer: D**

Question.

Who is responsible for maintaining the Product Backlog?

- A. Scrum Development Team
- B. Scrum Master
- C. Product Owner
- D. Project Manager

**Answer: C**

Question.

Who determines which user stories the Scrum Development Team will commit to complete within the sprint?

- A. Project Manager
- B. Scrum Development Team
- C. Scrum Master
- D. Product Owner

**Answer: B**

Question.

When can the Product Owner make changes to the Product Backlog?

- A. During the Sprint Retrospective
- B. During the Sprint Review
- C. During Sprint Planning
- D. There are no constraints on when changes can be made

**Answer: D**



## Question

The maximum length of the Sprint Review (its time-box) is:

- A. 2 hours.
- B. 4 hours for a monthly Sprint. For shorter Sprints it is usually shorter.
- C. 1 day.
- D. 4 hours and longer as needed.

## Answer – B

Sprint Review is a four-hour time-boxed meeting for one-month Sprints. For shorter Sprints, the event is usually shorter.

## Question

Which statement best describes the Sprint Review?

- A. It is a mechanism to control the Development Team's activities during a Sprint.
- B. It is when the Scrum Team and stakeholders inspect the outcome of a Sprint and figure out what to do next.
- C. It is a demo at the end of the Sprint for everyone in the organization to check on the work done.

## Answer – B

Every event in Scrum, besides the Sprint which is a container for the other events, is an opportunity to Inspect AND Adapt.

Question.

What does Scrum suggest a team do if it does not believe it will be able to deliver any functionality or value by the end of the sprint?

- A. Submit a change request to extend the sprint.
- B. Work with the Product Owner to determine what valuable functionality can be focused on by the end of the sprint.
- C. Escalate to the stakeholders
- D. Terminate the sprint

**Answer: B**

Question.

When does the team evaluate how well they have performed and determine what changes can be made to further improve?

- A. Sprint Review
- B. Sprint Retrospective
- C. Sprint Planning
- D. Daily Scrum

**Answer: B**

Question.

What is the Scrum Master's responsibility during a Sprint Retrospective?

- A. To facilitate the team's discussion and identification of improvements.
- B. To participate in the team's discussion and identification of improvements.
- C. Provide answers to any questions raised by the team.
- D. To facilitate the review of each team member's performance.

**Answer: A**

Question.

Who protects the team from unreasonable changes that can impact the Scrum Development Team's ability to meet the sprint goal?

- A. Project Manager
- B. Product Owner
- C. Business Analyst
- D. Scrum Master

**Answer: D**

Question.

What does the Product Owner do during a sprint?

- A. Clarifies requirements and answers questions.
- B. Nothing
- C. Assigns tasks to team members.
- D. Manages the Scrum Master.

**Answer: A**

Question.

What is the primary output from sprint planning?

- A. Gantt Chart
- B. User stories and estimates
- C. Requirement document
- D. Sprint objective and sprint backlog list

**Answer: D**



Question.

Who has the main responsibility to remove impediments?

- A. Scrum Master
- B. Project Manager
- C. Product Owner
- D. Scrum Development Team

**Answer: A**

Question.

Which is the best description of the Scrum Master?

- A. Makes prioritization decisions
- B. Manages the project
- C. Ensures the product vision is maintained
- D. Scrum expert and facilitator

**Answer: D**