

# Scrum Process Framework

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# Agenda

1. Waterfall model.
1. What's/Why Agile?
2. Agile Manifesto/ Principles of Agile.
3. What's/Why Scrum?
4. Scrum overview/ events and estimation.
5. Tools.
6. References.

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# Game

Row vs Column at a time!!

a to j

1 to 10

i to x

| Alphabet Letters | Numbers | Roman Numerals |
|------------------|---------|----------------|
|                  |         |                |
|                  |         |                |
|                  |         |                |
|                  |         |                |
|                  |         |                |



| Letters | Numbers | Roman numerals |
|---------|---------|----------------|
| a       | 1       | i              |
| b       | 2       | ii             |
| c       | 3       | iii            |
| d       | 4       | iv             |
| e       | 5       | v              |
| f       | 6       | vi             |
| g       | 7       | vii            |
| h       | 8       | viii           |
| i       | 9       | ix             |
| j       | 10      | x              |

Row-at-a-time (multitasking)  
Average time = 35 seconds

| Letters | Numbers | Roman numerals |
|---------|---------|----------------|
| a       | 1       | i              |
| b       | 2       | ii             |
| c       | 3       | iii            |
| d       | 4       | iv             |
| e       | 5       | v              |
| f       | 6       | vi             |
| g       | 7       | vii            |
| h       | 8       | viii           |
| i       | 9       | ix             |
| j       | 10      | x              |

Column-at-a-time (single tasking)  
Average time = 16 seconds

**FIGURE 20.3** Cost of multitasking



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# Which approach do you prefer?

Rows ( No wip / multitasking ) vs .columns ( WIP =1 / Focus on 1 project at a time)

- which one was faster ?
- with which one were you more focused?
- which one gives you more satisfaction?
- which one was more stressful?
- which one is more error occurrence?
- which one is more complex to work?



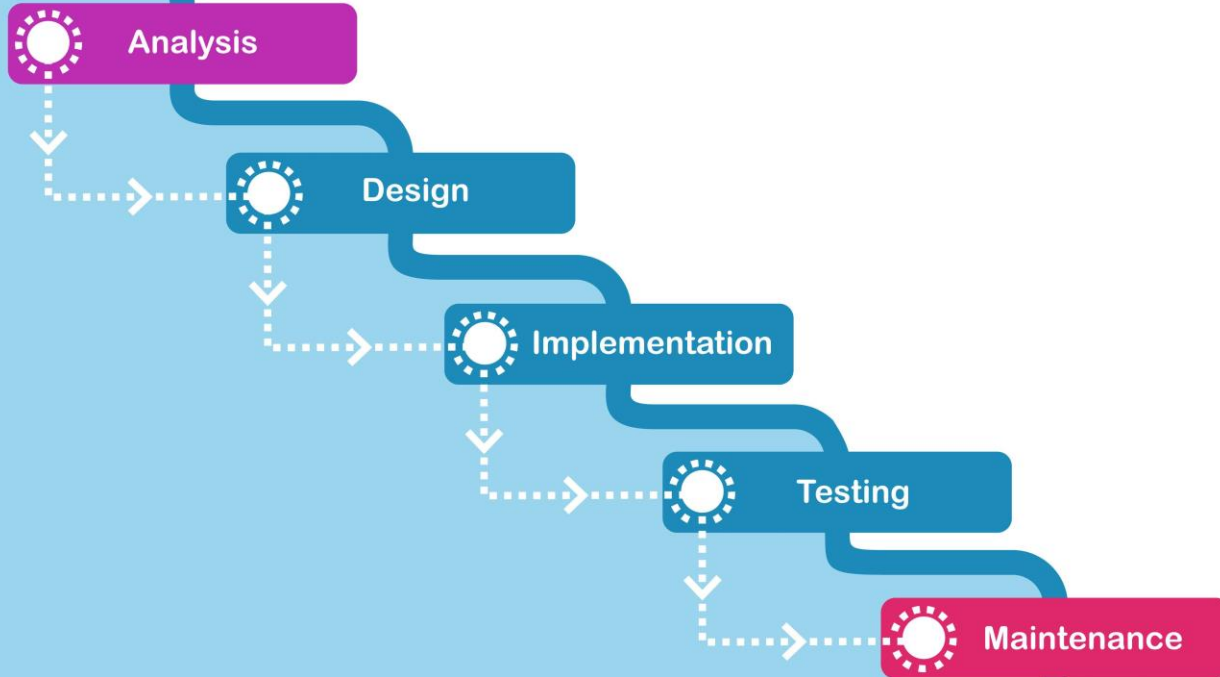





# 01 | SDLC/Stakeholders

# WATERFALL

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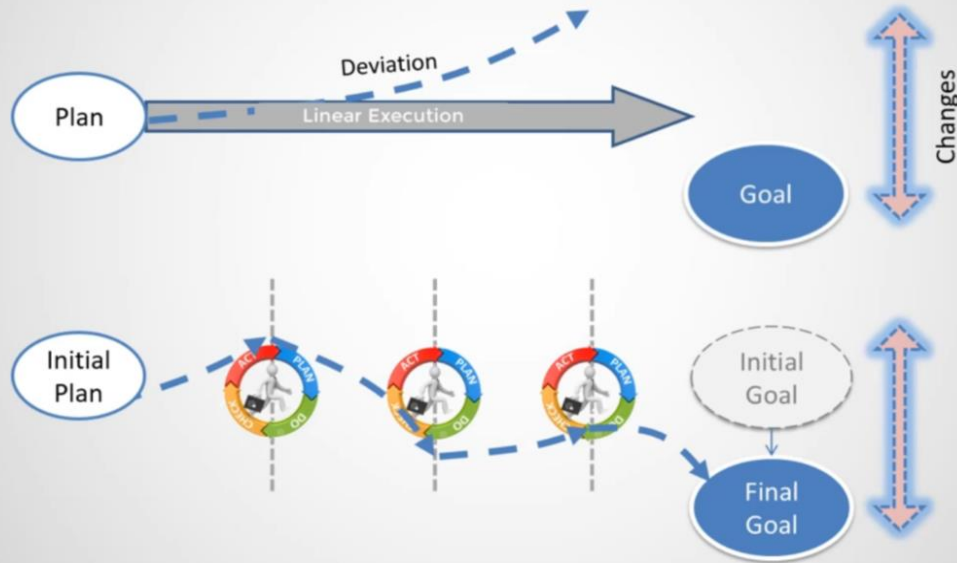


# **02** | **What's/Why Agile?**

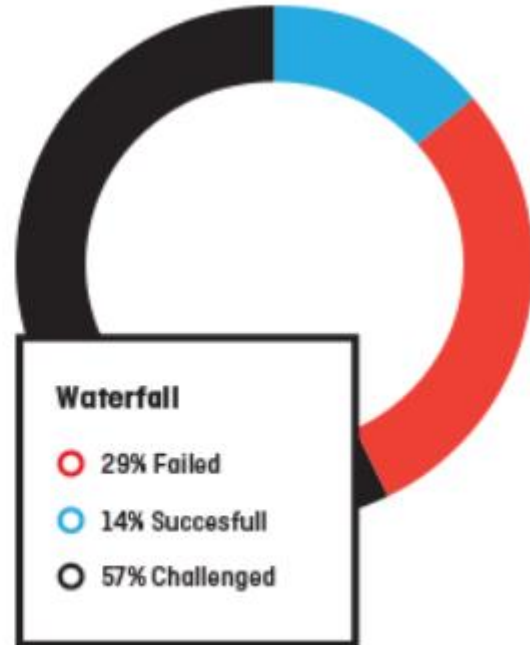
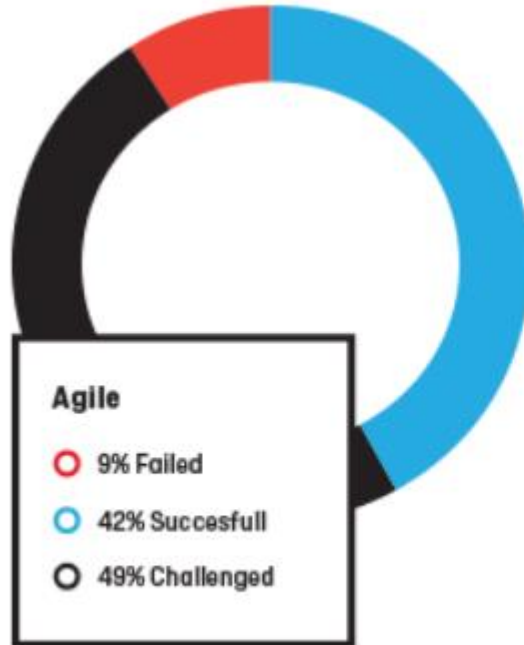


# What's/Why Agile?

## Linear vs Iterative Development



# What's/Why Agile?





**03**

**Agile  
Manifesto/principles  
of Agile**

# Manifesto For Agile

## Agile Manifesto

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.***

<http://agilemanifesto.org/>

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

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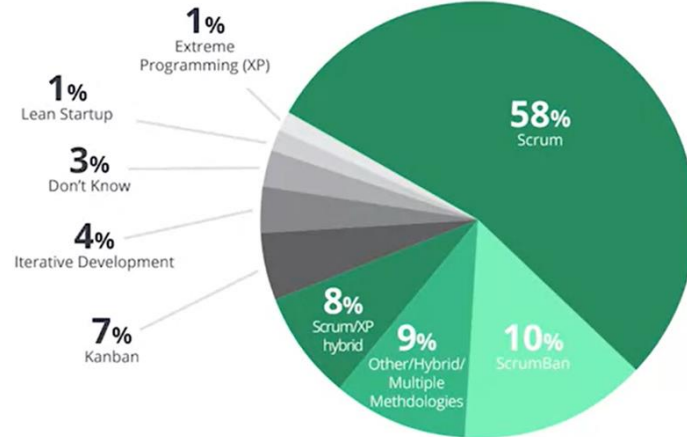
# **03** | **What's/Why Scrum**

# What's/Why Scrum?

## AGILE METHODS AND PRACTICES

### AGILE METHODOLOGIES USED

Scrum and related variants continue to be the most common Agile methodologies used by respondents' organizations.



Total exceeds 100% due to rounding.

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# What's/Why Scrum?

- Scrum is a framework that helps teams work together.
- Scrum describes a set of meetings, tools, and roles that work in concert to help teams structure and manage their work.
- Scrum is a subset of Agile. It is a lightweight process framework for agile development, and the most widely-used one.

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# What's/Why Scrum?

- Increase the quality of the deliverables.
- Overcome better with change (and expect the changes).
- Provide better estimates while spending less time creating them.
- Be more in control of the project schedule and state.



# What's/Why Scrum?



## CUSTOMER

- More responsive to requests
- High-value features
- Delivered more quickly with short cycles



## DEVELOPMENT TEAMS

- Enjoy development work
- Work is valued and used
- Reduced non-productive work



## SCRUMMASTER

- Planning/task-level tracking in daily meetings
- Tremendous awareness of project state/status
- Catching and addressing issues quickly



## VENDOR

- Focused development on high-value features
- Increased efficiency
- Reduce wastage and decreased overhead



## PRODUCT OWNER

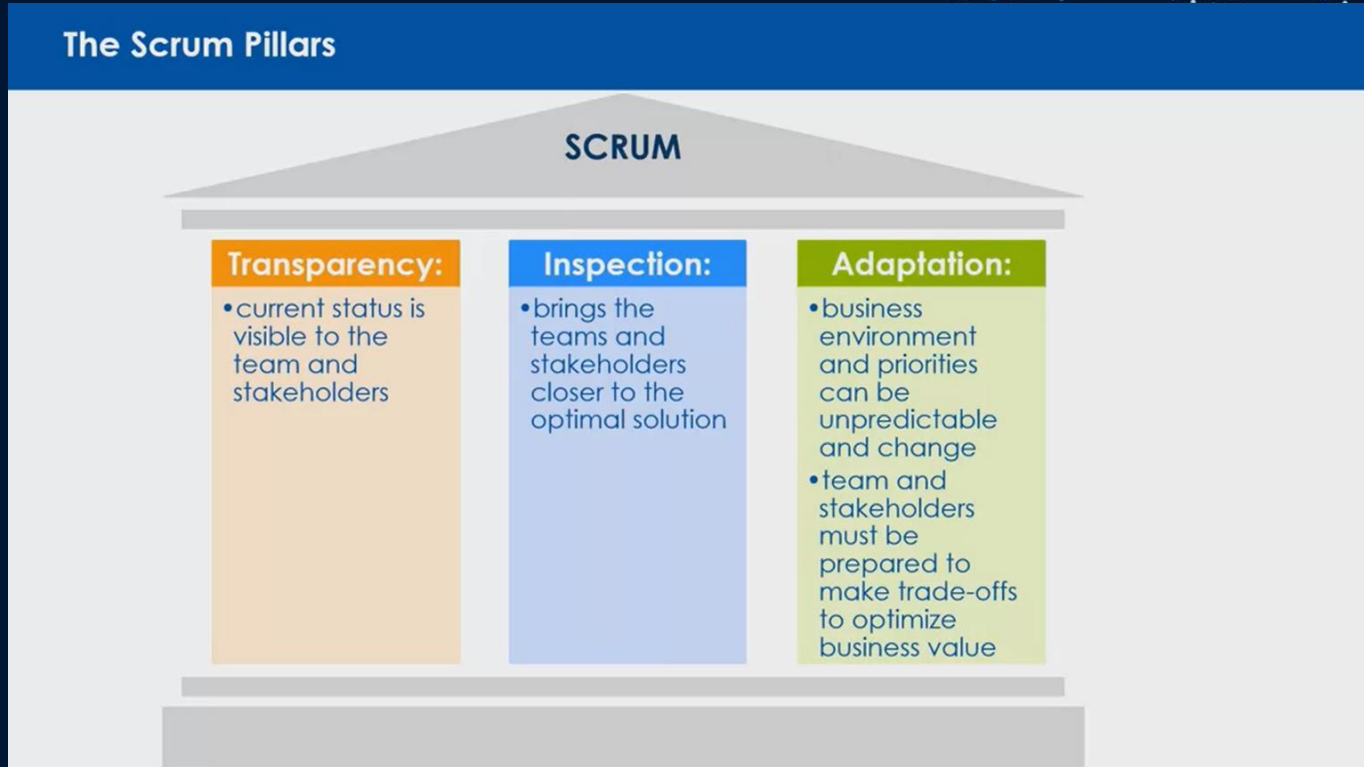
- Development work aligns with customer needs
- Frequent opportunities to re-prioritize work
- Maximum delivery of value



## PMOS AND C-LEVEL EXECUTIVES

- High visibility of daily project development
- Adjust strategies based on hard information
- Plan effectively with less speculation

# Scrum Pillars





# **04** | **Scrum Overview**

# Scrum Overview

## The Scrum Pillars and Roles



### Roles

- Product Owner (Backlog)
- Scrum Master (Process)
- Scrum Team
- Customer / Stakeholder

Scrum roles promote Scrum Pillars. Each role fosters them in various degrees throughout the sprints.

### Meetings

- Daily Stand-ups
- Sprint Review
- Sprint Retrospective
- Sprint Planning

Meetings and artifacts also promote Scrum Pillars and involve all teams and stakeholders.

### Artifacts

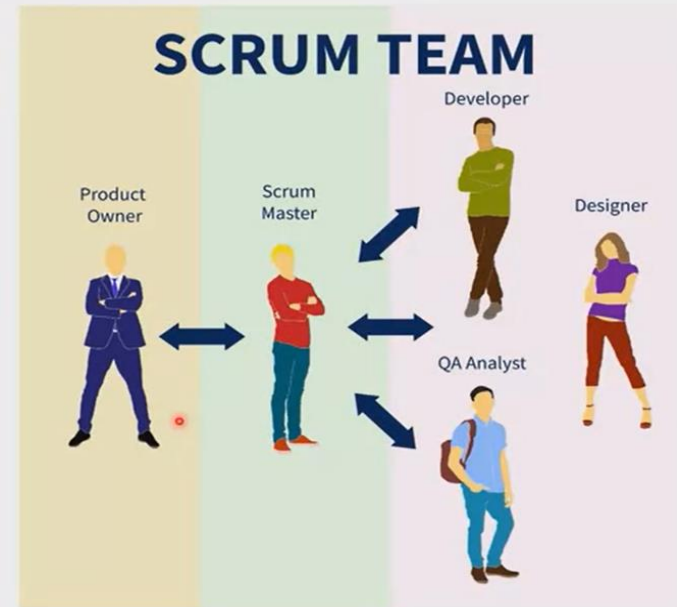
- Planning, Dev, QA
- Backlog (stories, defects)
- Production (Builds, Tpubs)
- Metrics



# Scrum Overview-Scrum Team

## Scrum Teams

| Scrum Teams        | Scrum Master           | Product Owner          |
|--------------------|------------------------|------------------------|
| Define the work    | Facilitate the process | Represent the Customer |
| Build the Solution | Resolve Impediments    | Prioritize the Sprints |
| Validate Quality   | Focus the team         | Accepts the work       |
| Do the work        | Serves the team        | Approves Releases      |



# Scrum Overview-Scrum Team

## Scrum Roles: The Scrum Team

Define the work by collaborating with the business

Breakdown the work into simpler tasks

Attend Scrum meetings

Complete the work

Scrum Teams are usually 5 to 11 members

### Scrum Team (ST)

We do the work / development

- We have the skills to deliver the product.
- We decide how to achieve each product increment.



Estimate the work

Validate the quality of the work

# Scrum Overview-Scrum Team

## The Scrum Master as a Servant Leader

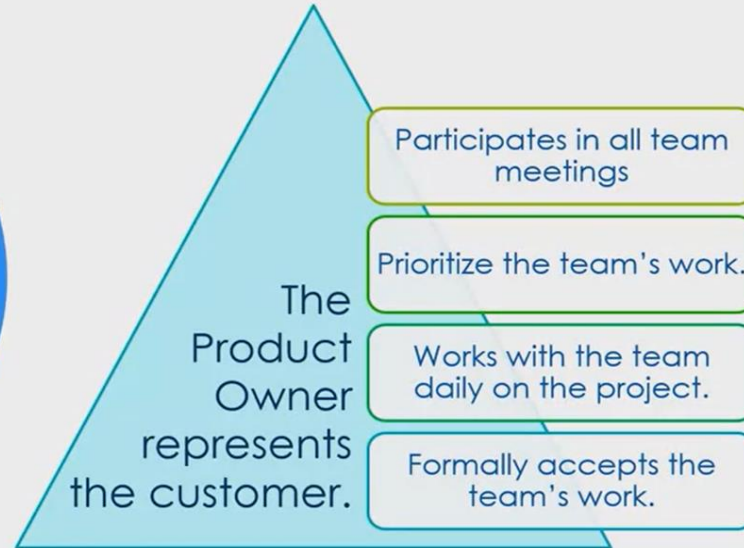
The Scrum master is described in many ways, but "servant leader" is one of the strongest.

Traits that make a great Scrum Master:



# Scrum Overview-Scrum Team

## Scrum Roles: The Product Owner





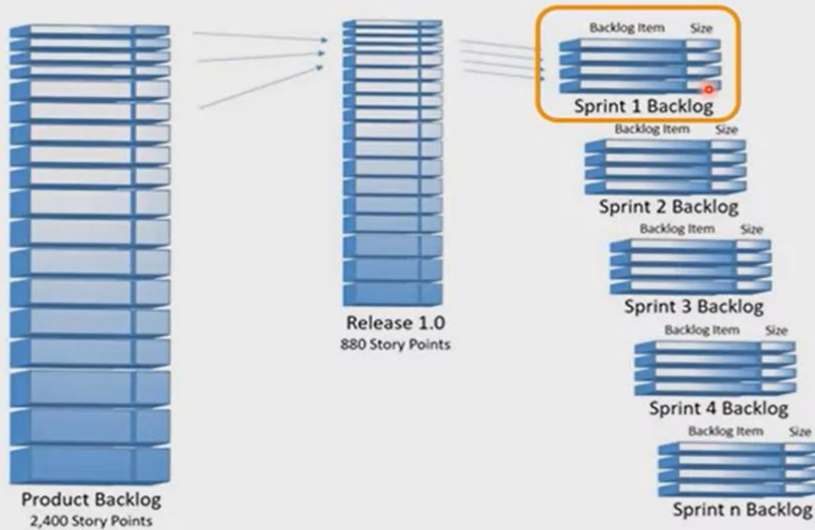
# Scrum Overview-Backlog

## The Sprint Backlog

is Sprint plan the team constructs

is finalized during Sprint planning

total estimated points of the User Stories equals the team's velocity



# Scrum Overview

## Estimations

### Story Points

#### Estimate Stories with relative Story points

- A Story point is a singular number that represents:
  - How big is the User Story effort..
  - How much is unknown..
  - The bigger the effort, the higher the estimation in Story Points.
  - The more unknowns, the higher the estimation in Story Points.
- The most popular Story Point scale is the Rounded, or Modified, Fibonacci scale:  
1, 2, 3, 5, 8, 13, 20, 40, 100.
- There are other scales, for example:  
Powers of 2, Small, Medium and Large.



**Support:** A 2 point User Story is about double the effort of a 1 point User Story.

# Scrum Overview

## Estimations

### Story Points

#### Estimate Stories with relative Story points

- A 1 point User Story is a User Story that can be coded and tested in 1 day.
- In other words, the User Story can get to Done in 1 day.
- Any User Story that is about double the effort is a 2 point User Story.
- Any User Story that is about triple the effort of the 1 point User Story, is a 3 point User Story.
- Continue to estimate using the same relative approach.



**Support:** A 2 point User Story is about double the effort of a 1 point User Story.

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# Scrum Overview-Events

Scrum Events:-

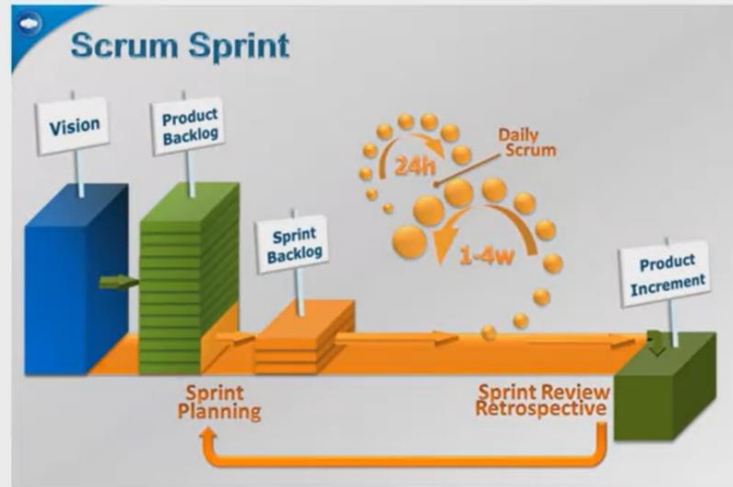
- Sprint planning.
- Daily Stand-up.
- Sprint Review.
- Sprint Retrospective.



# Scrum Overview-Events

## The Sprint

- is the product's development iteration
- is the foundation of Agile economics
- is a combination of a set timebox, and a required set of events, or meetings
- supports the Iterative development which allows the team to build, learn, and collaborate with the customer





# Scrum Overview-Events

## The Sprint Planning Meeting

- is where the team plans what it hopes to accomplish and complete during the upcoming Sprint



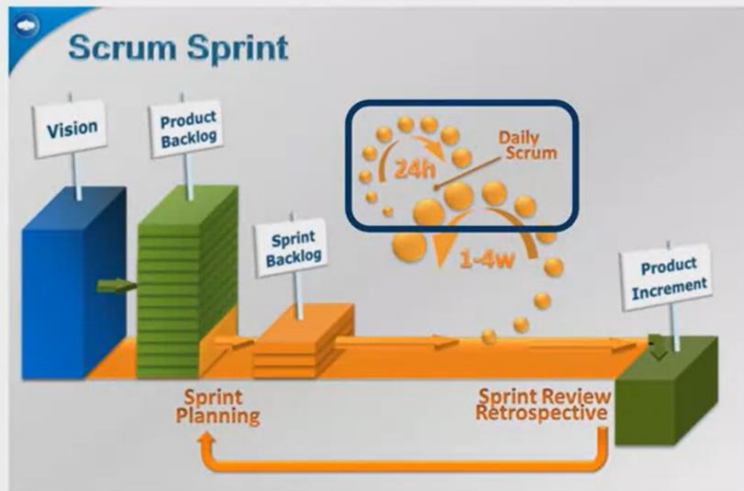
- Scrum Master facilitates the Sprint Planning meeting
- is timeboxed for 1 to 2 hours.
- When the team estimates Users Stories, the estimation is done so collaboratively

# Scrum Overview-Events

- Daily Stand up (DSU), is the team's mini status meeting, and planning session
- is for the team
- is time boxed for no more than 15 minutes
- In order to maintain the 15-minute time box, the Daily Scrum has a script

Each team member answers the 3 questions

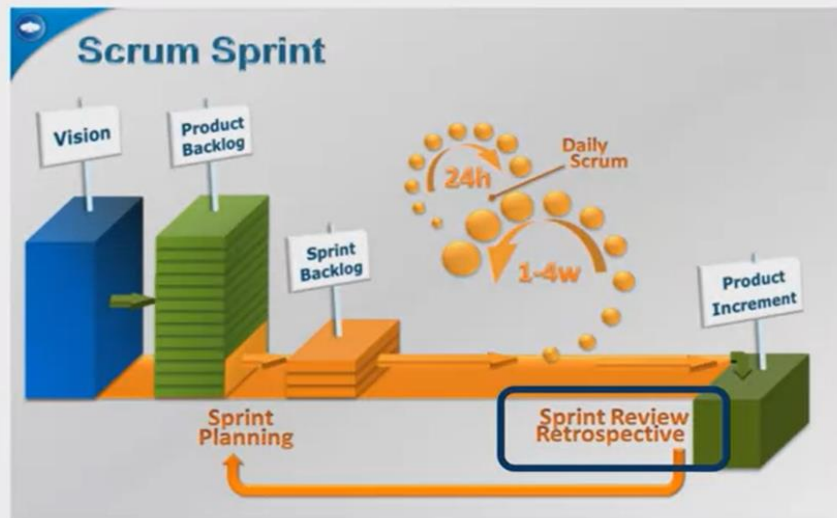
- Yesterday, I completed ...
- Today, I am working on ...
- Here are my impediments and blockers...



# Scrum Overview-Events

## The Sprint Review Meeting

- is where the team runs and demonstrates the current product to themselves, the Product Owner and any relevant stakeholders
- product must be packaged and running in the intended architecture
- is the formal time to “Check” the product and validate progress, as the Agile Manifesto states
- Teams demonstrate every Story, and knowledge gained from learning activities
- timebox is 1 to 2 hours



# Scrum Overview-Events

## The Sprint Retrospective Meeting

### START

*"What should we/  
start doing?"*

List ideas/items:

- Things that are not being done, but should be done
- Things to begin doing to get better results
- Things worth trying or experimenting for better results

### STOP

*"What should we/  
stop doing?"*

List ideas/items:

- Things that are not working or helping
- Things that impede or are not practical
- Not delivering desired results
- We or others dislike

### CONTINUE

*"What should we/  
continue doing?"*

List ideas/items:

- Things that are working well
- Things that we want to keep
- Worth continuing to see if they're worthwhile
- We like or need



# Scrum Overview-Events

## The Sprint Calendar

The Sprint Planning meeting takes place on day 1.

The Daily Scrum occurs everyday.

The Sprint Review and Sprint Retrospective take place on the last day, or 2 days of the Sprint.

| Monday        | Tuesday   | Wednesday                           | Thursday      | Friday        |
|---------------|---|-------------------------------------|---------------|---------------|
| 16            | 17  | 18                                  | 19            | 20            |
|               |   | Sprint Planning (Sprint 1)          | Daily standup | Daily standup |
| 23            | 24  | 25                                  | 26            | 27            |
| Daily standup | Daily standup   | Daily standup<br>Backlog Refinement | Daily standup | Daily standup |
| 30            | 31  | 1                                   | 2             | 3             |
| Daily standup | Sprint Review (Sprint 1)<br>Sprint Retrospective (Sprint 1) | Sprint Planning (Sprint 2)          | Daily standup | Daily standup |
| 6             | 7   | 8                                   | 9             | 10            |
| Daily standup | Daily standup   | Daily standup<br>Backlog Refinement | Daily standup | Daily standup |



# Scrum Overview-DoD

## The Definition of Done (DoD)

The Definition of Done (DoD) is a check list of items that the team, the Product Owner, and Stakeholders agree must be completed before the User Stories can be consider Done.

The DoD is some levels of testing, some levels of documentation and other tasks.

DoDs experience levels of maturity.

The DoD is similar to Exit Criteria.

### Definition of Done

Acceptance Criteria Satisfied

Acceptance Test Run and Passed

Unit Tests Run

New User Stories Test run and Passed

Code and Documents are checked into the team repository

Compliance tasks complete

User Stories are Accepted by the Product Owner.

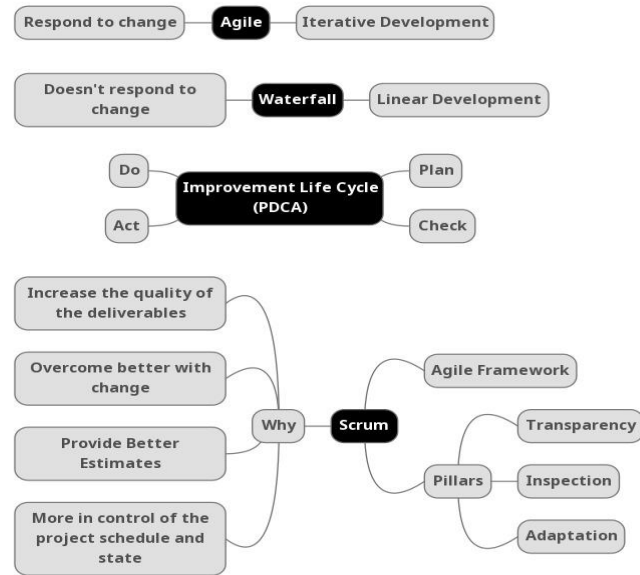
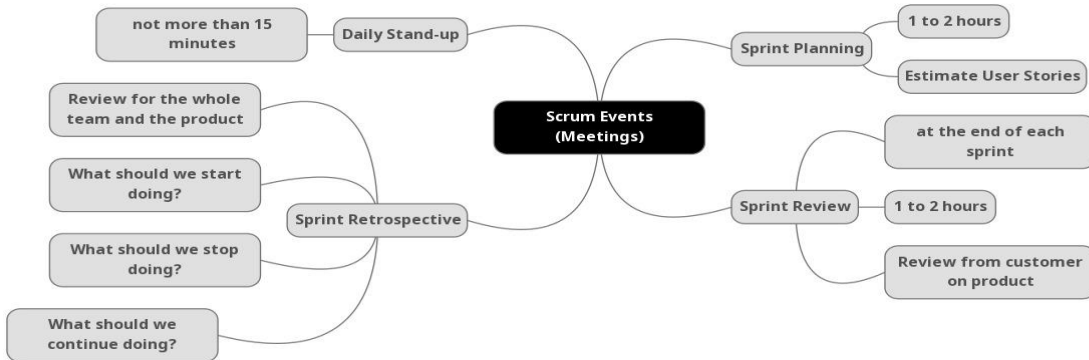
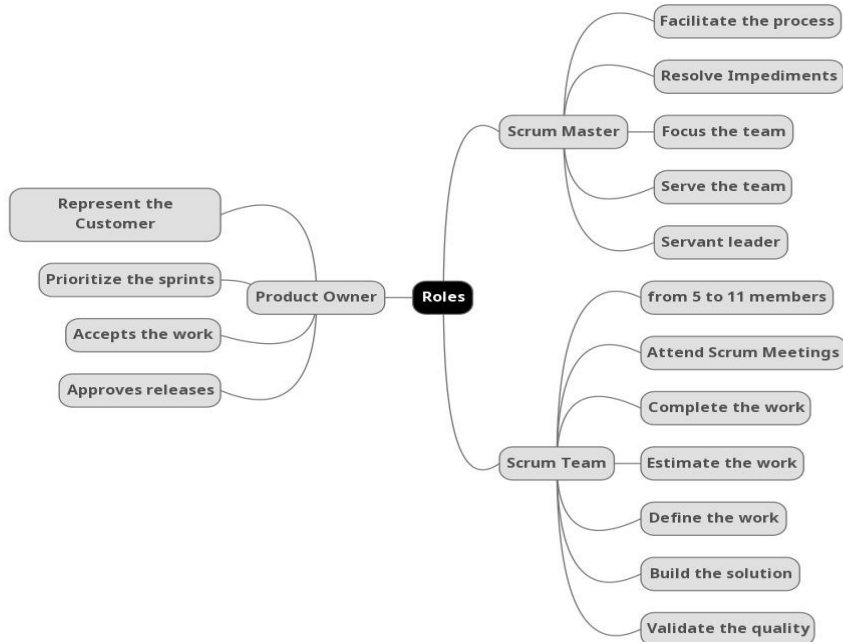


# 05 | Tools

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# Tools

- Jira.
- Click-up.
- Notion.
- Trello.
- Confluence.



# Acknowledgment

Material was prepared by Eng. Karim  
Tarek, Scrum Master at Khazenly.com

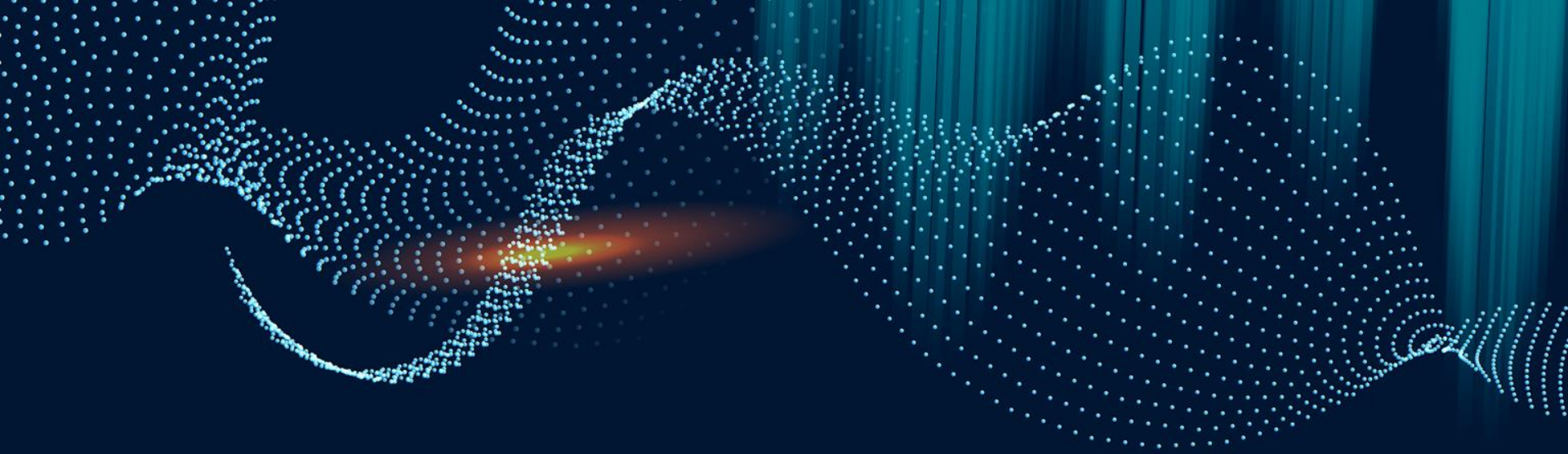




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- [atlassian.com/agile/scrum](https://atlassian.com/agile/scrum)
- [clearcode.cc/blog/agile-vs-waterfall-method/](https://clearcode.cc/blog/agile-vs-waterfall-method/)
- [trustradius.com/buyer-blog/difference-between-agile-vs-waterfall](https://trustradius.com/buyer-blog/difference-between-agile-vs-waterfall)



**Thank You!**