

AGILE

Agile model /Agile methodology /Agile process.

- It is an Iterative and Incremental Approach.
- **Iterative** means same process repeating again and again.(The process keeps on repeating).
- **Incremental** means, modules/features keep on adding on top of existing software.
- **Agile is Iterative and Incremental model** where requirements keeps on changing.
- As a company we should be flexible to accept requirements change, develop, test and finally release a piece of working software within short span of time.
- There will be good communication between Customer, Business Analyst, Developers & Testers.
- The Goal of the agile model is the customer satisfaction by delivering the piece of the software to the customer within short span of time.
- **Agile Testing** is type of testing where we follow the agile principles.

Advantages & Disadvantages

- **Advantages:**

- Requirement changes are allowed in any stage of development (or) We can accommodate Requirement changes in the middle of development.
- Releases will be very fast(Weekly)
- Customer no need to wait for long time.
- Good communication between team.
- It is very easy model to adopt.

- **Disadvantage:**

- Less focus on design and documentation since we deliver software very faster.

What is Scrum?

- **Scrum** is a framework through which we build software product by following Agile Principles.
- Scrum includes group of people called as **Scrum team**. Normally contains 5-9 members.
 - Product Owner
 - Scrum Master
 - Dev Team
 - QA Team
- **Product Owner :**
 - Define the features of the product
 - Prioritize features according to market value
 - Adjust features and priority every iteration, as needed
 - Accept or reject work results.
- **Scrum Master:**
 - The main role is facilitating and driving the agile process.
- **Developers and QA:**
 - Develop and Test the software.

Scrum Terminology

- **User Story** : A Feature/module in a software
- **Epic** : Collection of user stories.
- **Product backlog** : Contains list of user stories. Prepared by product owner.
- **Sprint** : Period of time to complete the user stories, decided by the product owner and team, usually 2-4 weeks of time.
- **Sprint planning meeting**: Meeting conducted with the team to define what can be delivered in the **sprint** and duration.
- **Sprint backlog** : List of committed stories by Dev/QA for specific sprint.
- **Scrum meeting** : Meeting conducted by Scrum Master everyday 15 mins. Called as Standup meeting.
 - What did you do yesterday?
 - What will you do today?
 - Are there any impediments in your way?
- **Sprint retrospective meeting** : Review meeting after completion of sprint. The entire team, including both the ScrumMaster and the product owner should participate.
- **Story point** : Rough estimation of user stories, will be given by Dev & QA in the form of Fibonacci series.
- **Burndown chart** : Shows how much work remaining in the sprint. Maintained by the scrum master daily.

The Agile: Scrum Framework at a glance

Inputs from Executives,
Team, Stakeholders,
Customers, Users



Product Owner



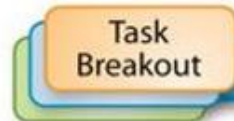
The Team



Product Backlog

Team selects starting at top as much as it can commit to deliver by end of Sprint

Sprint Planning Meeting



Sprint Backlog



1-4 Week Sprint

Sprint end date and team deliverable do not change

What went well?
What went wrong?
Improvement Areas



Scrum Master



Burndown/up Charts

Every 24 Hours



Daily Scrum Meeting

Duration: 15 Mins
Status 24 hours last/next
Blockers if any



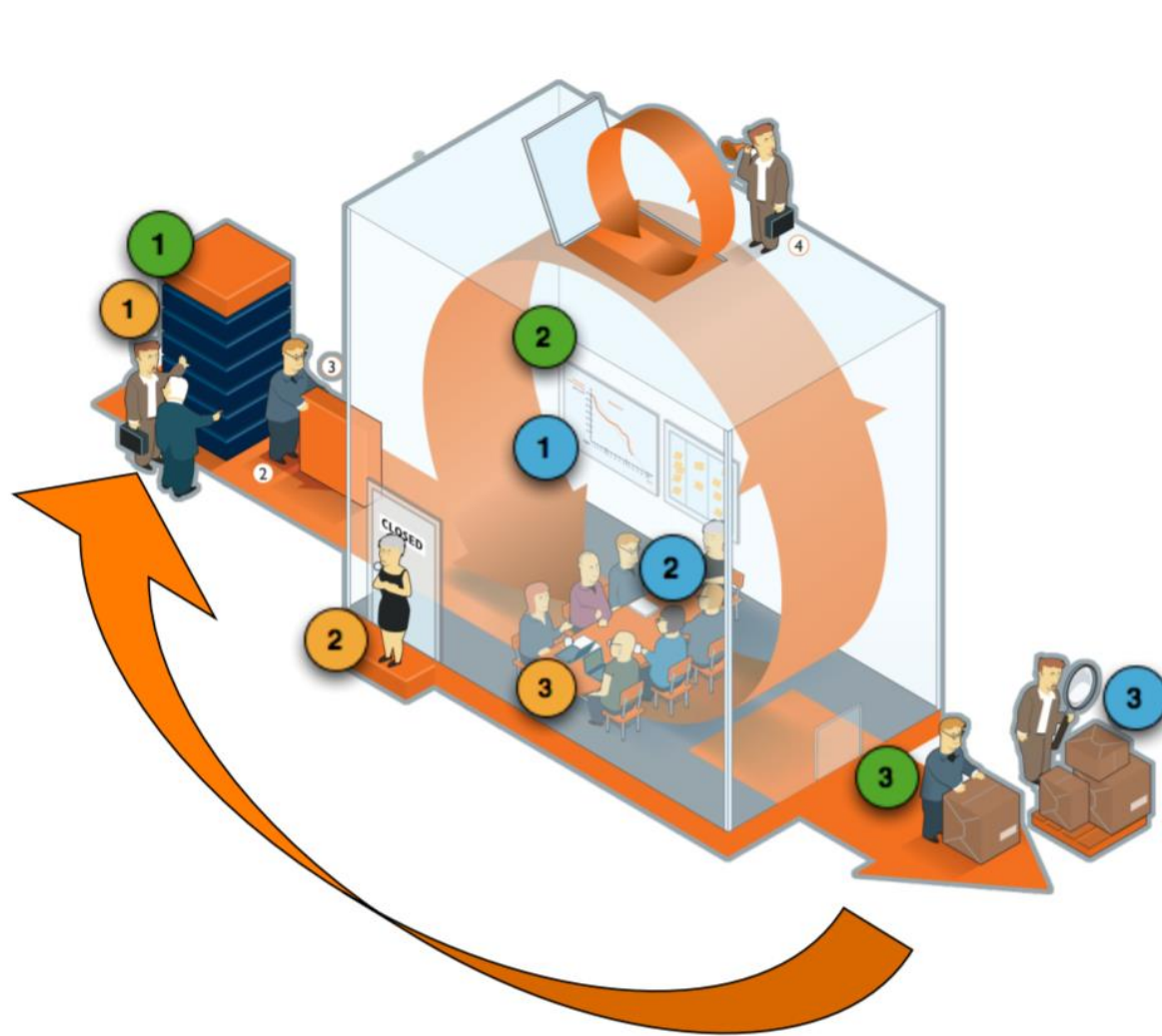
Sprint Review



Finished Work



Sprint Retrospective



Roles

- 1 Product Owner
- 2 Scrum Master
- 3 Team



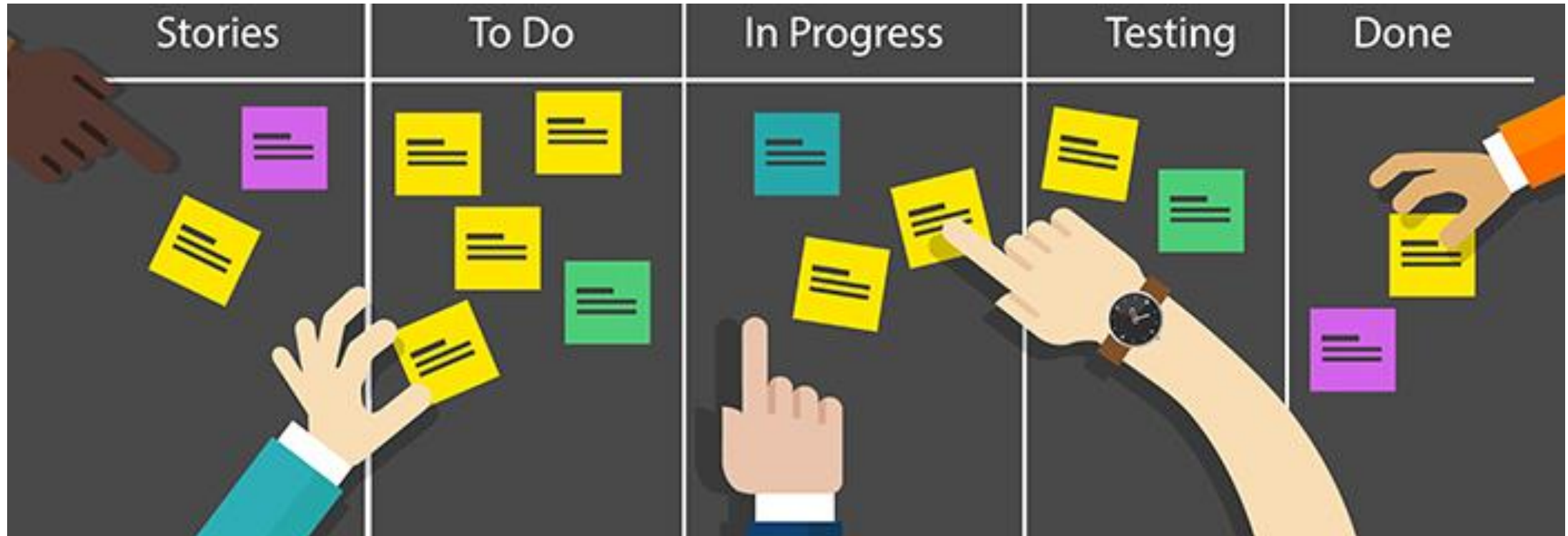
Artefacts

- 1 Product Backlog
- 2 Sprint Backlog
Burndown chart

Ceremonies

- 1 Sprint Planning
- 2 Daily Scrum
- 3 Sprint Review

Scrum Board



Definition of Ready (DoR) & Definition of Done (DoD)

Definition of Ready (DoR)

- User Story is clear
- User Story is testable
- User Story is feasible
- User Story defined
- User Story Acceptance Criteria defined
- User Story dependencies identified
- User Story sized by Development Team
- Scrum Team accepts User Experience artefacts
- Performance criteria identified, where appropriate
- Team has a good idea what it will mean to Demo the User Story

Definition of Done (DoD)

- Code produced (all 'to do' items in code completed)
- Code commented, checked in and run against current version in source control
- Peer reviewed (or produced with pair programming) and meeting development standards
- Builds without errors
- Unit tests written and passing
- Deployed to system test environment and passed system tests
- Passed UAT (User Acceptance Testing) and signed off as meeting requirements
- Any build / deployment / configuration changes are implemented / documented / communicated
- Relevant documentation / diagrams produced and / or updated
- Remaining hours for task set to zero and task closed