

Module-3: Agile Testing + Jira Tool

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Agile Process:

If project has 100 features we deliver with some functionalities , not a whole product, develop , test and release a piece of software with some features

We can have changing requirements , we can accept accomodate requirement changes

In Agile process there will be good communication between dev , testing , customers,business analyst , all work together to build a quality product

Delivery is faster , within 2 to 3 weeks

Agile model /Agile methodology /Agile process.

It is an Iterative and Incremental Approach.

Agile is an Iterative and Incremental Process.

Agile principles

- 1) Customer no need to wait for long time.
- 2) We develop, test and release peice of software to the customer with few number of features.
- 3) We can accept/accomodate requirement changes. ↑

There will be good communication between Customer, Business Analyst, Developers & Testers.

Advantages and 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.

Scrum:

Agile is kind of process , to implement it we have scrum which is like a framework

Agile is defined process

Scrum tells how to implement the process

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.

- 1) Product Owner
- 2) Scrum Master
- 3) Dev Team
- 4) QA Team

Product Owner:

He communicates with customer , writes the requirements and define features

He will prioritize the features based on market value

He will accept or reject based on the features developed

Scrum Master:

Scrum master drives entire agile process

Dev and QA:

Develop and test

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/Iteration : 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.

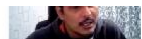
Sprint backlog : List of committed stories by Dev/QA for specific sprint.

Scrum meeting : Meeting conducted by Scrum Master everyday 15 mins. Called as scrum call/Standup meeting.

What did you do yesterday?

What will you do today?

Are there any impediments in your way?



Sprint retrospective meeting: conducts meeting after completion of sprint. The entire team, including both the ScrumMaster and the product owner should participate.

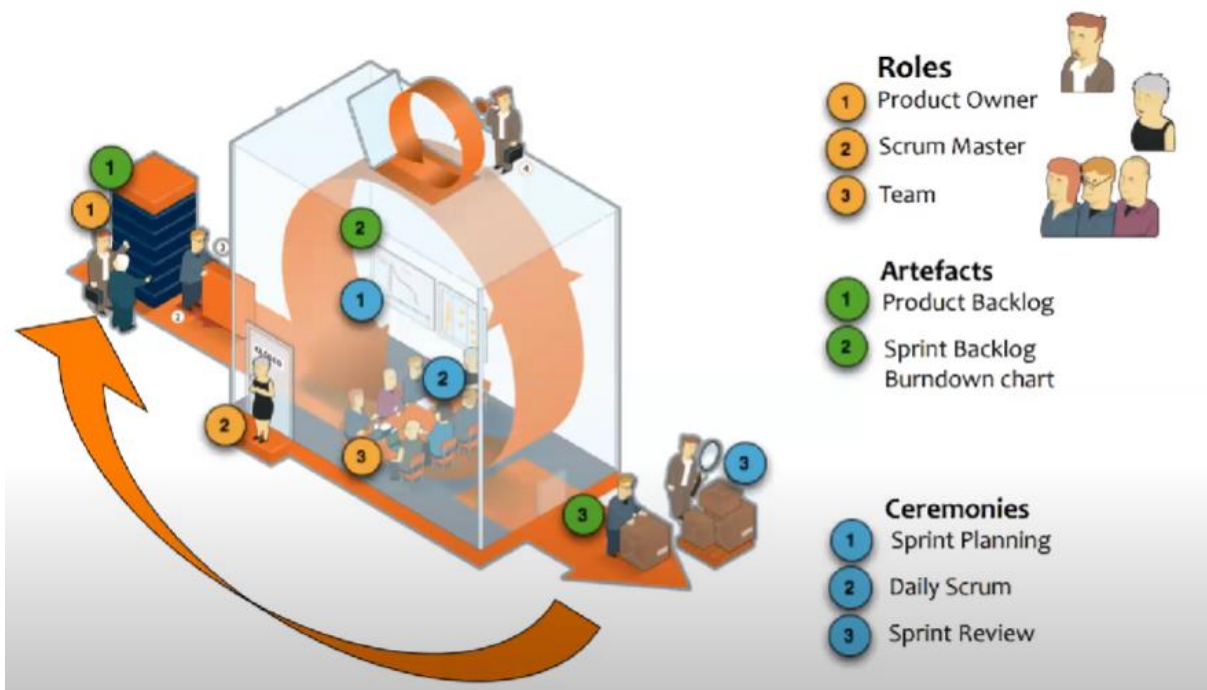
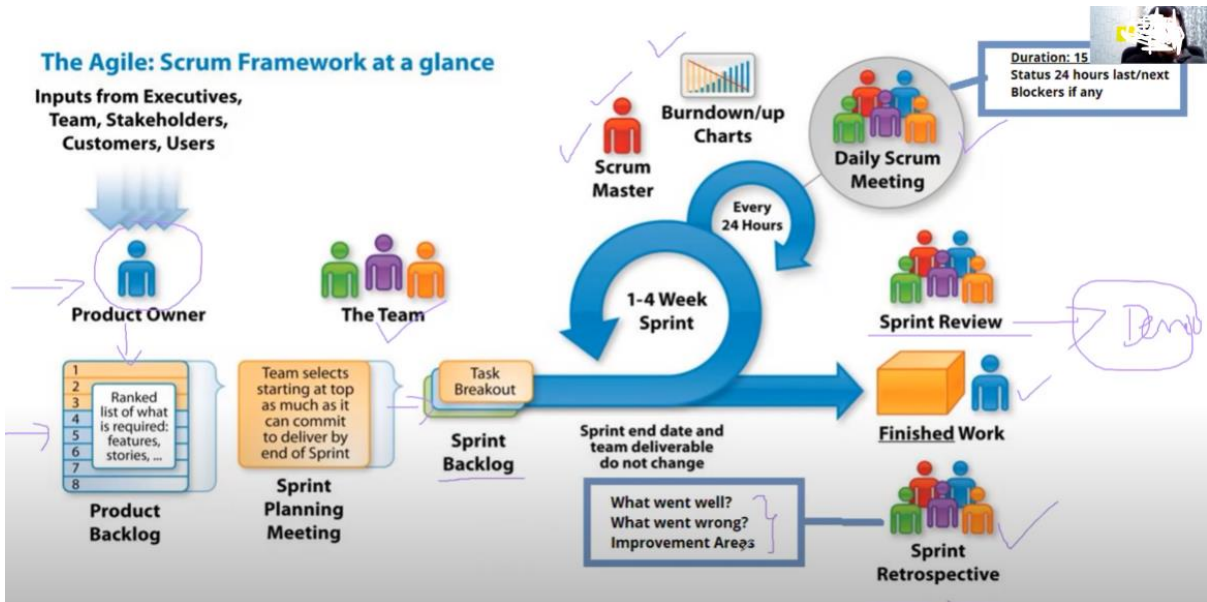
Story point : Rough estimation of user stories, will be given by Dev & QA in the form of Fibonacci series.

0 1 1 2 3 5 8.....

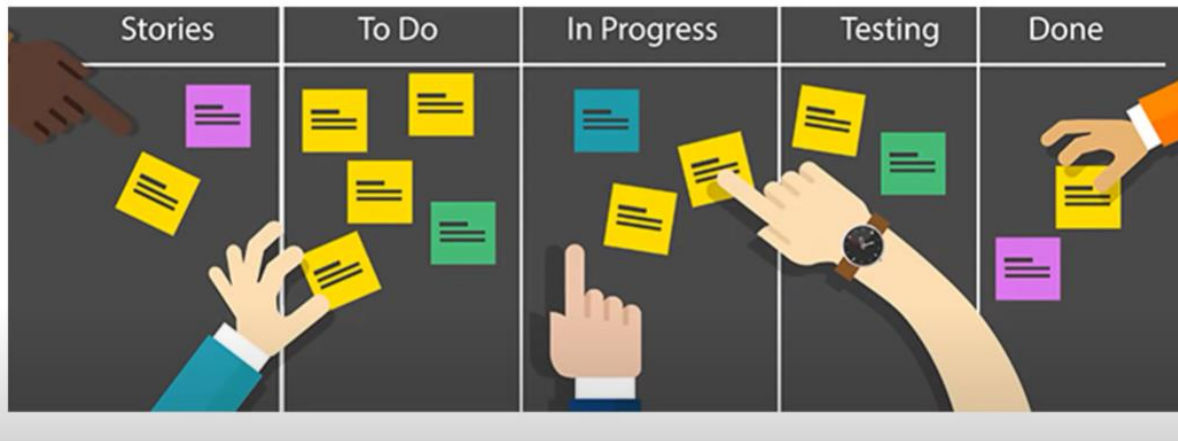
1 story point = 1 hour/ 1 day(6 hours)

Login ----> Dev-5 QA-3 = 8 Hours/ 1 Day

Burndown chart : Shows how much work remaining in the sprint. Maintained by the scrum master daily.



Scrum Board



Each activity can be tracked using JIRA , Agile management tool

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

Epic	User Story ID	Feature/Title	User Story	Status	Acceptance Criteria
OpenCart_Epic_001 : For a new e-commerce website to launch, the highest Business Value will be when a new user is able to buy an item from the website.	US001	Registration	As a First-time visitor to the e-commerce website, I want to register my account, So that I can login to application.	New	New user should able to Register account with valid data.
	US002	Login	As a registered user, I want to login to the website, So that I can see my account details etc..	New	System must validate user credentials and allow login if credentials are correct..
	US003	Logout	As a registered user, I want to logout from website, So that no one else can't access my account.	New	System must logout after login.
	US004	User search products	As a user, I want to be able to search Items, So that I can add them to cart and do payment.	New	User should able to search products and add them to cart.

Epic	User Story ID	Feature/Title	User Story	Story Points	Sprint
OpenCart_Epic_001 : For a new e-commerce website to launch, the highest Business Value will be when a new user is able to buy an item from the website.	US001	Registration	As a First-time visitor to the e-commerce website, I want to register my account, So that I can login to application.	8	1
	US002	Login	As a registered user, I want to login to the website, So that I can see my account details etc..	5	1
	US003	Logout	As a registered user, I want to logout from website, So that no one else can't access my account.	3	1
	US004	User search products	As a user, I want to be able to search Items, So that I can add them to cart and do payment.	5	3

Story Points	Hours
1	1 Hour/ Day (Depends on company)
0, 1, 1, 2, 3, 5, 8	Fibonacci series

Tasks

Developer Tasks	QA Tasks
Under standing Requirements	Under standing Requirements
Desing	Writing Test Scenarios
Coding	Writing Test Cases
Unit Testing	Test Case Reviews
Integration Testing	Test Data Preparation
Code Review	Test Environment Setup
Bug Fixes	Test Execution
Team Meetings	Re-Testing Bugs
Any other...	Team Meetings
	Automation
	Any other...