Exploratory Testing *Plus*

Agile Testing to Support Agile Development

MODULE 4

APPLYING AGILE TESTING IN SPRINTS

HOW IT'S DONE

CHAPTER 11

Whole Team Approach

It's everyone's accountability

Whole Team Approach

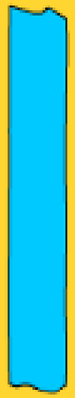
- agile practice
- engaging everyone with the knowledge and skills necessary to ensure the success of the project
- including the whole team to work on project tasks
- whole team thinks about testing and committed to quality

Whole Team Approach Criteria

Teams are mostly 100% devoted to their product.

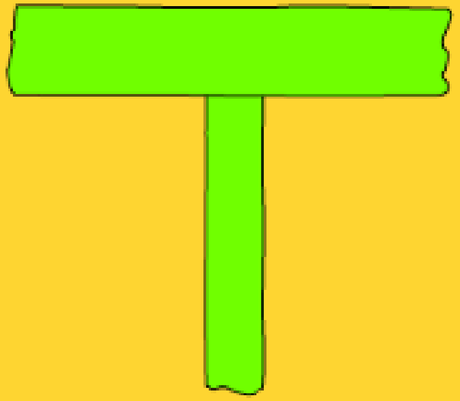
Cross-functional team with T-shaped, generalizing specialist members

Cross-functional Team (CFT) / T-shaped Generalizing Specialists



"I-shaped"
Expert at one thing

Generalist
Capable in a lot of things
but not expert in any



"T-shaped"
Capable in a lot of things
and expert in one of them

0

None to Basic

1

Novice

2

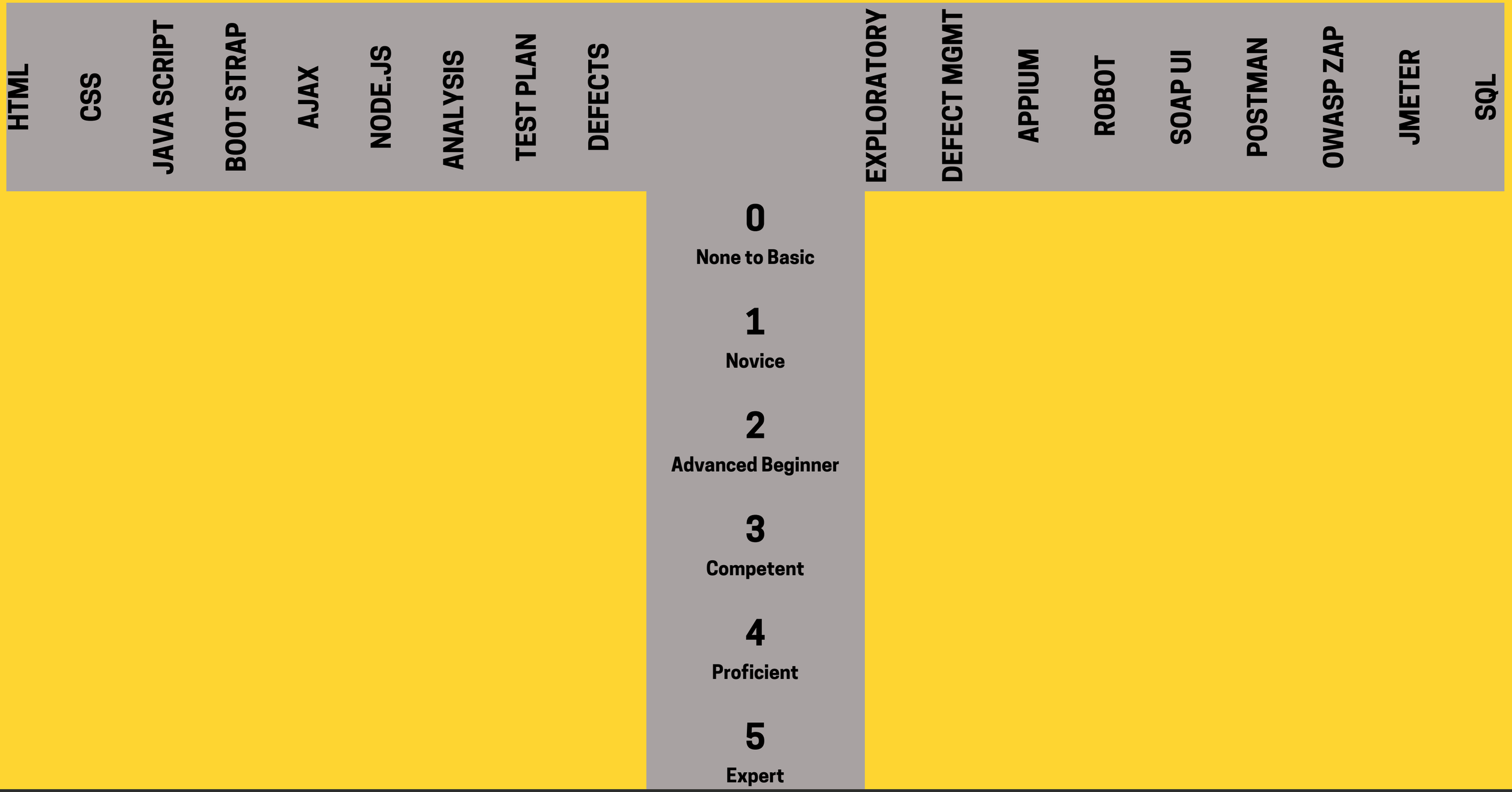
Advanced Beginner

4

Proficient

5

Expert


HTML
CSS
JAVA SCRIPT
BOOT STRAP
AJAX
NODE.JS
ANALYSIS
TEST PLAN
DEFECTS
EXPLORATORY
DEFECT MGMT
APPIUM
ROBOT
SOAP UI
POSTMAN
OWASP ZAP
JMETER
SQL
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None to Basic
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HTML	CSS	JAVA SCRIPT	BOOT STRAP	AJAX	NODE.JS	ANALYSIS	TEST PLAN	DEFECTS		EXPLORATORY	DEFECT MGMT	APPIUM	ROBOT	SOAP UI	POSTMAN	OWASP ZAP	JMETER	SQL
							ROY		**0** None to Basic									
BEN								ANN	**1** Novice									ROY
			ANN						**2** Advanced Beginner			ANN						
	ANN							ROY	**3** Competent					BEN				
			BEN						**4** Proficient								ROY	
					BEN				**5** Expert					ANN				

Utilizing your CFT

Bottlenecks can be cleared most effectively by experts.
Free up expert time by utilizing non-experts.
If non-experts are capable of helping clear bottlenecks, they should do so.
Learn each other's skills to improve communication - knowing their language
Being T-shaped is about being flexible - boring to someone can be challenging to someone else

ACTIVITY

FROM THEORY TO PRACTICE

CHAPTER 12

Grooming

Getting involved even bfore it starts

Grooming

- A.K.A **backlog grooming, backlog refinement**
- session when the team **refines/reviews the user stories**
- ensure **clarifications** are made
- **dissect** epics
- provide **user story points**

Timebox: maximum of 2 hours in 2-week sprint

INVEST

Independent

Negotiable - make it simpler?

Valuable

Estimable - user story points

Small - granular

Testable - how can I test the functionality? non-functionality?

Grooming: Agile Testing Task

Collaborative user story creation

- **contribute ideas** on possible system behavior
- **analyze** the acceptance criteria:
  - **conflicts** with other existing user stories?
  - clear? no dependencies? no missing screen mockups?
  - dissection of epics
- think of **how to test the user stories**

GROOMING ACTIVITY

1. In your project group, select **2 user stories to groom**
2. Scrum Master reads the User Story, one at a time, including the Narrative and Acceptance Criteria
3. Analyze if it falls under INVEST:
    - **I**ndependent (of all others)
    - **N**egotiable (not a contract for a specific feature)
    - **V**aluable (adds value to the customers/business)
    - **E**stimable (clear enough that effort needed can be estimated)
    - **S**mall (that you can fit several in a sprint)
    - **T**estable (can be validated)

GROOMING ACTIVITY

4. Each member should contribute at **least one suggestion / idea and one clarification** to help make it meet the INVEST criteria.
5. List your idea and clarification here as a private comment.
It should be unique from the rest of the team.
If you can't think of an idea on how the feature can be implemented, give 2 clarifications instead.
6. Share your ideas and clarifications as a team.
7. Agree on a User Story Point for each story

This activity is for 45 minutes.

Login

Attach | Create subtask | Link issue | ...

Description

As a user
I want to login on to Mifos
So that I can access its various modules and features

- User is redirected to home page upon successful login
- The username is reflected on the top right corner upon login
- Upon clicking User Profile, it shows the correct details of the logged-in user
- If the username or password is incorrect, the user is prompted with "Please try again, your credentials are not valid."
- After three failed login attempts within one hour, the user is locked out for 30 minutes and prompted with "You are temporarily locked out for 30 minutes."

Mifos

USERNAME

mifos

PASSWORD

password

Sign In

User Profile

User ID	1
User Name	mifos
Office	Head Office
Status	Authenticated
Language	English
Primary Email	demomfi@mifos.org

Role	Description
Super user	This role provides all application permissions.

ACTIVITY

FROM THEORY TO PRACTICE

CHAPTER 13

Planning

Planning testing activities too!

Planning

Phase 1:
PO: **Identifies priority**
Why is this sprint valuable? How can this product increase its value through user stories?

Phase 2:
Team: **Defines sprint goal**
Select items from the Product Backlog to include in the current Sprint.
Based on **velocity and capacity** (productive hours, working days, leaves, holidays)

Planning

Phase 3:

Team: **Defines how will the work get done?**

Defines the tasks to be done

Estimates tasks

- **Time estimates are not required**

but can help to better plan

Sample Tasks with time estimates:

1. API Devt. - 2 hours
2. Web Devt. - 4 hours
3. API & FE Integration - 1 hour
4. Test Creation* - 30 mins
5. Test Session* - 60 mins
6. Demo* - 15 mins

Automation and Non-Functional Tests in Sprint

Is it part of our Definition of Done?

- If yes, add it to your tasks and time computations
- Do you have the skills to do it?
- Agree on what to automate (acceptance criteria? include alternative paths? etc)
- Agree on the frequency of non-functional tests (every sprint? major releases?)

Planning

Phase 3:

Team: **Defines how will the work get done?**

Defines the tasks to be done

Estimates tasks

Then inform PO of what the Sprint Commitment is.

Timebox: maximum of 4 hours in 2-week sprint

Planning: Agile Testing Task

1. Identify Sprint Goal
2. List down tasks in every user story under "priority" of the backlog
3. Estimate tasks = Time needed
4. Update Test Session Report
5. Consider productive hours, - leaves, - holidays = Sprint Capacity
6. Tally A and B. Enough B?
7. Sprint Commitment based on priority, velocity, and sprint capacity
8. Inform PO

ACTIVITY

FROM THEORY TO PRACTICE

CHAPTER 14

Daily (Sprint)

Remember... Shift Left

Sprint: Agile Testing Task

- Dev - QA/QE Kick-off
- Test Charter Design
- Test Session
- Defect Logging
- Update Test Session Report
- Debrief with manager or PO

Dev - QA/QE Kick-off

Dev: "this is how I'm going to develop it"
- Logic flow, alternative paths, exception flows

QA/QE: "this is how I'm going to test it"
- basic, alternative paths, exception flows, heuristics, page and element assertions, API, security, and performance testing

ACTIVITY

FROM THEORY TO PRACTICE

CHAPTER 15

Daily Stand-up Meeting

It's not an update

DSM

Shortest yet most important meeting
Done at the beginning of the working day
Around the Scrum Team's task board

It's not an update to the PO or SM, but a SYNCHRONIZATION between the whole team

Whole Team Approach

It's everyone's accountability

Whole Team Approach

- **engaging everyone** with the knowledge and skills necessary to ensure the success of the project
- including the **whole team** to work on project tasks
- **whole team thinks about testing and committed to quality**

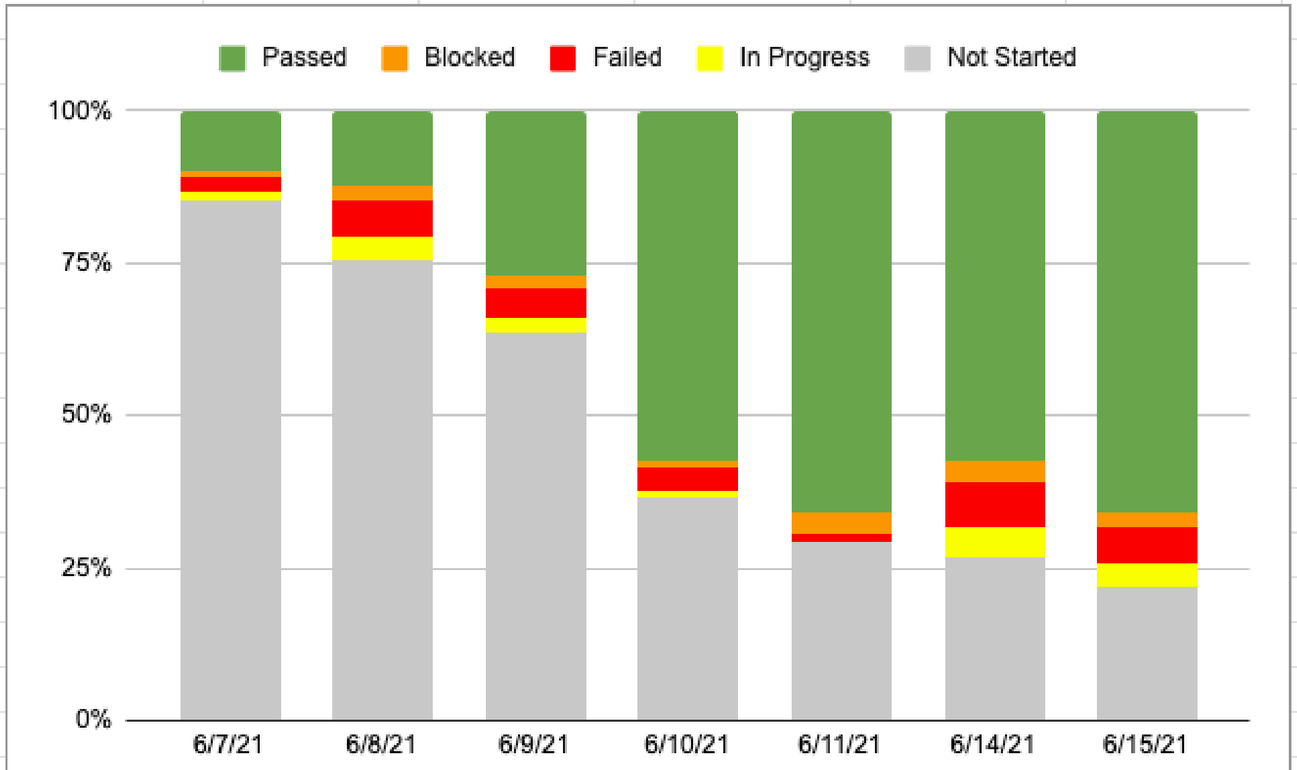
DSM

- What I've done since yesterday?
- What I'll be doing today?
- Blockers / Impediments (Who needs help? Who can help?)
- Are **WE CONFIDENT** in meeting the target?
    - What adjustment do we need to do?
    - Are experts available?
    - Are non-experts available? How can they help?
    - TEAM CONSENSUS

Test Session Report

TEST SESSION REPORT								
Task / Feature to be tested	**Tester Name**	**Task Breakdown**	**Planned Duration**	**Date and time started**	**Actual Duration**	**Data files**	**Tester Notes**	**Bug**
		Session Setup: put money on ATM, replenish tape, ATM cards	15	June 9, 2021 3:00 PM				
		Test design and execution	60	June 10, 2021 10:00 AM	45	<file name>	I need 5 ATM cards more	<bug summary with link>
Withdraw	Mitch	Bug investigation and reporting	15	June 10, 2021 10:00 AM				
		Session Setup: replenish tape, ATM cards	15	June 9, 2021 3:00 PM				
		Test design and execution	45	June 10, 2021 10:00 AM		<file name>	Need to pred existing PINs used	<bug summary with link>
Change PIN	Mitch	Bug investigation and reporting	15	June 10, 2021 10:00 AM				
		Session Setup: put money on ATM, replenish tape, ATM cards	15	June 9, 2021 3:00 PM				
		Test design and execution	45	June 10, 2021 10:00 AM		<file name>	I need 5 ATM cards more	<bug summary with link>
Load phone	Mitch	Bug investigation and reporting	15	June 10, 2021 10:00 AM				

SUT / Module:		Sprint:	X			
Test Charter Link:		Sprint Duration:	June 7 - June 18			
Session Dates	Not Started	In Progress	Failed	Blocked	Passed	Total
6/7/21	70	1	2	1	8	82
6/8/21	62	3	5	2	10	82
6/9/21	52	2	4	2	22	82
6/10/21	30	1	3	1	47	82
6/11/21	24	0	1	3	54	82
6/14/21	22	4	6	3	47	82
6/15/21	18	3	5	2	54	82



Sprint Test Session Summary

QE 360 | EXPLORATORY TESTING PLUS

Debriefing Details

DEBRIEFING DETAILS				
Test Session Result	**Challenges Faced**	**Pending Issues**	**How we can improve further?**	**Agreed action item**
Passed	Lack of test ATM cards		Only start with test sessions with accomplished test setups	Any tests that requires ATM cards should have at least 10 ATM cards, with at least P70,000 on the account to test maximum withdrawable amount

Debriefing

Meeting between test leads and testers who were part of the test sessions

Topics: *what happened during the session*

- what was achieved
- challenges faced
- pending issues
- feedbacks on how to improve future sessions

ACTIVITY

FROM THEORY TO PRACTICE

CHAPTER 16

Sprint Review

It's more than just a demo

Sprint Review

- Keeps the stakeholders up to speed w/ progress
- Gives immediate feedback
- Amends the Product Backlog with new user stories

Involved: PO, Scrum Team, ScrumMaster

Duration: Max of 2 hours per 2-week sprint

Sprint Review: Prerequisites

Definition of Done

Developed and Tested User Stories

Do we demonstrate just those user stories that meet DoD and passed or even those that failed?

PO's call... then put into practice.

Sprint Review

- QA/QE: Tests user story, if passed testing, send for demo
- Scrum Team Member: Demonstrates user story
- PO: Decides which is Done and Not Done
- PO: *updates the product backlog with new user stories*

Sprint Review - Inspect & Adapt

Inspect: Sprint, Product Backlog, Increment, Marketplace, Budget, Timeline, Capabilities

Adapt: Product Backlog, Release Plan

Finally...

1. PO is always aware of the User Story status even before Sprint Review.
2. Feedbacks are turned into User Stories
   If Acceptance Criteria are clear, mockups are provided, and the test session/s passed, it is most likely that it would pass the demo

CHAPTER 17

Retrospective

What happened?

Retrospective

- Agile way to get better in each iteration.
- An opportunity for the team to discuss successes and failures
- Did they meet their sprint goal?
- How can the team improve next time?

Retrospective

Involved: PO, Scrum Team, ScrumMaster

Duration: Max of 1 hour per 2-week sprint

Retrospective

Improvements the team agreed to take on last sprint
What went well?
What went wrong?
Did we meet our sprint goal?
What are the 3 improvements are we committing to?

Retrospective Pitfalls

- Team focusing on the negative aspects
  - Counter-productive and would not build self-organizing teams
  - Blaming others
- No critical improvement item agreed upon by team
- Not learning from past retrospectives

ACTIVITY

FROM THEORY TO PRACTICE