

Agile Scrum Workshop

What is agile and scrum?

- **Agile meaning:** Able to move quickly and easily.
- **Scrum meaning:** a Rugby play

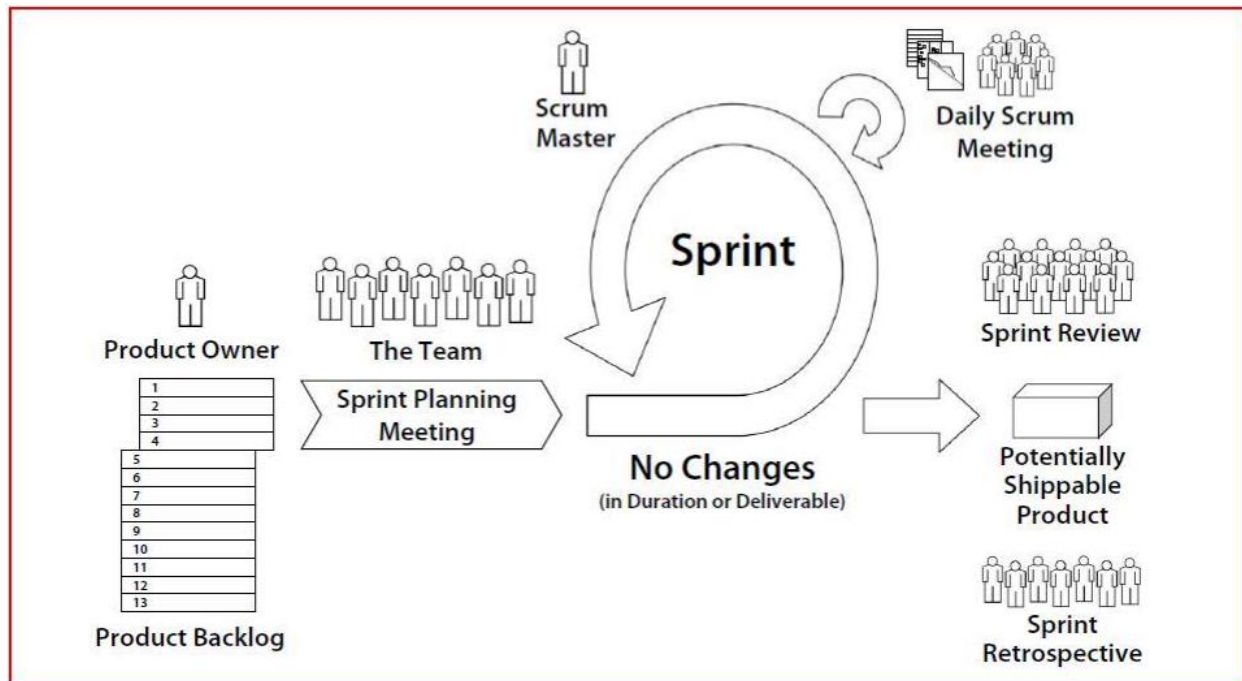
Agile Scrum:

- It is an iterative and incremental **agile software** development framework for managing product development.
- It defines a flexible product development strategy where a development team works as a unit to reach a common goal.
- It is an **Incremental** and **Iterative** model.
- It is a self- organized and focused team.
- No huge document, rather have precise and to point stories.
- Close communication with user Representative.
- Have definite time lines of 1 week to 4 weeks
- Instead of doing everything at a time scrum does a little of everything at a given interval.
- Resources capability and availability is considered before committing any thing.

Why Agile Scrum?

- Incremental approach breaks complex projects down into simpler mini-projects
- Accommodates change easily
- Improves ROI through frequent and regular delivery of value to the business
- Increased business involvement and satisfaction
- Increased visibility (progress, obstacles, risks, etc) Reasons to use Agile
- Lower development risk, higher quality, less defects
- Shorter cycles produce working software and incremental product quickly
- Progress measured by running tested software
- Early and regular process improvement driven by frequent inspection

Agile Scrum overview:



Advantages

- We can save time and cost of the project.
- The quality can be ensured because each and every sprint will be tested multiple times.
- The requirements change can be accepted at any level of the project maintenance.
- All are participating in Scrum meeting so that transparency can be maintained.
- Each and every sprint we are delivering to the client so we can maintain the customer's satisfaction and we can avoid delivery risk of the project.

Scrum Terminology

- **Roles** : Product Owner, Scrum Master, Team
- **Ceremonies** : Sprint Planning, Sprint Review, Sprint Retrospective, & Daily Scrum Meeting
- **Artifacts** : Product Backlog, Sprint Backlog, and Burn down Chart

Product Owner

- Define the features of the product
- Decide on release date and content
- Be responsible for the profitability of the product (ROI)
- Prioritize features according to market value
- Adjust features and priority every iteration, as needed
- Accept or reject work results.

The Scrum Master

- Represents management to the project
- Responsible for enacting Scrum values and practices
- Removes impediments
- Ensure that the team is fully functional and productive
- Enable close cooperation across all roles and functions
- Shield the team from external interferences

Scrum Team

- Typically 5-10 people
- Cross-functional
 - QA, Programmers, UI Designers, etc.
- Members should be full-time

Meetings

- Sprint Planning Meeting
- Daily Scrum
- Sprint Review Meeting
- Sprint Retrospective Meeting

Daily Scrum Meeting

- Parameters
 - Daily
 - 15-minutes
 - Stand-up
 - Not for problem solving
- Three questions:
 - What did you do yesterday
 - What will you do today?
 - What obstacles are in your way?

Sprint Review Meeting

- Team presents what it accomplished during the sprint
- Typically takes the form of a demo of new features or underlying architecture
- Informal
 - 2-hour prep time rule
- Participants
 - Customers
 - Management
 - Product Owner
 - Other engineers

Sprint Retrospective Meeting

- Scrum Team only
- Feedback meeting
- Three questions
 - What went well
 - What went wrong
 - What can be done(Improvement)
- Don't skip for the first 5-6 sprints!!!

Frequently Asked Questions

Q1) What is Agile Testing?

- Agile Testing is a practice that a QA follows in a dynamic environment where testing requirements keep changing according to the customer needs.
- It is done parallel to the development activity where testing team receives frequent small codes from the development team for testing.

Q2) Who are involved in Scrum cycle?

- **Product Owner:** Manages the product backlog. PO is the voice of the business and create new features to be developed for the application.
- **Scrum Master:** Responsible for managing the sprint, remove any impediments and keeps track of the progress of the project.
- **Scrum Team:** Composed of developers, designers and QA. This forms the team which is responsible for delivering high quality software.

Q3) what is the difference b/w Product backlog and sprint backlog?

- **Product backlog:** It contains a list of all desired features/user stories and is owned by the product owner
- **Sprint backlog:** It is a subset of the product backlog owned by development team and commits to deliver it in a sprint. It is created in Sprint Planning Meeting

Q4) what is an epic, user stories and task?

- **Epic:** A customer described software feature that is itemized in the product backlog is known as epic. Epics are sub-divided into stories
- **User Stories:** From the client perspective user stories are prepared which defines project or business functions, and it is delivered in a particular sprint as expected.
- **Task:** Further down user stories are broken down into different task

Q5) what is burn-up and burn-down chart?

To track the project progress burn-up and burn down, charts are used

- **Burn-up Chart:** It shows the progress of stories done over time
- **Burn-down Chart:** It shows how much work was left to do overtime

Q6) What is story points/efforts/ scales?

It is used to discuss the difficulty of the story without assigning actual hours.

- The most common scale used is a Fibonacci sequence (1,2,3,5,8,13,....100).
- Some teams use linear scale (1,2,3,4....),
Example: Cloth size (XS, S ,M,L, XL)

Q7) What is 'Testing is done' in Agile?

The below testing are done then test engineer can say 'Testing is done'

- The primary testing activities during Agile is -
 - ✓ Automated unit testing
 - ✓ Exploratory testing.
- Tester will execute -
 - ✓ Functional and
 - ✓ Non-functional tests on AUT
 - ✓ Regression

Q8) Explain Velocity in Agile?

- Velocity is a metric that is calculated by addition of all efforts estimates associated with user stories completed in a iteration.
- It predicts how much work Agile can complete in a sprint and how much time will require to complete a project.

Q9) Explain the difference between traditional Waterfall model and Agile testing?

- Agile testing is done parallel to the development activity whereas in traditional waterfall model testing is done at the end of the development.
- As done in parallel, agile testing is done on small features whereas in waterfall model testing is done on whole application

Q10) Explain the Iterative and Incremental Development in Agile?

- Agile testing is done parallel to the development activity whereas in traditional waterfall model testing is done at the end of the development.
- As done in parallel, agile testing is done on small features whereas in waterfall model testing is done on whole application

Q11) How QA can add a value to an agile team?

- QA can provide a value addition by thinking differently about the various scenarios to test a story. They can provide quick feedback to the developers whether new functionality is working fine or not

Q12) What is importance of daily stand up meeting?

Daily stand up meeting is essential for any team in which-

- Team discuss about how much work has been completed.
- What are the plans to resolve technical issues.
- What steps need to be done to complete the projects etc

Q13) What is Agile manifesto?

- Agile manifesto defines an iterative and people-centric approach to software development.
- It has basically 4 key values and 12 principles

Q14) What is re-factoring?

Modification of the code without changing its functionality to improve the performance is called re-factoring.

Thank You!

Testing Masters wishes you, all the best!