

Agile

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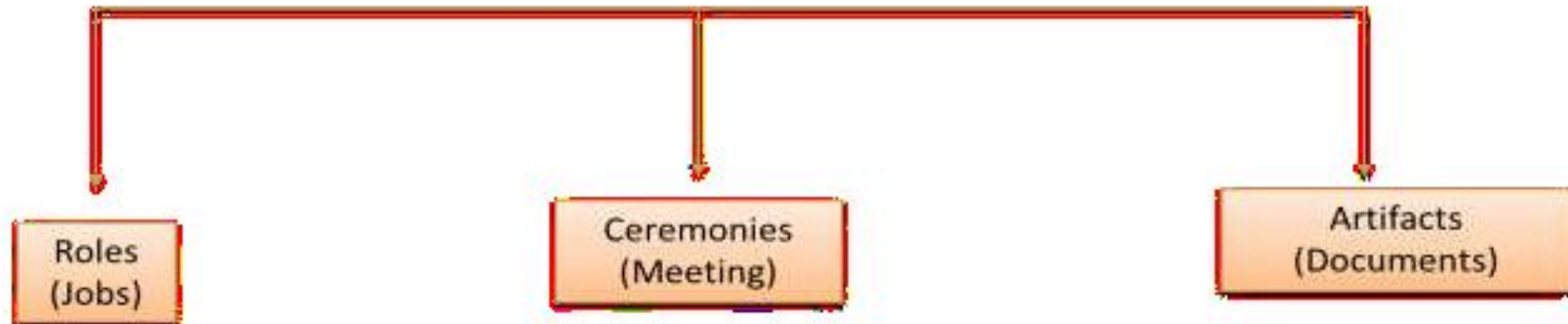
What is Agile?

- Agile is a methodology that promotes continuous interaction of development and testing throughout the software development life cycle of the project.
- The agile software development emphasizes on four core values
 - Individual and team interactions over process and tools
 - working software over comprehensive documentation
 - Customer collaboration over contract negotiation
 - Responding to change over following a plan

Agile Sub Models

- Scrum
- Extreme Programming
- Adaptive Software Development
- Dynamic System Development Model

Agile Scrum Components



Roles in Agile Scrum

- **1. Client Responsibilities in Agile Scrum:-**

- Responsible to send proposal to software Company
- Responsible to appoint Stake Holders.
- Responsible to approve PO Selection.
- Responsible to sit with PO to share requirements.
- Responsible to involve in every sprint review to give feedback
- Responsible to involve in product backlog refinement meeting to changes in requirement if needed.

- **2. Stake holder Responsibilities in Agile Scrum:-**

- Responsible to approve PO Selection
- Responsible to share Client Requirement to PO.
- Responsible to select some user stories from all user stories.
- Responsible to involve in daily scrum meet.
- Responsible to involve every sprint meeting to get feedback of client.
- Responsible to involve in product backlog Refinement meeting.

• **3. PO Responsibilities in Agile Scrum:-**

- Responsible to create user stories by talking with client and stake holders.
- The list of all user stories is called as Product Back Log (PBL).
- Some PO can take the help of SME (Subject Matter Expert) to get clarity on client requirements, but here SME is outsider.
- PO can divide Big User stories (Epic) into small user stories if needed
- PO can sit with SHs, SM and ST to select some user stories from all stories.
- PO can participate in daily scrum meet along with SM, ST and SHs. For status reporting.
- PO can join with SM, ST, and SHs to take feedback of client on every sprint.
- PO is responsible, For sprint release ,if requirement
- Some companies can release Final sprint only (whole Software).
- In Agile Scrum, PO is decision maker.

- Example: - PBL for “Online Banking System”

| User Story Document Id | AS a | I would like To | So that | Acceptance Criteria |
|------------------------|-----------------|---|--------------------------------|---|
| Users Login | Registered User | Launch Site | Next Page For Valid Data | Login is easy to use |
| | | Enter User Id which alpha numeric 4 to 16 Position | | Login is possible with internet Explorer/ Chrome /Firefox/Safari/in Windows /Linux/Mac Computer and Android OS/Windows Mobile |
| | | Enter Password which is alpha numeric 4 to 8 Position | Error Message for Invalid Data | |
| | | Click "Sign Button" | | |
| PBL with ALL Users | | | | |

4. Scrum Master Responsibilities Agile Scrum:-

- Scrum master is Facilitator.
- Implements PO given strategy into daily schedules.
- Responsible to organize sprint planning meeting to select some user stories from all user stories.
- Responsible to organize Daily scrum meeting inviting PO, SHs, ST.
- Responsible to organize sprint review meeting to collect feedback.
- Responsible to organize retrospective meeting with ST only.
- Responsible to organize PBL Refinement meeting changes in user stories.
- Responsible to solve issue related to Scrum Team.
- Responsible to protect Scrum Team from external interference.
- Responsible to improve skills for Scrum Team if required.
- Define time box for every meeting.

5. Scrum Team Developers Responsibilities Agile Scrum:-.

- Study user stories in sprint backlog to understand client requirements and expectations
- Involve in sprint planning meeting along with PO, SHs, Scrum master and Scrum Team Testers.
- Responsible to prepare (HLD & LLD) Design Sprint, implementing coding in sprint, Unit Testing, Integration and Interface Testing.
- Release sprint to Scrum Team Testers.
- Receive Bugs/Defect/Issue/Tickets/Incident reports from testers.
- Resolve Bugs and release modified sprint to testers.
- Involve in Daily Scrum Meeting, sprint review meeting, Sprint retrospective meeting
- Involve in PBL Refinement meeting.

6. Scrum Team Testers Responsibilities Agile Scrum:-

- Involve in sprint planning meeting along with PO, SHs, Scrum master and Scrum Team Testers.
- Study user stories and go to Test Design (Test Scenario, Test cases & Test Case) and review.
- Review sprint from Scrum team Developers.
- Execute test cases (Real testing) on sprint to detect bugs (manually).
- Report Bugs to Scrum Team Developer and get modified Sprint.
- Execute test cases on modified sprint to ensure Bug Fixing correctness (manually/automation).
- Involve in Daily Scrum Meeting, Sprint review meeting, Sprint retrospective meeting, PBL Refinement meeting.

7. CCB (Change Control Board) Fresher's Agile Scrum:-

- Responsible For release sprint to maintenances.
- Receive change request from client site.
- Perform changes in sprint and release patch file to client site.

Ceremonies in Agile Scrum

- Kick of Meeting
- PBL Grooming Meeting
- Sprint Planning Meeting
- Daily Scrum Meeting
- Sprint review Meeting
- Sprint Retrospective Meeting
- PBL Refinement Meeting.

- Kick of Meeting
 - Organize by CEO / Higher management.
 - To select Product owner.
 - PO selection approve by client & stake holders.
 - No time box.
- PBL Grooming Meeting
 - Organize by PO.
 - Participants PO, SME (optional), Client and SHs.
 - To gather all requirements and prepare User Stories.
 - No time box.
- Sprint Planning Meeting
 - Participants are PO, SHs, SM & ST (Developers + Testers).
 - To Select user stories from all User stories.
 - NO exact time box for this meeting.

- Daily Scrum Meeting
 - Organize by SM invite SHs, PO and ST.
 - Also called as daily stand up meeting.
 - What did you do today?
 - What you do tomorrow?
 - What obstacles are in your way?
 - Time box is 15 Minutes.
- Sprint review Meeting
 - Organize by SM invite client, SHs, PO and ST.
 - Collect feedback on every sprint from client.
 - Perform instant changes in sprint if required.
 - Time Box is 2-3hrs.
- Sprint Retrospective Meeting
 - Participants are SM and ST
 - To identify and solve issue related to ST before going to next sprint.
 - Example:-
 - Lack of skills.
 - Lack of time.
 - Lack of documentation
 - ... etc
 - ☑ 2 to 3 hrs. Is Time box.
- PBL Refinement Meeting.
 - Participants of client, SHs, PO, SM, ST.
 - To perform changes in user stories yet to develop.
 - 2 to 3 hrs. Time box.

Artifacts in Agile Scrum

