**Agile Framework – SCRUM**

**Sprint** is the heart of SCRUM. It is a time boxed event of 2 weeks to a month during which a releasable product increment is created. All sprints in a project must be of same duration. After completion of a sprint, the next sprint should start immediately.

A sprint consists of

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| * Sprint Planning | * Daily Scrum | * Development |
| * Sprint review | * Sprint Retrospective |  |

Scrum team consists of

|  |  |  |
| --- | --- | --- |
| * Scrum Master | * Product Owner | * Team |

**Sprint Planning meeting:**

A sprint goal is set. In the unlikely event that the goal becomes obsolete, the product owner may cancel the sprint.

A sprint planning meeting has a max duration of 4 hours for a 2 week sprint or 8 hours for a 4 week sprint. This is moderated by the scrum master.

* The scrum team chooses items from product backlog for sprint based on clarifications from Product Owner.
* The scrum team comes up with Sprint Goal.
* A sprint backlog (Selected product backlog items + delivery plan) is created.
* Work is estimated and divided into tasks.

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| Focus | Input |
| * What needs to be and can be delivered in the sprint increment * How will the work be achieved | * Product Backlog * The latest product increment * Projected Capacity of team during sprint * Past Performance of team |

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**Daily Scrum Meetings:** Same as agile daily standup

**Sprint Review:**

Held at the end of each sprint, the increment to be released is reviewed. Maximum duration is 2 hours for 2 week sprint or 4 hours for a month long sprint. Moderated by scrum master. Product Backlog is updated and things to do next is discussed which acts as a valuable input for the next sprint planning.

**Sprint Retrospective:**

Meeting to introspect.

**Artifacts**:

|  |  |  |  |
| --- | --- | --- | --- |
| Product Backlog | Sprint Backlog | Burn Down Chart | Increment |
| * Ordered list of features needed as part of end product. * Lists all features, requirements, enhancements and fixes to be made to product * User Stories are product backlog items * It is evolving and changing constantly. * Higher Ranked items in the Product Backlog have more clarity and are candidates for upcoming sprints | * Set of Product Backlog Items selected for Sprint + delivery plan for Sprint goal. * Modified by team during sprint * The team can add or remove items from a Sprint backlog during a sprint | * Used to do Sprint tracking. * Shows remaining effort in day wise number of hours.   e.g. :  Sprint Duration - 2 weeks  No. of days per week - 5  No. of hours per day – 6  No. of resources – 6  Beginning of Sprint – 2\*5\*6\*6 = 360 hours  If progress is as planned, the scrum progress will be aligned to ideal bar.  But if there is delay, slippage will be known early and corrective measures can be taken like when to stretch. | * Sum of all product backlog items completed during sprint + increments from previous sprints * The new increment must be in working condition |

**User Stories:**

The user story captures the goal of the user as well as the acceptance criteria.

**Estimation:**

Done during Sprint Planning meeting

There are various techniques.

* Numeric Sizing (1 to 10)
* T-Shirt Sizes (XS, S, M, L, XL, XXL, XXXL)
* Fibonacci sequence
* Dog Breeds

**Scrum Tools:**

JIRA