**SCRUM NOTES**

Scrum Framework: **R-E-A-R**

**Events**

* Sprint
  + Sprint Planning
  + Development Work
  + Daily Scrum
  + Sprint Review
  + Sprint Retrospective
  + Product Backlog Refinement\*

**Roles**

* Product Owner
* Scrum Master
* Dev Team

**Artifacts**

* Product Backlog
* PB Monitoring
* Sprint Backlog
* SB Monitoring
* Product Increment

**Rules: Scrum rules bind together Roles, events and artifact and govern the relationship and interaction between these.**

* Rules reflect pillars T-I-A: Transparency, Inspection, Adaptation
* All sprint events are Time boxed
* The Intention of Every Sprint is Potentially Shippable Software
* Shared Definition of ‘Done’
* Daily Scrum
* Customer Feedback
* No change in sprint scope or team in mid sprint
* Scrum Team size (3-9)
* Responsibility of each Role of Scrum Team
* 5 Values: Commitment, Courage, Focus, Openness, Respect
* Iterative and Incremental delivery

**SCRUM Terminologies Enumerated**:

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| Scrum Theory | Empirical Process Control / Empiricism |
| 3 Pillars of Scrum | T-I-A: Transparency, Inspection, Adaptation |
| Scrum Framework consists of | R-E-A-R: Scrum Roles, Events, Artifacts, |
| Essence of Scrum | Small Team of people |
| 3 Scrum Roles | Product Owner, Development Team, Scrum Master |
| 2 Characteristic of Scrum Team | Self-Organizing and Cross-Functional |
| Heart of Scrum | Sprint of 4 Week Max |
| 5 Scrum Events | * Sprint Planning * Daily Scrum * Development Work * Sprint Review * Sprint Retrospective |
|  |  |
| Scrum Artifacts |  |
| 5 Scrum Values | **CCFOR**: Commitment, Courage, Focus, Openness, Respect |

According to the Scrum Glossary, a **stakeholder** is "a person external to the Scrum Team with a specific interest in and knowledge of a product that is required for incremental discovery. Represented by the Product Owner and actively engaged with the Scrum Team at Sprint Review."

Typically, they fall into one of three broad categories:

* The Users - The human people who actually use the software product
* The External Customers - The people responsible for paying to use the software product. If the product is internal to organization, they do not apply here.
* The Internal Customers - The people responsible for making the funding decisions for the software product development effort.

**Responsibilities of Product Owner**

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| 1 | Maximize the value delivery by getting most important work done at the earliest |
| 2 | Accountable for Product Backlog management – Content and Ordering Priority of PBI based on value |
| 3 | Express Product backlog items (PBI) clearly in Product Backlog |
| 4 | Ensure Ordering PBI based on value and decide the value of PBI |
| 5 | Ensure that Dev team understands items in PB and clarify any questions raised by Dev team any time |
| 6 | Specify Dev Team which PBI to pick for sprint |
| 7 | Ensure visibility of which PBIs the Dev team is working or will work next |
| 8 | Ensure that PBI is visible, transparent and clear to all (Dev Team, Stakeholders) |
| 9 | Representative of Business Team |

**Responsibilities of Scrum Master**

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| 1 | Promote and Support Scrum Practices and Rules in Scrum Team as per Scrum Guide |
| 2 | Explain Scrum Team the Theory, Practices, Rules and Values of Scrum |
| 3 | Act as Servant-Leader (Leader who serves) for Scrum Team |
| 4 | Indicate other key stakeholders which of their inputs will be helpful for Scrum Team and which will not be |
| 5 | Service to Product Owner   * Ensuring that goals, scope, and product domain are understood by everyone on the Scrum Team as well as possible; * Finding techniques for effective Product Backlog management; * Helping the Scrum Team understand the need for clear and concise Product Backlog items; * Understanding product planning in an empirical environment; * Ensuring the Product Owner knows how to arrange the Product Backlog to maximize value; * Understanding and practicing agility; and, * Facilitating Scrum events as requested or needed. |
| 6 | Service to Development Team   * Coaching the Development Team in self-organization and cross-functionality; * Helping the Development Team to create high-value products; * Removing impediments to the Development Team’s progress; * Facilitating Scrum events as requested or needed; and, * Coaching the Development Team in organizational environments in which Scrum is not yet fully adopted and understood. |
| 7 | Service to Organization   * Leading and coaching the organization in its Scrum adoption; * Planning Scrum implementations within the organization; * Helping employees and stakeholders understand and enact Scrum and empirical product development; * Causing change that increases the productivity of the Scrum Team; and, * Working with other Scrum Masters to increase the effectiveness of the application of Scrum in the organization. |

**Responsibilities of Development Team**

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| 1 | Work on Sprint Backlog and complete significant work within sprint |
| 2 | Deliver the **Increment** as per the common Definition of ‘Done’ |
| 3 | Participate in Sprint review and present the Increment |
| 4 | Self-organize and self-manage their own work |
| 5 | Cross Functional: Do the development work needed for the Increment without external assistance |
| 6 | Shared Accountability of all team member for delivering the Increment |

**Sprint Events**:

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| **Scrum Event** | **Max Time Box** | **Input** | **Output** | **Attended By** |
| Sprint Planning | 8 Hours for 1 Month Sprint | 1. Product backlog  2. Product Increment  3. Capacity of Dev Team  4. Past performance of Dev team  5. Sprint Review points from previous sprint  6. Improvements from past sprint retrospective | 1. Sprint Goal  2. Sprint Backlog = sum of {PBI + Plan for delivering PBI} | Scrum Team ( All Members Must) |
| Daily Scrum | Max 15 Minutes per day | 1. Work done last day  2. Questions’ answer   * What was done yesterday * What will be done next 24 hours * Any future/current impediments   3. Track Sprint progress by monitoring the Total Work Remaining (Burn Down Chart) | 1. Collaboration within team  2. Identify Impediments  3. Promotes Inspection and adaptation | Dev Team (Must)  SM (Optional)  PO (Optional) |
| Development Work | 24 Hours |  |  |  |
| Sprint Review | 4 Hours for 1 Month Sprint | 1. Potentially releasable Increment | Revised Product Backlog based on below:  1. **Increment** itself and Demonstration of Increment  2. Review By PO to Stakeholders  3. Review by Dev team about Impediments  4. Review By PO about Product Backlog  5. What is to be done next  6. Review of timeline, budget etc. for next release  7. Total work remaining | Scrum Team + Stakeholder  (Everyone is must) |
| Sprint Retrospective | 3 Hours for 1 Month Sprint |  | 1. What went well  2. Identify Improvements wrt people, collaboration, process and tool  3. Atleast 1 High priority process improvement | SM + Dev Team (All Must) |
| Product Backlog Refinement | Ongoing, Not more than 10% of Development team capacity |  | 1. Product Backlog Items with refinements in terms of more details, estimates and priority order  2. PBIs that are Ready to be selected in Sprints | PO + Dev Team |

Scrum Artifacts:

Scrum Master Responsible for Transparency

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| **Artifact** | **Ownership** |
| Product Backlog | Product Owner |
| Monitoring Sprint Goal Progress | Product Owner |
| Sprint Backlog | Development Team |
| Monitoring Sprint Progress | Development Team |
| Increment | Development Team + Product Owner |
| Definition of Done | Scrum team, Or Multiple Dev team or Organization Process |