Scrum

- Scrum is a framework structured to support complex product development. Scrum consists of Scrum Teams and their associated roles, events, artifacts, and rules.
Scrum Framework

• The Scrum framework consists of Scrum Teams and their associated roles, events, artifacts, and rules. Each component within the framework serves a specific purpose and is essential to Scrum’s success and usage.
Three pillars of Scrum

- Transparency
- Inspection
- Adaptation
Transparency

• Significant aspects of the process must be visible to those responsible for the outcome. Transparency requires those aspects be defined by a common standard so observers share a common understanding of what is being seen.
Inspection

- Scrum users must frequently inspect Scrum artifacts and progress toward a goal to detect undesirable variances. The various aspects of the process must be inspected frequently enough that unacceptable variances in the process can be detected.
Adaptation

• If an inspector determines that one or more aspects of a process deviate outside acceptable limits, and that the resulting product will be unacceptable, the process or the material being processed must be adjusted. An adjustment must be made as soon as possible to minimize further deviation.
Scrum Events

• Scrum prescribes four formal opportunities for inspection and adaptation known as Scrum Events
Scrum Events

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

- The Scrum Team consists of a Product Owner, the Development Team, and a Scrum Master. Scrum Teams are self-organizing and cross-functional.
Self-organizing teams

- Self-organizing teams choose how best to accomplish their work, rather than being directed by others outside the team.
Cross-functional team

• Cross-functional teams have all competencies needed to accomplish the work without depending on others not part of the team.
The Product Owner

• The Product Owner is responsible for maximizing the value of the product and the work of the Development Team. The Product Owner is the sole person responsible for managing the Product Backlog.
Product Backlog management

- Clearly express Product Backlog items
- Order the items in the Product Backlog to best achieve goals and missions
- Ensure the value of the work the Development Team performs
- Ensure that the Product Backlog is visible, transparent, and clear to all, and shows what the Scrum Team will work on next
- Ensure the Development Team understands items in the Product Backlog to the level needed.
The Development Team

- The Development Team consists of professionals who do the work of creating and delivering a potentially releasable Increment of “Done” product at the end of each Sprint.
Development Team Size

- **Minimum**: Fewer than three Development Team members decreases interaction and results in smaller productivity gains.
- **Maximum**: Having more than nine members requires too much coordination.
• The Scrum Master is responsible for ensuring Scrum is understood, enacted and the Scrum team adheres to Scrum theory, practices, and rules. The Scrum Master is a servant-leader for the Scrum Team.
The Sprint

- Sprint is a time-box of one month or less during which a “Done”, useable, and potentially releasable product Increment is created.
Sprint Activities

- Sprint Planning Meeting.
- Daily Scrums.
- The development work.
- The Sprint Review and.
- The Sprint Retrospective.
Cancelling a Sprint

• A Sprint can be cancelled before the Sprint time-box is over. Only the Product Owner has the authority to cancel the Sprint, although he or she may do so under influence from the stakeholders, the Development Team, or the Scrum Master.
When can sprint be cancelled?

- If the Sprint Goal becomes obsolete.
- if the company changes direction or if market or technology conditions change.
- If it no longer makes sense given the circumstances.
The work to be performed in the Sprint is planned at the Sprint Planning Meeting. This plan is created by the collaborative work of the entire Scrum Team.
Sprint planning time box

- 8 hours for 1 month sprint
Sprint planning goals

- What will be delivered in the Increment resulting from the upcoming Sprint?
- How will the work needed to deliver the Increment be achieved?
Sprint Planning part 1

- What will be done this Sprint?
- The Product Owner presents ordered Product Backlog items to the Development Team and the entire Scrum Team collaborates on understanding the work of the Sprint.
Inputs to planning-1

• Product Backlog.
• The latest product Increment.
• Projected capacity of the Development Team during the Sprint.
• Past performance of the Development Team.
Sprint Planning part 2

- How will the chosen work get done?
- Having selected the work of the Sprint, the Development Team decides how it will build this functionality into a “Done” product Increment during the Sprint.
What is sprint backlog

- The Product Backlog items selected for this Sprint plus the plan for delivering them is called the Sprint Backlog.
The Product Owner is optional person, he may be present during the second part of the Sprint Planning Meeting to clarify the selected Product Backlog items and to help make trade-offs.
Sprint Goal

- The Sprint Goal gives the Development Team some flexibility regarding the functionality implemented within the Sprint. The Sprint Goal may be a milestone in the larger purpose of the product roadmap.
Daily Scrum

• The Daily Scrum is a 15-minute time-boxed event for the Development Team to synchronize activities and create a plan for the next 24 hours.
Daily Scrum Q/A

• What has been accomplished since the last meeting?
• What will be done before the next meeting?
• What obstacles are in the way?
Sprint Review

- Sprint Review is held at the end of the Sprint to inspect the Increment and adapt the Product Backlog if needed. During the Sprint Review, the Scrum Team and stakeholders collaborate about what was done in the Sprint.
Sprint Review time box

This is a four-hour time-boxed meeting for one-month Sprints.
The result of the Sprint Review is a revised Product Backlog that defines the probable Product Backlog items for the next Sprint. The Product Backlog may also be adjusted overall to meet new opportunities.
Sprint Retrospective

• The Sprint Retrospective is an opportunity for the Scrum Team to inspect itself and create a plan for improvements to be enacted during the next Sprint.
The purpose of the Sprint Retrospective

- Inspect how the last Sprint went with regards to people, relationships, process, and tools;
- Identify and order the major items that went well and potential improvements; and,
- Create a plan for implementing improvements to the way the Scrum Team does its work.
Scrum Artifacts

• Scrum’s artifacts represent work or value in various ways that are useful in providing transparency and opportunities for inspection and adaptation.
Scrum Artifacts

- Product Backlog
- Sprint Backlog
- Increment
The Product Backlog is an ordered list of everything that might be needed in the product and is the single source of requirements for any changes to be made to the product. The Product Owner is responsible for the Product Backlog, including its content, availability, and ordering.
Product Backlog grooming

Act of adding detail, estimates, and order to items in the Product Backlog. This is an ongoing process in which the Product Owner and the Development Team collaborate on the details of Product Backlog items.
Sprint Backlog

• The Sprint Backlog is the set of Product Backlog items selected for the Sprint plus a plan for delivering the product Increment and realizing the Sprint Goal.
Increment

- The Increment is the sum of all the Product Backlog items completed during a Sprint and all previous Sprints. At the end of a Sprint, the new Increment must be “Done,” which means it must be in useable condition and meet the Scrum Team’s Definition of “Done.”
Definition Of Done

- When the Product Backlog item or an Increment is described as “Done”, everyone must understand what “Done” means. It is used to assess when work is complete on the product Increment.
Monitoring Sprint Progress

At any point in time in a Sprint, the total work remaining in the Sprint Backlog items can be summed. The Development Team tracks this total work remaining at least for every Daily Scrum.
Monitoring Progress Toward a Goal

• At any point in time, the total work remaining to reach a goal can be summed. The Product Owner tracks this total work remaining at least for every Sprint Review.
Scaling Scrum
How does Scrum scale?

• Scrum scales by adding more scrum teams.
Scaling

- When more than one Scrum Team works simultaneously on a project, it is referred to as a scaled project, and the mechanisms employed to coordinate the work of these teams are called scaling mechanisms.
Requirements for scaling

• appropriate infrastructure
• detailed product and technical architecture must be constructed
• distributed, high-bandwidth technology for source code sharing, synchronized builds, and alternative communications such as instant messaging must be employed.
Non functional requirements for scaling

• The nonfunctional requirements to build the scaling infrastructure are given high priority in the Product Backlog and are mixed with top-priority business functionality, and sometimes even outrank that functionality and are developed prior to or in parallel with the business functionality.
Staging

• The process of defining and prioritizing the nonfunctional requirements for scaling is called staging. Staging occurs prior to the start of the first Sprint and takes just one day.
Examples for non-functional requirements for multiple teams

• Decompose business architecture to support clean-interface multi-team development.
• Decompose system architecture to support clean-interface multi-team development.
• If necessary, define and implement a development environment to support multi-team collocated or distributed environments.
Scaling steps -1

• Put the nonfunctional requirements for scaling in the Product Backlog.
Scaling steps -2

- The Product Owner and Team get together at a Sprint planning meeting and collaborate to select a combination of functional and nonfunctional requirements.
Scaling steps -3

- The Team then sprints as many times as required until the infrastructure for the staging is in place.
Scaling steps -4

- Once the infrastructure is ready, the Sprint planning meetings for each of the multiple Sprint Teams are held separately.
Distributed Team Models

1. Isolated Scrums
2. Distributed Scrum of Scrums
3. Totally Integrated
Teams are isolated across geographies. In most cases off-shore teams are not cross-functional and may not be using the Scrum process.
Distributed Scrum of Scrums

Scrum teams are isolated across geographies and integrated by a Scrum of Scrums that means regularly across geographies.
Totally Integrated Scrums

- Scrum teams are cross functional with members distributed across geographies.
Recommended model

The right team structure and organization

- Cross functional team at each location
- Scrum Master at each location
Challenges faced in distributed Scrum

- **Strategic:** Difficult leveraging available resources, best practices are often deemed proprietary, are time consuming and difficult to maintain.

- **Project and process management:** Difficulty synchronizing work between distributed sites.

- **Communication:** Lack of effective communication mechanisms.
Challenges faced in distributed Scrum

- **Cultural**: Conflicting behaviors, processes, and technologies.
- **Technical**: Incompatible data formats, schemas, and standards.
- **Security**: Ensuring electronic transmission confidentiality and privacy
Communication Modes

- Face-to-face communication
- Work in overlapping hours
- Use high bandwidth communication channels
- Video conferencing (Skype, streaming servers)
- Desktop sharing (VNC tools, Team Viewer, etc)
- Instant messaging (GoogleTalk, MSN Messenger, etc.)
- Voice always on (Skype phone) etc.
Stay Connected

Contact Us
Saket.Bansal@iZenBridge.com
www.iZenBridge.com
M :+91-9910802561

Stay Connected

Youtube
www.youtube.com/izenbridge

LinkedIn Group
PMI-ACP: Agile Certification Made Easy

© 2013 iZenBridge | CONFIDENTIAL