

Inheritance of Scrum methodology in Company Business

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I. Introduction:

In today's emerging IT era, every company follows a set of standards and regulations for carrying out the development of desired project that affects the business of company. The various software development models are often used in companies to carry out the effective and efficient implementation of project and releasing the software. Software development involves an adaptation of an efficient framework that can be used to structure, plan and control the process of developing an information system. Out of the various approaches like Waterfall development, Incremental development, Spiral, Agile and lightweight methodologies, one of the emerging frameworks is scrum approach. Scrum is an agile framework used for completing complex projects. It is best used for projects that involve innovation in every phase. Scrum can be called as a subset of agile development. Agile development is a process that is aligned with the concepts of the agile manifesto.[1]

Agile Manifesto

Also called as manifesto of agile software development, is formal documentation of four key and 12 principles to guide an iterative and people centric approach to software development. Agile process involves, development of software as an incremental approach, where software modules or functionalities are built bit by bit, keeping the code simple and delivering those bits once they are ready. The four core values of agile software development as stated by agile manifesto are:

- Individuals over interaction by process and tools
- Working software over comprehensive document
- Customer collaboration and contract negotiation

- Responding to change over following a plan.

Some of the principles guidelines that need to be followed are:

- Customer satisfaction through continuous delivery of valuable work.
- A major portion of software development process can be broken down into smaller modules that can be quickly deliverable.
- Team members can work in an organized manner.
- Creating reusable code that can be readily available for future.
- Expecting change in requirements , even if delayed, can be easily managed
- Assembling the team and business owners and customers on weekly basis to provide updates.
- Determining the progress via the amount of completed work.[2]

2. Scrum

A scrum process is a portion of agile process. Scrum process involves two methodologies namely, i) a 'process framework', which involves practicing a set of rules and approaches that is mandatory for a process to be consistent. ii) Lightweight processes, which tells that the overhead involved in a software development life cycle, is kept as small as possible, so that the productive time is not wasted.

2.1 High level overview of Scrum

A software development company which is one the flow to follow a Scrum process of software delivery, basically follows a process that starts with the business users or product owner ready with prioritized wish list of work items or modules . These modules are collectively documented and also stored in a repository that can be accessed by the team members. Such a repository is called a 'Product backlog'.

The team of developers who are assigned to the task creates an estimated delivery period usually in terms of weeks. This stipulated time is called Sprint week. During sprint planning, the team pulls out a small chunk of work items from the product backlog

and decides on the steps of how to implement the modules. The team has certain amount of time called a 'Sprint Time' to complete its work, but the team meets each other everyday until the sprint time to discuss, measure the progress and evaluate the amount of work carried out. Scrum Master monitors the work of each member and also keeps the team focused to its goal. At the end of the sprint, the software is ready to be shipped. It is ready for test, demo able to stakeholder and customer use. At the end the sprint ends with a sprint review and documentation of how the sprint was carried out.[1]

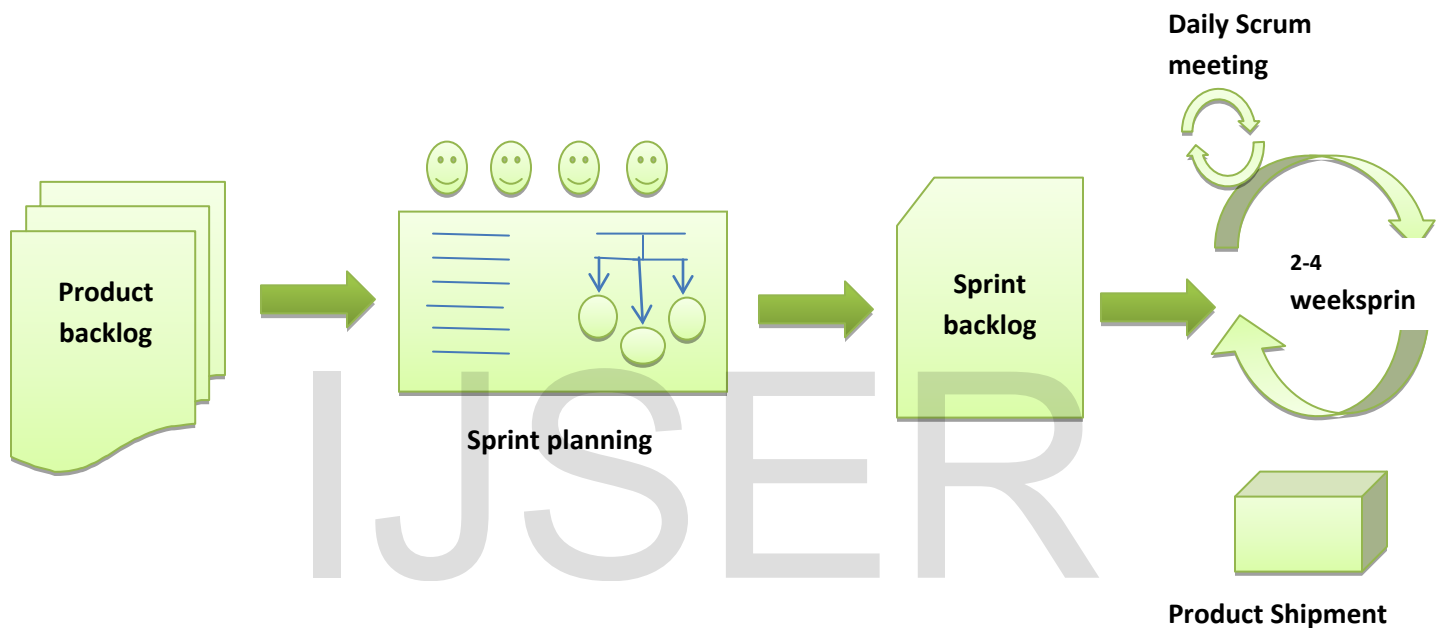


Fig 2.1.1: High- level diagram of Scrum process

Scrum process is differentiated by other agile processes by specific concepts, notions, practices that can be mainly divided into three categories.

- Roles
- Time Boxes

Scrum Roles:

Scrum roles mainly consists of three entities namely The Scrum master, product owner and the team members.

Scrum Master is termed the leader of the entire group involving the developers (team members) who work closely on the modules that are to be collectively grouped under

modules and is product ready. The role of the scrum master is to guide, supervise, monitor and evaluate the progress of the team on their assigned work. The main objectives of Scrum master also involves the removing the barrier between the product owner and the team members, enlightening the product owner on the ways of improving and achieving business results and also maintaining the teams progress visible to the management.

Product Owner:

Product owner is the manager of all the requirements that come up from various sources. The main objective of the product owner is to provide the right information collectively gathered, understood and evaluated from the stakeholders and end users. He is a mediator between the customers, stakeholders and the team members. He analyzes the requirements and wish list gathered from the sources and maintains a product backlog. Product backlog is a list of work items organized according to the priority of the business and sent across the team to work upon. He is also responsible for maintaining the schedule and timelines for the sprint to be carried out in an effective manner.

Team:

A collection of resources who perform the hands- on development of modules collected from the product backlog are the team members. They are responsible for understanding and carrying out the developmental activities of the software process by the supervision of Scrum Master.

Time Boxes/ Story Board:

It is a repository where all the user stories, tasks to do, progress tasks, items to verify and items completed are organized into various sections (columns) and displayed on the story board. User stories are tasks written in simple sentences that act as a quick

brief up for the developers to understand requirements and accomplish their tasks. This is a kind of sticky note that is pinned on the story board[3].

3. Conclusion:

There are many SDLC models used across many different companies. Each model has its own pros and cons. A successful project is one that involves customer satisfaction than an error free software. When agile development was trending, developers who were involved in the web development team often faced the issues of customer returning back with new set of features and requirements. This hampered the workforce productive time. Thus as a result, a new emerging methodology- Scrum came into practice. Scrum involved the customers at all phases of the project , so that a better look and fell also with correct and accurate understanding of requirements can be met , when the software is in the process of **development**.

References

- [1] E.Neelima , Naga DurgaSaile.K – “A Study on SCRUM Agile Methodology And Its Knowledge Management Process” – 2013
- [2] Jeff Sutherland , Ken Schwaber – “Nut, Bolts, and Origins of an Agile Framework” – 2011.
- [3]Scrum Alliance - <https://www.scrumalliance.org/why-scrum>
- [4] Scrum and Agile process - <https://www.cprime.com/resources/what-is-agile-what-is-scrum/>