**Introduction to Software Testing**

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**Module 3: Agile Methodology and JIRA tool**

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**Agile model /Agile methodology /Agile process**

▪ It is an Iterative and Incremental Approach.

▪ Iterative means same process repeating again and again.(The process keeps on repeating).

▪ Incremental means, modules/features keep on adding on top of existing software.

▪ Agile is Iterative and Incremental model where requirements keeps on changing.

▪ As a company we should be flexible to accept requirements change, develop, test and finally

release a piece of working software within short span of time.

▪ There will be good communication between Customer, Business Analyst, Developers & Testers.

▪ The Goal of the agile model is the customer satisfaction by delivering the piece of the software to

the customer within short span of time.

▪ Agile Testing is type of testing where we follow the agile principles.

**Advantages & Disadvantages**

**Advantages:**

▪ Requirement changes are allowed in any stage of development (or) We can accommodate

Requirement changes in the middle of development.

▪ Releases will be very fast (Weekly)

▪ Customer no need to wait for long time.

▪ Good communication between team.

▪ It is very easy model to adopt.

**Disadvantages:**

▪ Less focus on design and documentation since we deliver software very faster

**What is Scrum?**

▪ Scrum is a framework through which we build software product by following Agile Principles.

▪ Scrum includes group of people called as Scrum team. Normally contains 5-9 members.

– Product Owner

– Scrum Master

– Dev Team

– QA Team

▪ **Product Owner:**

– Define the features of the product

– Prioritize features according to market value

– Adjust features and priority every iteration, as needed

– Accept or reject work results.

▪ **Scrum Master:**

– The main role is facilitating and driving the agile process.

▪ **Developers and QA:**

– Develop and test the software.

**Scrum Terminology**

▪ **User Story:** A Feature/module in a software

▪ **Epic**: Collection of user stories.

▪ **Product backlog:** Contains list of user stories. Prepared by product owner.

▪ **Sprint**: Period of time to complete the user stories, decided by the product owner and team, usually 2 to 4 weeks of time.

▪ **Sprint planning meeting**: Meating conducts with the team to define what can be delivered in

the sprint and duration.

**▪ Sprint backlog:** List of committed stories by Dev/QA for specific sprint.

**▪ Scrum meeting:** Meating conducted by Scrum Master everyday 15 mins. Called as Standup meeting.

– What did you do yesterday?

– What will you do today?

– Are there any impediments in your way?

▪ **Sprint retrospective meeting:** Review meeting after completion of sprint. The entire team, including

both the ScrumMaster and the product owner should participate.

▪ **Story point:** Rough estimation of user stories, will be given by Dev & QA in the form of Fibonacci series

▪ **Burndown chart:** Shows how much work remining in the sprint. Maintained by the scrum master daily.