



#### **Department of CSE**

#### Assignment 01

Course Code : CSE - 325

Course Title : System Analysis & Design

Experiment Name : Describe About Agile Methodology

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### Agile methodology:

Agile development methodology is the most preferred and efficient one compared to the other methodologies. This is because agile methodology can easily anticipate any changes in the developmental procedures and provide rapid results during the product development cycle. In the case of conventional software product development methodologies, any software product development will be governed by a set of rules and will generally take several months or even a few years to be completed. This is especially true when it comes to the traditional waterfall development model, where you don't get to see or test the progress in the software development until the entire product is built. The traditional development models will usually take a lot of time and effort for various developmental procedures, like requirement analysis, design planning, prototype & product development, testing, and final customer acceptance testing. But the agile development model works on iterations, which allows rapid testing and implementation of results. Ultimately, it promotes faster project completion and makes the developmental process highly efficient.

### Where did Agile Come From?

In 2001, a small group of people, tired of the traditional approach to managing software development projects, designed the agile manifesto. It is a more improved method for managing the progress of software projects.

## There are 12 principles of agile software development: The agile manifesto has four important values: I Focus should be more on individuals and interactions instead of processes and tools ☐ Working software is more important that comprehensive documentation Customer collaboration is more vital than contract. negotiation The process should respond to change rather than follow a plan Deliver customer satisfaction by delivering valuable software continuously Always accept change of requirements matter how early or late in the project Deliver software that works within a shorter timescale Both developers and business professionals must work closely together daily throughout the duration of the project Information is best transferred between parties in face-toface conversations Motivate people to build a project by creating an environment of appreciation, trust, and empowerment

☐ Working software is the key measure of progress
<ul> <li>The agile process promotes sustainable development</li> <li>Continuous attention to excellence and quality in technical development and design boosts the agility</li> </ul>
10 Simplicity is a vital part of effective agile management
Self-organized teams produce the best architecture, requirements, and design
Teams should reflect through inspection and adaption to be more effective

## How an agile development methodology works?

Each software product in agile methodology is broken down into several different small processes or iterations. This gives you the liberty to work on different aspects of the software development at the same time.

Each iteration will generally have fixed time duration and depending on the user reviews and the test results, you can improve the product after every iteration.

The entire software product will be split up based on the priority found during the requirement analysis. Rather than launching the product as a whole, its split into a number of releases and in every particular timeline each update is released depending on the user reviews.

Benefits of following an agile development methodology:
April Rapid software development and delivery.
Transparent development process.
🛘 Continuous customer/user involvement & feedback.
Reduced software product development timeline.
Easily anticipate and include changes in any developmental stage.

# Types of Agile Development Frameworks:

Agile development also has many frameworks in it. All these frameworks follow the same agile philosophy, features, and procedures. But they greatly differ from one another from an implementation point of view. Each framework has its own formula of practices, course of action, terminologies, and more.

A few of the widely recognized frameworks in agile software development methodology includes-