COURSE NAME : 19CST201-Agile Software Engineering

III YEAR/ V SEMESTER

Topic: Agile Methodologies

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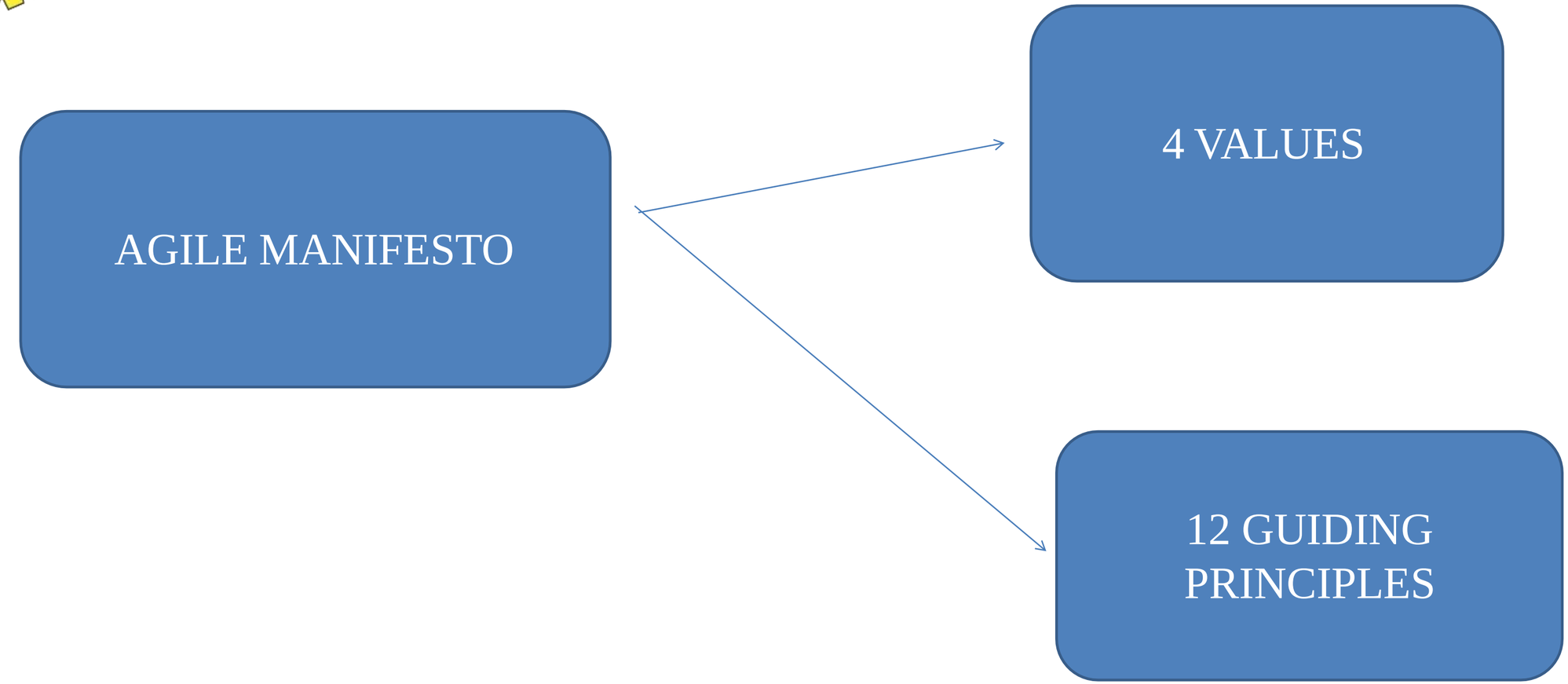
AGILE METHODOLOGY



Agile Principles 1

Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.

- *Satisfy Customer*
- *Early and continuous Delivery*
- *Valuable Software*

Agile Principles 2

Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

Main objective of the agile software development is to give a competitive edge customer by implementing evolving requirements at any point of time throughout the project

Agile Principles 3.

Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

- *Frequent delivery leads to frequent feedbacks*
- *Frequent testing and continuous integration leads to delivering quality deliver*
- *Frequent delivery helps to keep the business engaged/active during the development phase*

Agile Principles 4.

Business people and developers must work together daily throughout the project.

- *Daily face to face interactions with the business representative*
- *Frequent software delivery and demo will results in frequent engagement with business*
- *Frequent interaction will help business to fine tune their requirements based on development teams suggestions*

Agile Principles 5.

Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.

Agile software development emphasizes on team culture; concentrates more on factors which build trust in the team. Agile strongly believes that these are the reasons for team's/software's success

Agile Principles 6.

The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

Agile development encourages face to face conversations as it is better compared to e-mail/ phone/ communicator. It avoids many mis-understandings and confusions

Agile Principles 7.

Working software is the primary measure of progress.

In Agile development, progress & success is measured by working software (i.e. the component of software which ready to get delivered to customer / delivered to customer)

Agile Principles 8.

Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

Agile development progresses in very consistent; neither slow nor fast. Total team is responsible and accountable for the same

Agile Principles 9.

Continuous attention to technical excellence and good design enhances agility

We know that agile development focuses on extrinsic quality (customer satisfaction & Product quality) and along with this it takes care of intrinsic quality as well by following best agile development practices

Agile Principles 10.

Simplicity--the art of maximizing the amount of work not done--is essential.

Agile development always keeps software simple, workable and easy to maintain. Traditionally developed software products are complex due to cumbersome design, requirements etc.

Agile Principles 11.

The best architectures, requirements, and designs emerge from self-organizing teams.

- *Agile development believes that best architectures, requirements, and designs emerge from self-organizing teams as there are no hierarchies involved here.*
- *The team is empowered to organize themselves to be more effective and efficient. Transparency, inspect, adapt, Continuous planning, Continuous customer feedback and customer collaboration makes team self-organizing*

Agile Principles 12.

At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

- *In traditional software development approach, team will be waiting till the end of the project to conduct post-project review. But agile software development emphasizes continuous review.*
- *Team member can give feedback to team member or to process @ any point of time by writing it in post- it/face to face.*
- *Inspecting and adapting continuously solves many of the repetitive issues experienced by many teams and projects.*