



Agile Methodologies

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Agile Development: Brief History

- First appeared in 1995.
- The once-common perception that agile methodologies are nothing but controlled code-&-fix approaches, with little or no sign of a clear-cut process, is only true of a small – albeit influential – minority.
- Essentially based on practices of program design, coding and testing that are believed to enhance software development flexibility and productivity.
- Most agile methodologies incorporate explicit processes, although striving to keep them as lightweight as possible.



Major Agile Methodologies



- DSDM – Dynamic Systems Development Method (1994..2014)
- Scrum (1995..2020)
- XP – Extreme Programming (1996, 1999, 2004, 2013)
- ASD – Adaptive Software Development (1997)
- Crystal Family: Orange, Orange Web, Clear (1998, 2001, 2004)
- FDD – Feature-Driven Development (1999, 2002)
- AUP – Agile Unified Process (2005)
- DAD – Disciplined Agile Delivery (2012, 2020)



Agile Methodologies: Agile Manifesto


We are uncovering better ways of developing software by doing it and helping others do it.
Through this work we have come to value:

Individuals and interactions over processes and tools
Working software over comprehensive documentation
Customer collaboration over contract negotiation
Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.




Agile Methodologies: Principles

- Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
 - Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
 - Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
 - Business people and developers must work together daily throughout the project.
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Agile Methodologies: Principles

- Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
 - The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
 - Working software is the primary measure of progress.
 - Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
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Agile Methodologies: Principles

- Continuous attention to technical excellence and good design enhances agility.
 - Simplicity—the art of maximizing the amount of work not done—is essential.
 - The best architectures, requirements, and designs emerge from self-organizing teams.
 - At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behaviour accordingly.
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