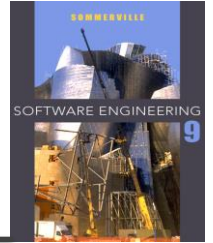


## Chapter 3 – Agile Software Development

# Topics covered

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- ✧ Agile methods
- ✧ Plan-driven and agile development
- ✧ Extreme programming
- ✧ Agile project management
- ✧ Scaling agile methods

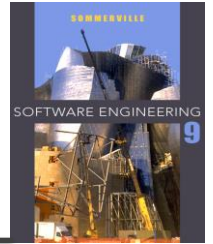
# Rapid software development

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- ✧ Rapid development and delivery is now often the most important requirement for software systems
  - Businesses operate in a fast –changing requirement and it is practically impossible to produce a set of stable software requirements
  - Software has to evolve quickly to reflect changing business needs.
- ✧ Rapid software development
  - Specification, design and implementation are inter-leaved
  - System is developed as a series of versions with stakeholders involved in version evaluation
  - User interfaces are often developed using an IDE and graphical toolset.

# Agile methods

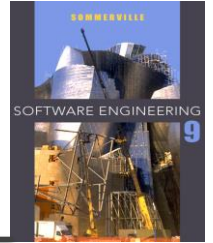
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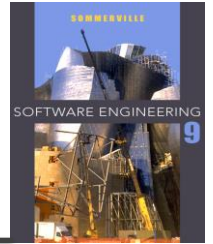
- ✧ Dissatisfaction with the overheads involved in software design methods of the 1980s and 1990s led to the creation of agile methods. These methods:
  - Focus on the code rather than the design
  - Are based on an iterative approach to software development
  - Are intended to deliver working software quickly and evolve this quickly to meet changing requirements.
- ✧ The aim of agile methods is to reduce overheads in the software process (e.g. by limiting documentation) and to be able to respond quickly to changing requirements without excessive rework.

# Agile manifesto

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- ✧ *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.*

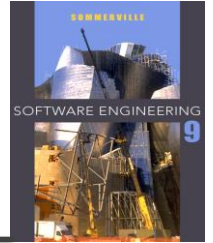


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## Chapter 3 – Agile Software Development

# Topics covered

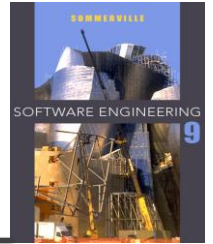
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# Rapid software development

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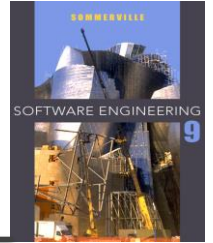


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# Agile methods

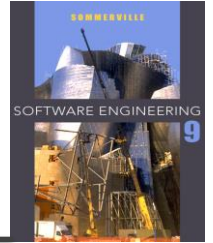
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