

Agile Management

Section 3.4 & 3.5

CMPT 276

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Based on slides from Software Engineering 9th ed, Sommerville.

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Topics

- 1) How can we manage agile development?
- 2) How can a company start using agile methods?

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Agile project management

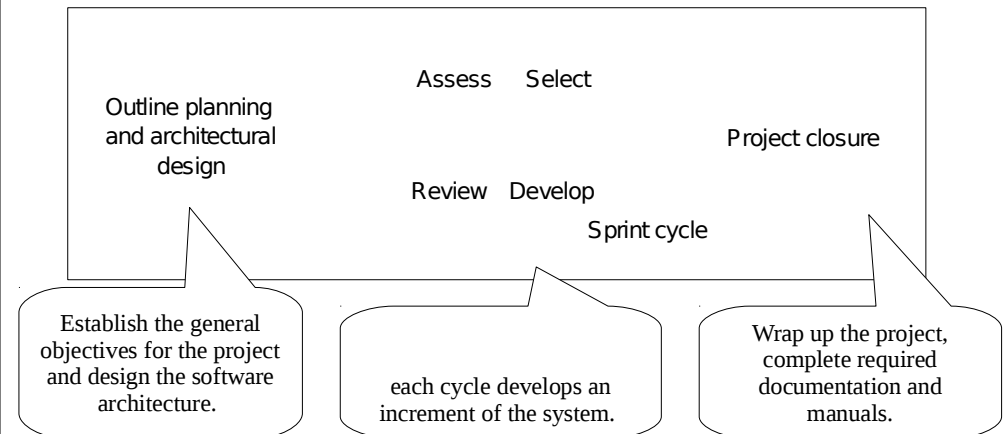
- Software project manager
 - Manages the project so software is..
- Plan-Driven project management approach
 - Manager plans what should be delivered, when, and who will work on deliverables.
- Agile project management
 - Requires a different approach: adapted to.. and the strengths of..

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Scrum

- Scrum is a general approach to agile method:
 - not specific agile practices (like pair programming).



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Sprint cycle

- Sprints are fixed length, normally 2–4 weeks; correspond to XP's system release.
 - Assess: starts planning with list of work to do.
 - Selection: team works with customer to select features to developed during the sprint.
 - Develop: team organize themselves to develop software.
- Review: Work is reviewed and presented to stakeholders. The next sprint cycle then begins.

Assess Select

Review Develop

Sprint cycle

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Teamwork in Scrum

- Scrum master is a facilitator, not a manager..
 - Arranges daily meetings, tracks work to be done, records decisions, measures progress.
 - Communicates with customers and management outside of the team.
- Short daily meetings for whole team
 - All team members share information:..
- Everyone on team knows what is going on
 - If problems arise, can re-plan short-term work to cope with them.

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Scrum benefits

- Product is broken down into a set of manageable and understandable chunks...
- Unstable requirements do not hold up progress...
- The whole team has visibility of everything which improves team communication.
- Customers see on-time delivery of increments and gain feedback on how the product works.

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Scaling Agile Methods

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Scaling agile methods

- Agile methods are successful for..
- Agile's success from
 - improved communications which is possible when everyone is working together.
- How can we scale up agile methods for larger, longer projects with teams in different locations?

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Scaling up to large systems

- Cannot just focus on the code for large systems:
 -
- Cross-team communication
 - Require regular communication to update each other on progress.
 - regular phone and video conferences, and
 - frequent, short electronic meetings
- Continuous integration impractical
 - Practically impossible to build the whole system..
 - Must do frequent system builds and regular releases.

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Summary

- Scrum method:
 - An agile method that provides a project management framework.
 - Centred on a set of sprints:
fixed time periods to develop a system increment.
- Scaling agile methods for large systems is difficult.
 - Large systems need up-front design and some documentation.

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