

Software Project Management

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Software Project Management

- Professional software engineering is always subject to organizational budget and schedule constraints
- Management challenge
 - Overcome these constraints to deliver high-quality software

[Factors of Management]

- Several factors have to be considered in a software project management
 - Company size
 - Software customers
 - Software size
 - Software type
 - Organizational culture
 - Software process, etc.

[Company Size and Customers]

- Company size
 - Small companies can rely on informal management and team communications
 - Large companies requires formal reporting, budgeting, and processes
- Software customers
 - Government customers require specific policies and procedures (bureaucratic)

[Software Size and Type]

- Software size
 - Small software can be developed to small teams, which is easier to manage
- Software type
 - In a safety-critical system, all managements decisions have to recorded and justified

[Organization and Process]

- Organizational culture
 - Some organization are often bureaucratic
 - Others have a culture of taking risks
- Software development process
 - An agile process typically tries to operate with “lightweight” management
 - A more formal process require monitoring the development team

[Management Activities]

- Good management cannot guarantee success
 - But, bad management often results in failure
- Common project management activities
 - Project Planning
 - Risk Management
 - People Management

[Main Activities]

- Project Planning
 - It aims to estimate and schedule project development and assign people to tasks
- Risk Management
 - It aims to assess and monitor the risks that may affect a project
- People Management
 - It aims to manage a team of people, including developers, testers, etc.

[Bibliography]

- Ian Sommerville. **Software Engineering**, 10th Edition. Pearson Education, 2016.
 - Chapter 22: Project Management