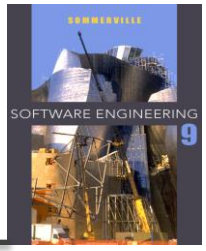
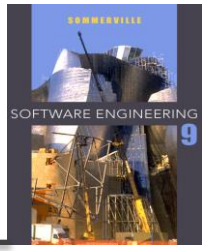
Software project management



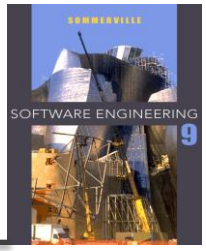
- Concerned with activities involved in ensuring that software is delivered on time and on schedule and in accordance with the requirements of the organisations developing and procuring the software.
- Project management is needed because software development is always subject to budget and schedule constraints that are set by the organisation developing the software.

Success criteria



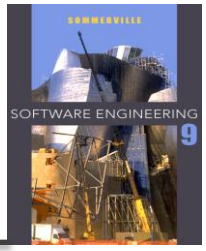
- ✧ Deliver the software to the customer at the agreed time.
- ✧ Keep overall costs within budget.
- ✧ Deliver software that meets the customer's expectations.
- ✧ Maintain a happy and well-functioning development team.

Management activities



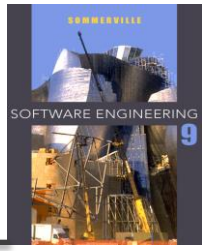
- *Project planning*
  - Project managers are responsible for planning. estimating and scheduling project development and assigning people to tasks.
- *Reporting*
  - Project managers are usually responsible for reporting on the progress of a project to customers and to the managers of the company developing the software.
- *Risk management*
  - Project managers assess the risks that may affect a project, monitor these risks and take action when problems arise.

Management activities



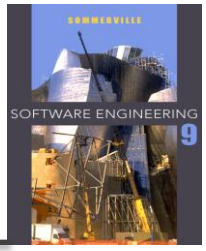
- *People management*
  - Project managers have to choose people for their team and establish ways of working that leads to effective team performance
- *Proposal writing*
  - The first stage in a software project may involve writing a proposal to win a contract to carry out an item of work. The proposal describes the objectives of the project and how it will be carried out.

Risk management



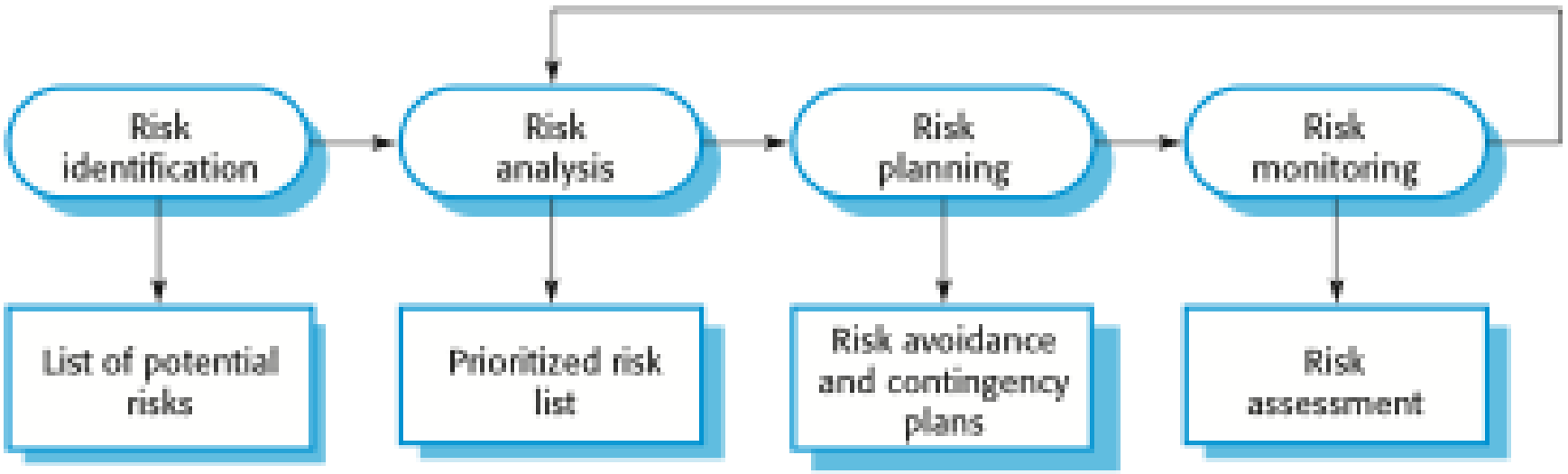
- Risk management is concerned with identifying risks and drawing up plans to minimise their effect on a project.
- A risk is a probability that some adverse circumstance will occur
  - Project risks affect schedule or resources;
  - Product risks affect the quality or performance of the software being developed;
  - Business risks affect the organisation developing or procuring the software.

The risk management process

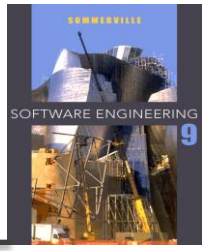


- ✧ Risk identification
  - Identify project, product and business risks;
- ✧ Risk analysis
  - Assess the likelihood and consequences of these risks;
- ✧ Risk planning
  - Draw up plans to avoid or minimise the effects of the risk;
- ✧ Risk monitoring
  - Monitor the risks throughout the project;

The risk management process

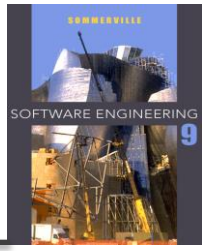


Risk identification



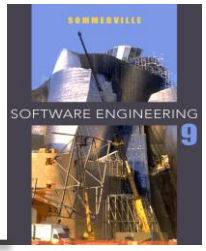
- ✧ May be a team activities or based on the individual project manager's experience.
- ✧ A checklist of common risks may be used to identify risks in a project
  - Technology risks.
  - People risks.
  - Organisational risks.
  - Requirements risks.
  - Estimation risks.

Risk analysis



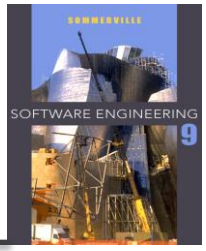
- Assess probability and seriousness of each risk.
- Probability may be very low, low, moderate, high or very high.
- Risk consequences might be catastrophic, serious, tolerable or insignificant.

Risk planning



- Consider each risk and develop a strategy to manage that risk.
- Avoidance strategies
  - The probability that the risk will arise is reduced;
- Minimisation strategies
  - The impact of the risk on the project or product will be reduced;
- Contingency plans
  - If the risk arises, contingency plans are plans to deal with that risk;

Risk monitoring



- Assess each identified risks regularly to decide whether or not it is becoming less or more probable.
- Also assess whether the effects of the risk have changed.
- Each key risk should be discussed at management progress meetings.