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Chapter 2  
*Requirements Determination*

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# Topics

- From business processes to solution envisioning
- Functional and nonfunctional requirements
- Requirements elicitation
  - traditional methods and modern methods
- Requirements negotiation and validation
- Requirements management
- Requirements business model
  - system scope, business use case model, business glossary, business class model
- Requirements document

## *6. Requirements document*

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- a tangible outcome of the requirements determination phase
- produced according to an organization-approved template

# Requirements document

## **Requirements Document**

### *Table of Contents*

- 1. Project Preliminaries**
  - 1.1 Purpose and Scope of the Product
  - 1.2 Business Context
  - 1.3 Stakeholders
  - 1.4 Ideas for Solutions
  - 1.5 Document Overview
- 2. System Services**
  - 2.1 The Scope of the System
  - 2.2 Function Requirements
  - 2.3 Data Requirements
- 3. System Constraints**
  - 3.1 Interface Requirements
  - 3.2 Performance Requirements
  - 3.3 Security Requirements
  - 3.4 Operational Requirements
  - 3.5 Political and Legal Requirements
  - 3.6 Other Constraints
- 4. Project Matters**
  - 4.1 Open Issues
  - 4.2 Preliminary Schedule
  - 4.3 Preliminary Budget
- Appendices**
  - Glossary
  - Business Documents and Forms
  - References

# *Project preliminaries*

- Targets managers and decision makers
- Begins with purpose and scope of the project
- Makes a business case for the system
- Identifies stakeholders
- Offers initial ideas for the solution
  - including off-the-shelf solutions
  - off-the-shelf does not dispense with the need for RASD
- Includes an overview of the rest of the document

# *System services*

- Dedicated to the definition of **system services** - what the system must accomplish
- Likely to account for more than half of the entire document
- Contains high-level requirements business models
  - **Context diagram** (the system scope)
  - **Business use case diagram** (function requirements)
  - **Business class diagram** (data requirements)
    - main attributes, but no operations
  - **Business glossary** moved to the Appendix

# *System constraints*

- Dedicated to the definition of system constraints - how the system is constrained when accomplishing services with regard to
  - Interface requirements
    - ‘look and feel’ only
  - Performance requirements
    - response times, but also reliability, availability, throughput indicators
  - Security requirements
    - access privileges
  - Operational requirements
    - hardware/software environment
  - Political and legal requirements
  - Other constraints
    - usability
    - maintainability

# *Project matters*

- Open issues
  - Future requirements
  - Current requirements to be implemented in the future – **enhancements**
  - Potential problems when the system is deployed
- Preliminary schedule
  - Human and other resources
  - Planning charts (PERT, Gantt)
- Preliminary budget
  - Project cost – range rather than figure
  - In some cases, better estimation possible (e.g. function point analysis)



# *Appendices*

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- Glossary
  - Terms
  - Acronyms
  - Abbreviations
- Documents and forms
  - Examples of completed (filled in) forms
- References
  - To books and other published sources
  - Meetings' minutes, memoranda, internal documents

# *Review Quiz 2.6*

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1. How can functional requirements be classified?
2. How can any out-of-scope, but relevant, requirements be addressed in a requirements document?