

Reading 1: Chapter 9 – Requirements Engineering

(pp. 197–213)

Key Concepts

- **Requirements Engineering (RE)** is a systematic process of discovering, analyzing, documenting, and managing system requirements.
- Two major types:
 - **Functional**: What the system should do.
 - **Non-functional**: How the system performs (e.g., security, performance).

Main Activities

1. **Inception** – Understand business needs (“why are we building this?”).
2. **Elicitation** – Gather raw requirements from stakeholders.
3. **Elaboration** – Expand and model requirements to remove ambiguity.
4. **Negotiation** – Resolve conflicting stakeholder needs.
5. **Specification** – Formalize the requirements (often as SRS: Software Requirements Specification).
6. **Validation** – Ensure correctness and consistency of requirements.
7. **Management** – Track changes over time (important for evolving projects).

Best Practices

- Use **scenarios, use-cases, and user stories**.
- Apply **requirements modeling techniques** (e.g., data flow diagrams).
- Focus on continuous **communication with stakeholders**.