

Software Processes

Software Process Paradigms

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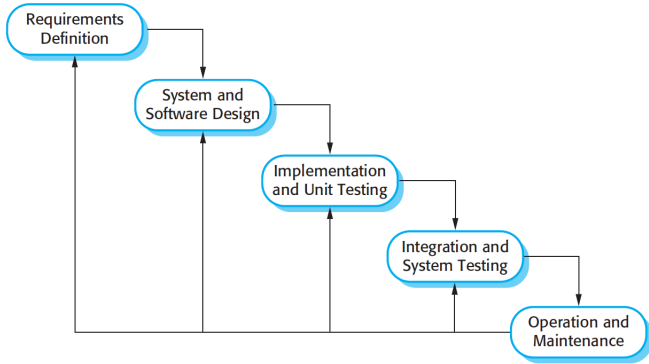
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Process Paradigms

- Waterfall model
- Incremental development
- Reuse-oriented software engineering

Waterfall Model



- **Advantages:**

- Easier project management
- No need for customer involvement during design, implementation, and validation
- Certification is smoother

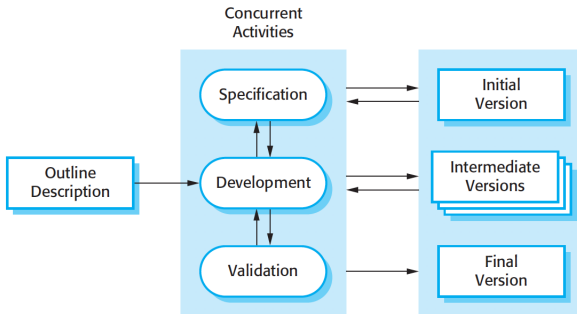
- **Drawbacks:**

- Iterations can be costly and involve significant rework.

- **Applications:**

- Safety-critical and security critical systems

Incremental Development



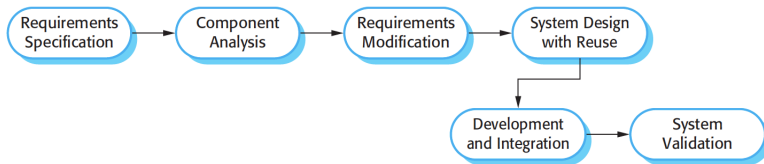
- **Advantages:**

- The cost of accommodating changing customer requirements is low
- Easier to get customer feedback on the development work
- Most important and urgently required functions can be delivered fast
- Helpful for fast entree to the market

- **Drawbacks:**

- Project management is challenging
- System structure degrades over time

Reuse-Oriented Software Engineering



- **Advantages:**

- Fast delivery of the product
- Reduced Cost

- **Drawbacks:**

- May not meet real customer requirements

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