
Lecture 2

Software Development Process Models

Richard J. Orgass
H. John Heinz III School of Public Policy and Management
Carnegie Mellon University

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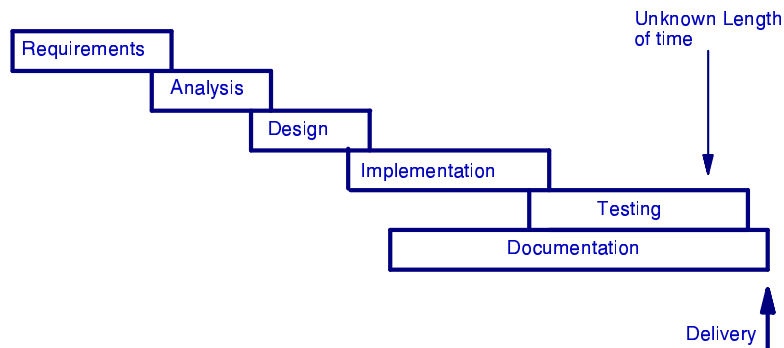
Agenda

- Traditional Waterfall Process
- Iterative Processes
- Examples
 - ATM Authentication/Authorization
 - ATM Transaction

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Traditional Waterfall Process



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Iterative Processes

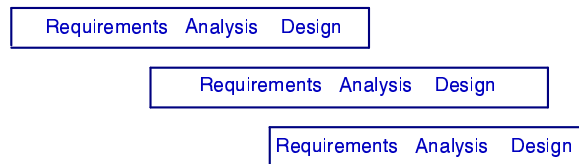
- Significantly shorten steps
- Repeat steps frequently
- Explicitly defer some information to later repetitions
- **Reduce volume and number of documents produced**
 - **Example: Use Cases**
 - Requirements capture
 - Analysis
 - Test case generation
 - User documentation
 - Contract
- Use graphical tools to describe system
- Names like
 - spiral process
 - multiple overlapping paths

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Iterative Cycles

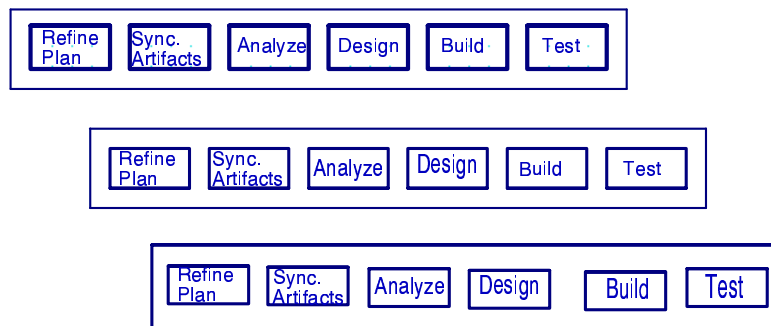
- Use cases created
- Refined in successive iterations
- When no new questions to answer
 - Go on to analysis to learn about more questions
- Start new cycle while continuing old cycle
- Several cycles at different stages in parallel.



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Development Cycles

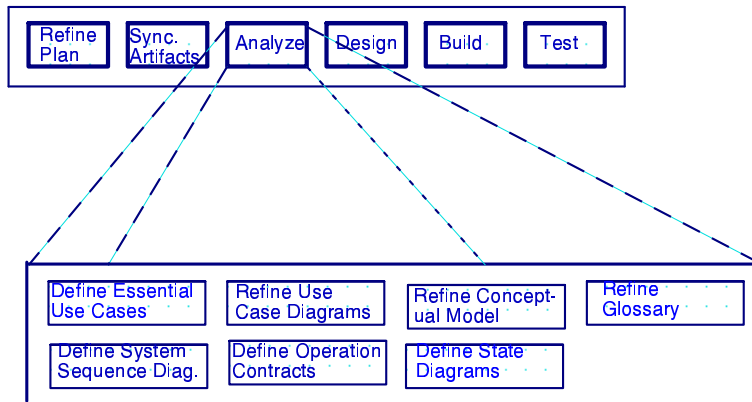


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Analyze phase activities within a development cycle

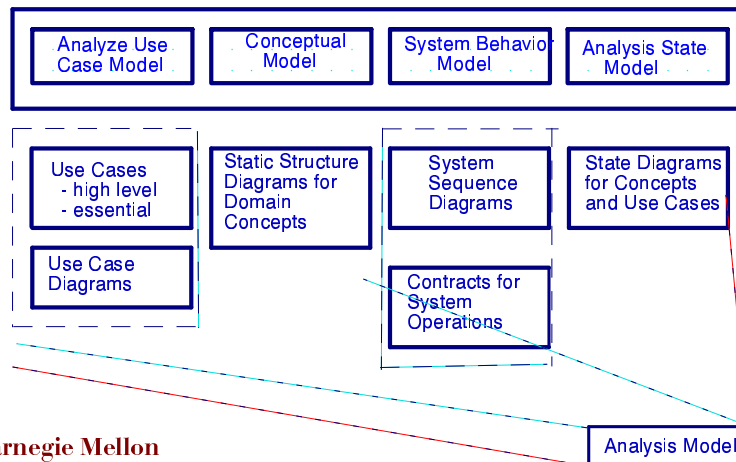
A Development Cycle



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System Sequence Diagrams are part of System Behavior Models

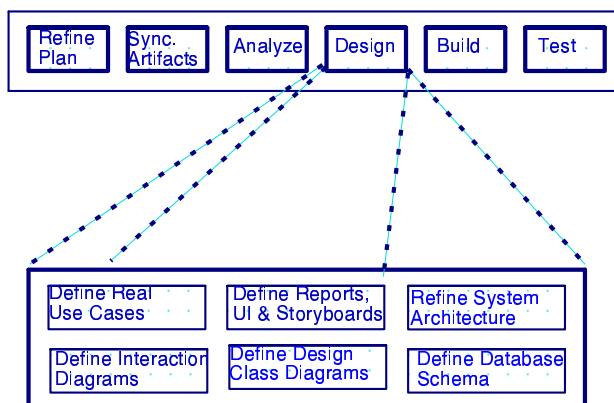


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Design phase activities within a development cycle

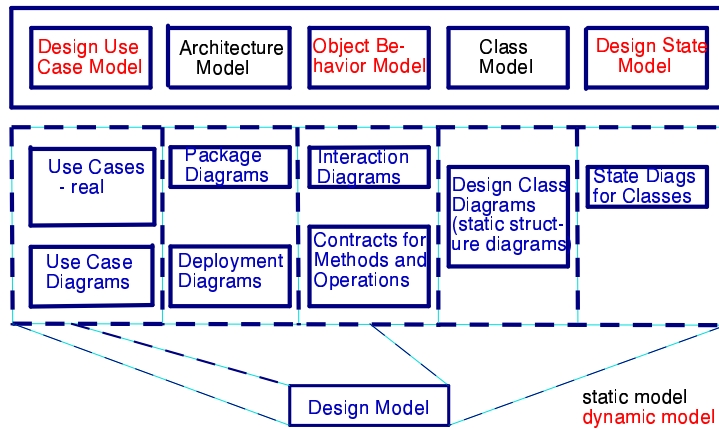
A Development Cycle



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Design Models



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