

SDLC Spectrum/Alternatives

- Sequential or Big-Design-Up-Front (BDUF)
 - Waterfall (previous slide)
 - Capability Maturity Model (CMM)
- Incremental and Iterative Development
 - Rational Unified Process (RUP)
 - Dynamic Systems Development Model (DSDM)
 - Spiral Approach
 - Agile Methodologies
 - Extreme Programming (XP)
 - Scrum
 - Rapid Application Development (RAD)

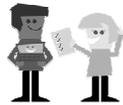
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1. Systems Planning

- Analyzing the business case
- Managing systems projects



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Analyzing the Business Case

- Capture knowledge about how the business will function both with and without the final solution.
- Prove the solution meets the needs of the business to enable funding, approval and prioritization.
- Provide a consistent message to different audiences.



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Managing Systems Projects

- Planning
- Scheduling
- Monitoring
- Controlling
- Reporting



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2. Systems Analysis

- Requirements modeling
- Data and process modeling
- Object modeling
- Logical vs. physical models
- Development strategies

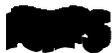
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Requirements Modeling

- Definition
- Tools and Techniques
 - Fact-finding
 - Interviews
 - System requirements checklist
 - Future growth



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Requirements Modeling

- Requirements Modeling Methods
 - Joint Application Development (JAD)
 - Rapid Application Development (RAD)
 - Agile Methods

JAD, RAD and agile methods all use teams made up of users, managers and IT staff.



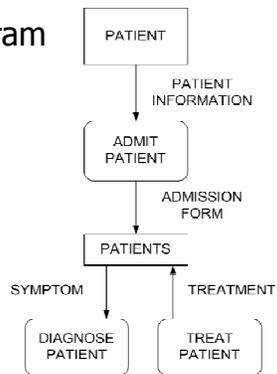
Data and Process Modeling

- Data Flow Diagram (DFD)
- Data Dictionary
- Process Description Tools



Data Flow Diagram

- Processes
- Data Flows
- Data Stores
- External Entities



Data Dictionary

- aka Data Repository
- Data Element = Data Item = Field
- Data Structures = Records



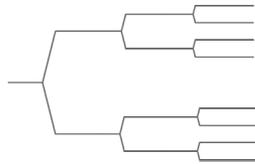
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Process Description Tools

- Modular design
 - Logical or Control Structures
- Structured English
- Decision tables
- Decision trees

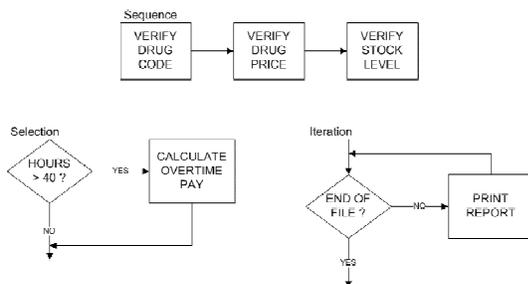


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Logical or Control Structures



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