Systems Analysis & Design

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Basic Definitions

Stake Holder	
Automated Testing	
System Analysis	Process of studying an existing system to understand its requirements, identify problems, and define what the new system must work.
System Design	Takes requirements from analysis phase and creates a technical plan for building the software, including the architecture, databases, and user interfaces.
Systems	Group of interrelated components working together toward a common goal.
Process	logic and workflows that govern how data is moved and transformed within the system.
Tecnology	tools used to implement the solution. Examples: languages, servers, databases.

Software Crisis

Causes

Intangibility	Software cannot be seen, touched, or measured.
Complexity	Software systems are inherently more complex then building bridges.

Symptoms(four horsemen)

Cost	Overruns.
Time	First 90% of code takes 10% of time, last 10% takes another 90%.
Quality	Bugs, failures, poor performance.
Expectations	The final product often do what the user wants.

Software Development Life Cycle (SDLC)

Planning	
Analysis	
Design	
Implementation	
Testing	
Deployment	deployed system in production, release documentation.
Maintenance	

1 Planning

2 Analysis

3 Design

4 Implementation

5 Testing

6 Deployment

7 Maintenance