

Systems Analysis Activities

Gather detailed information	Interviews, questionnaires, documents, observing business processes, researching vendors, comments and suggestions
Define requirements	Modeling functional requirements and non-functional requirements
Prioritize requirements	Essential, important, vs. nice to have
Develop user interface dialogs	Flow of interaction between user and system
Evaluate requirements with users	User involvement, feedback, adapt to changes

Stakeholders

Internal – persons within the organization
External – persons outside the organization
Operational – persons who regularly interact with the system
Executive – persons who don't directly interact, but use the information or have financial interest
Persons who have an interest in the successful implementation of the system

Information Gathering Techniques

Interviewing users and other stakeholders
Distributing and collecting questionnaires
Review inputs, outputs, and doc
Observe & document business processes
Research vendor solutions
Collect active user comment / suggestions

What Are Requirements?

Functional Requirements	– the activities the system must perform. Business uses and functions system must carry out
Non-Functional Requirements	Other system characteristics. Constraints and performance goals.

FURPS+ Requirements Acronym

Requirement categories	FURPS+ categories	Example requirements
Functional	Functions	Business rules and processes
Nonfunctional	Usability Reliability Performance Security + Design constraints Implementation Interface Physical Support	User interface, ease of use Failure rate, recovery methods Response time, throughput Access controls, encryption Hardware and support software Development tools, protocols Data interchange formats Size, weight, power consumption Installation and updates

Reasons for Modeling

Learning from the modeling process
Reducing complexity by abstraction
Remembering all the details
Communicating with other development team members
Communicating with a variety of users and stakeholders
Documenting what was done for future maintenance/enhancement

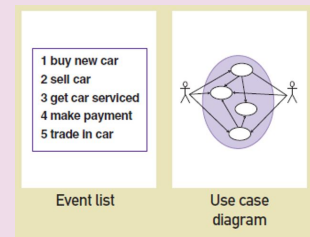
Stakeholders Example



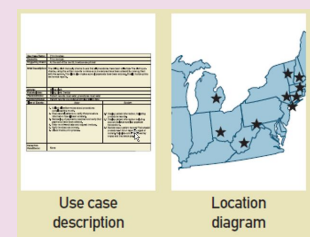
Interviewing Users and Other Stakeholders

Prepare detailed questions
Meet with individuals or groups of users
Obtain and discuss answers to the questions
Document the answers
Follow up as needed in future meetings or interviews

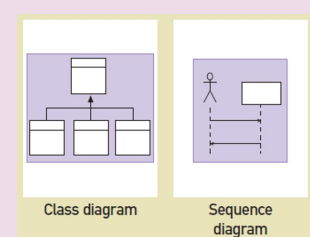
Some analysis and design models 1



Some analysis and design models 2



Some analysis and design models 3



Some analysis and design models 4

