Requirements Elicitation

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Last Time

- Requirements
- Importance of requirements
- Challenges of working with requirements
- Requirements engineering
- Classic issues in requirements engineering

Agenda

- Introduction to requirements elicitation
- Hands on activity
- Key points

Requirements Elicitation

Requirements elicitation is the practice of researching and discovering the requirements of a system from users, customers, and other **stakeholders**. The practice is also sometimes referred to as requirement gathering.

A **stakeholder** is either an individual, group or organization that is impacted by the outcome of a project or a business venture.

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Requirements Elicitation Context

For example: finance, energy, healthcare, educational

For example: academic management system

What stakeholders ask for

Prioritization of requirements…

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Requirements Elicitation Techniques

- Several techniques available
- Used to overcome difficulties like:
  - Stakeholders know what they want but are not able to express it clearly
  - Different stakeholders may express the same requirement in different ways
  - Clearly delineate the limits and goals of the system
  - Obtain commitment and effective participation of customers in the process

Brainstorming is used in requirement elicitation to get as many ideas as possible from group of people. Generally used to identify possible solutions to problems, and clarify details of opportunities.

You create a **prototype** based on initial requirements to show a client an early version of a solution. The client can then give more requirements or refine existing ones to advance the project.

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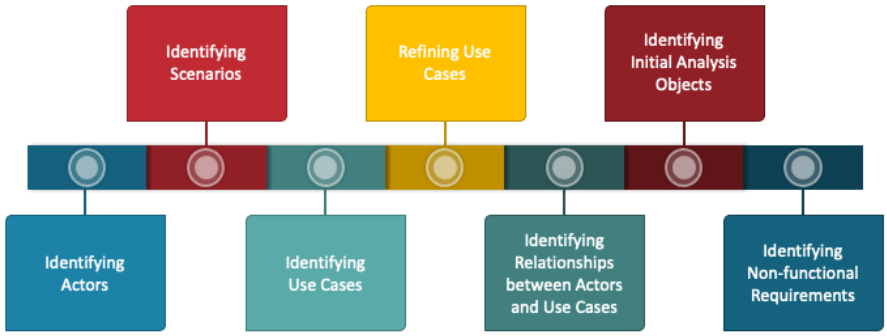
Requirements Elicitation Activities



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Task of the Day

In groups of 2

You will get 1 piece of paper

- Practice making an airplane
- Write how to make an airplane
- Make an airplane with someone else's instruction

15-20 minutes

Procedure:

1. Write a step-by-step instruction for how to make an airplane (Text only! No drawing. No diagram)
2. Trade instructions with your neighbor
3. Follow the instruction (strictly!) to make an airplane
4. Show the result back to the one who gave the instructions


?
Were short instructions enough?


?
Did you find any ambiguous instruction?

Key points

- **Stakeholder Identification and Engagement**
  - It's crucial to identify all key stakeholders early in the process, including end users, business leaders, and technical teams.
  - **Their input is essential to gathering accurate and comprehensive requirements, as different perspectives help in understanding the full scope of the project.**

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Key points

- **Prioritization of Requirements**
  - Not all requirements have equal importance.

How should we prioritize the requirements?

Prioritizing them based on business value, user needs, and technical feasibility ensures that the most critical features are delivered first and within budget and time constraints.

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Key points

- **Iterative and Collaborative Process**
  - Requirements gathering **is not** a one-time activity.
  - It often requires an **iterative** approach, where stakeholders and teams **review**, **refine**, and **adjust** requirements based on new insights, changing conditions, or feedback from prototypes and early stages of development.

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Key points

- **Clear and Unambiguous Requirements**
  - Requirements should be **specific**, **measurable**, and **unambiguous** to avoid confusion and misinterpretation.
  - This helps in reducing **risks** related to scope creep and **rework** during later stages of development.

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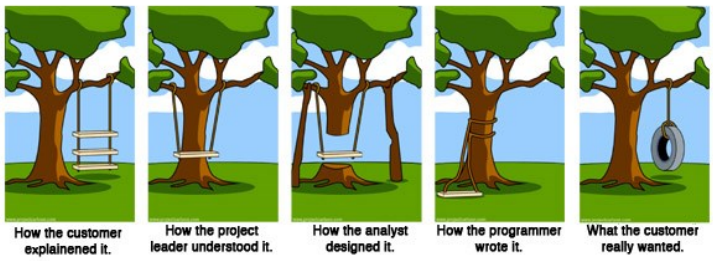
Key points

- **Validation and Verification**
  - Regularly validating requirements with stakeholders ensures they accurately **reflect their needs**.
  - Verification, on the other hand, ensures that the elicited requirements are **feasible and align with technical constraints**, reducing the chances of mismatches between user expectations and the final product.

Summary

- Introduction to requirements elicitation
  - Context, techniques, activities
- In general, it can be difficult to figure out what our "goal" is



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