Requirement

Table of Contents

Benefits from a high-quality requirements process

- Fewer defects in requirements and in the delivered product.
- Reduced development rework.
- Faster development and delivery.
- Fewer unnecessary and unused features
- Lower enhancement costs
- Fewer miscommunications.
- Reduced scope creep (uncontrolled growth in changes of scope)
- Reduced project chaos.
- Higher customer and team member satisfaction.
- Products that do what they're supposed to do.

Good requirement

A good requirement should be
- Accurate
- not ambiguous
- no gold plating
- managed well

Notes:
- Never going to get **perfect** requirement
- Only "**good enough**" (denpend on context) – need to accept risk

Term	Definition
Ambiguous requirement	When multiple readers of a requirement arrive at different understandings of what it means

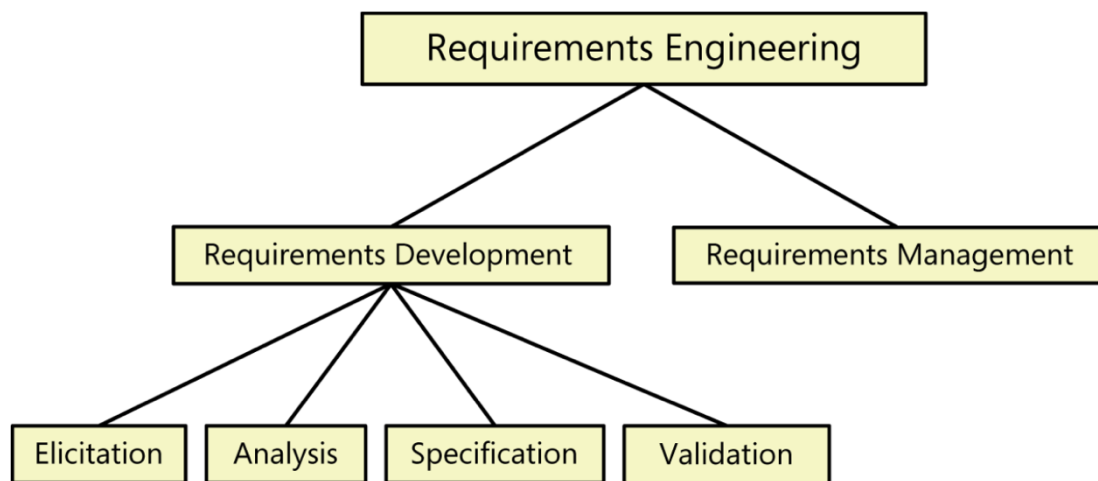| Gold plating	when a developer adds functionality that wasn't in the requirements specification (or was deemed out of scope) but which the developer believes "the users are just going to love."
Risk	A condition that could cause some loss or otherwise threaten the success of a project.
Scope creep	A condition in which the scope of a project continues to increase in an uncontrolled fashion throughout the development process.
Acceptance criteria	Conditions that a software product must satisfy to be accepted by a user, customer, or other stakeholder.
Acceptance test	A test that evaluates anticipated usage scenarios to determine the software's acceptability. Used in agile development both to express details about a user story and to determine whether a user story is fully and correctly implemented.

Requirement Engineering

Figure 1: Software requirement engineering

Analysis
Major activities
- Decomposing high-level requirement into approriate level requirements
- Classify requirement / mapping function – nonfunctional
- Understanding relative importance of quality attributes
- Prioritizing (disusss / negotiate with customer)
- Identify unnecessary requirement, gaps (disusss / negotiate with customer)

Specification
Storing / representing collected requirements – by writing / drawing (digrams: ERD, use case diagrams, state, …)

Validation

Validated – user's needs / verification: verified – compare to specification
Main activities:

- Define / develop acceptance test / acceptance criteria
- Test & review requirement's specification / user's requirement

User story sample

User story	Feature
As a customer, I want to search items by name/category to quickly find the product I need	1. Find the search bar 2. Show similar results 3. Choose the right one to rent
As a customer, I need to do self-register to be able placing order on the site	1. Register 2. Shopping cart 3. Order Overview 4. Order confirmation