Topics

Non-functional Requirements
Requirements Validation
Requirements Maintenance

Functional Requirements: what a product must do
Non-functional Requirements: a description of how well a product must perform

These requirements compliment each other.
Sometimes they are called the Quality Requirements.

Sometimes they are constraints on the services or functions

- Timing constraints
- Power constraints
- Safety constraints
- Reliability constraints
- Storage constraints
- May be more critical than functional

3 Classifications of nonfunctional requirements

1. Product Requirements
    a. Product must behave in a particular way
2. Organizational Requirements

    a. Consequence of organizational policies and procedures
3. External Requirements
    a. Come from factors external to the system
        i. Interoperablility: how well the system behaves in the current environment
        ii. Legistlative

Example| Mental Healthcare Case Study

Product Requirement
- Downtime within normal working hours shall not exceed 5 seconds in any one day.

Organizational Requirement
- Users shall authenticate using their health authority ID

External Requirements
- The system shall adhere to patient privacy policy in HStan-03-2000

We want to write requirements that are easily verified.
- May be difficult for Non-Functional Requirements

EX:
- The system should be easy to use by the medical staff **and** should be organized in such a way that user errors are minimized

Easy to use	1. Calls to tech support below some threshold 2. Time minimized to complete a task 3. Users can use system after 4 hours of training
Errors Minimized	1. Errors made by users less than 2 per hours

Requirements Validation

- Demonstrating that requirements fully define the system that the customer wants.
- The cost of getting this wrong is high

Things to check for

1. Validity
2. Consistency
3. Completeness
4. Realism
5. Verifiability

Types of Non-Functional Requirements

1. Accuracy
2. Dependability

3. Security
4. Usability
5. Efficiency
6. Performance
7. Maintainability