5requirements

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1. Functional Requirements These are the specific functionalities or features a system must have to meet the user's needs. They define what the system should do.

Characteristics: Describe specific actions or operations of the system. Focus on the business logic of the system. Can be easily mapped to use cases or user stories. Examples: A user can log in using their username and password. The system should allow users to upload and download files. The application must calculate the total sales and generate monthly reports. A search feature must allow users to filter results by date, category, or keyword. How Functional Requirements are Validated: Through testing (unit testing, integration testing). Directly verifiable (e.g., if a feature works as expected).

2. Non-Functional Requirements These define the system's quality attributes or the way the system performs its functions. They describe how the system should behave.

Characteristics:

Impact the user experience indirectly.

performance, scalability, reliability, resiliance,

other key words

The system should handle 10,000 concurrent users. Response time must not exceed 2 seconds under peak load. The application should be available 99.9% of the time. Data encryption must be used to ensure security during transmission.

How Non-Functional Requirements are Validated: Through performance testing, load testing, security testing, etc. Measured using metrics (e.g., response time in milliseconds).