



Functional vs. Non-Functional Requirements: A Guide for Success

Welcome! Today we'll explore the crucial differences between functional and non-functional requirements and their impact on successful product development.

Understanding Functional Requirements

What They Do

Functional requirements define the specific tasks and actions a system must perform. They focus on "what" the system needs to achieve.

Examples

Login functionality, creating user profiles, placing orders, searching for information, sending notifications.

Types of Functional Requirements

Business Rules

Define how a system operates within the context of a specific business, ensuring compliance with policies and regulations.

User Stories

Capture the needs and perspectives of users, describing their desired interactions with the system in a clear and concise way.

Data Requirements

Define the specific types of data a system needs to store, process, and manage, including data formats, relationships, and integrity rules.



Understanding Non-Functional Requirements

User Experience

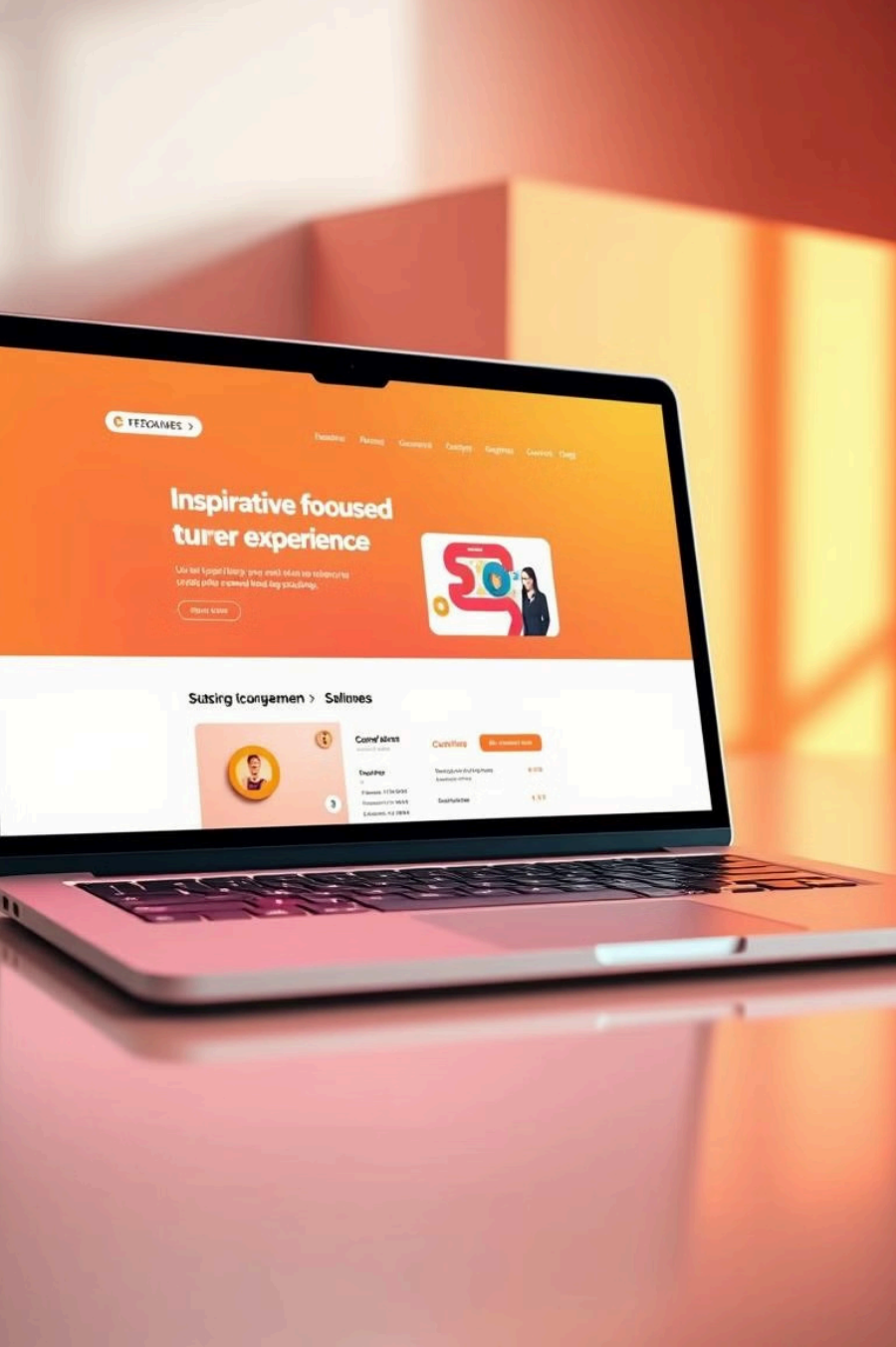
Ensures the system is easy, intuitive, and enjoyable to use for all users.

Performance

Sets standards for system speed, responsiveness, and resource usage.

Security

Protects sensitive data and ensures system integrity against unauthorized access.





Types of Non-Functional Requirements



Security

Establishes measures to prevent unauthorized access, data breaches, and system vulnerabilities.



Performance

Defines the expected response times, load capacity, and resource consumption of the system.



Reliability

Specifies the system's ability to consistently operate without failure, including uptime and error handling.

Functional Requirement

Functional Requirement

User can log in

System protected

Pattern restrictions

Pattern process

Pattern tones

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System documents

Attend results

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Non-functional Requirement

Non-functional Requirement

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- Availability 99.9%

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- Feattonl usy

- 1000 users
- Feathibility: 9.6.9%

Differences Between Functional and Non-Functional Requirements

1

Functional requirements define "what" the system does, while non-functional requirements specify "how" the system performs.

2

Functional requirements are often expressed as user stories or specific tasks, while non-functional requirements focus on overall system quality and user experience.

3

Functional requirements are typically more concrete and measurable, while non-functional requirements are often more subjective and open to interpretation.

Importance of Balancing Functional and Non-Functional Requirements

1

User Satisfaction

Meeting both functional and non-functional requirements ensures a system that is both useful and enjoyable to use.

2

System Success

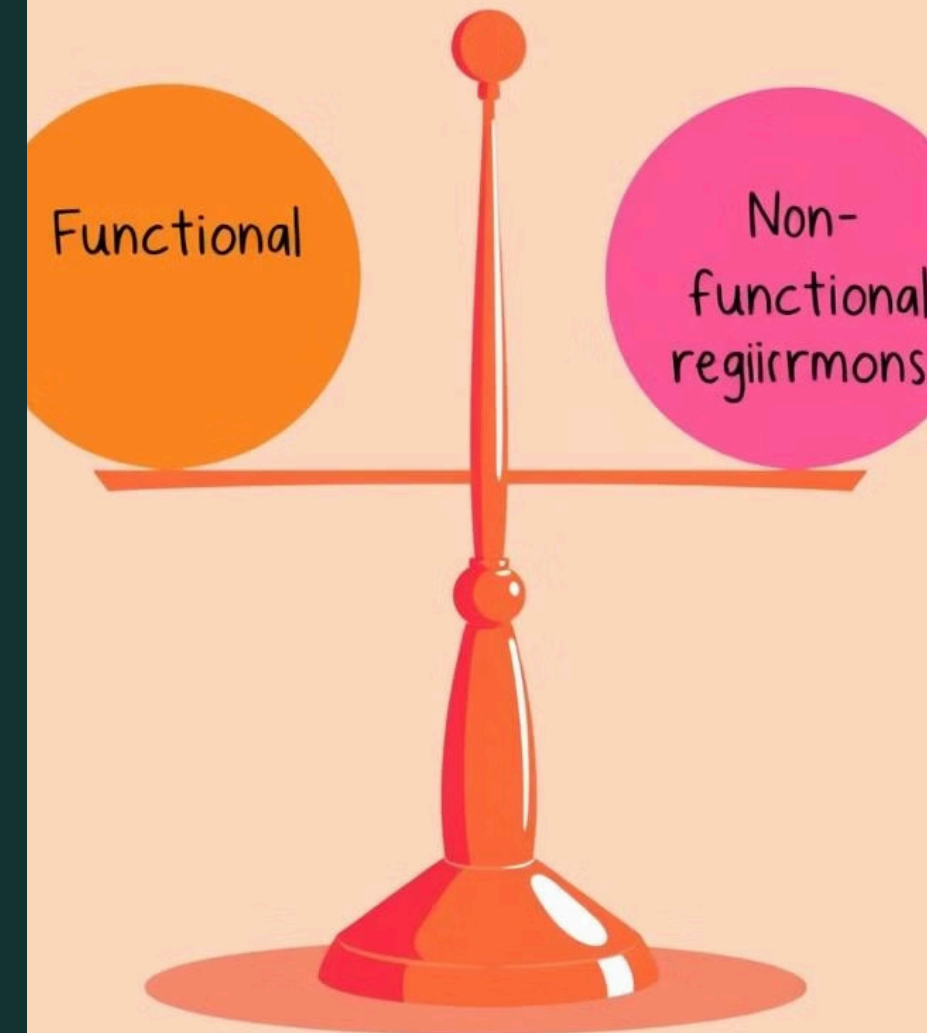
Balancing these aspects contributes to a well-designed and robust system that meets user needs and business goals.

3

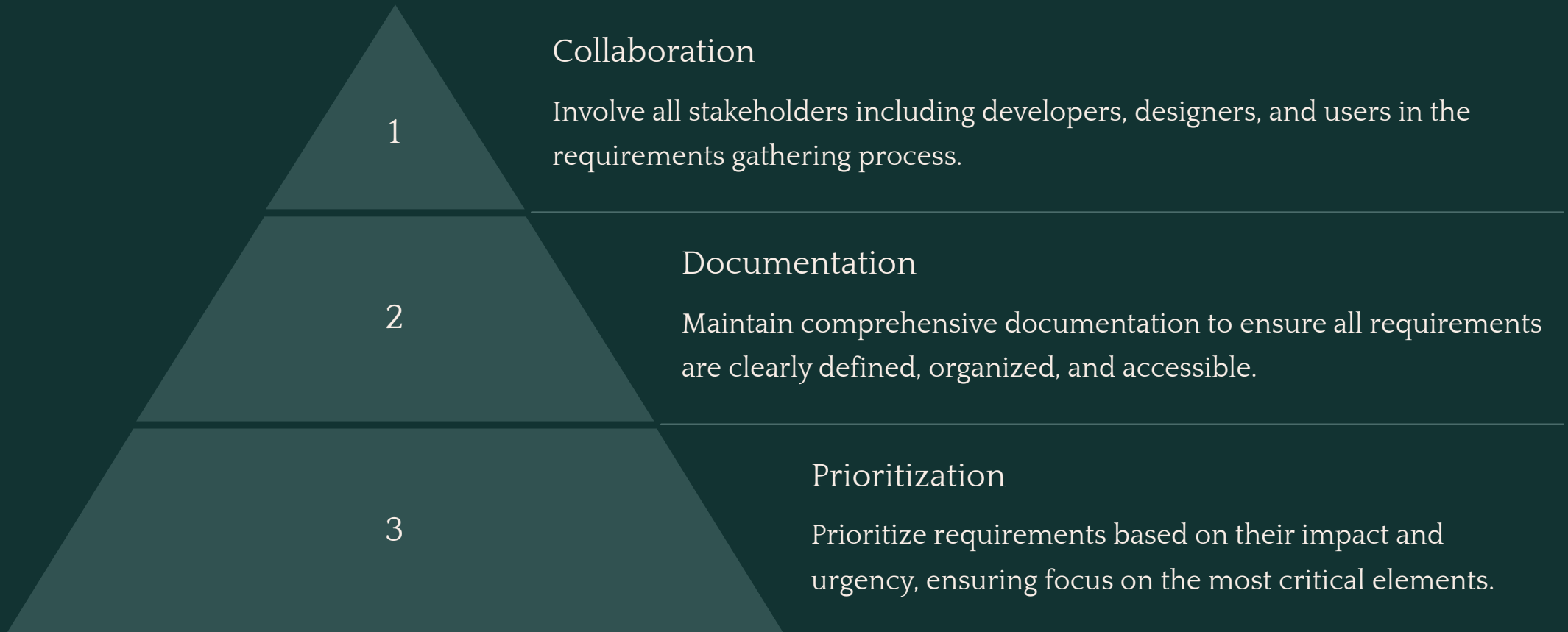
Long-Term Viability

A strong emphasis on non-functional requirements ensures the system remains secure, reliable, and adaptable over time.

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Best Practices for Defining and Managing Requirements





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