FUNCTIONAL REQUIREMENT

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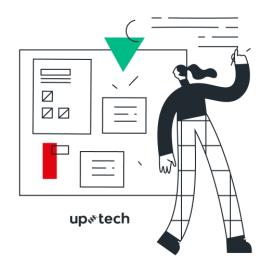
FUNCTIONAL REQUIREMENT

Functional requirements may involve calculations, technical details, data manipulation and processing, and other specific functionality that define what a system is supposed to accomplish.

Behavioral requirements describe all the cases where the system uses the functional requirements, these are captured in use cases.

Functional requirements may include:

- Business requirements
- Reporting requirements
- Administrative functions
- Authentication
- Certification requirements



What Are Non-Functional Requirements?

While functional requirements define the system's fundamental behavior, non-functional requirements

set out how the system will carry out this function. Let's get back to the email notification example. The fact that the system will automatically send an email notification is a functional requirement. Non-functional requirements will dictate when (5 seconds after sign-up) the email ought to be sent.

The list of non-functional requirements may be related to:



- Reliability
- Performance
- Usability

Types of functional requirements and their specifications

Functional requirements can be classified according to different criteria. For example, we can group them on the basis of the *functions* a given feature must perform in the end product. Of course, they would differ depending on the product being developed, but for the sake of an example, the types of functional requirements might be

- Authentication
- Authorization levels
- Compliance to laws or regulations
- External interfaces
- Transactions processing
- Reporting
- Business rules, etc

A Guide to Functional Requirement

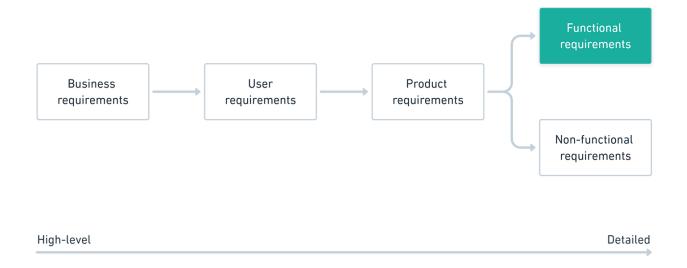
Getting the requirements right is the key to the success of any project. Failure to accurately define and document them inevitably results in miscommunication between stakeholders, constant revisions, and unnecessary delays. Studies show that unclear or poorly documented requirements can increase the project timeline and budget by up to 60%.

With the growing popularity of the <u>Agile approach to</u> <u>documentation</u>, some teams have started to neglect documenting requirements – after all, it's "working software over comprehensive documentation", right?

Alas, it's a common misconception, and foregoing proper <u>internal documentation</u> can be particularly damaging when it comes to requirements. In this article, we'll dive deeper into what functional requirements are and why it's vital to document them

What are functional requirements?

Functional requirements are product features that developers must implement to enable the users to achieve their goals. They define the basic system behavior under specific conditions



Functional requirements should not be confused with other types of requirements in <u>product management</u>:

- Business requirements describe the high-level business needs, such as carving a market share, reducing customer churn, or improving the customers' lifetime value.
- User requirements cover the different goals your users can achieve using the product and are commonly documented in the form of <u>user stories</u>, use cases, and scenarios.
- Product requirements describe how the system needs to operate to meet the business and user requirements. They include functional requirements and non-functional requirements

Functional requirements examples

Functional requirements need to be clear, simple, and unambiguous. Here are some examples of well-written functional requirements:

- The system must send a confirmation email whenever an order is placed.
- The system must allow blog visitors to sign up for the newsletter by leaving their email.
- The system must allow users to verify their accounts using their phone number.

Contrary to a popular misconception, functional requirements are not analogous to <u>user stories</u>, but stories can be a useful tool for deriving requirements with the user in mind. For example:

- User story: As an existing user, I want to be able to log into my account.
- Functional requirements:
 - The system must allow users to log into their account by entering their email and password.
 - The system must allow users to log in with their Google accounts.
 - The system must allow users to reset their password by clicking on "I forgot my password" and receiving a link to their verified email address