

What is a Functional Requirement?

A **Functional Requirement** (FR) is a description of the service that the software must offer. It describes a software system or its component. A function is nothing but inputs to the software system, its behavior, and outputs. It can be a calculation, data manipulation, business process, user interaction, or any other specific functionality which defines what function a system is likely to perform. Functional Requirements in Software Engineering are also called **Functional Specification**.

In software engineering and systems engineering, a Functional Requirement can range from the high-level abstract statement of the sender's necessity to detailed mathematical functional requirement specifications. [Functional](#)

Benefits of Functional Requirement

Here, are the pros/advantages of creating a typical functional requirement document-

- Helps you to check whether the application is providing all the functionalities that were mentioned in the functional requirement of that application
- A functional requirement document helps you to define the functionality of a system or one of its subsystems.
- Functional requirements along with requirement analysis help identify missing requirements. They help clearly define the expected system service and behavior.
- Errors caught in the Functional requirement gathering stage are the cheapest to fix.

Types of Functional Requirements

Here are the most common functional requirement types:

- Transaction Handling
- Business Rules
- Certification Requirements
- Reporting Requirements
- Administrative functions
- Authorization levels
- Audit Tracking
- External Interfaces
- Historical Data management
- Legal and Regulatory Requirements

Example of Functional Requirements

Below are the popular functional requirements examples:

- The software automatically validates customers against the ABC Contact Management System
- The Sales system should allow users to record customers sales
- The background color for all windows in the application will be blue and have a hexadecimal RGB color value of 0x0000FF.
- Only Managerial level employees have the right to view revenue data.
- The software system should be integrated with banking API
- The software system should pass [Section 508](#) accessibility requirement.

Best practice of Functional Requirement

Important best practice for developing functional requirement document is as follows:

- Do not combine two requirements into one. Keep the requirements granular.
- You should make each requirement as complete and accurate as possible.
- The document should draft all the technical requirements.
- Map all requirements to the objectives and principles which contributes to successful software delivery
- Elicit requirements using interviews, workshops and casual communications.

Mistakes While Creating a Functional Requirement

Here, are some common mistakes made while creating function requirement document:

- Putting in unjustified extra information that may confuse developers
- Not putting sufficient detail in the requirement document.
- You add rules or examples, scoping statements or objectives anything except the requirement itself.
- Left out a piece of important information that is an absolute must to fully, accurately, and definitively state the requirement.
- Some professionals start to defend the requirements they have documented when the requirement is modified, instead of finding the correct truth.