

## What are the differences between functional and non-functional testing?

First, functional testing

So functional testing like its name states, tries to test the functions in the system, it tries to evaluate the functions that the system should perform. To evaluate those functions or test them, we need to know what should these functions do? So, we must know the main functionalities of our software and the main functionalities of our or any software are: to perform functional testing on your software, you need the functional requirements. And the functional requirements can be described in many work products, which are the business requirements, specification or the SRS, the requirements also may be stated inside the use cases, and these are some types of requirements in which we have an actor who does some actions with the system. Like we said, in functional testing we try to test the functions of our system and the functions are what the system should do. We ask ourselves; this is a login functionality. What is expected from this login functionality? Another way to identify functional testing is that most of functional testing can be answered by yes or no.

Second, non-functional testing

The second type of software testing is non-functional testing and nonfunctional testing cares about how well the system behaves. In functional testing, we said it tests what the system performs, and most of the questions that the functional testing asks can be answered with yes or no. But in nonfunctional testing, it is not a yes, no question, it is an open-ended question. So how will the system behave? non-functional testing evaluates some characteristics like usability, and usability means. Is our software easy to use or not? from the user interface and the user experience that the user goes through while he is using the application, it also focuses on performance testing. Is the application response time good or not? Does it respond with a good time under heavy load? If, for example, 1000 users are accessing the same functionality at the same time. This is a type of performance testing. Also, efficiency and security, is the system secure or not? Is it efficient or not? Like we said, most of these things are not answered with yes or no. But we should have some metrics that give us some feedback on the performance or the security or the usability or the efficiency of our system.