

Functional Testing Vs Non-Functional Testing: What's the Difference?



Top VPN Choices for Firestick



NordVPN Offer: Get 68% off + 3 months free!



What is Functional Testing?

Functional testing is a type of testing which verifies that each **function** of the software application operates in conformance with the requirement specification. This testing mainly involves black box testing, and it is not concerned about the source code of the application.

Every functionality of the system is tested by providing appropriate input, verifying the output and comparing the actual results with the expected results.

This testing involves checking of User Interface, APIs, Database, security, client/ server applications and functionality of the Application Under Test. The testing can be done either manually or using automation

What is Non-Functional Testing?

Non-functional testing is a type of testing to check non-functional aspects (performance, usability, reliability, etc.) of a software application. It is explicitly designed to test the readiness of a system as per nonfunctional parameters which are never addressed by functional testing.

A good example of non-functional test would be to check how many people can simultaneously login into a software.

FEATURED VIDEOS



Non-functional testing is equally important as functional testing and affects client satisfaction.

KEY DIFFERENCE

- Functional testing verifies each function/feature of the software whereas Non Functional testing verifies non-functional aspects like performance, usability, reliability, etc.
- Functional testing can be done manually whereas Non Functional testing is hard to perform manually.
- Functional testing is based on customer's requirements whereas Non Functional testing is based on customer's expectations.
- Functional testing has a goal to validate software actions whereas Non Functional testing has a goal to validate the performance of the software.
- A Functional Testing example is to check the login functionality whereas a Non Functional testing example is to check the dashboard should load in 2 seconds.
- Functional describes what the product does whereas Non Functional describes how the product works.
- Functional testing is performed before the non-functional testing.

Functional Vs. Non-Functional Testing



Parameters	Functional	Non-functional testing
Execution	It is performed before non-functional testing.	It is performed after the functional testing.
Focus area	It is based on customer's requirements.	It focusses on customer's expectation.
Requirement	It is easy to define functional requirements.	It is difficult to define the requirements for non-functional testing.
Usage	Helps to validate the behavior of the application.	Helps to validate the performance of the application.
Objective	Carried out to validate software actions.	It is done to validate the performance of the software.
Requirements	Functional testing is carried out using the functional specification.	This kind of testing is carried out by performance specifications
Manual testing	Functional testing is easy to execute by manual testing.	It's very hard to perform non-functional testing manually.
Functionality	It describes what the product does.	It describes how the product works.
Example Test Case	Check login functionality.	The dashboard should load in 2 seconds.
Testing Types	Examples of Functional Testing Types <ul style="list-style-type: none">Unit testingSmoke testingUser AcceptanceIntegration testingRegression testingLocalizationGlobalizationInteroperability	Examples of Non-functional Testing Types <ul style="list-style-type: none">Performance TestingVolume TestingScalabilityUsability TestingLoad TestingStress TestingCompliance TestingPortability TestingDisaster Recover Testing



YOU MIGHT LIKE:

SOFTWARE TESTING

Web

Application Testing Checklist: Example Test Cases for Website

While testing the web applications, one should consider the below mentioned template. The below...

[Read more »](#)

AGILE TESTING

20 Best Agile Tools | Agile Project Management Software (2021)

{loadposition top-ads-automation-testing-tools}

In agile development, the emphasis on building the...

[Read more »](#)

SOFTWARE TESTING

Certified Software Quality

Analyst(CSQA) Certification Guide

What is CSQA? CSQA stands for Certified Software Quality Analyst . This course is provided by QAI...

[Read more »](#)

LOADRUNNER

Top 80

Loadrunner Interview Questions & Answers

1) Which protocols are supported by LoadRunner? As of LoadRunner 9.5 following protocols are...

[Read more »](#)

AGILE TESTING

What is Kanban? Cards, Boards,

Methodology explained

What is Kanban? KANBAN is a very popular framework for development in the agile software...

[Read more »](#)

COURSE

Agile Tutorial | Agile

Methodology Tutorial for Testing

Agile Tutorial Agile is a coding practice that follows the rules and principles of agile software...

[Read more »](#)

Top Tutorials

About

[About Us](#)

[Advertise with Us](#)

[Write For Us](#)

[Contact Us](#)

Career Suggestion

[SAP Career Suggestion Tool](#)

[Software Testing as a Career](#)

Interesting

[eBook](#)

[Blog](#)

[Quiz](#)

[SAP eBook](#)

Execute online

[Execute Java Online](#)

[Execute Javascript](#)

[Execute HTML](#)

[Execute Python](#)

Selenium

Testing

Hacking

SAP

Java

Python

Jmeter

Informatica

JIRA