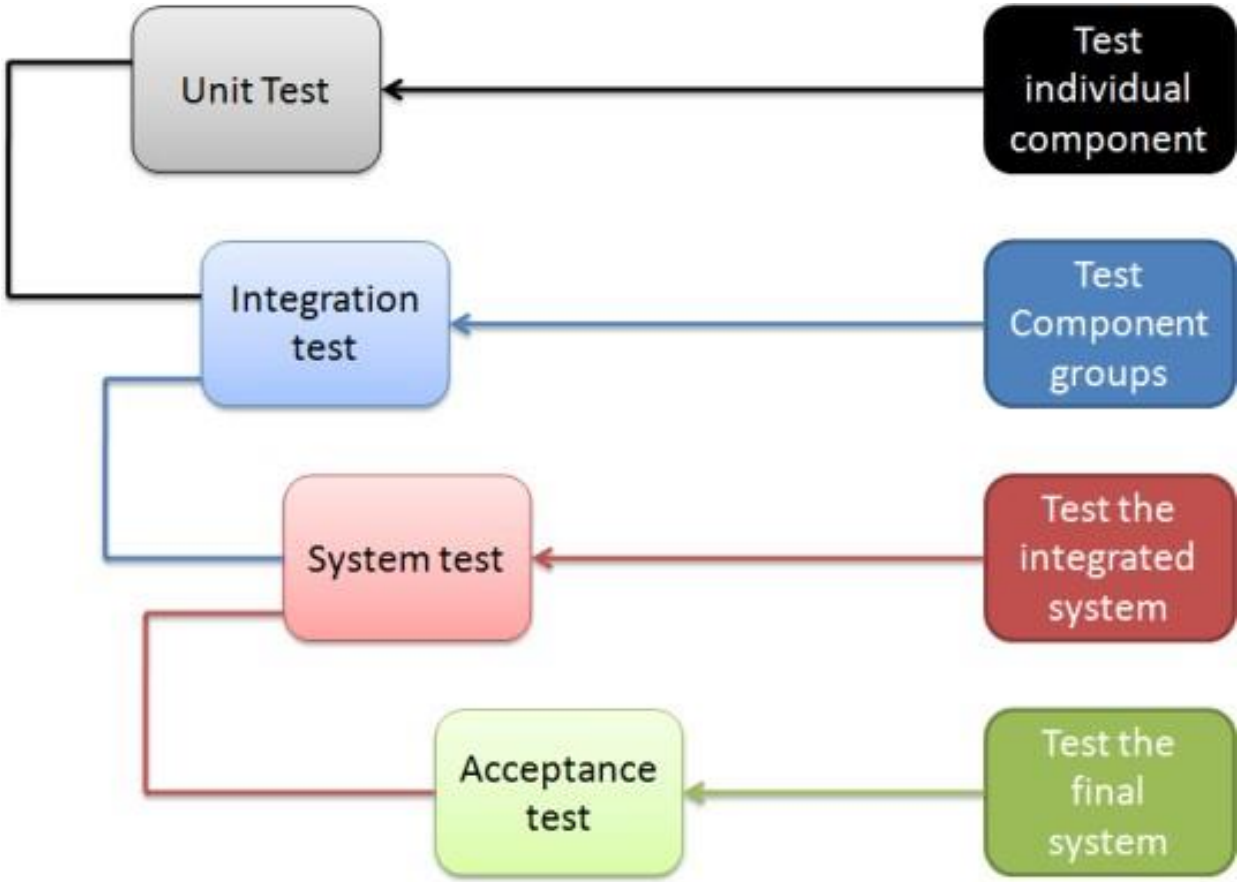
Types of Functional Testing Summary



4. UAT Testing

Who: User Acceptance Testing **(UAT)** is a type of testing performed by the end **user** or the **client**

Why: To verify/accept the software system

When: UAT is done in the final phase of testing after unit, integration and system testing is done.

2. Non-Functional Testing

- Non-functional testing is a type of software testing to test non-functional parameters such as **reliability, load test, performance and accountability of the software**.

- The parameters of non-functional testing are never tested before the functional testing.

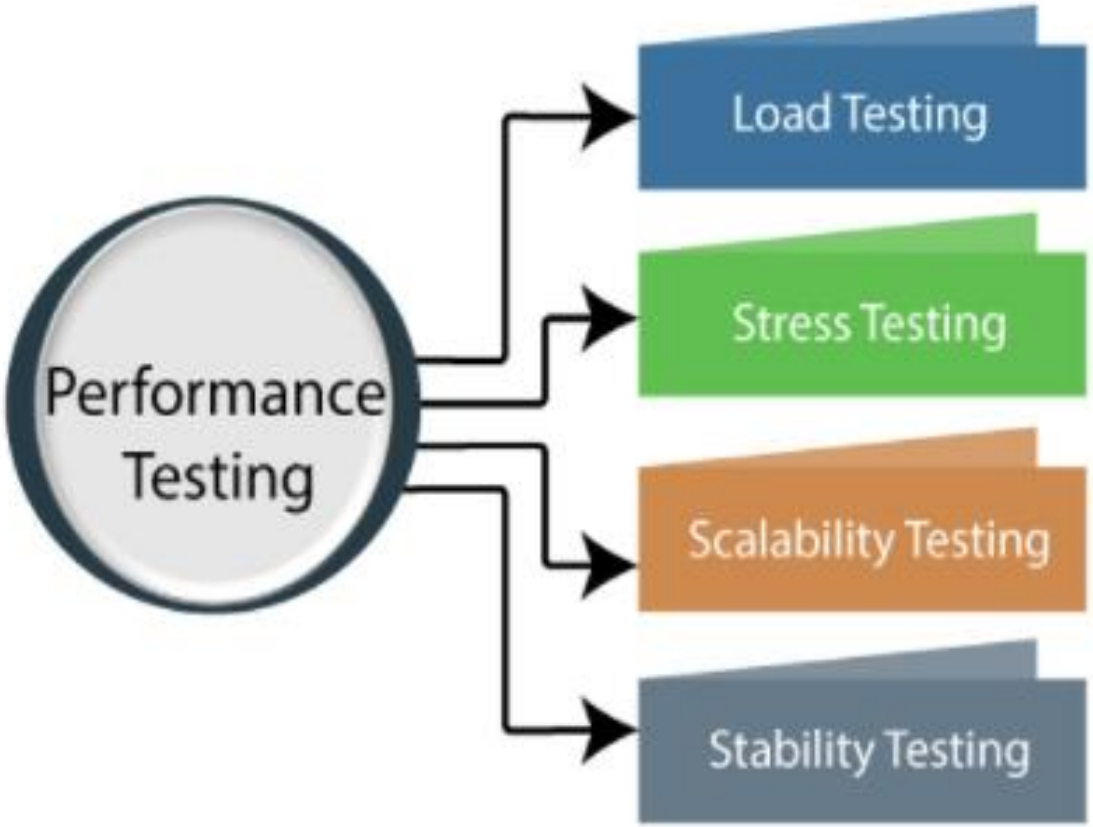
- Functional testing checks the correctness of internal functions while Non-Functional testing checks the ability to work in an external environment.

Parameters to be tested under Non-Functional Testing…

1.Performance Testing

- Checking the behavior of an application by applying some load is known as performance testing.
- Generally, this testing defines how quickly the server responds to the user's request.
- While doing performance testing on the application, we will concentrate on the various factors like Response time, Load, and Stability of the application.

Types of Performance Testing



1. Load Testing

- The load testing is used to check the performance of an application by applying some load which is either less than or equal to the desired load is known as load testing.

- Example:

2. Stress Testing

- The stress testing is testing, which checks the behavior of an application by applying load greater than the desired load.

- Example:

3. Scalability Testing

- Checking the performance of an application by increasing or decreasing the load in particular scales (no of a user) is known as scalability testing.

❖ Upward scalability testing

It is testing where we increase the number of users on a particular scale until we get a crash point. We will use upward scalability testing to find the maximum capacity of an application.

❖ Downward scalability testing

Decreasing the no. of users in a particular interval until the goal is achieved. So that it is easy to identify the bottleneck (bug).

4. Stability Testing

- Checking the performance of an application by **applying the load for a particular duration of time** is known as Stability Testing

Performance test tools

Commercial tools: LoadRunner[HP], WebLOAD, NeoLoad

Open-source tool: JMeter

5. Usability Testing

- Checking the user-friendliness, efficiency, and accuracy of the application is known as Usability Testing.
- performed from an end-user viewpoint to verify if the system is efficiently working or not.
- Purpose to check that the application should be easy to use for the end-user who is meant to use it

Usability Testing Example

- Suppose we have two applications, namely **P and Q**, that are different but perform the same job, and we will see which one is user-friendly.

Testing parameter

- Look & feel
- Navigation should be simple
- Speed
- Compatibility
- Help
- Features

we learn the **Application P** in **4 hours**, but we take 6 hours in order to understand the **application Q.**

5. Compatibility Testing

- Checking the functionality of an application on different software, hardware platforms, network, and browsers is known as compatibility testing.

Why:

- It may be used or accessed by multiple users on the different platforms
- To avoid compatibility issues.

When

- when the application or software is functionally stable.

Cont…

Example: