

TYPES OF MANUAL TESTING

Acceptance Testing

User Acceptance Testing (UAT) is performed by the client or end-user, to confirm that the software meets the agreed requirements. Sometimes called pre-production testing, it takes place during the final phase before releasing the product to market.

UAT is an example of functional testing and types of acceptance testing include Alpha (executed within the organization) and Beta (where the [application](#) is released to a limited market to generate user feedback).

Black Box Testing

Also known as behavioral testing, this method aims to analyze an application's functionality from the end-user's perspective. The internal code structure is not visible during testing (hence the name "Black Box"), so testers are only aware of the inputs and expected outputs of the software.

Black Box Testing has several subdivisions, including functional testing for requirement compliance, smoke testing to assess basic functionality, and partitioning (dividing software into groups that are expected to exhibit similar behavior).

Integration Testing

Integration Testing is the process of testing an application with two or more integrating components. It is performed once the individual components have been unit-tested, and aims to identify problems with the interfaces and the interactions between them.

The two main methods are the Bottom-Up Approach (moving steadily from the bottom module to the top module) and Top-Down Approach (the opposite).

System Testing

System Testing means testing the system as a whole, once all its components have been unit-tested and integrated. It checks that the complete application works as intended, by comparing it against the original requirements.

Also called end-to-end testing, it typically involves installability testing (does the software install correctly?) and recovery testing (can the application recover from hardware crashes and network failures?).

Unit Testing

This is when the individual units or components of an application's source code are tested, to make sure each function performs as expected. It is usually carried out by developers rather than engineers, as it requires detailed knowledge of the internal program design and code.

Also known as module testing or component testing, it simplifies the debugging system and helps to detect and protect against bugs in the future.

White Box Testing

Sometimes called transparent box testing or structural testing, this is a method of testing the internal structures or workings of an application. It is performed by the developer, who checks the software's internal codes before passing it to a test engineer.

The main focus of White Box Testing is on strengthening security and improving the software's design and usability. A combination of Black Box and White Box testing is known as Gray Box Testing.