Manual testing

What is Manual testing?

Manual Testing is a type of Software Testing where Testers manually execute test cases without using any automation tools. Manual Testing is the most primitive of all testing types and helps find bugs in the software system.

Any new application must be manually tested before its testing can be automated. Manual Testing requires more effort but is necessary to check automation feasibility.

Manual Testing does not require knowledge of any testing tool.

One of the Software Testing Fundamental is "100% Automation is not possible".

This makes Manual Testing imperative.

Goal of Manual Testing

The key concept of manual testing is to ensure that the application is error free and it is working in conformance to the specified functional requirements.
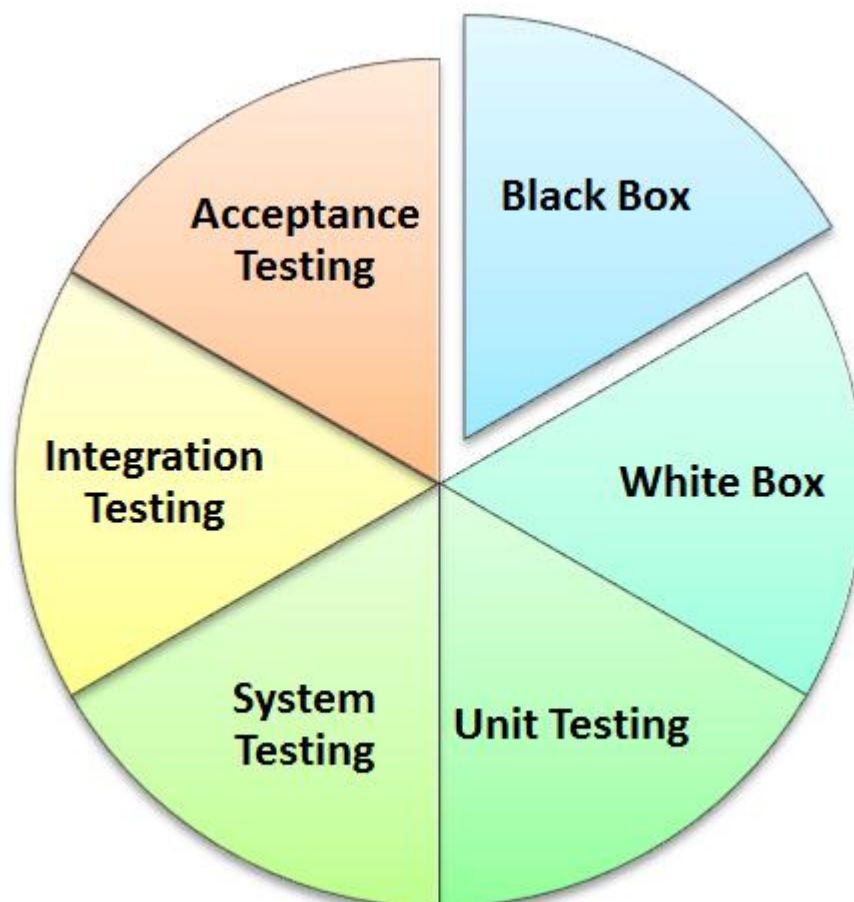
Test Suites or cases, are designed during the testing phase and should have 100% test coverage.

It also makes sure that reported defects are fixed by developers and re-testing has been performed by testers on the fixed defects.

Basically, this testing checks the quality of the system and delivers bug-free product to the customer.

Types of Manual Testing:

Below given diagram depicts Manual Testing Types. In fact, any type of software testing type can be executed both manually as well using an automation tool.

- Black Box Testing
- White Box Testing
- Unit Testing
- System Testing
- Integration Testing
- Acceptance Testing

How to perform Manual Testing

1. Read and understand the software project documentation/guides. Also, study the Application Under Test (AUT) if available.
2. Draft Test cases that cover all the requirements mentioned in the documentation.
3. Review and baseline the test cases with Team Lead, Client (as applicable)
4. Execute the test cases on the AUT
5. Report bugs.
6. Once bugs are fixed, again execute the failing test cases to verify they pass.

Myths of Manual Testing

Following are few common myths and facts related to testing:

Myth: Anyone can do manual testing

Fact: Testing requires many skill sets

Myth: Testing ensures 100% Defect free product

Fact: Testing attempts to find as many defects as possible. Identifying all possible defects is impossible.

Myth: Automated testing is more powerful than manual testing

Fact: 100% test automation cannot be done. Manual Testing is also essential.

Myth: Testing is easy

Fact: Testing can be extremely challenging. Testing an application for possible use cases with minimum test cases requires high analytical skills.

Manual Testing vs Automation Testing

Manual Testing	Automated Testing
Manual testing requires human intervention for test execution.	Automation Testing is use of tools to execute test cases
Manual testing will require skilled labour, long time & will imply high costs.	Automation Testing saves time, cost and manpower. Once recorded, it's easier to run an automated test suite
Any type of application can be tested manually, certain testing types like ad-hoc and monkey testing are more suited for manual execution.	Automated testing is recommended only for stable systems and is mostly used for Regression Testing
Manual testing can become repetitive and boring.	The boring part of executing same test cases time and again is handled by automation software in Automation Testing.

Tools to Automate Manual Testing

- Selenium
- QTP
- Jmeter
- Loadrunner
- TestLink
- Quality Center(ALM)

Conclusion

Manual testing is an activity where the tester needs to be very patient, creative & open minded.

They need to think and act with an End User perspective.