

Automation Testing Vs Manual Testing

Testing of software can be done in both Automation and Manual testing method, but it's totally depends on the project requirement, budget associated with the project, and which testing method will be benefited to the project. This article provides basic information about Manual Testing and Automation Testing.

Automation Testing:

The method takes automation tool support to execute the test cases is known as **Automation Testing**. Automated testing is good for large project.

It is a method which uses automation tools to run tests that repeat predefined actions, matches the developed program's probable and real results. If the project prospects and results align, your project is behaving as it should, and you are likely bug free. If the two don't align, still, there is a problem that requires to be addressed. You'll have to take a look at your code, alter it, and continue to run tests until the actual and expected outcomes align.



Manual Testing:

Manual testing is a method used by software developers to run tests manually.

There are many manual testing types which are carried out manually as well as automatically. These are,

Black Box Testing – It is a testing method to test functionalities and requirements of the system. It does not test the internal part of the system.

White Box Testing – It is a testing method based on information of the internal logic of an application's code and also known as Glass box Testing. It works on Internal working code of the system. Tests are based on coverage of code statements, branches, paths, conditions.

Integration Testing – Integrated modules testing method to verify joint functionality after integration. Modules are typically code modules, individual applications, client and server applications on a network, etc. This type of testing is especially applicable to client/server and distributed systems.

System Testing – It is a technique to test whole system.

Unit Testing – Testing method to test specific component of software or module. It is specially done by programmers and not by testers, because it needs thorough knowledge of the internal programming design and code.

Acceptance Testing – This type of testing verifies that the system meets the customer specified requirements or not. User or a customer does this testing to decide whether to accept application.

Comparison between Automation Testing and Manual testing

Automation Testing	Manual Testing
Automation testing perform the same operation each time	Manual testing is not reliable. Using this method test execution is not accurate all the time.
Automation testing is very much helpful regressions in testing where code changes frequently.	To execute the test cases first time using manual testing will be very much useful. But it is not sure that it will catch the regression defects under frequently changing requirements.
Automation testing will be useful to execute the set of test cases frequently.	Manual testing will be useful when the test case only needs to run once or twice.
After making Automation test suites, fewer testers required to execute the test cases.	To execute the test cases every time tester requires the same amount of time.
Automation testing can also be done on different machine with different OS platform combination, concurrently.	Using manual testing, testing on different machine with different OS platform combination is not possible, concurrently. To execute such task different testers are required.
Using Automation testing, testers can	It does not involve in programming task

test complicated application too.	to fetch hidden information.
Automation runs test cases significantly faster than human resources.	Manual testing is slower than automation. Running tests manually can be very time consuming.
Some time it is not helpful in UI testing	It is very much helpful in UI testing
Automation testing is very useful for automating the Build Verification Testing (BVT) & it is not mundane and tiresome.	To execute the Build Verification Testing (BVT) is very mundane and tiresome in manual testing.
Initial cost of automation testing is more than manual testing but useful always.	Manual testing requires less cost than automation.

Conclusion

After knowing all advantages and disadvantages of manual and automation testing, it is easy to choose that which type of testing is useful in a particular situation. Some kind of testing we can't use in all situations, so that making a right decision can save your lots of time and offer improve results inclusive. For excellence software testing, both testing methods are required and both should be studied sensibly because those values characterize the core of Software QA.

Source:

<http://www.softwaretestingclass.com/automation-testing-vs-manual-testing/>