

Software Testing Types

This section describes the different types of testing which may be used to test a Software during SDLC.

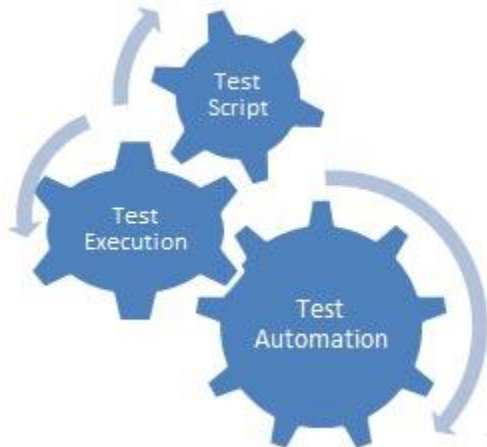
Manual testing

This type includes the testing of the Software manually i.e. without using any automated tool or any script. In this type the tester takes over the role of an end user and test the Software to identify any un-expected behavior or bug. There are different stages for manual testing like unit testing, Integration testing, System testing and User Acceptance testing.

Testers use test plan, test cases or test scenarios to test the Software to ensure the completeness of testing. Manual testing also includes exploratory testing as testers explore the software to identify errors in it.

Automation testing

Automation testing which is also known as *Test Automation*, is when the tester writes scripts and uses another software to test the software. This process involves automation of a manual process. Automation Testing is used to re-run the test scenarios that were performed manually, quickly and repeatedly.



Apart from regression testing, Automation testing is also used to test the application from load, performance and stress point of view. It increases the test coverage; improve accuracy, saves time and money in comparison to manual testing.

What to automate?

It is not possible to automate everything in the Software; however the areas at which user can make transactions such as login form or registration forms etc, any area where large amount of users. can access the Software simultaneously should be automated.

Furthermore all GUI items, connections with databases, field validations etc can be efficiently tested by automating the manual process.

When to automate?

Test Automation should be uses by considering the following for the Software:

- Large and critical projects.

- Projects that require testing the same areas frequently.
- Requirements not changing frequently.
- Accessing the application for load and performance with many virtual users.
- Stable Software with respect to manual testing.
- Availability of time.

How to automate?

Automation is done by using a supportive computer language like vb scripting and an automated software application. There are a lot of tools available which can be use to write automation scripts. Before mentioning the tools lets identify the process which can be used to automate the testing:

- Identifying areas within a software for automation.
- Selection of appropriate tool for Test automation.
- Writing Test scripts.
- Development of Test suits.
- Execution of scripts.
- Create result reports.
- Identify any potential bug or performance issue.

Software testing tools

Following are the tools which can be use for Automation testing:

- HP Quick Test Professional
- Selenium
- IBM Rational Functional Tester
- SilkTest
- TestComplete
- Testing Anywhere
- WinRunner
- LaodRunner
- Visual Studio Test Professional
- WATIR

Source:

http://www.tutorialspoint.com/software_testing/testing_types.htm