

A New Approach for Evaluating Software Testing Automation Tools

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ABSTRACT

The environments where the build to focus the warehouse to maintain all the business aspects are satisfied and the quality are obtained on the functionalities are acting up to the users desire. The objective of this paper is to initiate a mechanism to evaluate automation tools effectively, at the moment. There are various systems built and even if they are platform independent and also if existing with additional features they are having many demerits that don't satisfy the end user. A significant contribution of this paper is development of this metric suite that facilitates assessment and selection of a desired testing tool for automated testing and in relation to the environment for the software is developed. In software company it is a high value for project management team selecting the tools that may satisfy the requirement satisfactions highlighted by the end user to be satisfied to maintain the business mix.

Keywords :Automation Testing, Software Tools Evaluation of Tools.

I. INTRODUCTION

Software testing is an area of software development where the persistence and continuous efforts are critically essential. Software testing is the process of verifying software quality by using software with applicable test case to determine if proposed software requirements are being met properly. Testing is a primary aspect of software engineering but it was a practices that too often is easily not remembered in today's fast –paced web based application developing environment. The automation tools existing for testing the build chosen in the comparison for Web based testing were QTP, Selenium, Load runner, Jmeter and SoapUI. Other than the above said tools we have various automation tools with selective features that arises some psychological disabilities in the technical team. Win runner and silk Test, RFT were initially chosen but because of the cumbersome setup and

initialization they were both rejected. Another tool that was initially chosen and sequentially rejected was Rational Robot, due to the User interface features did not exist. Software has become even more multiplex today, which means there are more lines of code, and more thorough testing that needs to be done. If Testing process was not completed as thoroughly as required, the effective can be destructive to a company since there was typically a great monetary cost to a industry if bugs are found by user after updates are released. In fact, the reliability of the software is possible threatened every time error is released in software.

The Systems Development Life Cycle (SDLC) includes: project planning, analysis, design, implementation, testing and support. Current approaches to SDLC encourage an iterative approach rather than a linear approach. Hence, testing was an ongoing process activity that occurs all around the life of the projects.

All though, systems testing and integration testing are also done just before the software is deployment. It is as a result clear that testing filter through the entire SDLC.

Software Testing Strategies

There are various approaches to generating test cases: specification-based and implementation-based (or code-based). Specification-based testing, also known as black box or functional testing focuses on giving the input/output behavior or functionality of a component. These techniques act towards the program under testing as a black box where no idea about the implementation on assumption. Code-based, also known as white box or glass box, generate a test suite based on the source code of the programs. This paper is to be perform specification-based testing on an application with three different tools and compare the way tests are conducted from all three and also compare the results.

SOFTWARE TESTING TOOL

- QTP
- LoadRunner
- Selenium
- SOAPUI
- Jmeter

QTP - OS - Windows (only), / not android & Mac / mobile app not possible / highly commercial / not performance & UI / highly commercial / Setup files.

Load Runner – Performance Testing only – Windows only – ERP & Web / (Android /Mac) / Highly Commercial – Setup files

SOAP UI – STT – Web applications only – Web services – Functionality / Performance / Graphical setups (GUI).

Drawback – Windows OS supports – not others – Flipkart – WA /MA/Mac

Selenium - Windows (only), / Platform Independent / not android & mac / mobile app not possible / Only Functionality / not performance & UI / not highly commercial / configuration.

II. RELATED WORK

Research has been found in many report about testing tools are compared. In earlier discussion , academic research paper presents the design and implementation of an automation software testing tool. The tools described in this paper are mechanically created test cases for specific three-variable functions. The test case was created, an output is generated and compared to a computed expected test result obtained from an input file. This research provides creator with assurance that the implemented system achieves an extremely high level of correctness. Till now, no research has been done on comparing automation software testing tools to determine, based on metrics, which was the most efficient tool.

2.1 SUMMARIZING THE COMPARISON

Problems Identified

- Too Cost (Licensed) SME cannot buy.
- It doesn't supports environment, browsers, Programmes and etc in the same tool
- No tool can test functional, Performance, Database, UI and Security. There is no tool for database Testing

III. PROPOSED SYSTEM

The first tool selected is UFT, and the reason it was chosen is because it is the one most widely used. The scheme of this assessment uses automation testing tools to go through end user steps in the application and compare highlight between the tools. It has User interface and programming interface.

The second tool that was evaluates was Load runner, and the reason it was chosen was because there is no need to download it is a set up files and we can create virtual user also get clear performance report

The Third tool that was evaluated was Selenium It is open source and platform independent. The Fourth tool that was evaluated was Jmeter It is open source and it is a performance Testing tool

IV. CONCLUSION

In this portion, they planned the papers that reviewed during this project. In up to date years the implication of polished User Interfaces has expanded a lot. Instantly User Interfaces have to deal much more than previously with untrained people sitting in front of their computers. It has no wonder that not only the automation behind the landscape (Testing for example) advanced in consequence, here also the automation in User Interface Tests with all in boon and bane. The paper surveys a set of tools that support the various testing process in a collection of ways. The various tools affected in the ultimate execution environment as a way of facilitate in test execution, others automated in the development of all test plans that are needed still others to collect performance data during execution. In these to fight in economic times, software development managers are exceeding to get more and better testing done faster. The paper gives an analysis it will which tries to give an account of what type of trends exist instant in software discuss and testing. The centralize was to try to find out how developers use different tools today and what are lacking, especially in the field of reuse and testing.

V. FUTURE ENHANCEMENT

The expansion of this analysis paper would be to classify the testing tools with respect to technical details such as coding, debugging and support of the technologies. There is a lot to analysis in this range as there are at least 40 different testing tools available in the market which one needs to examine and come up with the test metrics which can help users and industries to calculate and select a testing tool which curtail testing cycles and time to market of the

software. Here the test cases are initiated manually tested and then as a part of the regression execution same test case are coded in the test scripts and being executed over the application under test. There are various tools available in the field at the moment. Each tool has its own features to test software. Automated testing is developed which salvage time and resources, providing a good ROI. Test automation further up the testing process and minimizing time to market.

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