Chapter 5
Conclusion, finding, suggestions and limitations

This chapter will consist the final Conclusion, suggestions & findings based on data collected & study of software testing tools.

Conclusion

The present concluded of the study are based on the Primary data, discussion with the various Sources such as Quality Test Engineers, Software Quality Analyst, Software Developer, Software Engineer, Project Manager and other concern peoples and observation of the researcher while doing the Research.

1. Most of respondents are belongs to age group 26-30.Also Most of the respondents having designation Quality Test Engineer.

2. It is concluded that 46% Software Companies are even not using separate testing team to test the web application.

3. Most of the respondents having opinion Automation tools are required & effective to test Web Application.

4. It is concluded that majority of 60% respondents Companies are using Automation tool for testing web application.

5. 40% Software companies from pune city are facing Printing of UI of Web application as average critical challenge.

6. In case of usability testing 32% software companies are facing Notification/help to be provided for end user for particular field as least critical problem.

7. Some of the respondent organizations are facing other challenges and problems of Usability Testing.

8. Very few respondents organizations are facing other Challenges of Functionality Testing

9. Only few respondent organizations are facing other Problems of Functionality Testing.

10. 44% Software Companies from pune city are facing Difficulty in finding skilled testers with the right competencies as average critical challenge in case of security testing

11. It is concluded that the Security Testing Problems shown in Table No.4,14 are highest critical problems faced by Pune city software companies.

12. It is concluded that in case of Performance Testing Challenges, Most of Software Companies are facing the Challenges shown in Table No.4.17 as highest critical challenges

13. Most of software companies are facing the problems shown in Table No 4.12 as highest critical problems in Performance Testing

14. performance testing of web application is dependent on both Load and Stress Testing

15. Special test cases should be written to test Websites heavily loaded Ajax & Flash

16. Test coverage of web application dependent on all four factors i.e. Security aspects, Functionality, Performance and Usability.

17. It is concluded that Continuous process improvement in testing process required to improve quality of web application testing

Findings

1. Testing 100% user interface as highest Critical challenge in case of usability testing of web application.

2. In case of usability testing of web application Software Companies are facing end user may use different types of browser to access application as highest Critical problem.

3. It was observed that majority of respondent Companies are not facing Other Challenges and problems of Usability Testing

4. It is observed that Software Companies are facing Define clear and complete test requirements and manage changes to requirement and How to utilize available limited resources (time to provide optimum test coverage to the product functionality while covering various supported configurations) as highest critical challenges in case of functionality testing.

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5. Inappropriate configuration procedure for the fixed defects which comes for verification is highest critical problem in case of functionality testing

6. It was observed that Software Companies are facing web application with broken links or inappropriate context can lead to huge problems as highest critical problem in case of Functionality testing.

7. Moreover It was observed that Companies are not facing Other Challenges and problems of Usability Testing

8. In case of security testing challenges Software Companies are facing as most vulnerability is high-priority as average critical challenge.

9. Most of respondent organizations are not facing other challenges & problems of security testing.

10. Most of respondent organization are not facing Other challenges and problems of performance Testing.

11. Number of respondents are not aware of all aspects of security testing.

12. Web Application Testing reduces web application maintenance cost.

13. It was observed that many of respondents are agree with Web Application Testing improves quality of Web Application

14. Quality of Web Application Testing will depend on Quality of Functional & Non-functional Testing of Web Application.

15. Most of respondents Organizations are not using model for web application development.

Suggestions

1. Pune city software companies should have separate usability testing team to test UI of web application as it is highest critical challenge to test 100% user interface, so if software companies have dedicated expert usability team then it will defiantly improve usability testing process.

2. Testing team should test Web Application on all types of browsers including all upcoming browsers as client my use different types of browser.

3. Pune city software companies should time to time give awareness training on importance of security testing and also expert sessions on web application security testing to testing team

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4. Testing activity should start as early as possible during SDLC to reduce web application development as well as maintenance cost

5. Software companies should give importance for continuous process improvement of each software testing process to improve quality of web application testing

6. Try some standard test cases for which you found the bugs in some different application. Like if you are testing input text box try inserting some html tags as the inputs and see the output on display page.

7. Testing team should write special test cases to test websites heavily loaded with Ajax and flash, Researcher has written important test cases to test web sites heavily loaded with Ajax and flash.

8. For performance testing of web application software companies should a use open source testing automation tool that is the best option for reduce the cost an vendor specific automation tools are costly and need to be purchase licensee.

9. Pune city Software companies should have separate manual testing team as well as separate automation testing team to test the web application.

10. Testing team should understand whole application or module in depth before starting the testing.

11. Try very hard to find the bug ,As if you are testing only to break the application.

12. Testing team should prepare good test cases before start to testing, Researcher means give stress on the functional test cases which includes major risk of the application.

13. Testing team should consider the critical factors of functionality testing, security testing, performance testing, usability testing suggested by researcher in Chapter No.2

14. Perform repeated tests with different test environment.

15. Create a sufficient test data before tests, this data set include the test case conditions and also the database records if you are going to test DB related application.

16. When you think that you have completed most of the test conditions and when you think you are tired somewhat then do some monkey testing.

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Limitations

1. Researcher not includes design of Open source Automation tool for testing of functionality, security, usability and performance aspects.

2. The findings were based on the limited sample size

3.The information collected from software companies has limitations as challenges and problems of testing web application varies according to type of the project, clients requirements and delivery deadlines.