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Abstract

In today's world as our lives and livelihood depend largely on the software systems, malfunctioning of these software systems is highly intolerable. Hence, the delivery of high quality software becomes a big challenge for IT industries. However, various strategies are followed by IT industries to deliver a quality product within the estimated time and budget. Software Testing is one of these strategies that contribute towards the quality of the product. The two main approaches of Software Testing are Test Case Based Testing and Exploratory Testing. It has been empirically proved that the defect detection efficiency of exploratory testing is as good as the traditional test case based testing. Hence, this paper aims at finding the

factors that influence the defect detection effectiveness of Exploratory Testing.

Refer

ences

- Humphrey, Watts S. "The Software Quality Challenge." CROSSTALK, The journal of Defense Software Engineering (June 2008).
- Meyer B, ETH Zurich & Eiffel Software, Santa Barbara, CA, "Seven Basic Principles of Software Testing", Computer, Volume:41 Issue: 8, IEEE Computer Society, Aug. 2008, 99 - 101.
- Jussi Kasurinen, Ossi Taipale, and Kari Smolander, "Software Test Automation in Practice: Empirical Observations", Hindawi Publishing Corporation, Advances in Software Engineering, Volume 2010, Article ID 620836, 18 pages, oi:10. 1155/2010/620836
- Andersson, C. and P. Runeson, "Verification and validation in industry - a qualitative survey on the state of practice", Proceedings of International Symposium on Empirical Software Engineering, 2002, pp. 37-47.
- Cem Kaner, "The Nature of Exploratory Testing", 2004.
- Myers, G. J. , The Art of Software Testing, New York: John Wiley & Sons, 1979.
- Beizer, B. , Software Testing Techniques, New York: Van Nostrand Reinhold, 1990.
- Cem Kaner J. D. "A Tutorial in Exploratory Testing", April 2008.
- Itkonen, J. and K. Rautiainen, "Exploratory testing: a multiple case study", Proceedings of International Symposium on Empirical Software Engineering, 2005, pp. 84-93.
- Donald E Harter, Mayuram S Krishnan, Sandra A Slaughter, "Effects of Process Maturity on Quality, Cycle time and effort in Software Product Development", Management Science, Vol,46, No. 4, April 2000.
- Aman Kumar Sharma, Dr, Arvind Kalia and Dr. Hardeep Singh, "An analysis of Optimum Software Quality Factors", IOSR Journal of Engineering Apr. 2012, Vol. 2(4) pp: 663-669.
- V. Suma, T. R. Gopalakrishnan Nair, "Defect Management in Software Development", Book on Recent Advances in Technologies, ISBN 978-953-307-017-9, pp 379-404, Intec web Publishers, Vienna, Austria, November 2009.
- V. Suma, T. R. Gopalakrishnan Nair, "Defect Management Depth of Inspection and Inspection Performance metric", Crosstalk, Nov/Dec 2011.
- Juristo N. , A. M. Moreno, S. Vegas, "Reviewing 25 years of Testing Technique Experiments", Empirical Software Engineering, vol. 9(1-2), pp. 7-44, 2004.
- Rashmi N, Suma V, "Exploratory Testing for Effective Software Development", RATE-13.
- Juha Itkonen, Mika V. Mäntylä, Casper Lassenius, "Defect Detection Efficiency: Test Case Based vs. Exploratory Testing", Proceedings of International Symposium on Empirical Software Engineering and Measurement, pp. 61-70, 2007.
- Rashmi ,N , Suma . V, "Defect Detection Efficiency: A Combined Approach", International Journal of Advanced Computer Research (ISSN (print): 2249-7277 ISSN (online): 2277-7970) Volume-3 Number-3 Issue-11 September-2013.

- Sally Sambrook, "Factors Influencing Learning in Work: a comparison of two research projects (European- and United Kingdom-based)", European Educational Research Journal, Volume 1, Number 3, 2002.
- Moingeon, B. & Edmondson, A. (Eds) (1996) Organisational Learning and Competitive Advantage. London: Sage.
- Tarpin-Bernard F. , Marfisi-Schottman I, Habieb- Mammar H. , anameter: the first steps to evaluating adaptation ,sixth workshop on user-centred design and evaluation of adaptive systems, umap09 user modeling, adaptation, and personalization, trento, Italy, pp. 11-20, 2009.
- Beer, A. and R. Ramler, "The Role of Experience in Software Testing Practice," Proceedings of Euromicro Conference on Software Engineering and Advanced Applications, 2008, pp. 258-265.
- Juha Itkonen, Mika V. Mäntylä, and Casper Lassenius. "The role of knowledge in failure detection during exploratory software testing", IEEE Transactions on Software Engineering, May 2011, 17 pages.
- Andy Tinkham and Cem Kaner, "Learning Styles and Exploratory Testing", Pacific Northwest Software Quality Conference (PNSQC), 2003.
- James Bach, "Exploratory Testing Explained", 2003.
- Andy Tinkham, Cem Kaner, "Exploring Exploratory Testing", 2003.
- James Lyndsay, "Testing in an agile environment", Workroom Productions Ltd, 2007.
- Phil Laplante, "Exploratory Testing for Mission Critical, Real-Time and Embedded Systems", IEEE Transactions on Reliability, pp. 449-482, Volume 59, Number 3, September 2010.
- Jonathan Bach, "Session Based Test Management", 2000.
- Bern, A. , S. J. A. Pasi, U. Nikula and K. Smolander (2007). Contextual Factors Affecting the Software Development Process – An Initial View. Second AIS SIGSAND European Symposium on Systems Analysis and Design, Gdansk, Poland, University of Gdansk, pp. 72-79.
- Clarke, P. and O' Connor R. V. "The situational factors that debugging SRGM", International Journal of Computer Applications (0975 – 8887), Volume 18– No. 2, March 2011, Software and Technology, Vol. 54, Issue 5, May 2012. pp. 433-447.
- SK. Md. Rafi, Shaheda Akthar, "Resource Allocation to Software Modules in Software Testing with Imperfect-debugging SRGM", International Journal of Computer Applications (0975 – 8887)Volume 18– No. 2, March 2011.
- Syed Muhammad Ali Shah, Marco Torchiano, Antonio VetroMaurizio Morisio, "Exploratory testing as a source of testing technical debt".

Index Terms

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Software Engineering

Keywords

Software Quality Software Testing Defect Detection Effectiveness Test Case Based Testing
Exploratory Testing Et. Al.