Abstract

Software testing is very tedious process and during the software development, testing needs time, efforts and money. Testing and retesting is part of development process and lots of efforts are needed for doing this. Detecting faults and errors in the early stages of development is the main task of any testing team. The entire test suits are written for the same target and the test suits grows as the software evolves over the period of time. Resources are very limited and due to resource constraints like cost, time and money, it is advised to prioritize the execution of test cases so that it can increase chances of early detection of faults in the software development process [1]. In this paper, high level language programming paradigm is considered for the development environment and algorithmic approach of design is considered. In this paper we present a new approach to prioritize test cases of particular software based on the requirements given by the client using high level functional programming language. Running all test cases in a normal Test suite, however, can consume an inordinate amount of time so, its main purpose is to improve rate of fault detection by prioritizing the test cases in a very short span of time and release the updated software to the customer [2]. In this paper a new test case prioritization algorithm, which calculates using data mining technique K-Nearest neighbor, which in turn uses Euclidean distance method approach to prioritize the test cases is proposed.

Dinesh Kumar Saini; Testing Polymorphism in Object Oriented Systems for improving software Quality; ACM SIGSOFT Volume 34 Number 2 March 2009, ISSN: 0163-5948, USA


Lakshmi Sunil Prakash, Dinesh Kumar Saini and Kutti N. S. Integrating EduLearn Learning Content Management System (LCMS) with Cooperating Learning Object Repositories (LORs) in a Peer to Peer (P2P) architectural Framework; ACM SIGSOFT Volume 34 Number 3 May 2009, ISSN: 0163-5948, USA.

Alexey G. Malishevsky, Joseph R. Ruthruff, Gregg Rothermel, Sebastian Elbaum, Costcognizant Test Case Prioritization, 2006


Dinesh Kumar Saini and Nirmal Gupta; Fault Detection Effectiveness in GUI Components of Java Environment through Smoke Test; Journal of Information Technology, ISSN 0973-2896 Vol. 3, issue 3, 7-17 September 2007.


Kim J. and A. Porter, A history based test prioritization technique for regression testing

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