Abstract

Several alterations in the software design would sometimes result in the failure of the system which has been operating effectively, meeting all the specifications at that point in time. In order
Automated Test Case Prioritization Using RGrasp

to recognize the unpredictability in the performance of the system, testing is carried out.
Regression testing involves validating the modified software and detects whether new faults
have been introduced into the test code which has been previously tested. It is very inefficient to
perform the re-execution of each test case as it is very time consuming. So, test case
prioritization has been introduced. Test case prioritization involves systematizing of test cases in
an order, based on some objective such as block coverage, fault detection rate, thus enhancing
the performance of the regression testing. In this paper, we have proposed a new test case
prioritization metaheuristic termed RGRASP, for performing automatic test case prioritization,
along with various search based algorithms for regression test case prioritization. The aim of
this paper is to provide an insight in performing prioritization using numerous techniques.

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Index Terms

Computer Science
Software Engineering
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